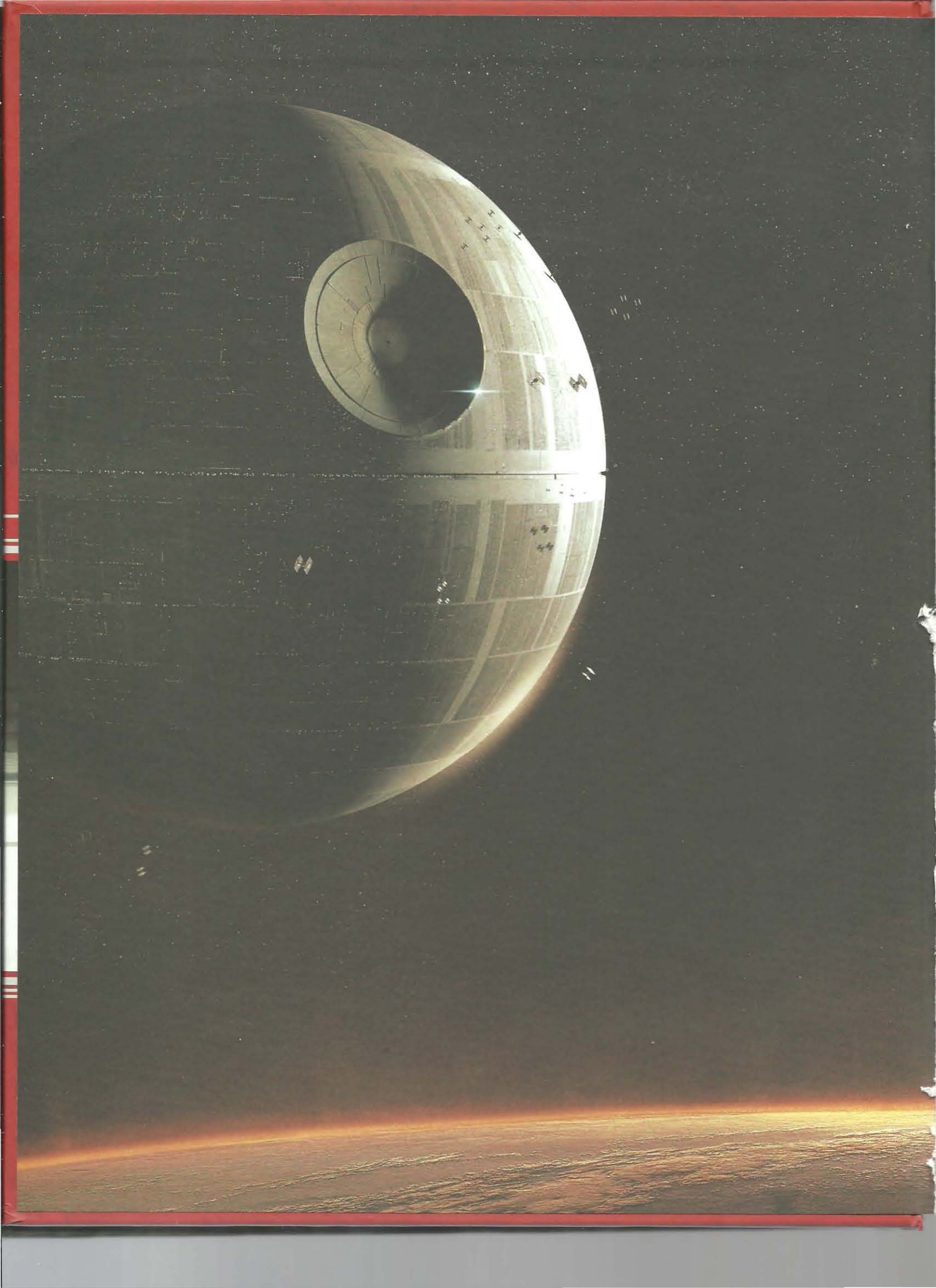
STAR WARS™

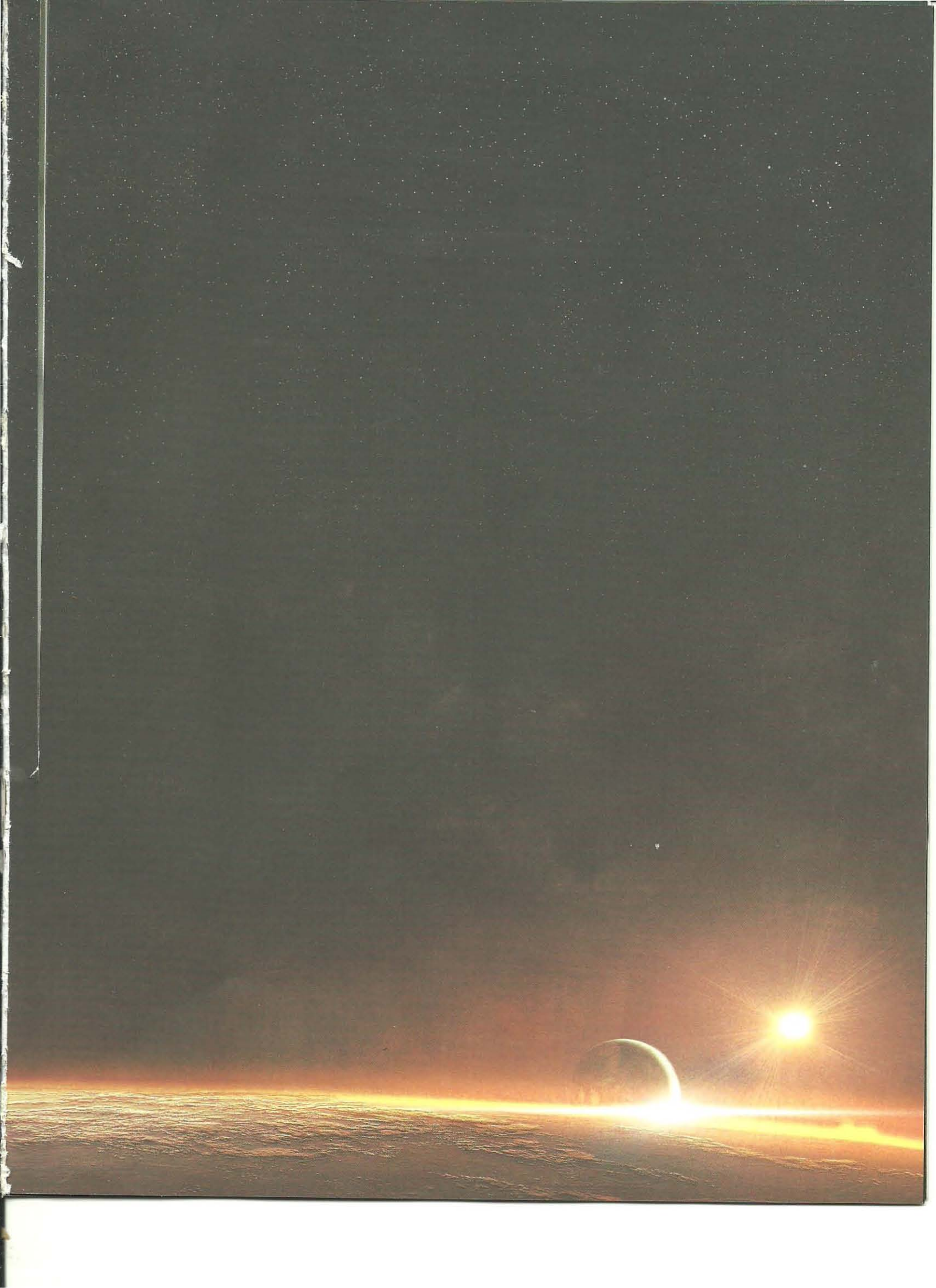
AGE OF REBELLION™

FULLY OPERATIONAL

A Sourcebook for Engineers

STAR WARS™ ROLEPLAYING





STAR WARS™ AGE OF REBELLION™ ROLEPLAYING GAME

FULLY OPERATIONAL

War continues to devastate the galaxy. The REBEL ALLIANCE struggles forward under the all but unbearable weight of the GALACTIC EMPIRE. The total collapse of freedom is imminent.

But ingenious Rebel ENGINEERS fight back to repair the damage. The more dire the problems they face, the more brilliant their solutions. Whether by crafting new starships, constructing combat facilities, or developing new scientific advances, these unsung heroes keep the Rebellion running. They refuse to back down and let the galaxy fall into complete disrepair....

CREDITS

LEAD DEVELOPER

Tim Huckelbery

WRITING AND ADDITIONAL DEVELOPMENT

Max Brooke, Tim Cox, Jordan Goldfarb, Sterling Hershey, Monte Lin, Jason Marker, and Tom Sorenson

EDITING AND PROOFREADING

Christine Crabb and David Johnson

MANAGING RPG PRODUCER

Sam Stewart

GAME LINE GRAPHIC DESIGN

EDGE Studio, David Ardila, and Chris Beck

EXPANSION GRAPHIC DESIGN

Duane Nichols

GRAPHIC DESIGN MANAGER

Brian Schomburg

COVER ART

Arden Beckwith and Darren Tan

INTERIOR ART

Jacob Atienza, Arden Beckwith, Alberto Bontempi, Matt Bradbury, JB Casacop, Anna Christenson, Mariusz Gandzel, Audrey Hotte, Jeff Lee Johnson, Jason Juta, Mark Molnar, Ameen Naksewee, David Auden Nash, Aaron Riley, Stephen Somers, Darren Tan, Ryan Valle, Ben Zweifel and the Lucasfilm art archives

ART DIRECTION

John M. Taillon and Melissa Shetler

MANAGING ART DIRECTOR

Melissa Shetler

PRODUCTION COORDINATION

Marcia Colby, Jason Glawe, Liza Lundgren, and Johanna Whiting

PRODUCTION MANAGEMENT

Megan Duehn

LICENSING

Simone Elliott and Sherry Anisi

CREATIVE DIRECTOR

Andrew Navaro

EXECUTIVE GAME DESIGNER

Corey Konieczka

EXECUTIVE PRODUCER

Michael Hurley

PUBLISHER

Christian T. Petersen

PLAYTESTERS

Playtest Coordinator Zach Tewalthomas. "Death Star Contractors" Doug Ruff with Craig Atkins, Josh Jupp, Nathan Wilkinson, and Mark Charlesworth. "Unrepentant" with Lachlan "Raith" Conley, Jordan Dixon, and Mark McLaughlin. "Anozira Sector Rangers" Vince Schelzo with Ian Dimitri, Jim Stone, Mike Keever, and Max Stanford. "Dust Hounds" Ian "GM Hooly" Houlihan with Martin Thomas Flanagan, Michael Hurrell, John Pope, and Harris Shafruddin. "Hehman's Hero's" Marty Hehman with Matthew Hehman and Stephen Hehman. Riley A. Wilkes.

LUCAS LICENSING

CREATIVE DIRECTOR

Michael Siglain

SENIOR EDITOR

Frank Parisi

LUCASFILM STORY GROUP

Leland Chee, Pablo Hidalgo, and Matt Martin

FANTASY FLIGHT GAMES

Fantasy Flight Games
1995 West County Road B2
Roseville, MN 55113
USA

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CONTENTS

So, what do you think?" Pon Kenti asked his former professor. The elderly scientist studied the holo floating between them as Kenti looked around her cluttered office. Padboards covered with hyperspace equations and engine designs still lined the walls like layers of insulation. Ellenne Wune still here at work despite the lateness of the hour. Things didn't seem to have changed in the years since he'd last been here.

"My company monitors safety designs in upcoming engines," he explained, "and was puzzled by this device near the manifold." Kenti manipulated the small projector on her desk, and the holo of the hyperdrive schematic expanded into one section.

"Hmm." Wune's eyes narrowed. "Tighten on grids 34 to 36, then rotate four degrees along z-axis." The image zoomed in and twisted, showing a complex network of energy cables and ductwork. She examined it closely, using her stylus to follow lines in the diagram, then made some calculations on a pad.

"Whoever did this wasn't asleep in class. Like you were, evidently." She turned her gaze to Kenti. "It's clearly a cavitation shunt for Cronau radiation, to dampen emissions from hyperspace interactions. It also projects noise to fool sensors into thinking there was nothing but background e-m wash. Could make it tricky to detect ships reverting or jumping."

"But possible, though, right?" Kenti asked.

"Of course. You'd need someone really, really good though to calibrate the sensors, set up an active interference pattern too if you want to cancel out the noise." Wune said, staring directly at him. "Like me."

"Yes, well, that brings me to my next question..." he began, his voice rising with hope.

She spoke before he could get far. "A few comments first: it's obvious you're part of this so-called 'Rebel Alliance' we're not supposed to know about." Kenti started and looked to the open door with alarm.

"Sit still; no one else is in the institute at this hour," she continued. "Second: I remember you as a semi-competent engineer, which is a good thing as you're a terrible spy." She adjusted the holo, revealing markings along the sides of the image. "Next time, try not to leave the Imperial security stamps on the schematic. I'm pretty sure neither of us are supposed to see these designs and still be breathing, right?"

Kenti struggled to remember his planned speech. "Yes, and we want you to join us. It's vital that..."

"Vital for you, maybe, but not for me," she interrupted.

"Point taken, Professor." He tried to recover. "But you must see what's going on around us—why don't you want to take a stand against the Empire?"

"Why?" Wune asked in a bemused tone. "Judging from the competency displayed in this encounter, your little group doesn't stand a chance. If you want to go up against people who can blow up planets, be my guest."

"You're absolutely right, Professor. We don't have much of a chance. We're not professionals at running a rebellion. I'm certainly not a professional recruiter." Kenti paused and reached back for the voice he used when earnestly defending his thesis years ago. "But you can make us *better*."

She didn't reply, and he went on. "Be the scientist I remember, not the cynic. Observe and process the data. Project the outcome. If this goes on, do you think the Empire will tolerate any freedom at all for much longer?" He pointed at the holo. "What do you think it will do with this? Or the next weapon it creates? Is this what you want science to be about?"

Kenti tried to keep any momentum he had going. "I snuck in and watched some classes earlier. Disinterested students who don't care about learning to think for themselves. They're learning to *obey*."

"So? I'm getting paid either way." Wune settled in her chair. "I don't speak out. They let me do my research. I'm told it's too 'theoretical' for any practical applications," she said. "Not even for a rebellion."

"Possibly," Kenti replied. "But that's just part of what I remember you doing best. You like to foil things. You delight in finding how things can break. You've probably thought of a half dozen ways to defeat that shunt already, maybe even make it fail so it looks like it was never working correctly, right?"

She gave a slight smile, and he pressed on. "And I bet half of those would set back any future attempts by years and cripple any related lines of research. I also bet you'd enjoy destroying the careers of any Imperials involved as a nice bonus."

"So you want me to help sabotage the Empire's war effort?" Wune asked, clicking off the holo. "Derail its research efforts? Seems like a big job, Mister Kenti."

"Really? I also remember your ego, Professor Wune. We both know you wouldn't settle for anything less."

"You indeed know me so well." She reached behind her desk to pull out a valise. "I travel light," Wune added as his eyes widened. "Oh, I was ready to join before you came in; I just wanted to hear the pitch. I saw you watching my class earlier, clutching that projector so hard I thought it would break. You had seven other tells that gave you away. You really are a terrible spy—stick with engineering, dear boy."

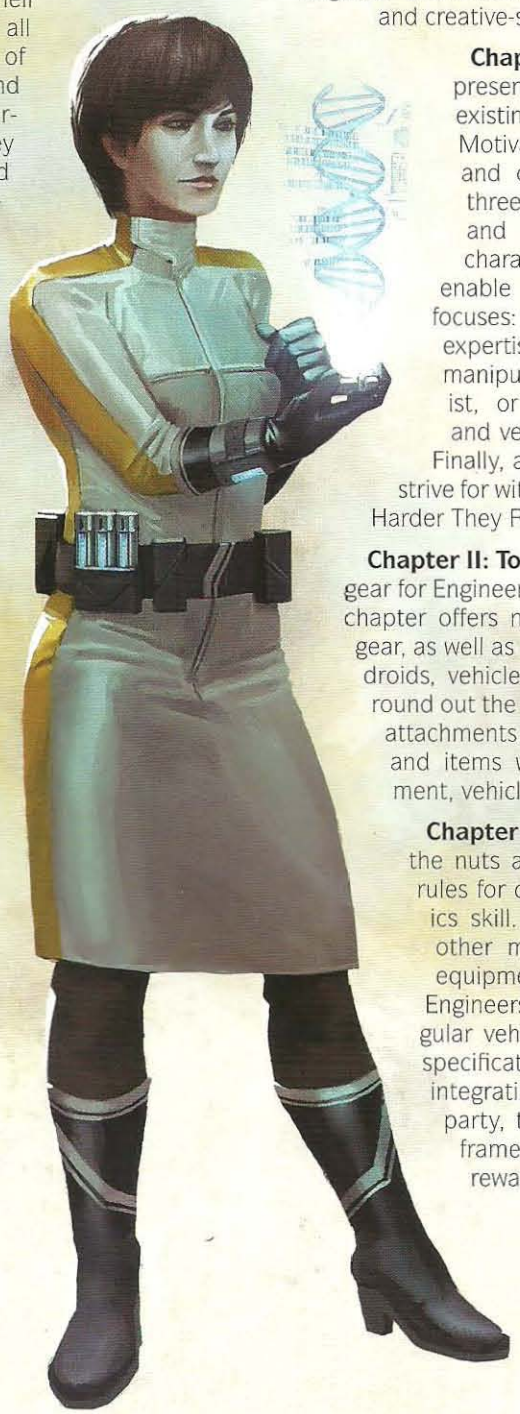
The professor strode out of the office, speaking over her shoulder as he followed along. "So, Mister Kenti. I want a paper tomorrow on how *you* would recalibrate the sensors and also cause the shunt to suffer a rather explosive feedback failure. Make sure to show your work—class is back in session."

MECHANICAL INGENUITY IN THE AGE OF REBELLION

Technology underpins everything the Rebel Alliance hopes to achieve, just as it supports galactic society as a whole. It enables the key aspects of the Alliance in this era of the Galactic Civil War, from ordinary machinery to interstellar travel, warfare, and unfathomable technological terrors. Engineers from every field of study and expertise keep the Alliance's vital equipment operational.

Heroic Engineers use their experience and expertise in all of the Rebellion's phases of operation. They maintain and prepare machinery for surveillance and combat. They analyze enemy stations and structures for critical weaknesses. They risk life and limb making dangerous repairs in the midst of battle. Often, Rebel soldiers and politicians owe their lives to Alliance Engineers who perform hyperdrive repairs at the last second or other feats of miraculous jury-rigging.

Creative Engineers turn useless junk into potent weapons and lifesaving equipment. They convert civilian items into military-capable gear. They repair and revive damaged droids and abandoned ships for new missions against the Galactic Empire. They make new discoveries and generate new designs along the way. Without their efforts, the Rebel Alliance would quickly run out of weapons and materiel and the Rebellion would sputter to a halt.



Age of Rebellion features Engineers in several roles, which **Fully Operational** expands in a variety of ways. This volume provides new specializations focused on certain aspects of engineering that are particularly useful to the Rebellion. Engineers are nothing without technology, and this book presents a wide selection of new gear, droids, and vehicles. Expanded rules for Engineers in combat and crafting new vehicles enable Engineer characters to further improve their active and creative-support aspects.

Chapter I: Building a Rebellion presents new options for starting and existing PCs, with new backgrounds, Motivations, and Duties for Engineers and others. This chapter introduces three new species—Bith, Kaminoan, and Skakoan—suited for Engineer characters. Three new specializations enable Engineers to take on different focuses: they can expand their combat expertise with the Sapper, creatively manipulate droids as a Droid Specialist, or delve into advanced starship and vehicle design with the Shipwright. Finally, all Engineers have new heights to strive for with two new signature abilities: The Harder They Fall and Unmatched Ingenuity.

Chapter II: Tools for Freedom introduces new gear for Engineers to use, create, and modify. This chapter offers new armor and other protective gear, as well as an array of new equipment. New droids, vehicles, starships, and space stations round out the offerings. New modifications and attachments give Engineers additional ways and items with which to customize equipment, vehicles, weapons, and armor.

Chapter III: Crafting Victory presents the nuts and bolts of new and expanded rules for combat repairs and the Mechanics skill. It also covers conversions and other modifications common to Rebel equipment. New crafting rules provide Engineers the opportunity to create singular vehicles and starships to their own specifications. GMs gain further advice on integrating Engineer characters into the party, three Engineer-centric campaign frameworks, and ideas for suitable rewards for Engineer PCs.

ENGINEERING IN STAR WARS

Great feats of engineering are evident throughout the *Star Wars* universe. The Death Star stands as the most obvious engineering achievement. However, it is not the only larger-than-life project the PCs could encounter. The Empire is constantly building new Star Destroyers and experimenting with new technologies. Any part of the design and assembly process could become a target for Rebel attacks and operations.

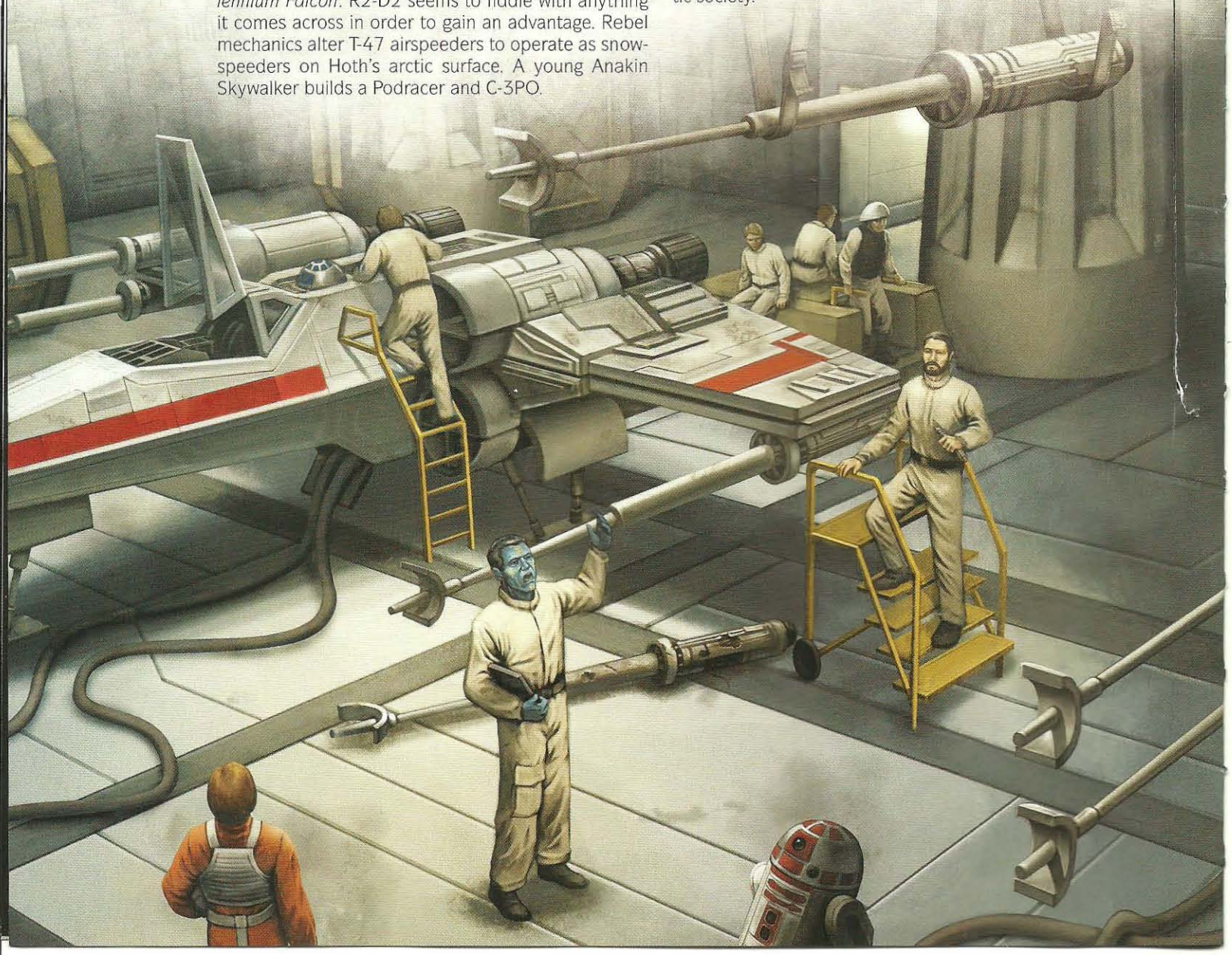
Further, engineering permeates society. Droids are a critical part of daily life, and even commonplace weapons are actually technological marvels. Technology is so ingrained that most citizens think little of jumping into a starship and flying across the galaxy, oblivious to the precise calculations and centuries of engineering behind a jump to hyperspace. For most of the galaxy, such things just work...until they don't.

Engineering is front and center in many *Star Wars* stories, and Engineers or similar characters appear throughout. Chewbacca constantly works on the *Millennium Falcon*. R2-D2 seems to fiddle with anything it comes across in order to gain an advantage. Rebel mechanics alter T-47 airspeeders to operate as snowspeeders on Hoth's arctic surface. A young Anakin Skywalker builds a Podracer and C-3PO.

DESIGN ENGINEERING

Design engineers are typically professionals who are academically trained and work in commercial or institutional facilities. They are responsible for creating plans for everything from equipment to vehicles to structures. In *Star Wars* stories, these types of characters are rarely focused solely on these pursuits, having been drawn into the story due to other factors. They might work on secret projects and become targets for espionage, kidnapping, or even assassination. Such experiences might become the impetus for Engineers to forgo design work and take direct action.

Most design engineers are employed at powerful corporations or within the Empire itself. Of course, there is the occasional eccentric, brilliant designer working individually on passionate pursuits. Such characters may have off-the-wall ideas and be willing to take greater risks than those in more conventional positions. Isolated starfighter designers are not unheard of, for example. Such independent Engineers also must find creative ways to fund and build their designs. This can easily lead them into the shadier sections of galactic society.



PRACTICAL ENGINEERING

Practical engineers tend to be those who apply their knowledge to everyday tasks. Mechanics, civil engineers, combat engineers, and technicians of every type are some examples. These characters are much more likely than design engineers to be performing non-theoretical work regularly as part of their role.

These Engineers may be found at almost any location and level in society. They are hands-on, with detailed real-world experience and intuition directing their actions at least as much as any formal training. Most Engineer Player Characters are likely to take on this role, even if a character began in the design, research, or scientific fields.

IMPERIAL VS. REBELLION ENGINEERS

Engineers in the Rebel Alliance have levels of ability and training similar to those of Imperial Engineers. This is unsurprising, as many share training and educational programs. Imperials have access to many more resources than Rebels, however, and enjoy the use of modern equipment and ample supplies. Rebel Engineers usually must rely on whatever resources they can salvage or steal.

In addition to having better access to equipment, Imperial Engineers can call upon almost any type of expert needed to tackle any assignment. Rebel Engineers must usually work out problems for themselves, as seeking outside expertise can be difficult to arrange.

ENGINEERS OF THE REBELLION

The Rebel Alliance is famously short on personnel compared to the Empire, but that doesn't mean the Rebels are without their share of experts. Rebel Engineers are also frequently knowledgable in fields outside their areas of expertise, as they are often called on to fulfill functions outside their traditional training.

Not every mechanic or scientist is competent in combat, making those who are even more highly valued in the Rebellion. Although PCs are likely to be more action oriented during gameplay, these Engineers might still fulfill more typical functions during their downtime or between adventures.

Age of Rebellion features six Engineer specializations that cover the more common types of expertise needed to wage an effective war against the Empire. Players might also adapt these types to other kinds of Engineers they envision as their characters, perhaps by taking multiple careers or specializations.

DROID SPECIALIST

Droids are as vital to the Alliance's operations as they are to the rest of society. Like much of the Rebellion's equipment, most are older models that require frequent maintenance. The harsh conditions in Rebel locations only adds to these challenges.

Droid Specialists are stationed in almost every Rebel facility and ship. This gives these PCs many potential points for introduction into the game. They might be longtime members of the Alliance who don't take a frontline role until events push them into action. Alternatively, they might have been impatiently waiting to gain the notice of mission planners, or they have been aggressively suggesting ways to include droids in operations.

Battle-oriented droids have largely gone out of fashion in major engagements. However, armed security droids and other fighting units remain a potent part of the Rebel arsenal in certain roles. Droid Specialists are often assigned to missions in which these or other droids play a major part, providing another way such a PC could be introduced into a party filled with other types of combatants and specialists.

Droid Specialist personalities are wide ranging, but typically include a love of machinery and a willingness to do whatever it takes to get a broken droid up and running again. Many Droid Specialists regard their charges as living beings, or at least something near to it. Others might take a colder approach, treating each as simply another piece of machinery. Either type provides for ongoing roleplaying opportunities, as it doesn't take long for droids to realize which type is working on them. Dealing with droid personalities is at least as challenging as dealing with those of living beings; some Droid Specialists might even consider themselves psychologists as much as mechanics.

MECHANIC

The Mechanic is the jack-of-all-trades Engineer, making this specialization quite common. It provides a solid starting point if no other specialization works for the kind of Engineer desired. This specialization covers the most common types of engineering tasks likely to occur on a mission or adventure. Most of these center on repair and modification, along with damage control and other emergency functions in combat.

Mechanics are widely assigned across all Rebel Alliance operations and missions. Mechanic PCs run the gamut of personalities and species, since all require technology and maintenance tasks.

Rebel Mechanics must be experts at jury-rigging, and the best think quickly on their feet. They are gifted at devising creative solutions in worsening or unusual situations (or both). Since these PCs are expected to perform miracle repairs in impossibly short amounts of time, they offer plenty of roleplaying opportunities in intraparty conflicts as the pressure mounts.

These Engineers tend toward practicality, but some certainly let their enthusiasm and creativity exceed their skill or common sense. Exuberant Mechanics can easily push equipment and vehicles past the breaking point in hopes of squeezing out more power, damage, or speed. Failures provide opportunities for PCs to work their way out of a bad situation, or talk their way out, or have to explain to another PC or superior what ultimately went wrong.

SABOTEUR

Saboteurs stand apart from other Engineers in that they are only concerned with destruction. They might wreak havoc on an enemy facility simply because they happen upon it, or they might be sent clandestinely to a location with a specific objective in mind. Training often involves on-the-job experience, possibly building on previous engineering skills. Intelligence services also train Saboteurs to make attacks against strategic targets that are not candidates for military strikes due to defensive firepower or the possibility of collateral damage.

Sabotage is one of the most accessible ways for new Rebel cells and sympathizers to carry out attacks against the Empire. This makes the tactic one of the most utilized across Rebel operations. A Player Character might start as a Saboteur in a new Rebel cell and then transition to another career or specialization while advancing through different missions in the Alliance. Sabotage requires a combination of stealth and social engineering, along with the technical expertise to defeat countermeasures and the knowledge of exactly how to disable or destroy the target. The character might continue on as a Saboteur by training in demolitions and offensive operations. If the campaign centers on a single Rebel cell or small group, the PC might transition to Saboteur from another career as the missions develop.

SAPPER

Sappers use a variety of methods to destroy or circumvent enemy fortifications in the midst of battle, typically using demolitions rather than standard weaponry. They are also often tasked with constructing bridges to support army movement, clearing and laying mines, and crafting field defenses. These PCs could easily begin their service in another branch of military operations and transition to Sappers at the beginning of a campaign. Such transitions during a campaign could also represent promotional advancements past early combat roles.

Sappers make effective demolitionists and can provide alternative methods for destroying or breaking into enemy strongholds. This gives the party more options when carrying out a mission, encouraging the PCs to act more creatively during the game.

Sappers carry out their operations while under enemy fire, whereas Saboteurs tend to rely on stealth to position their explosives and escape before anyone notices. Sappers often carry specialized gear designed or customized for certain tactics or to achieve specific results in a given mission. They regularly use tool packs and a range of adaptable materials to craft or jury-rig solutions on the fly to address mission-specific problems. Some also have access to portable shields or similar mobile defenses to protect individuals as they carry out their tasks.

Sappers typically operate in separate units deployed among standard forces. Like other specialized Rebel forces, they may find themselves spread thin in real-world conditions—and as PCs, assigned to the party or party's mission as a result. Commanders must maximize their resources and sometimes rely on standard units to aid or protect what Sappers are available.

SCIENTIST

Scientists are unusual members of the Alliance, and their backgrounds rarely mesh with typical Rebel operations. However, they can be quite useful to intelligence and other groups working to assess Imperial capabilities. Few are ready to take on combat roles, but Scientists tend to be among the most idealistic of Rebels—especially in their opposition to Imperial edicts on science and learning. This can make for a natural entry point for PCs into the game.

This specialization offers players an inherent opportunity for acting completely out of their element while trying to rise to the occasion. Scientists' potential connections in educational realms or more influential government segments can provide the party with additional avenues for furthering their missions or goals. Scientists often make for good infiltrators when trying to obtain access to well-guarded research labs. They can excel where other infiltrators are less likely to understand technical protocols and scientific jargon, thereby tipping off enemy personnel to their false identities.

Scientists may also serve key roles in Rebel surveillance and reconnaissance activities to find a suitable location for a new base or outpost. Scientist PCs can be tasked with analyzing any native dangers on a potential base or outpost world personally; this can make a good setup for an exploration-based game. Likewise, if an existing base has developed a strange issue—such as a mysterious illness, runaway organic growths, or problematic fauna—Scientists might be sent in to troubleshoot the problem.

SHIPWRIGHT

Shipwrights are highly specialized in creating and modifying starships and vehicles. The Alliance has little in the way of shipyards and manufacturing facilities, so its Shipwrights engage in modifications far more often than they design and build new craft. Given the right circumstances and access to adequate materials and facilities, it is possible to build individual or very limited runs of smaller Rebel craft, such as the B-wing starfighter. Shipwright characters could work in such an operation, or might dream of setting one up and be working toward it as a long-term goal.

It is more likely for Shipwrights to pursue starship and vehicle modifications. Once again, due to highly limited resources, the Alliance must maximize what it has. Many of these PCs regularly convert civilian, outdated, or underpowered craft into craft that are effective against Imperial forces.

A Shipwright can also perform other engineering duties, particularly those aboard starships. Such talents are regularly stretched into other forms of engineering as required by the mission or adventure at hand. One natural story pathway would be for a Shipwright to join the Rebels and then transition into another specialization. However, this could be reversed. A character starting in a different specialization might become a Shipwright if missions or pursuits regularly involve a need to modify the party's ship or vehicles belonging to others.

PCs of this specialization could come from an academic background or could take a more hands-on approach, working in an expensive customization business or criminal chop shop. Since many Rebel missions resemble or outright duplicate smuggling operations, PCs with shady backgrounds can provide insight into altering craft to slip through Imperial customs searches and scans. Such expertise can originate with or include many ship types, from those with luxury modifications to racing craft to obscure designs from species uncommon in the majority of the galaxy.

BUILDING A REBELLION

"You see an impregnable Imperial fortress. I see a future pile of Imperial rubble."

–Sgt. Kala Tanto, Combat Engineer

When they think of the Rebel Alliance, most civilians desirous of the Empire's overthrow imagine the many brave soldiers fighting on the front lines against masses of faceless stormtroopers. Others might see visions of hotshot pilots combating swarms of TIE fighters in the blackness of space, illuminated by laser blasts and explosions. Few, however, think of the real backbone of the Rebellion: Engineers at work.

Though few envision them when thinking of the Alliance, Engineers provide invaluable support. Such work simply does not often seem exciting, even in the midst of armed conflict against the Empire. Building bridges, repairing vehicles, and researching hyperspace routes are only some of the missions Engineers undertake, however. Demolishing fortifications, designing new weapons, and refitting captured Imperial starships to join the Rebel Fleet can be just as difficult and important as any other combat mission.

This chapter describes several possible backgrounds for Engineer characters, from teaching in prestigious halls of learning to being self-taught geniuses who barely survived years of improvised inventions that went explosively wrong. Players will also discover new Duties for mechanically minded characters that offer new ways to explore the roles Engineers play in the Rebellion. Three new species are available for player use as well: the highly adaptable Bith, the secretive Kaminoan, and the inventive methane-breathing Skakoan.

Fully Operational includes three new specializations—Droid Specialist, Sapper, and Shipwright—to allow players to focus their Engineer characters on droid care and maintenance, structural construction and demolition, or starship design and fabrication. This book includes a new Motivation—Improvement—to represent Engineers' constant need to tweak and reconfigure everything around them. Finally, two new signature abilities—The Harder They Fall and Unmatched Ingenuity—allow them to do this and more in spectacular fashion.

ENGINEER BACKGROUNDS

Engineers are a diverse group of professionals who run the gamut from hard-bitten field mechanics to scholarly academics. Despite their myriad differences, they all share a deep curiosity about the galaxy, a love of work, and a passion for their chosen field that transcends mere dedication to their job. Engineers are the backbone of both the Alliance and the Imperial armed forces. While infantry, ship captains, and starfighter pilots project force, it is the quiet work of Engineers that keeps everything running smoothly and efficiently.

Presented here is a selection of new backgrounds appropriate for use in creating Engineer characters. While certainly not required to enjoy the game, a detailed background can help both the player and the Game Master develop the character throughout the campaign. Backgrounds offer guidelines for playing the character, suggest personal drives, and provide the GM with some hooks to use for building a compelling adventure for their players.

ACADEMIC

The galaxy has countless educational institutions. From the vaunted Anaxes War College to the prestigious University of Coruscant to the smallest backwater vocational school, anywhere there are young minds to shape, there are academics. Academics are professors, researchers, and mentors who are often in the vanguard, developing new technologies or new ways of using established tech.

Academics who serve in the Alliance typically found their way there due to the actions of the Empire. Their freethinking nature can make them an easy target for Imperial agents and informers. Opinionated academics in the Empire often find themselves blackballed, denied funding, fired, or even imprisoned for defying Imperial orthodoxy. Some academics are so dedicated to the ideals of free thought and speech that they gladly throw away lifelong careers to stand up to the Empire. However academics find their way into the Alliance, the knowledge and skills they bring are invaluable to the struggling Rebels.

Many **Droid Specialists** with an academic background come straight from industry R&D labs. They are often responsible for droid brain design and construction and are experts in droid behavior. Others, professors who have taught the theories behind droid design, come from universities. Thanks to their experience, many have rejected the Empire's callous treatment of droids. Countless droid designers and Engineers have resigned their positions in protest or disgust, and have found a home caring for the many droids that serve the Alliance.

Academic **Mechanics** usually hail from technical and vocational schools. These hardy individuals paid their dues in the shops, garages, and grease pits, and decided to use their expertise to teach new generations of gearheads how to properly care for the array of machines that keep the galaxy running. Instead of turning wrenches for a living, they toiled away in dingy teaching garages or high-tech academies, guiding the educations of eager young Mechanics.

The Alliance is always in desperate need for Mechanics. The old, secondhand, and usually poorly cared-for ships, vehicles, and gear the Rebels use need an immense amount of work to keep running. To ensure that the Y-wings keep flying and the blaster rifles and com-links keep working, Rebel cells heavily recruit among academic Mechanics. Their knowledge and experience is in high demand, and the Alliance pays a pretty credit to lure them into the fold.

Saboteurs in academia, much like their Sapper cousins, are typically military instructors. With their in-depth knowledge of explosives, engineering, and covert operations, academic Saboteurs teach the fine art of eradicating enemy materiel and infrastructure. In addition to offering more traditional classroom instruction, they often instruct insurgents and irregular troops in guerrilla tactics. Academic Saboteurs are rare in the Alliance, and indeed they are relatively uncommon throughout the galaxy. Skilled Saboteurs who can pass on their knowledge to Rebel troops are highly sought after.

Sappers tend to come to the Alliance from one of two academic backgrounds: military engineering or civil engineering. Academic military Engineers have taught at one of the many military academies scattered throughout the galaxy. They combine practical military instruction and engineering theory to produce combat Engineers who can fight and build or demolish with equal aplomb. Their civilian counterparts in civil engineering have taught at one the galaxy's many colleges and universities, where they have instructed new Engineers, architects, and urban planners. Their focus is, obviously, geared more toward constructing and maintaining towns, cities, and planetary infrastructure for private and governmental entities.

No matter where they come from, Sappers with an academic background are incredibly valuable to the Alliance. As with Saboteurs, the knowledge and skills that Sappers possess are desperately needed for the war effort. Numerous civilian- and military-trained Engineers have thrown in their lot with the Rebellion. Recruiters work day and night to increase those numbers to bulk up the Alliance military's engineer corps.

Scientists are the quintessential academics. From those in the secret research labs of Chiewab Amalgamated Pharmaceuticals and the halls of Corellia University to those in the dusty plains and deep oceans of countless far-flung planets, Scientists are an integral part of the galaxy.

Scientists are relatively uncommon in the Alliance, and academic Scientists are even more so. Most prefer to assist their local cells from behind the scenes, passing along scientific information and technology in an effort to give the Alliance an edge over the Empire. Those rare Scientists willing to leave their tenured university positions or cushy, well-paid research jobs to serve in the Alliance form the core of the loosely organized Rebel research and development cells.

Shipwrights who hail from academia are typically trained naval Engineers well versed in naval history and technology. Academic Shipwrights are more skilled in theory than in practical, hands-on ship building or maintenance. These individuals know a lot about how ships are built and the decisions behind choices in materials, systems, shape, and size, but they usually know precious little about maintaining vessels and even less about fighting them. Shipwrights with this background are primarily employed by Alliance R&D groups, developing new ships for the Rebel Navy and upgrading existing vessels with new and improved technology.

ECCENTRIC

Eccentrics pursue engineering and science with reckless abandon. Though often highly trained professionals, they are unfettered by orthodox thinking, common sense, and even morality. They see endless possibilities in their chosen field, and they are inveterate inventors and innovators. Eccentrics constantly strive to push barriers and break molds, often to the detriment of themselves and those around them. They are the mad scientists of the galaxy, the cranks and dreamers who are too flighty or erratic for traditional academia but whose knowledge and skills, combined with their imagination and ambition, make for powerful allies and dangerous enemies.

There are few eccentrics in the Imperial military, as the rigid conformity and draconian punishments drive out or grind down such individuals. The Alliance, however, has more than its fair share of oddballs, dreamers, and cranks. Attracted to the cause by their freethinking nature, eccentrics from all manner of scientific and engineering disciplines have found their way into the Alliance. They are often brilliant, insufferable, and difficult to work with. On the other hand, they have developed numerous surprisingly successful technologies and weapon systems.

Droids created by eccentric **Droid Specialists** are often indescribable wonders or dangerous perversions of engineering (or both). Eccentric Droid Specialists see droids more as a list of parts and internal systems than as sentient beings. They break apart and combine different droids for uses far outside their stated missions and tinker with droid brain architecture and programming to create droids with surprising and often deadly behavioral patterns.

Eccentric **Mechanics** are equal parts Engineer, artist, and hot-rodder. They are constantly tinkering with established vehicle designs and developing new, often unstable and dangerous technologies in an attempt to squeeze all available power and performance from a platform. They are the type of rash daredevil who mounts starfighter-grade ion drives on speeder bikes or adds enough armor and weapons to a walker to make it a one-vehicle armored division. For these individuals, there is never enough power, enough speed, or enough firepower in a vehicle. They are masters of pushing vehicles to, and often beyond, the very limit of their tolerances.

Eccentric **Saboteurs** combine vast technical know-how and cavalier, often heedless attitudes into one terrifying package. These are the reckless bombers, the devil-may-care explosives experts who keep a block of detonite as a doorstop and make fireworks that put some military ordnance to shame. Their in-depth knowledge of explosive devices and compounds is often warped by their inability to take anything seriously and their love of huge explosions no matter the risk or cost. Eccentric Saboteurs make excellent Rebel operatives, even though they make their colleagues extremely nervous.

Sappers with an eccentric side are typically architects or civil Engineers with a penchant for fantastic, often impossible building designs. They tend to see structures as art first and buildings second. This can make them forget the human element of their creations, leading them to make strange decisions regarding proportions, materials, space, and scale. Fortifications and bases built by eccentric Sappers follow a strange logic typically understood by the designer alone. While this makes for infuriating and confusing billets for the troops assigned to these bases, it also makes such bases extremely difficult to assault or overrun, as they defy most common rules of layout and design.

Eccentric **Scientists** tend to be either overly attached to their field of study to the point of single-minded obsession or amoral monsters who will do anything or perform any experiment in pursuit of scientific mastery, with few falling between these extremes. These are the researchers who experiment with extremely dangerous diseases or deadly substances just because they can or clone monstrous hybrids for the challenge of it. There are very few eccentric Scientists in the Alliance, and those tend toward the absent-minded or quirky types who are a little too wrapped up in their work. The Empire's various research labs and think tanks are full of eccentric Scientists. These individuals are responsible for biological, viral, and technological superweapons that can destroy whole worlds in an instant.

Shipwrights with an eccentric streak design impossible, fanciful ships that defy the norms of naval architecture. They constantly strive to expand the boundaries of starship performance and design, often pushing new and untested technologies into production before they are quite ready, with dangerous results. The Alliance's B-wing starfighter is a perfect example of a ship designed by an eccentric Shipwright, and a very successful example at that. Many designs and prototypes developed are neither as successful nor as viable as the B-wing; however, those that are successful often make valuable additions to the Alliance Fleet.

JOURNEYMAN

Whereas academics tend to be primarily concerned with theory, journeymen take a more practical approach. Journeymen travel the galaxy, lending a hand where needed and making themselves useful to the general populace. They are licensed professionals, often with advanced degrees and unimpeachable credentials, who prefer to make direct use of their knowledge and skills rather than theorize or teach classes.

Journeymen are often quite mercenary at heart. They wander at will, taking work where they find it and dropping it when something better comes along. Many find homes among private militaries, tipping the scales in their employers' favor in conflicts. Some, however, are driven by something more than money. These are more dedicated to helping the needy and doing what is right than to personal gain. Many of these altruistic individuals serve in the Alliance military, fighting the Empire with tools, brains, and guts rather than blasters or starfighters.

Journeyman **Droid Specialists** often travel in starships and vehicles packed with droids and droid parts. They traffic in legal and quasi-legal goods and occasionally have among their collections rare, antique, and strange one-of-a-kind droids from long-forgotten manufacturers. The Rebel Alliance aggressively recruits journeyman Droid Specialists to keep its own battered, old, and secondhand droid personnel operating at peak performance.

Journeyman **Mechanics** are welcome everywhere. They offer their services in exchange for whatever the locals can pay, repairing everything from vaporators to landspeeders to sophisticated industrial machinery. Whether out of a sense of altruism or solely for the credits, journeyman Mechanics rarely turn down a chance to learn something new or hone their existing skills. Mechanics are always in demand in the Alliance, and many journeymen have found a permanent home in motor pools and maintenance battalions.

Journeyman **Saboteurs** are typically traveling mercenaries and cold-eyed killers who sell their services to the highest bidder. They are the journeymen most likely to have a criminal record, and many syndicates, crooked political organizations, and shady mercenary groups employ them to deal with enemies and rivals. Some journeyman Saboteurs have found a home in the Alliance, where their steady nerves and knowledge of underhanded tactics make them a welcome addition to commando units and black ops teams.

Journeyman **Sappers** are another group of wandering altruists. They travel the galaxy assisting communities with the design, construction, and demolition of buildings and infrastructure. They often find work in the Outer Rim, where their skills in civil engineering and construction techniques are especially welcome

in far-flung colonies and industrial or agricultural worlds. Like Mechanics and Shipwrights, journeyman Sappers are in high demand; those who seek to join the Alliance are welcomed with open arms.

Journeyman **Scientists** spend their time in the field, examining strange alien flora and fauna, studying pre-technological cultures, or excavating the remains of long-dead civilizations. They are the itinerant archaeologists, the hunters who capture creatures for zoos and research facilities, and the unruly academics who prefer getting their hands dirty to teaching. These maverick Scientists are a perfect fit for the Alliance, and many members of Alliance R&D count themselves as journeymen rather than as academics.

Journeyman **Shipwrights** are second only to Mechanics on the Alliance leadership's most wanted list. As an organization that lives and dies by its mobility, the Rebel military relies heavily on its starships—ships that are often ancient, heavily used, and held together with tape, wire, and wishes. Journeymen Shipwrights often have experience working with outdated ship designs, knowledge that academy-trained Shipwrights typically do not possess. Their experiences in all manner of starships, often trading work for passage, gives journeyman Shipwrights an edge.

TALENTED AMATEUR

Talented amateurs are almost the polar opposite of the academics, with little to no formal training. Instead, they are passionate autodidacts, self-taught tinkerers, or innate savants. While they typically cannot compare to professionals, they are often more creative in their approaches and think outside the box more easily than those steeped in rigid and hidebound academia.

These talented and driven amateurs can be found throughout the galaxy. From the far reaches of the Outer Rim to glittering Coruscant, amateurs live wherever machines and technology are readily available. While those who serve in the Rebel Alliance are from an incredibly diverse cross section of galactic species, cultures, and societies, they are bound together by passion and a common love of learning.

Amateur **Droid Specialists** are typically laypeople or technician's assistants who enjoy both the utility and company of droids. Many are simply tinkerers who perform light maintenance and repair on droids or fix simple droids for some extra credits. Others are hobbyist remote operators who fly their tiny remotes around for fun or to explore areas that are otherwise inaccessible or off-limits. Those who find their way into the Rebellion make excellent shop attendants or apprentice droid maintainers, and they often improve their skills to a professional level through long hours and desperate work.

Amateur **Mechanics** neither are professionally trained nor do they make their living fixing machines. Instead, they are inveterate tinkerers and amateur wrench turners who work on vehicles for fun and occasionally fix machines for friends and acquaintances. Without formal training, though, they often have gaps in their technical knowledge. While they may rely too heavily on shop manuals and their work may appear slapdash, amateur Mechanics can be just as useful as any formally accredited engineer.

Amateur **Saboteurs** are relatively rare. Their specialized knowledge and unique skill set are typically found only in professionally trained and licensed demolitions experts. That being said, a surprising number of enterprising individuals, especially those from agricultural worlds or who have construction backgrounds, have experience setting and disarming explosives. They make excellent apprentices to trained engineers, and many of them eventually gain the skills needed to become professional Saboteurs.

Like Saboteurs, there are very few amateur **Sappers**. There are, however, numerous architects, construction workers, civil engineers, mechanical engineers, and contractors who, with their civilian training and knowledge, make competent amateur military Sappers. Individuals with this background tend to learn quickly once they begin their military service and come to equal or even surpass their professionally trained colleagues in a surprisingly short time.

Amateur **Scientists** are typically dabblers or passionate laypeople who combine passing knowledge of their chosen field with insatiable curiosity. Examples might include the backyard astronomer who charts stellar phenomena, the natural mathematician who enjoys number puzzles, and the student fascinated with exotic creatures. Amateur Scientists are surprisingly common, given that almost anyone can possess an interest in science and a drive to study the galaxy, even without extensive formal learning. While some have a reach that is much longer than their grasp, these individuals often bring fresh and valuable points of view to laboratories and research stations.

Amateur **Shipwrights** are somewhat similar to amateur Mechanics. They tend to obsess over ship classes and starfighters, read exhaustively on naval architecture and history, volunteer at museums, and generally consume as much information as they can about the building and maintenance of starships. Many find work on backwater worlds where trained Shipwrights are rare and expensive. They make do with secondhand tools and lean heavily on the HoloNet and shipyard manuals to diagnose problems. Although most spacers would never step foot on a ship maintained by an amateur Shipwright, let alone go into space aboard one, they are sometimes the best option available to the desperate crew of a busted ship.

ENGINEER DUTIES

Engineer Duties encompass important but frequently unappreciated work. Often relegated to support positions, Engineers rarely receive the glory from a successful mission and frequently shoulder the blame when an operation fails. Acting as support, however, doesn't mean a passive role. Duties compel characters to be proactive. When Engineers diligently pursue their Duties, they not only prevent disasters, but free up their squad mates to pursue other goals. Better to be planning the next op than to be reacting to the complications of the current one.

The Alliance wants its Engineers to be generalists and specialists, a contradiction that frustrates neophytes and veterans alike. On top of that, Rebel characters have not only their own Motivation to join the Alliance, but also a Duty, which describes what an individual does in the Alliance—and more often than not, Rebel characters must place their Duty over their individual Motivation. The fate of a whole galaxy rests on the shoulders of soldiers with a common purpose, but great stories come from characters who must choose one ethos over another.

From a Player Character perspective, an Engineer's specific Duty represents that PC's devotion and focus within the Alliance. One PC's Duty may clash with another's. Engineers often find themselves arguing with their squad mates or leaders over priorities. Most do so with a sense of pride. They are, after all, experts. Engineers who always agree with their superiors aren't doing their job properly, while those who never agree threaten unit cohesion. Regardless, conflicting Duties bring interesting conflicts and discussions to the table. How a PC brings Duty into play colors the tone of the game.

Different Duties can also make different Engineers approach tasks in varying ways. A PC who has the Civilian Outreach Duty might seek information from the civilian community first, while one with the Research and Development Duty could look for answers in databases or personal investigations. Both approaches benefit the Alliance. As any good Engineer knows, there are many different solutions to a problem.

Players can also use Duties as backup Motivations. Some Engineer PCs tend to play a reactive role, waiting for a machine to break or for the squad to decide on a technical approach to a problem. Other Engineers may feel that their work pulls them away from their teammates. Duties can provide reasons for Engineers to take charge without feeling like they are stealing time and resources away from the other PCs. If Engineers fulfill their Duties, then the overall Duty score increases, benefiting everyone.

A player may select a Duty from **Table 1–1: Engineer Duties** instead of from the ones listed in **Table 2–3: Duty** on page 47 in the **Age of Rebellion** Core Rulebook. An Engineer's responsibilities can include any of the following tasks. Some of these Duties may overlap with those for other careers and specializations, but all have some intersection with technology, its use, and its maintenance.

TABLE 1-1: ENGINEER DUTIES

d100	Duty Type
01–08	**Chemical/Biological Analysis:** The Player Character identifies environmental problems from sources biological (alien flora and fauna, viruses, bacteria) or chemical (toxic gases, poisons, heavy metals in the soil). The Engineer understands that environments can damage delicate machinery, make it seize up, or cause it to perform under spec. The environment can also affect the construction and destruction of structures, and harm or hinder soldiers who have to march through the terrain.
09–16	**Civilian Outreach:** The PC believes that the Alliance fights for the civilians. That includes spearheading urban repair as well as communicating with the local population to coordinate and establish supply agreements and recruit new trainee mechanics. The Engineer's work doesn't change, merely the focus. Sometimes, Engineers integrate themselves with the civilian populace to provide technological resources, work with them in resisting the Empire, or prevent civilians from receiving retribution due to Alliance actions.
17–24	**Disaster Relief:** While similar to Civilian Outreach, Disaster Relief involves procuring and delivering medical supplies, food, water, and temporary shelters after natural or artificial disasters. This PC destroys fallen buildings to clear areas for traffic and repairs buildings to provide safe places to congregate. Ground vehicles, ships, and droids need to be repaired or repurposed to handle rubble and tight urban environments. These Engineers try to help get civilians' lives back to normal.
25–32	**Environmental Manipulation:** These PCs use their skills to alter the environment to clear the way or obstruct passage. This includes constructing and destroying bridges, burrowing around natural and artificial obstructions, and improving or impeding movement. These Engineers also manipulate the environment of outer space, exciting the ions in a nebula to provide sensor cover or harnessing the electromagnetic core of an asteroid to protect a fleet from a solar flare.
33–40	**Field Training:** The PC trains new Engineers and rank-and-file soldiers to use new and old specialty equipment. Some bases schedule classes and provide classroom space so that Engineers can become full-time instructors. Most Alliance outposts don't have these luxuries, however, so Engineers teach by training in the field. Field training includes teaching civilians with potential, either to assist their own communities or to serve as contracted help for the Alliance.
41–48	**Munitions:** This includes the maintenance and use of ammunition and weapons that should detonate at the appropriate time, or at least shouldn't do so while within the soldier's gun or vehicle. Work with munitions also includes placing minefields, disarming explosives, and setting explosives to destroy environmental obstacles or enemy fortifications. Those who work with vehicles, starships, or droids often modify the machines to handle and use specialized munitions.
49–56	**Research and Development:** Engineers also partake in research and development for technologies and other applied solutions. Necessity is the parent of invention, and every situation, enemy, and environment creates new necessities. Research can include stealing technology from the enemy or finding it in a ruin. These characters set aside time and resources to keep their base evolving, growing, and learning; that knowledge can also be passed on to other Engineers at other bases.
57–64	**Surveying the Enemy:** This PC focuses on the technical aspects of scouting, the gathering of geographical knowledge, and the mapping of data via the use of sensors, drones, droids, and satellites. This includes constructing physical and electronic camouflage to hide a Rebel base and any vehicle movements from Empire scouts. More destructive methods include eliminating similar enemy systems with electromagnetic devices, damaging probes or satellites, and providing snipers and anti-aircraft ordnance data useful in targeting enemy units.
65–72	**Siege Engineering:** Engineers often set up and build defensive fortifications (bunkers, trenches, and walls), artillery (gun towers, and weapon reinforcements), and orbital defense platforms (ground attack satellites, anti-ship satellites, and orbital flak). Natural formations such as caves, ancient temples, canyons, and even asteroid fields can form the basis of an outpost. This PC emphasizes the importance of this kind of constructive support in warfare.
73–80	**Testing:** The Alliance often must procure new supplies and technologies from less-than-reputable sources. This PC tests first and tests often. The moment an Engineer neglects safety checks, device become a dangerous uncertainty. Stolen Imperial technology also carries the risk of sabotage. This PC tests researched technologies and methodologies in controlled labs, during live-fire exercises, and in the middle of battle.
81–88	**Transportation:** This PC takes on the responsibility of establishing protected routes to and from a base and the front lines. The Alliance uses a wide variety of transports, ranging from swift airspeeders, agile corvettes, and blocky freighters to slow, wheeled haulers and even pack animals. The character might also recruit private or public civilian transportation organizations. While an army marches on its stomach, this PC would rather it rode instead.
89–96	**Rescue and Recovery/Evac:** This PC prepares and plans the logistics and execution of rescue operations of both civilians and military personnel. While similar to the Transportation Duty, this work includes defense training, medical support, survival training, observation, and rapid deployment operations. These Engineers live and die by their comms; they need to communicate exactly where they and their personnel are and where they need to be at a moment's notice.
97–00	Roll twice on this chart. The PC's Duty is equally split between two different areas of focus, and success in either is good for increasing Duty value.

Bith Kaminoan Skakoan

NEW SPECIES

The Rebel Alliance needs brave volunteers; without them, the fight against the Empire would be short-lived. Without gear and supplies, their struggle would be painful and demoralizing. Like it or not, the Alliance depends on the maintenance and acquisition of technology, which brings it right back to those brave volunteers. A machine functions only as well as its Engineer.

The following species are well known for their technical expertise, whether acquired through cultural emphasis or by necessity due to disaster. Any individual has the potential to be a great (or terrible) Engineer, though, so Bith, Kaminoan, and Skakoan Engineers can have plenty of company from other species.

BITH

Centuries ago, the Bith homeworld, Clak'dor VII, was a strong member of the Galactic Senate. Its citizens traveled widely, debated science and philosophy, and helped their world and the galaxy prosper intellectually and economically.

Clak'dor VII was divided into city-states. Though chaotic, this method of governance functioned smoothly until the Nozho-Weogar War. The civil war between these city-states was short-lived but devastating. Both launched chemical, biological, and mutagenic weapons that shattered the ecosystem and eventually claimed nearly all of the planetary population. Off-world Bith tried to return, but the Bith governments set up a planetwide quarantine. Unafflicted Bith scattered across the Outer Rim to work and to find aid for their homeworld.

In the three centuries since, the Bith have suffered the effects of losing a homeworld without actually losing it. The quarantine convinced outsiders that the Bith carried a plague. Since all of the economic support went to repairing their planet, Bith colonies and outposts dissolved or integrated with other communities. Clak'dor VII virtually disappeared from galactic life. Although the planet-bound Bith have stabilized their culture and governments, the planet has remained toxic. A cultural split endures between those on Clak'dor VII and the other Bith, but all use the war as an object lesson on the futility of violence.

Disillusionment with the Republic led the Bith to side with the Separatists, although not in a military capacity. Not only did they object to the corruption of the Republic (which mirrored their own before their civil war), but the Confederacy of Independent Systems promised much-needed supplies and aid. With

MUSICIANS BY NECESSITY

The Bith reputation for musical skill started as a misperception and exaggeration. After migrating to the Outer Rim, many struggled to make a living. Some found themselves in one of the few available occupations: entertainment. Bith have the same level of musical skill as any other species, but those who thrived as musicians became known for their abilities. Bith in the Alliance have often used this reputation as a cover, as few would think twice about performers at a local cantina.

A number of Bith engineers have also designed specialized musical instruments. Alliance spies have used these digital flutes to sneak in recording equipment, relying on their covers as musical pioneers for camouflage.

the collapse of the Republic, the Bith now face the wrath of the Empire, which uses Separatist worlds as scapegoats for various propaganda purposes.

Bith have a strong history of adaptation. They survived the loss and slow restoration of their homeworld, and they continue to adjust to life under Imperial rule. As the Galactic Civil War grows, the Bith not only must adapt to the idea of widespread warfare, but must decide which side to support.

Physiology: With their large eyes, high cranial bone, and lack of a prominent nasal organ, the Bith are one of the more recognizable species. Their large black pupils allow for a wide range of wavelengths, giving them exceptional eyesight. They have olfactory facial folds, but don't use them to breathe; instead, they absorb air through their skin. Despite the lack of any obvious aural organs, Bith have sensitive hearing. While tales of Bith heads exploding due to sonic attacks are a popular fiction, they do find loud noises very painful.

Society: Bith pacifism arises less out of cultural tradition than historical exhaustion. After the terrible civil war left their homeworld devastated, pacifism became their watchword. They continued to have a voice in the Galactic Senate, but centuries of begging for aid to repair their homeworld left them convinced of the Republic's corruption and ineffectualness. Bith are a species both with a home and without.

The Republic's war with the Separatists and the subsequent rise of the Rebellion have placed the Bith in an uncomfortable position. Centuries without a stable homeworld have taught them that violence solves nothing, but the Empire's persecution threatens to destroy what culture they have managed to preserve.

Bith also struggle with the legacy of their civil war in the form of offshoot subspecies such as the Y'bith. The war's resultant mutations killed many, but those who survived stabilized their genetic drifts through bioengineering. Now a distinct and separate subspecies, the Y'bith are similar in appearance to their genetic cousins, with darker and more orange skin and more pronounced facial features and fingers. The Y'bith endure a high level of social prejudice from the Bith even though they have the same legal rights.

Homeworld: Clak'dor VII currently exists in ecological collapse as chemical, radioactive, and biological effects from the ancient civil war continue to ravage the environment. The poisoned jungles and swamps are filled with rapidly mutating flora and fauna.

Bith live in domed cities, the majority of which lie nestled in the crags of Clak'dor VII's mountain ranges. They rely on subterranean engineering and urban architectural advances to burrow deeper and build higher to alleviate the cramped conditions. While the planet is safe to visit (if one stays within the domed cities), many species, including offworld Bith, find Clak'dor VII harsh and depressing.

Language: The Bith language originally had a symbolical and numerical structure, but the modern version of the language has been divorced from the numerology. Some still use the old numerical words in codes or communications with other Bith. Due to their dependence on offworld trade for necessities, all Bith learn Basic at an early age.

Life in the Alliance: After seceding from the Republic to join the Separatists, Clak'dor VII found itself facing a tyrannical Empire whose constant persecution forced the Biths to side with the Rebel Alliance. Still, participation in what some Bith see as terrorist attacks have made many uncomfortable. The destruction of Alderaan reminds the Bith that in any war, there are always unintended casualties.

SPECIES ABILITIES

- **Wound Threshold:** 10 + Brawn
- **Strain Threshold:** 10 + Willpower
- **Starting Experience:** 100 XP
- **Special Abilities:** Bith begin the game with one rank in Perception. They still may not train Perception above rank 2 during character creation.
- **Sensitive Hearing:** Bith add ☐ whenever they make a hearing-based Perception check. When Bith suffer strain due to loud noises (such as from sonic weapons), they suffer twice the normal amount of strain. Wearing ear protection negates both effects of this ability.

KAMINOANS

The secretive and isolationist Kaminoans saw the end of an ice age flood their planet, and their scientists turned to genetic manipulation to survive. Society changed rapidly as bioengineering became an integral part of their life. Not content with simply altering the genetics of native flora and fauna to prevent a mass extinction, the Kaminoans began to alter themselves.

Kaminoans isolated genes for intelligence, strength, speed, grace, abstract thinking, linear thinking, sensory perception, and in some cases, aesthetics. They also developed a caste-like society based on genetic selection. Determining the caste focus of the next generation combined a complex mixture of societal pressure, personal preferences, economic considerations, and other current concerns.

This concentration on genetic manipulation pulled their society further away from galactic interaction. Eventually, however, the Kaminoans saw a market for one of their skills: cloning. Their work attracted the attention of the Republic, and the Kaminoans turned all their efforts toward creating its Grand Army.

Physiology: Taller on average than humans, Kaminoans tend to be slender, with an elongated neck and oblong head. Descended from an aquatic species, they retain the flowing, graceful movements of their ancestors as well as the ability to see into the ultraviolet spectrum with their large eyes. Although Kaminoans seem to favor white as a design aesthetic, they are able to discern a vast range of patterns and colors that appear simply as white to other species.

Unlike most species, Kaminoans utilize their knowledge of genetic engineering on themselves. Whether their current physical presentation is as much a product of that engineering as it is "natural" is a matter of some debate. Kaminoans enjoy an extended but healthy old age without the usual physical debility or mental degradation. Gender is considered an aesthetic choice, the only difference being that male Kaminoans sport a headcrest, while female Kaminoans do not.

Society: Kaminoans generally maintain an air of polite impassiveness. As a result, outsiders consider them emotionless and identical. It doesn't help that Kaminoans choose similar clothing, although many important individuals wear a large, pale collar around their neck. In reality, Kaminoans express a more relaxed emotional attitude with each other.

As a genetically and socially engineered society, the Kaminoans remain isolationist and culturally naive. Their caste structure assigns each Kaminoan to a specific duty based on genetic and intellectual predisposition. Outliers do exist, and though they are not shunned, they tend to become curiosities as others try to determine how the deviation occurred.

Homeworld: The thawing at the end of its last ice age dramatically changed Kamino. The world, now covered in a global ocean, suffers from constant storms and massive winds. Cities provide shelter from the wind, rain, and water, rising high above the ocean surface on stilted anchors. The cities harness electricity from the storms, while the warm ocean provides plenty of rich nutrients and biodiversity. Kaminoan trade in genetic samples means that several offworld creatures, such as the aiwha, now also live there.

Of particular note is that many stellar databases don't contain Kamino's location, beyond the Outer Rim near the Rishi Maze. When they developed the cloning program for the Republic, the Kaminoans asked to have the location of their planet redacted to protect their privacy. Since the Clone Wars ended, that information has trickled back sporadically.

Language: While Kaminoans speak their native language, those who choose to deal with outsiders learn Basic. Conversely, very few outsiders speak Kaminoan, and those who do are reluctant to teach others. Kaminoans guard their written language carefully, relying on written Basic in their communications with other species.

Life in the Alliance: Kaminoans have a difficult relationship with the Rebel Alliance. Their species not only developed and supplied the clone army for the Republic, but also joined the Galactic Senate to fight against the Separatists. Some have joined the Alliance as engineers, biogeneticists, and physicians. Their amorality in medical matters and others' general distrust of them due to their role in the Empire's ascendency puts these Kaminoans under scrutiny.

MASTER GENE ENGINEERS

Kaminoans are unusual in that widespread genetic engineering of their species is as much a part of life as it is a business. Outsiders can find their casual amorality over such things disturbing, whereas Kaminoans believe the practice to be as innocuous as weaving and as sublime as art. When Kaminoans develop a new genome and sell the pattern, they view it the same way they view writing a book and selling the copies.

Currently, Kaminoan society has reached a crossroads. Do they bioengineer a generation more pliable and servile in order to work with the Empire, or do they alter their genetics toward independence and rebellion? In either case, the Galactic Civil War threatens to radically transform Kaminoan culture once more.

SPECIES ABILITIES

- **Wound Threshold:** 9 + Brawn
- **Strain Threshold:** 10 + Willpower
- **Starting Experience:** 100 XP
- **Special Abilities:** Kaminoans begin the game with one rank in Medicine. They still may not train Medicine above rank 2 during character creation. They also start the game with one rank of the Researcher talent.
- **Expressionless:** Kaminoans add ■ to all Charm checks they make. Other characters add ■ to all social skill checks they make when targeting Kaminoans.

SKAKOANS

Although it is a Core World, Skako remained disconnected from the Republic for millennia for several reasons. Skako's high-pressure methane atmosphere has proven uncomfortable at best, and deadly at worst, to the majority of the galaxy's life forms. Likewise, physical participation in galactic culture requires Skakoans to wear hardened encounter suits. These challenges reinforced the Skakoans' cultural tendencies toward xenophobia and isolationism.

While the galaxy spun around them, the Skakoans developed a sophisticated civilization, harnessing the power of their atmosphere, improving their technology, and covering their planet with industry. Although members of the species possess a wide variety of interests and professions, the Skakoans most willing to venture from their homeworld—even if only to nearby Skako Minor—have tended to be technological industrialists. This has established Skakoans in the galactic eye as a technologically obsessed species.

The stereotype has a measure of truth to it. The massive planetwide city on Skako requires constant maintenance and improvement, and these industrialists have seen an opportunity to trade for technologies and sciences to bring back to Skako. Overcoming their reluctance to deal with outsiders, they have invested in companies, negotiated limited trade with their homeworld, and maneuvered themselves into executive positions at various organizations, most notably in the Techno Union.

However, industrialist Skakoans originally avoided membership in the Republic, preferring not to deal with Senate representation or political shenanigans. Homebound Skakoans didn't care who or what empire or government controlled the surrounding systems as long as Skako was left alone, and the industrialists felt that technology and industry knew no political borders. This changed when Wat Tambor rose up the ranks of the Techno Union, eventually serving as its foreman and representative in the Galactic Senate, thus becoming the de facto representative of Skako.

The onset of the Clone Wars changed Skako's political attitudes rapidly. Unaware of the Sith manipulations, Wat Tambor and other Skakoan business interests sided with the Separatists, fearing Republic overreach. Although the Techno Union had officially declared neutrality, Wat Tambor directly and Skako indirectly provided support to the Separatists. Tambor's expansionist leanings turned the Republic against Skako, and upon his assassination and the dissolution of the Separatists, the Empire inherited the prejudice.

Currently, the Empire has Skako under emigration restriction, and the majority of Skakoans prefer being cut off from the galaxy. A few think their people have learned the wrong lessons from the failures of Wat Tambor. Instead of withdrawing from galactic participation, they want Skakoans, not the Empire, to decide the fate of their homeworld and citizens.

Physiology: Thin in build, Skakoans have pale skin in folds, little facial or body hair, nasal slits, and toothless mouths. While they ingest liquid food, Skakoans can sustain their metabolism with atmospheric methane if it remains the proper pressure. For this reason, Skakoans can't simply use a rebreather like the Gand; they require a fully pressurized suit. Other than the pressurized methane requirement, Skakoans resemble humans in physiological matters. They have roughly the same lifespan and the same biological issues in health, reproduction, and old age.

Society: Logic and mathematics dominate the discourse on Skako, but its people remain highly emotional and passionate. Outsiders mistake them to be a robotic species due to their pressure suits and translator units. Skakoans see no contradictions between emotion and logic, though even they admit that their fear of the galaxy is partially irrational.

THE TECHNO UNION

The Techno Union was a conglomerate of technology companies bonded together as a merchant guild. It had representation in the Galactic Senate and pushed for free trade, expansion onto planets to develop heavy industry, and self-regulation to prevent competition and government interference.

Contrary to then-current belief, the Skakoans did not found the Techno Union, but by the time of the Clone Wars, they had majority control over the guild. Aggressive investment and shrewd maneuvering not only placed Skakoans in high positions in the Techno Union, but also moved the headquarters to Skako Minor. By the time the Clone Wars arrived, the galaxy considered the Techno Union and the Skakoans one and the same. Conversely, upon Imperial dissolution of the Techno Union, Skako lost its major means of galactic influence.

Skako's environment doesn't welcome outsiders. Even other methane breathers find the pressure uncomfortable. Skakoans find existence offworld equally uncomfortable, and the need for hardened pressure suits naturally causes them to see the galaxy as a dangerous and hostile place. This xenophobia extends to visitors to the planet, who must wear their own pressure suits.

Despite this difficulty, or perhaps because of it, Skakoans formed galactic companies such as Baktoid Armor Workshop, placing their headquarters on Skako, forcing outsiders to adjust to Skako's environment while living on the planet. This practice eventually led the Techno Union to do the same.

The logistical difficulties of living on Skako have given Skakoans an interesting perspective on technology. While some species think technology invasive or in opposition to the natural world, Skakoans see technology as necessary, essential, and an evolution of nature. Methane being a plentiful and powerful fuel source, metallic resources abundant, and oxygen a controllable and useful waste product (although a flammable toxin), machines and industry are a natural and inevitable end result of their intelligence.

Skakoans practice a mystery religion that is led by the Elders of the Power Mounds. Rising in the ranks of the religion allows them access to the holy site and contact with mystic artifacts. The religion bases itself on belief in the existence of an alternate dimension and the mythical creature living within it. Whether or not this creature exists or if the Elders can travel to this dimension is known only to the Elders and a select few.

Homeworld: Much like Coruscant, Skako hosts a planetwide city, or ecumenopolis, demonstrating its advanced technological civilization. With rich resources, especially of methane and metals, the Skakoans have had plenty with which to build and experiment. Due to solar radiation striking the dense atmosphere, though, the upper layers of the atmosphere are an alkaline haze. This limited astronomical science until the development of low orbital flight.

With a lack of cultural desire to explore the stars, the Skakoans focused on managing their planet, covering their homeworld with an ecumenopolis much earlier than other civilizations. Their interstellar neighbors ignored the planet, thinking it uninhabitable and dangerous to explore. Any power signatures they detected, they attributed to methane flares. Only when the Skakoans ventured beyond their hazy atmospheric borders did the galaxy take notice. Still, because of Skakoan xenophobia and personal secrecy about their lives and homeworld, few outsiders know much about Skako or its people.

Language: The Skakoans speak their native Skakoverbal, a complex language that shares similarities with Binary. Most Skakoans don't learn Basic, since few venture offworld. Those who do travel abroad tend to rely on language translation modules attached to their heavy pressure suits, adding to the myth that the Skakoans are cybernetic or machine beings. Again, due to the complexity of Skakoverbal, translation modules often spit out junk sounds when compressing down to simpler languages. Technology has been such a prominent part of their lives that the current symbol set of their written language, Skakoform, resembles circuitry.

Life in the Alliance: The Skakoans have suffered greatly at the hands of the Empire. Once the Confederacy of Independent Systems fell, the Republic quickly turned toward sanctioning Skako. When the Republic became the Empire, the Skakoans found themselves shunned as enemies of the Emperor. Most are content, or at least willing, to remain on their planet with the Empire watching from the skies above.

The ones who have joined the Rebel Alliance know that hiding from the galaxy won't save them or their homeworld. Still, living among low-pressure oxygen breathers is isolating, and the heavy pressure suits increase their distance from their peers. These difficulties serve to heighten Rebel Skakoans' militancy. They are willing to sacrifice breath, touch, and their xenophobia to work with outsiders, and every moment the Empire remains standing is a moment away from home.

SPECIES ABILITIES

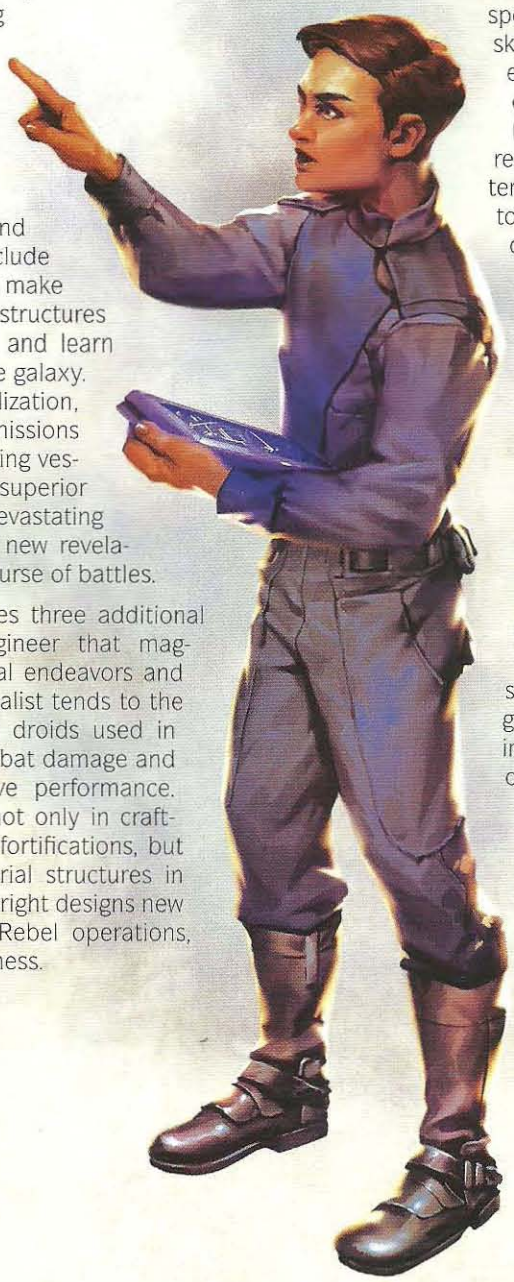
- **Wound Threshold:** 10 + Brawn
- **Strain Threshold:** 8 + Willpower
- **Starting Experience:** 80 XP
- **Special Abilities:** Skakoans begin the game with one rank in Knowledge (Education) and one rank in Mechanics. They still may not train either above rank 2 during character creation.
- **Methane Breather:** Skakoans require methane to live, and wear special pressure suits to emulate the conditions on Skako. They start the game with a specialised pressure suit with methane respirator, which counts as armor with indefinite supplies of methane. The suit has +2 soak, encumbrance of 3, 3 hard points, cannot acquired unless on Skako (at a price equivalent to laminate armor), and cannot be worn by other species. Skakoans treat standard planetary air pressure and composition as a corrosive atmosphere with rating 6 (see page 228 of the **Age of Rebellion** Core Rulebook).

NEW SPECIALIZATIONS

Not unsurprisingly, Engineer specializations focus on using technology in a variety of ways. Given their roles in the Rebellion, though, their application shifts to furthering the Alliance's efforts to reclaim the galaxy.

The Mechanic, Saboteur, and Scientist specializations include skills to mend devices and make them work better, destroy structures and vehicles, and research and learn more about the nature of the galaxy. Depending on the specialization, Engineers can advance missions against the Empire by repairing vessels and imbuing them with superior capabilities, setting off devastating detonations, or introducing new revelations that can change the course of battles.

Fully Operational provides three additional specializations for the Engineer that magnify the focus on mechanical endeavors and technology. The Droid Specialist tends to the many support and combat droids used in the Rebellion, repairing combat damage and strengthening their offensive performance. The Sapper has expertise not only in crafting improvised bridges and fortifications, but also in removing any Imperial structures in explosive fashion. The Shipwright designs new starships and vehicles for Rebel operations, optimizing combat effectiveness.



All Engineers, regardless of their specialization, have eight core career skills: Athletics, Computers, Knowledge (Education), Mechanics, Perception, Piloting (Space), Ranged (Light), and Vigilance. These skills represent the core areas of competency that all Engineers are likely to possess or develop. Engineer characters automatically gain one rank each in any four of these skills of their choice without spending starting experience, and they receive a discount when they spend experience to purchase ranks in any of these skills.

Each specialization also has its own list of four additional career skills, from which players select two for their character. This may allow players to select a skill twice at creation, thus beginning with two ranks in that skill. No character may start the game with more than two ranks in any skill, however, regardless of how many opportunities the player may have had to select it (such as by combining a free rank from a species with one from the career list and one from the specialization list).

DROID SPECIALIST

Like battlefield surgeons working on organic soldiers, Alliance Droid Specialists focus on making their charges functional for combat but often must sacrifice perfection for practicality. A Core World droid factory may have the luxury to produce repairs that return a damaged droid to a like-new state. In the midst of horrific combat or in repair bays lacking proper resources, though, Droid Specialists can't be fancy. When faced with dozens of droids, having to stop and reassess a custom configuration not only slows the repair work, it complicates the job. At the end of the day, if their mechanical comrades are fit for another day of support and battle, then their mission is accomplished.

ARTIFICERS FOR THE ARTIFICIAL

Droid Specialists receive **Computers**, **Cool**, **Mechanics**, and **Melee** as additional career skills. Characters who select this as their starting specialization may choose two of these skills and gain one free rank in each without spending starting experience.

Droids serve two purposes in the Alliance: to assist their organic counterparts and to integrate with computers and other data storage devices. Some Droid Specialists see themselves like the sergeants of a droid platoon, treating their inorganic soldiers harshly but fairly, sending them out into battle without hesitation, and working hard to ensure the droids have the programming and technology they need to come back. Others have a colder practicality. Repairing a damaged droid takes less time and resources than replacing or building a new one.

The topic of droid manumission remains a messy one. Various bases treat droids differently depending on their commander's attitude, the soldiers' attitudes, their morale, and the circumstances. Regardless, Droid Specialists tend to be protective of their inorganic soldiers. Whether it is because they recognize them as sentient beings or as valuable machines depends on the individual. The Alliance as a whole treats droids with more consideration and respect than the rest of the galaxy. Droid Specialists advocating on their behalf have contributed to this positive change.

Although the Rebellion receives equipment en masse, Droid Specialists can't count on consistency or quality. As supply lines and alliances change, so do their sources of parts and droids. As a result, Alliance droids tend to take on a patchwork look much like that of their Outer Rim counterparts. Rebel agents can often tell how well a base is supplied just by the droids: if they look clean and relatively uniform, the base is obviously well supplied. If the droids appear completely different from each other (and have personality quirks to rival a rogue Outer Rim droid), then the agent knows the base is in dire shape.

This is the difficulty most Droid Specialists face in Rebel outposts without a regular supply line. Organics tend to get the most supplies, followed by the machines of war: blasters, cannons, and starfighters. At the bottom of the ladder stand the droids, which must bear the brunt of rationed supplies while functioning to serve their organic commanders. Some Droid Specialists see this work as a punishment. Others come to identify with their charges. Droid Specialists often see their quartermaster as their greatest nemesis, the Empire being a close second.

Engineer: Droid Specialist Talent Tree

Career Skills: Athletics, Computers, Knowledge (Education), Mechanics, Perception, Piloting (Space), Ranged (Light), Vigilance

Droid Specialist Bonus Career Skills: Computers, Cool, Mechanics, Melee

ACTIVE

PASSIVE

DESIGN FLAW (ACTIVE) — When making a combat check with a personal scale weapon against a droid, may add ⚙ equal to ranks of Design Flaw.. COST 5

SPEAKS BINARY (PASSIVE) — When directing NPC droids, may grant them □ per rank of Speaks Binary on checks. COST 5

GRIT (PASSIVE) — Gain +1 strain threshold. COST 5

TOUGHENED (PASSIVE) — Gain +2 wound threshold. COST 5

HIDDEN STORAGE (PASSIVE) — Gain hidden storage in vehicle or equipment that holds items with total encumbrance equal to ranks in Hidden Storage. COST 10

COMBAT PROGRAMMING (ACTIVE) — Once per encounter make a **Hard (◆◆◆) Computers check** while repairing or working on a droid. For the remainder of the encounter, the droid gains 1 rank in two different combat skills. COST 10

REPAIR PATCH SPECIALIZATION (PASSIVE) — Whenever using an emergency repair patch, the target heals an additional wound per rank of Repair Patch Specialization. COST 10

GEARHEAD (PASSIVE) — Remove ■ per rank of Gearhead from Mechanics checks. Halve the credit cost to add mods to attachments. COST 10

GEARHEAD (PASSIVE) — Remove ■ per rank of Gearhead from Mechanics checks. Halve the credit cost to add mods to attachments. COST 15

MACHINE MENDER (ACTIVE) — When making a Mechanics check to help a character heal wounds, target heals 1 additional wound per rank of Machine Mender. COST 15

HIDDEN STORAGE (PASSIVE) — Gain hidden storage in vehicle or equipment that holds items with total encumbrance equal to ranks in Hidden Storage. COST 15

SPEAKS BINARY (PASSIVE) — When directing NPC droids, may grant them □ per rank of Speaks Binary on checks. COST 15

DESIGN FLAW (ACTIVE) — When making a combat check with a personal scale weapon against a droid, may add ⚙ equal to ranks of Design Flaw. COST 20

DESPERATE REPAIRS (ACTIVE) — Once per session may make a **Hard (◆◆◆) Mechanics check** on one engaged allied droid. If successful, the droid becomes immobilized and staggered for 1 round, then heals all strain and one Critical Injury with a severity rating no greater than **Hard (◆◆◆)**. COST 20

MACHINE MENDER (ACTIVE) — When making a Mechanics check to help a character heal wounds, target heals 1 additional wound per rank of Machine Mender. COST 20

GRIT (PASSIVE) — Gain +1 strain threshold. COST 20

REPAIR PATCH SPECIALIZATION (PASSIVE) — Whenever using an emergency repair patch, the target heals an additional wound per rank of Repair Patch Specialization. COST 25

MASTER ARTISAN (PASSIVE) — Once per round, may take the Master Artisan incidental; suffer 2 strain to decrease the difficulty of next Mechanics check by 1, to a minimum of **Easy (◆)**. COST 25

REROUTE PROCESSORS (ACTIVE) — Once per encounter, may take a Reroute Processors action; make an **Average (◆◆) Computers check** to reduce one of a droid's characteristics by 1 and increase another of its characteristics by 1. COST 25

DEDICATION (PASSIVE) — Gain +1 to a single characteristic. This cannot bring a characteristic above 6. COST 25

SAPPER

Sappers have a versatile role in the Alliance. These personnel are responsible not only for building encampments, installations, landing areas, and more to support the war against the Empire, but also for seeking out and destroying many of the same that the enemy possesses. This means these combat Engineers must combine stealth, survival skills, and situational awareness to find suitable locations and analyze defensive possibilities, as well as using the same skills to probe for enemy structural weaknesses that can be exploited with suitable explosives.

TO CONSTRUCT AND DESTROY

Sappers receive **Athletics**, **Knowledge (Warfare)**, **Mechanics**, and **Survival** as additional career skills. Characters who select this as their starting specialization may choose two of these skills and gain one free rank in each without spending starting experience.

Once Sappers find a good location for construction, they must deal with the logistical demands of supplies. Construction efforts mean they have three bosses that will never agree: the environment, the laws of physics, and their commander. Sappers prioritize each differently, and that decision can make or break a construction project. As with most support jobs, when Sappers do an excellent job, no one notices. Alliance soldiers don't give a second thought to a warm bunk and good lighting in a base, for example, or pilots to a spacious and smooth-floored hangar. If these aren't present, however, Sappers get the blame (and also the overnight repair duties).

Sappers do see battle, perhaps more so than any other support personnel save medics. Command sends Sappers to sneak up to enemy fortifications to find weaknesses and entry points. This work often requires a hands-on inspection of the enemy base, looking for cracks in walls, exposed power lines or sewage pipes, or unattended guard rotations and resupply schedules. A scouting mission requires stealth or a cover identity, and Sappers must avoid capture or death from guards or automated security systems while successfully mapping the enemy's weak points.

Sappers who survive initial scouting missions must then infiltrate enemy sites to set explosive charges, carefully cut away security grids, or perform another act of sabotage, all while avoiding being killed by blaster fire or a mistimed explosive charge. Even if capture or death is unavoidable, Sappers must press on, as the lives of many of their comrades depend on their sacrifice.

After all that, Sappers who survive may still have to pick up a blaster and join the rest of the soldiers in storming the fortification. Perhaps the operation went off without a hitch, and the Alliance has provided evac to carry Sapper teams back to safety. Many refuse to retreat. They can still carry a weapon, and every body counts in battle. In the end, Sappers risk their lives three times over.

Engineer: Sapper Talent Tree

Career Skills: Athletics, Computers, Knowledge (Education), Mechanics, Perception, Piloting (Space), Ranged (Light), Vigilance

Sapper Bonus Career Skills: Athletics, Knowledge (Warfare), Mechanics, Survival

ACTIVE

PASSIVE

CONSTRUCTION SPECIALIST (PASSIVE)
Remove ■ equal to ranks in Construction Specialist from checks to construct defenses, positions, fortifications, and similar projects.
COST 5

TOUGHENED (PASSIVE)
Gain +2 wound threshold.
COST 5

DURABLE (PASSIVE)
May reduce any Critical Injury suffered by 10 per rank of Durable to a minimum of 1.
COST 5

GRIT (PASSIVE)
Gain +1 strain threshold.
COST 5

KNOWN SCHEMATIC (ACTIVE)
Once per session, may perform the Known Schematic maneuver; make a **Hard (◆◆◆) Knowledge (Education) check**. Success grants familiarity with a building or ship's design.
COST 10

CONTRAPTION (ACTIVE)
Once per session, may take Contraption action; make a **Hard (◆◆◆) Mechanics check** to fashion a device to solve a current problem using just the tools and parts on hand.
COST 10

CONSTRUCTION SPECIALIST (PASSIVE)
Remove ■ equal to ranks in Construction Specialist from checks to construct defenses, positions, fortifications, and similar projects.
COST 10

POWERFUL BLAST (PASSIVE)
Increase Blast damage dealt by explosives, explosive weapons, and grenades by 1 per rank of Powerful Blast.
COST 10

GRIT (PASSIVE)
Gain +1 strain threshold.
COST 15

DURABLE (PASSIVE)
May reduce any Critical Injury suffered by 10 per rank of Durable to a minimum of 1.
COST 15

IMPROVISED DEFENSES (ACTIVE)
May make an **Average (◆◆) Survival check** to fashion small defenses. It providing cover for up to 4 characters for the rest of the encounter.
COST 15

POWERFUL BLAST (PASSIVE)
Increase Blast damage dealt by explosives, explosive weapons, and grenades by 1 per rank of Powerful Blast.
COST 15

UTILITY BELT (ACTIVE)
Spend 1 Destiny Point to perform a Utility Belt incidental; produce a previously undocumented item or weapon (with restrictions) from a tool belt or a satchel.
COST 20

STRONG ARM (PASSIVE)
Treat thrown weapons as if they had 1 greater range.
COST 20

IMPROVISED DETONATION (ACTIVE)
Once per session, make a **Hard (◆◆◆) Mechanics check** to perform the Improvised Detonation action and build an explosive device, dealing damage equal to ranks in Intellect + ranks in Mechanics + ☆.
COST 20

MASTER GRENADIER (PASSIVE)
Decrease the ☂ cost to activate the Blast quality on any weapon used by 1 to a minimum of 1.
COST 20

WEAK FOUNDATION (ACTIVE)
Once per session may take the Weak Foundation action; make a **Hard (◆◆◆) Knowledge (Warfare) check**. If successful, for the remainder of the encounter the character and all allies add automatic ☂☂ or ☆ to all combat checks made targeting the identified fixed structure.
COST 25

DEDICATION (PASSIVE)
Gain +1 to a single characteristic. This cannot bring a characteristic above 6.
COST 25

IMPROVISED POSITION (ACTIVE)
The character may make a **Hard (◆◆◆) Mechanics check** to construct a secure position. This provides cover for the group and its vehicles.
COST 25

MASTER DEMOLITIONIST (PASSIVE)
When resolving an attack from a personal explosive or ordnance weapon, may spend ☂ or ⊕ to have the weapon's Blast quality act at short range, or medium if it already acts at short.
COST 25

SHIPWRIGHT

In peacetime, a Shipwright designs, oversees, and launches custom ships to grace the hyperspace lanes. During the era of the Republic, Shipwrights crafted ships with elegant fins, spires, and curves that made people wonder, "Who built that?" Currently, the Empire favors ship designs that express power and inspire fear. The Core World shipyards have followed suit, as the Empire remains the dominant culture in the galaxy. Elegance is a bygone ideal, a symbol of Republic corruption or a lost fancy. Even the Alliance often must eschew aesthetics for practicality and utility, something many Shipwrights in the Rebellion understand but mourn.

DESIGNING FOR WAR

Shipwrights receive **Gunnery**, **Knowledge (Education)**, **Mechanics**, and **Piloting (Space)** as additional career skills. Characters who select this as their starting specialization may choose two of these skills and gain one free rank in each without spending starting experience.

In the Alliance, Shipwrights primarily maintain and repair the various ships it fields. An important secondary task is the breaking down and retrofitting of commissioned starships. Since the majority of these vessels come from smuggled sources, civilian donations, or scrapyard rescues, Shipwrights have to determine if they should be utilized, scrapped, or junked.

For ships to be added to the Fleet, they then oversee the installation of new or updated equipment and basic repairs. Then comes crew training, space trials and testing, readying the hull for hyperspace travel, and, for some lucky Shipwrights, naming and serving aboard them.

Alliance shipyards tend to be hidden, remote, or highly mobile—often all three. As always, materials, supplies, and labor are the main factors limiting construction, along with time; at any point, the Empire may suddenly discover the location of the shipyard, prompting a rapid evacuation.

Shipwrights can work on a space station or in its shipyard. Mobile Alliance shipyards can house weapon platforms or support mining and refining facilities. The more advanced shipyards resemble a fully staffed mining colony. In such a shipyard, Shipwrights must incorporate industrial components into their designs as well as handle worker accommodations and support. At this level, Shipwrights resemble civil engineers. Even something as basic as organic waste elimination can be important to the Alliance. Only Shipwrights, for example, might know that the station's trash disposal hold can hide an allied light freighter attempting to illude Imperial patrols!

On the rare occasion when the Alliance requires a new ship design, Shipwrights usually must throw aesthetics out the transparisteel window to aim for utility, safety, and reliability. Primarily, their designs must try to ensure that the ship and its crew can accomplish the mission and hopefully return in one piece. Good Shipwrights keep in mind that their creations should be easy to repair, offer a modicum of comfort, and be able to throw enough firepower at enemies to make crews happy to fly aboard them into victory.

Engineer: Shipwright Talent Tree

Career Skills: Athletics, Computers, Knowledge (Education), Mechanics, Perception, Piloting (Space), Ranged (Light), Vigilance
Shipwright Bonus Career Skills: Gunnery, Knowledge (Education), Mechanics, Piloting (Space)

ACTIVE

PASSIVE

DOCKYARD EXPERTISE (ACTIVE)
May make an **Average (◆◆) Knowledge (Education) check** when at a space dock. If successful, the cost and time for repairs is reduced by 25% per rank of Dockyard Expertise.
COST 5

EYE FOR DETAIL (ACTIVE)
After making a Mechanics or Computers check, may suffer strain up to ranks in Eye for Detail to convert that many ✲ to ❍.
COST 5

GRIT (PASSIVE)
Gain +1 strain threshold.
COST 5

CREATIVE DESIGN (ACTIVE)
As part of resolving a successful crafting check, the character may also apply a result equivalent to spending a number of ❍ equal to his ranks in Creative Design. The GM may then apply a result equivalent to spending that same number of ⚙.
COST 5

SOLID REPAIRS (PASSIVE)
When repairing hull trauma on a starship or vehicle, repair 1 additional hull trauma per rank of Solid Repairs.
COST 10

FINE TUNING (PASSIVE)
When repairing system strain on a starship or vehicle, repair 1 additional system strain per rank of Fine Tuning.
COST 10

EYE FOR DETAIL (ACTIVE)
After making a Mechanics or Computers check, may suffer strain up to ranks in Eye for Detail to convert that many ✲ to ❍.
COST 10

DEBILITATING SHOT (ACTIVE)
Upon successful attack with a starship or vehicle weapon, may spend ❍❍ to reduce the maximum speed of the target by 1 until the end of the next round.
COST 10

KNOWN SCHEMATIC (ACTIVE)
Once per session, may perform the Known Schematic maneuver; make a **Hard (◆◆◆) Knowledge (Education) check**. Success grants familiarity with a building or ship's design.
COST 15

DOCKYARD EXPERTISE (ACTIVE)
May make an **Average (◆◆) Knowledge (Education) check** when at a space dock. If successful, the cost and time for repairs is reduced by 25% per rank of Dockyard Expertise
COST 15

SMART HANDLING (ACTIVE)
Once per session, take the Smart Handling action; making a **Hard (◆◆◆) Knowledge (Education) check**. Until start of the next round the ship's handling increases by 2 plus an amount equal to ❍ scored on the check to a maximum handling of +4.
COST 15

CREATIVE DESIGN (ACTIVE)
As part of resolving a successful crafting check, the character may also apply a result equivalent to spending a number of ❍ equal to his ranks in Creative Design. The GM may then apply a result equivalent to spending that same number of ⚙.
COST 15

BOUGHT INFO (ACTIVE)
Instead of making a Knowledge check, may take a Bought Info action; spend credits equal to 50 times the difficulty of the check to pass with one ✲.
COST 20

PUSH THE SPECS (ACTIVE)
Perform the Push the Specs action when in a starship or vehicle, making an **Average (◆◆) Knowledge (Education) check**. With success, the ship's top speed increases by 1 for a number of rounds equal to the character's Intellect
COST 20

SOLID REPAIRS (PASSIVE)
When repairing hull trauma on a starship or vehicle, repair 1 additional hull trauma per rank of Solid Repairs.
COST 20

CREATIVE DESIGN (ACTIVE)
As part of resolving a successful crafting check, the character may also apply a result equivalent to spending a number of ❍ equal to his ranks in Creative Design. The GM may then apply a result equivalent to spending that same number of ⚙.
COST 20

DEDICATION (PASSIVE)
Gain +1 to a single characteristic. This cannot bring a characteristic above 6.
COST 25

MASTER ARTISAN (ACTIVE)
Once per round, take the Master Artisan incidental; suffer 2 strain to decrease the difficulty of next Mechanics check by 1, to a minimum of **Easy (◆)**.
COST 25

STROKE OF GENIUS (ACTIVE)
Once per session, make one skill check using Intellect rather than the characteristic linked to that skill.
COST 25

EXHAUST PORT (ACTIVE)
Before attacking a starship or vehicle, the character may spend 1 Destiny Point to ignore the effects of the Massive rule for the attack.
COST 25

NEW TALENTS

The following pages describe each new talent introduced in **Fully Operational**. Every entry includes the information required for gameplay. See page 139 of the **Age of Rebellion** Core Rulebook for more information on talents.

COMBAT PROGRAMMING
Activation: Active (Action)
Ranked: No
Trees: Droid Specialist
Once per encounter when working on a droid, the character may make a **Hard (◆◆◆) Computers check**. If successful, for the remainder of the encounter the droid gains two different combat skills at rank 1, or 1 additional rank in two different existing combat skills (to a maximum of 5), as chosen by the character. If the character is a droid, it may perform this action on itself.

CONSTRUCTION SPECIALIST
Activation: Passive
Ranked: Yes
Trees: Sapper
The character removes ■ per rank of Construction Specialist from checks made to construct bases, defense works, positions, fortifications, tunnels, bunkers, and similar combat engineering projects.

CREATIVE DESIGN
Activation: Passive
Ranked: Yes
Trees: Shipwright
As part of resolving a successful crafting check, the character may also apply a result equivalent to spending a number of ⟲ equal to his ranks in Creative Design. The GM may then apply a result equivalent to spending that same number of ⚙.

DESPERATE REPAIRS
Activation: Active (Action)
Ranked: No
Trees: Droid Specialist
Once per session, the character may make a **Hard (◆◆◆) Mechanics check** targeting one engaged droid. If the character succeeds, the droid becomes staggered and immobilized until the end of its next turn. At the end of its next turn, the droid heals all strain and one Critical Injury with a severity rating no greater than **Hard (◆◆◆)**. If the character is a droid, it may perform this action on itself.

DESIGN FLAW
Activation: Active (Incidental)
Ranked: Yes
Trees: Droid Specialist
When making a combat check with a personal scale weapon against a droid, the character adds ⟲ equal to his ranks of Design Flaw.

DOCKYARD EXPERTISE
Activation: Active (Action)
Ranked: Yes
Trees: Shipwright
The character may make an **Average (◆◆) Knowledge (Education) check** when at a dry dock with suitable personnel and equipment to conduct repairs to a starship, or to add attachments or modifications to one. If successful, the cost and time for repairs is reduced by 20% for each rank of Dockyard Expertise, to a minimum of 100 credits and one day.

EYE FOR DETAIL
Activation: Active (Incidental)
Ranked: Yes
Trees: Shipwright
After rolling the dice pool for a Mechanics or Computers check but before interpreting the results, the character may voluntarily suffer a number of strain no greater than ranks in Eye for Detail to convert that many ✲ into ⟲. (The character must still have at least ✲ in the results at the end to succeed on the check.)

IMPROVISED DEFENSES
Activation: Active (Action)
Ranked: No
Trees: Sapper
The character may attempt an **Average (◆◆) Survival check** to fashion small defenses using scavenged materials. If the check is successful, the structure can provide cover for up to 4 characters (see page 227 of the **Age of Rebellion** Core Rulebook) for the rest of the encounter. The character may spend ⟲⟲ or ⊕ from the check to increase the ranged defense the structure provides to 2.

IMPROVISED DETONATION
Activation: Active (Action)
Ranked: No
Trees: Sapper
Once per session, the character may make a **Hard (◆◆◆) Mechanics check** to perform the Improvised Detonation action and build an explosive device out of available materials. The device can be detonated via any logical means (timed delay, pressure activated, or even a fuse) and when it explodes deals damage equal to the character's ranks in Intellect plus ranks in Mechanics plus ✲ on the initial check, and possesses the Blast quality at an equal value. The character can spend ⊕ to increase the damage by an additional 2. ▽ causes the device to detonate immediately in the owner's face. If the check would have been otherwise successful, the premature detonation does damage based on the successful check (and has an equivalent Blast quality). If the check would have failed, the premature detonation only does damage equal to ranks in Mechanics plus ranks in Intellect.

IMPROVISED POSITION
Activation: Active (Action)
Ranked: No
Trees: Sapper
The character may make a **Hard (◆◆◆) Mechanics check** and spend 12 hours constructing a secure position that can contain the group and its vehicles. The sum of its vehicles' silhouettes must be 4 or less. The position provides cover (see page 227 of the **Age of Rebellion** Core Rulebook) and can have additional narrative benefits at the GM's discretion. The character may spend ⟲⟲ or ⊕ from the check to increase the ranged defense the position provides to 2.

MACHINE MENDER
Activation: Passive
Ranked: Yes
Trees: Droid Specialist
When this character makes a Mechanics check to help a character heal wounds, the target heals one additional wound per rank of Machine Mender. (Typically, only droids can be healed with Mechanics checks; see page 233 of the **Age of Rebellion** Core Rulebook.)

MASTER ARTISAN
Activation: Active (Incidental)
Ranked: No
Trees: Droid Specialist, Shipwright
Once per round, the character may voluntarily suffer 2 strain to decrease the difficulty of his next Mechanics check (or his next check to build or mod an item) by one, to a minimum of **Easy (◆)**.

MASTER DEMOLITIONIST
Activation: Active (Incidental)
Ranked: No
Trees: Sapper
When resolving an attack from a personal (non starship/vehicle) explosive or ordnance weapon, the character may spend ⟲ or ⊕ to have the weapon's Blast quality affect all characters within short range (rather than engaged). If the weapon normally affects all characters within short range, then the range of effect is increased to medium instead.

PUSH THE SPECS
Activation: Active (Action)
Ranked: No
Trees: Shipwright
The character may perform the Push the Specs action when in a starship or vehicle, attempting an **Average (◆◆) Knowledge (Education) check**. If the character succeeds, the ship's top speed increases by one for a number of rounds equal to the character's Intellect. The character may spend ⟲ and have the ship suffer 2 system strain to extend this effect for an additional round, and may do so multiple times. The ship still cannot perform actions or maneuvers it couldn't perform normally (e.g., actions that have a minimum speed requirement).

REPAIR PATCH SPECIALIZATION
Activation: Passive
Ranked: Yes
Trees: Droid Specialist
Whenever the character uses an emergency repair patch, the target heals an additional wound per rank of Repair Patch Specialization. The sixth emergency repair patch and beyond each day still have no effect. If the character is a droid, it may use this talent when using a patch on itself.

REROUTE PROCESSORS
Activation: Active (Action)
Ranked: No
Trees: Droid Specialist
Once per encounter, the character may perform the Reroute Processors action on a droid he is engaged with by making an **Average (◆◆) Computers check**. If successful, the character decreases one of the droid's characteristics by one (to a minimum of 0) until the end of the encounter and increases another of its characteristics by one (to a maximum of 7) until the end of the encounter. If the character is a droid, it may perform this action on itself.

SMART HANDLING
Activation: Active (Action)
Ranked: No
Trees: Shipwright
Once per session, while aboard a starship of silhouette 4 or higher, the character may take the Smart Handling action; making a **Hard (◆◆◆) Knowledge (Education) check**. If the check is successful, until the start of the next round, the ship's handling increases by two plus one per ⟲ scored on the check to a maximum handling of +4. ⊕ can be spent to extend the effect until the end of the encounter.

WEAK FOUNDATION
Activation: Active (Action)
Ranked: No
Trees: Sapper
Once per game session, the character may identify one bunker, weapon emplacement, or other fixed combat structure (subject to the GM's approval) and then take a Weak Foundation action; making a **Hard (◆◆◆) Knowledge (Warfare) check**. If the character succeeds, until the end of the encounter the character and all allies add automatic ⟲⟲ or ✲ to all combat checks made targeting the structure (active character's choice).

ENGINEER MOTIVATIONS

Like everyone in the Rebellion, its Engineers are driven to seek the end of the Empire. They are also driven in other ways, usually reflecting their technologically oriented profession. For most, the latter drive involves the penchant for examining things and determining how to make them better, then doing so.

ENGINEERS AND IMPROVEMENT

For Engineers, there is nothing that cannot be improved with a bit of thought and effort. This conviction reinforces many in striving toward ending the Empire and replacing it with improved governance. The technological impetus carries over into the personal lives of most Engineers as well. Motivations related to these concepts help to determine why Engineers joined the Alliance and how they behave in combat and social challenges.

Fully Operational includes the new Motivation category of Improvement, specially designed for the Engineer career. Players with characters from other careers are also welcome to choose an Improvement, of course, if one fits particularly well.

TABLE 1-2: RANDOM ENGINEER MOTIVATION

d10	Motivation Category
1–2	Belief
3–4	Connection
5–6	Quest
7–9	Improvement
10	Roll once on each of any two categories

During character creation, players can choose the Motivation that best fits their Engineer character, or they can roll randomly for one. To choose randomly, they first roll on **Table 1–2: Random Engineer Motivation** instead of using the corresponding **Table 2–5: Random Motivation** on page 104 of the **Age of Rebellion** Core Rulebook. Players who roll Improvement then roll again on **Table 1–3: Specific Improvements** to determine which Improvement to use as the Motivation. Otherwise, players should consult the appropriate table in the **Age of Rebellion** Core Rulebook (pages 104–106) for the category rolled.

TABLE 1-3: SPECIFIC IMPROVEMENTS

d100	Improvement
01–10	**Accuracy:** Precision is important, in everything from sensors to weapons. These Engineers can become passionate over increasing exactness in all things, and might hate the Empire all the more for the way it twists truths and rewrites history.
11–20	**Challenge:** It would be easier to leave things as they are, but these Engineers view difficulty as part of the reward and a sign of their prowess. Similarly, the struggle against the Empire is perhaps the most important challenge they face.
21–30	**Lethality:** It is clear to these Engineers that the more deadly the weapon, the better it is. They may also strive to make themselves as dangerous as possible through martial training and physical conditioning.
31–40	**Aesthetics:** These Engineers search for ways to make their creations as pleasing to look at as they are effective; some apply this personally to improve their social interactions and thus garner more support for their efforts.
41–50	**Reliability:** Weapons and ships that won't work cannot serve the Rebellion, so Engineers cannot allow them to become or remain unreliable. Increasing dependability not only aids in the war, but increases morale and fighting effectiveness.
51–60	**Flexibility:** Good Engineers work toward making sure everything—from tools to tanks—can be used in a variety of ways. These Engineers might also seek to improve themselves so that they are able to perform a wide variety of tasks.
61–70	**Durability:** Replacement items are always an issue, so everything in the Rebellion must last as long as possible. Engineers are always working to ensure weapons and vehicles function longer and to craft defenses to ensure they survive to fight another day.
71–80	**Makeshift:** Anyone can improve things given sufficient resources, but true artisans can take whatever might be around and craft mechanical art. While Rebels are often starved for parts, these Engineers might deliberately use improvised items to create personalized works.
81–90	**Simplicity:** The best items are the ones that perform their functions in a basic manner, and Engineers work to eliminate anything that stands in the way of this goal. Lives are also lived best this way, but the Empire's harsh oversight of all aspects of its citizenry is in direct opposition to this ideal.
91–00	**Efficiency:** Fuel and materiel are always being wasted, and these Engineers are driven to eliminate such losses at every opportunity. The Empire wastes lives and productivity, adding yet another reason for its elimination.

ENGINEER SIGNATURE ABILITIES

In addition to the specializations available within a given career, a character also has access to that career's signature abilities. These abilities are special, elite talents for experienced characters of the specified career. They are feats only possible through the skill and ability gained over a long and successful career.

SIGNATURE ABILITY BREAKDOWN

A signature ability is composed of three elements: the nodes linking it to a talent tree, the ability's basic form, and a series of upgrades that augment the ability.

NODES

Each signature ability has four nodes lined up across its top. These four nodes match up with the four talents on the bottom row of a talent tree. Each node can either be active, showing a bracket facing upward, or inactive, remaining blank. To be able to attach a signature ability to a tree, the character must own all of the talents along the bottom row of the destination talent tree that match up with the active nodes on the signature ability.

ABILITY BASIC FORM

To acquire a signature ability, a character must first purchase the basic form of the ability. This takes up the entire first row of the signature ability tree and is purchased with experience points. The experience cost of each upgrade is listed in its box.

UPGRADES

After purchasing the basic form of a signature ability, a character can further customize the ability by purchasing upgrades. Upgrades, much like talents, are purchased with experience points, and each upgrade may only be purchased if it connects to the basic form of the ability or a previously purchased upgrade. The experience cost of each upgrade is listed in its box.

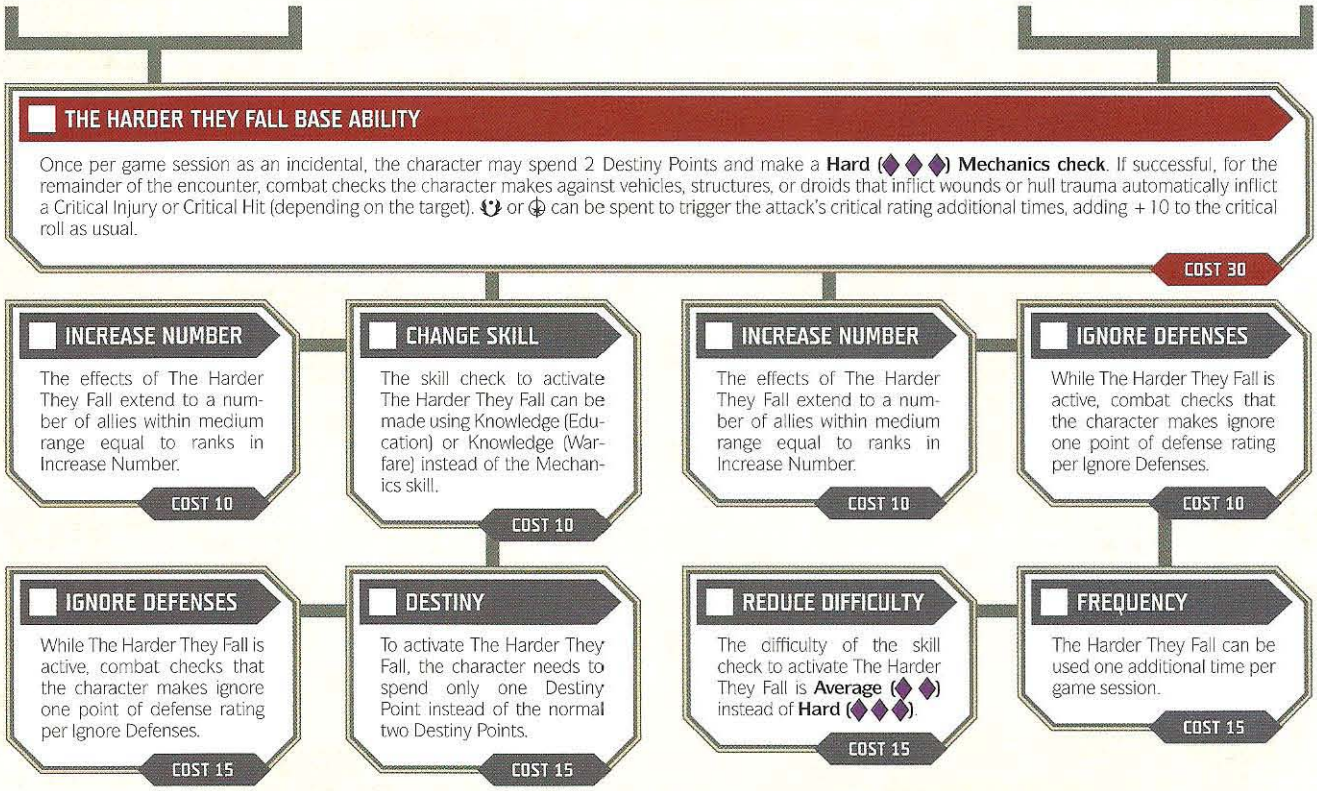
ACQUIRING SIGNATURE ABILITIES

Before purchasing a signature ability or any of its upgrades, a character must "attach" that ability to the bottom of one of his current in-career talent trees. Once a signature ability has been attached to a tree, no other signature abilities may be attached to that tree, and the attached ability cannot be removed or switched to a different tree. A character can only acquire a signature ability from his career and can only attach that ability to in-career talent trees.

To attach a signature ability to a talent tree, the character must own all of the talents along the bottom row of the destination talent tree that match up with the active nodes on the signature ability. Then, once a signature ability has been attached to a talent tree, the character may purchase the ability's basic form and its upgrades using experience, just as if they were talents.

The Engineer career has access to two signature abilities: The Harder They Fall and Unmatched Ingenuity.

Engineer Signature Ability Tree: The Harder They Fall



ENGINEER SIGNATURE ABILITY: THE HARDER THEY FALL

While it might be loathsome or insulting to their professional pride, all Alliance Engineers realize they are fighting in a war, and that a great part of war involves destruction. This includes the destruction of buildings, fortifications, ships, and droids—the very things they work so hard to create and maintain. Their expertise in these areas, though, makes for excellent combat abilities. Drawing on their knowledge of technological vulnerabilities, Engineers can help ensure maximum efficiencies in attacks they and their comrades make.

BASE ABILITY

Once per game session as an incidental, the character may spend two Destiny Points and make a **Hard (◆◆◆) Mechanics check**. If successful, for the remainder of the encounter, combat checks the character makes against vehicles, structures, or droids that inflict wounds or hull trauma automatically inflict a Critical Injury or Critical Hit (depending on the target). or can be spent to trigger the attack's critical rating additional times, adding +10 to the critical roll as normal.

UPGRADES

Change Skill Upgrade: The skill check to activate The Harder They Fall can be performed using Knowledge (Education) or Knowledge (Warfare) instead of the Mechanics skill.

Destiny Upgrade: To activate The Harder They Fall, the character needs to spend only one Destiny Point instead of the normal two.

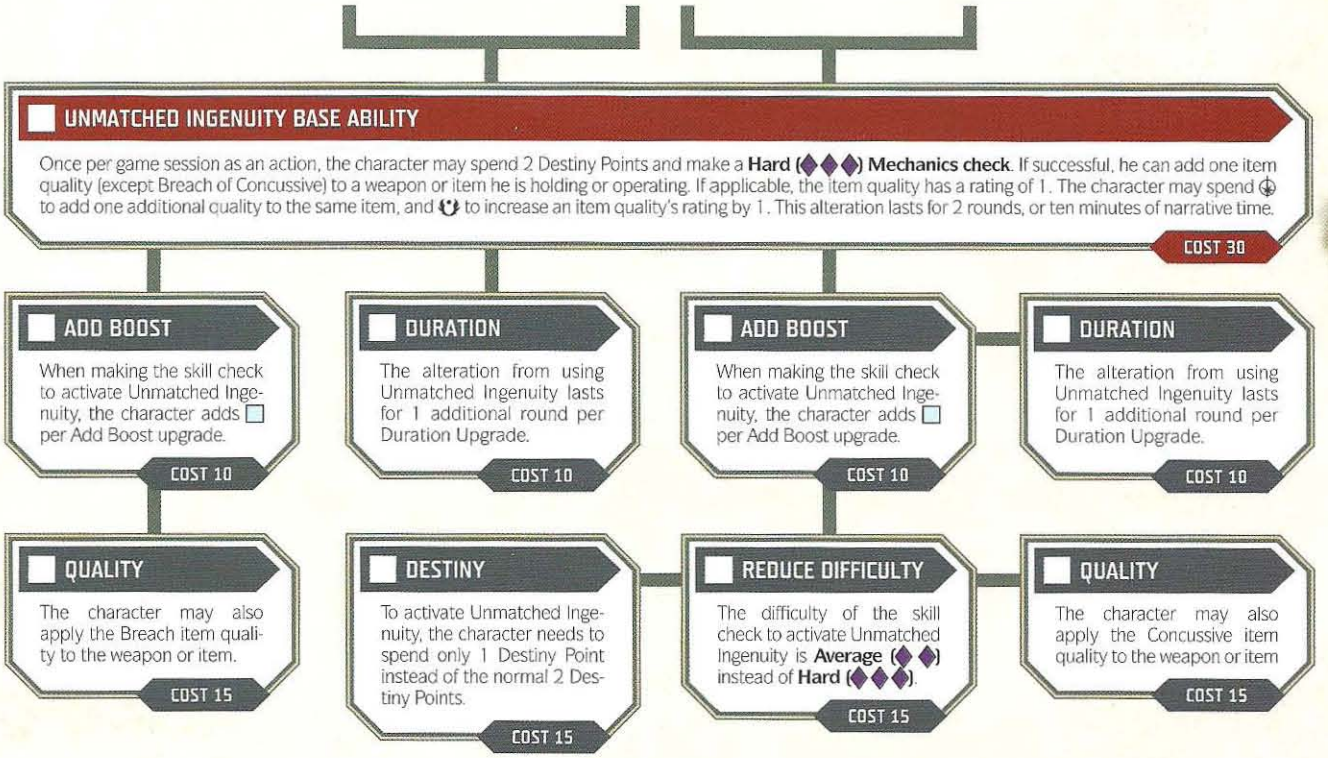
Frequency Upgrade: The Harder They Fall can be used one additional time per game session.

Increase Number Upgrade: The effects of The Harder They Fall extend to a number of allies within medium range of the character equal to the character's ranks in Increase Number.

Ignore Defenses Upgrade: While The Harder They Fall is active, combat checks the character makes ignore one point of defense rating per Ignore Defenses.

Reduce Difficulty Upgrade: The difficulty of the skill check to activate The Harder They Fall is **Average (◆◆)** instead of **Hard (◆◆◆)**.

Engineer Signature Ability Tree: Unmatched Ingenuity



ENGINEER SIGNATURE ABILITY: UNMATCHED INGENUITY

There are few things Engineers love more than to tinker with their equipment. Prior to going into battle (or even in the midst of it, given the opportunity), any Engineers worth their hydrospanners will rebuild slugthrower feeds, reposition missile detonator sensors, or reroute power ducting in blasters. In the minds of Engineers, there is nothing that cannot be improved, and using weaponry as it arrived from the logistics supply sources is a sign of laziness or lack of skill. It is a point of pride for them to always add some ingenious improvement to not only their own weapons, but the weapons of their fellow Alliance soldiers.

BASE ABILITY

Once per game session as an action, the character may spend two Destiny Points and make a **Hard (◆◆◆) Mechanics check**. If successful, he may add one item quality (except Breach of Concussive) to a weapon or item he is holding or operating. If applicable, the item quality has a rating of 1. The character may spend ⊕ to add one additional item quality to the same item, and may spend ↻ to increase an item quality's rating by 1. This alteration lasts for two rounds, or ten minutes of narrative time.

UPGRADES

Add Boost Upgrade: When making the skill check to activate Unmatched Ingenuity, the character adds □ per Add Boost upgrade.

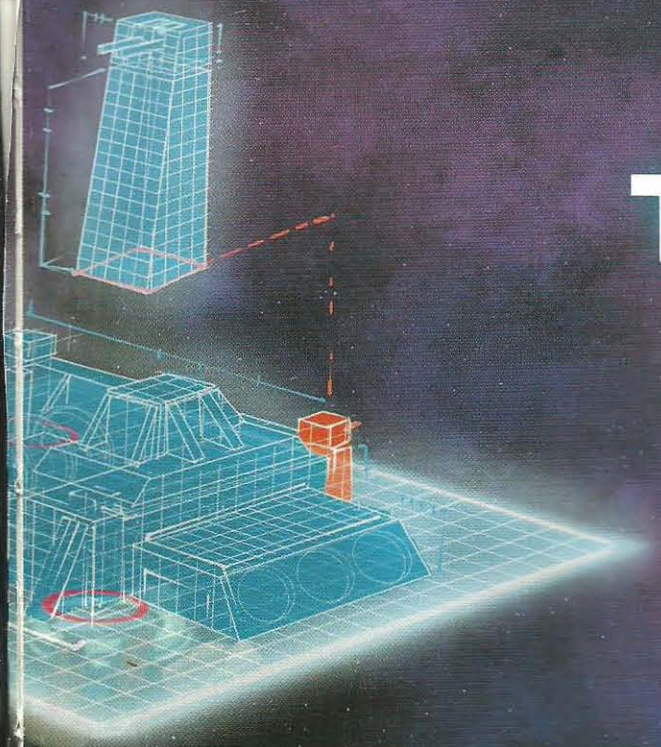
Destiny Upgrade: To activate Unmatched Ingenuity, the character needs to spend only one Destiny Point instead of the normal two.

Duration Upgrade: The alteration gained from using Unmatched Ingenuity lasts for one additional round, or an additional five minutes of narrative time, per Duration Upgrade.

Quality Upgrade: The character may also apply the Breach item quality to the weapon or item.

Quality Upgrade: The character may also apply the Concussive item quality to the weapon or item.

Reduce Difficulty Upgrade: The difficulty of the skill check to activate Unmatched Ingenuity is **Average (◆◆)** instead of **Hard (◆◆◆)**.



11

TOOLS FOR FREEDOM

"First we dig 'em, then we die in 'em."

–Unofficial motto of the Alliance Corps of Engineers

Perhaps more so than any other military specialists, combat engineers live and die by their tools. While they are trained in combat, these Engineers are not front-line fighters. They have neither the training nor the equipment to stand alongside their infantry or armor colleagues on the front lines in battle. Despite this, Engineers are often called upon to take up arms in the middle of building a base, clearing a minefield, or repairing a stricken starfighter, and they are expected to do so with the same cool competence exhibited by their peers.

Engineers are issued weapons and equipment like any other military professionals, as well as specialized tools and gear for building, repairing, maintaining, and destroying materiel, infrastructure, and enemy combatants. Many of these tools can be—and often are—used as weapons in the field, with very effective results.

Whether they are on the battlefield supporting troops in active combat, or in one of the many maintenance hangars, dockyards, construction bays, or design labs, Engineers always come equipped for any eventuality. This chapter outlines many of the pieces of gear that the various Engineers of the Alliance carry in the course of their duties.

In the following pages, players will find a wide assortment of new weapons, from carbines suitable for field engineers to explosives for demolitions work. Players can also select from an even wider variety of tools and devices their Engineer characters can use in repair and construction efforts, many that can serve double duty as weapons as well. Battlefronts are dangerous places, almost as dangerous as an Engineer's testing area, so new types of armor are included. Lastly, this chapter also contains new droids, vehicles, and starships to ensure that Engineers are ready to take on any project the Alliance requires to secure victory over the Galactic Empire.

NEW WEAPONS

As a form of infantry, combat engineers are trained in the use of infantry weapons. This includes all manner of blasters, slugthrowers, and heavy ordnance. The difference lies in how Engineers use their weapons, and in their taste for high explosives. Engineers often favor pistols and carbines for their small size and light weight, along with heavy ordnance like grenade launchers for taking out emplacements. In addition, many Engineers modify available tools for fighting. They are often adept at using improvised weapons like sledgehammers and hydrospanners to take the fight to the enemy with brutal results. The following is a selection of weapons commonly carried by both Alliance and Imperial Engineers.

RANGED ENERGY WEAPONS

When Engineers go into battle, their weapons might be an afterthought to their essential tools and support equipment. Blasters are commonly chosen due to their reliability and lethality.

ARAKYD LJ-40 CONCUSSION CARBINE

Like many tools and weapons combat engineers use, the LJ-40 began life as a field-expedient modification of an existing weapon. A squad from the 92nd Coruscant Engineers received a shipment of powerful and deadly LJ-50 concussion rifles accidentally. The squad's armorer, seeing that with modification the weapons would be perfect for breaching walls and scattering enemy troops, cut the rifles down into makeshift carbines. The undeniable effectiveness of the carbines impressed the squad's superior officer. Word eventually reached Arakyd Industries, which immediately put the LJ-40 into production to sell alongside the already popular LJ-50.

The production-model LJ-40 has a folding skeleton stock and shortened barrel. Engineers and vehicle crews love the weapon for its light weight, ease of use, and destructive potential. As with all carbines, the LJ-40 suffers from a lack of range and poor long-range accuracy, but since most military engineers engage the enemy at short ranges, this does not diminish the LJ-40's effectiveness.

All ■ added to a combat check due to the target's cover are removed when using the LJ-40. Additional ammunition costs 40 credits for magazine of 3 rounds.

TABLE 2-1: RANGED WEAPONS

Name	Skill	Dam	Crit	Range	Encum	HP	Price	Rarity	Special
Ranged Energy Weapons									
Arakyd LJ-40 Concussion Carbine	Ranged (Heavy)	8	3	Short	4	1	(R) 2,500	8	Blast 4, Concussive 1, Knockdown, Limited Ammo 3
BlasTech DH-17c Short Carbine	Ranged (Heavy)	4	3	Medium	3	2	950	6	Auto-fire, Stun setting
Other Ranged Weapons									
Czerka M9 "Boomer" Heavy Pistol	Ranged (Light)	5	3	Medium	3	2	1,000	6	Blast 5, Cumbersome 2, Inaccurate 1
Mk VIII Gravitic Mortar Launcher	Gunnery	4	NA	Long	6	1	(R) 2,800	7	Inaccurate 1, Prepare 1
Explosives and Ordnance									
BKX-4 "Shockwave" Grenade	Ranged (Light)	10	5	Short	1	0	(R) 150	5	Blast 8, Knockdown, Disorient 5, Limited Ammo 1
WP-19 Incendiary Grenade	Ranged (Light)	8	3	Short	1	0	(R) 125	6	Blast 8, Burn 4, Limited Ammo 1
WW-41 CryoBan Grenade	Ranged (Light)	8	2	Short	1	0	220	7	Blast 6, Disorient 3, Ensnare 3, Limited Ammo 1, Vicious 2

BLASTECH DH-17C SHORT CARBINE

Blurring the line between blaster pistol and blaster carbine, the DH-17c short carbine is a relatively new addition to the venerable DH-17 product line. A shortened version of the DH-17 blaster rifle, it features a snub-nosed barrel cast in the same silvery color as the weapon's receiver. Its primary selling point, aside from the small size, is its various fire modes. Along with the standard semi-automatic and non-lethal Stun settings, this carbine has an automatic setting, giving shooters an extra and unexpected edge in combat.

While these carbines are not sold with any accessories from the factory, they are often customized with optics and folding stocks to increase their performance and usability. A number of Alliance Army engineering units have adopted the short carbine as their official-issue weapon, as its size and versatility gives the Engineers the ability to switch between working and fighting more easily than with heavier weapons.

OTHER RANGED WEAPONS

Engineers often display expertise in ranged weaponry beyond standard blasters. This can include common slugthrowers, but also more esoteric devices that only Engineers would carry into battle.

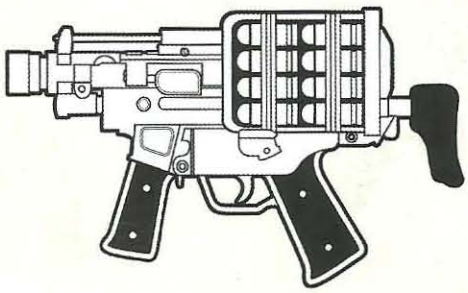
CZERKA M9 "BOOMER" HEAVY PISTOL

Known colloquially as the "hand cannon," Czerka's Cz M9 "Boomer" is a standout in the heavy pistol market. Designed to cram as much killing power in as small a package as possible, the Boomer is a thick, squat, large-caliber slugthrowing pistol. Instead of standard metal slugs, however, the Boomer fires small, fin-stabilized grenades from a detachable box magazine. The Boomer's grenades give the shooter respectable anti-personnel capabilities. The downside to all this firepower is a limited payload and a weapon that is often inaccurate and difficult to use.

During combat, GMs may make this weapon run out of ammunition by spending ⚙ ⚙ ⚙. This is in addition to the standard spending of ▽.

MK VIII GRAVITIC MORTAR LAUNCHER

Built by Golan Arms, the Mk VIII launcher is an uncommon weapon. Designed primarily to clear minefields, the Mk VIII is, like most mortars, a simple smoothbore tube equipped with a bipod and a firing mechanism. Instead of lobbing explosive shells into cover or suppressing troops, however, it fires a special round that detonates all anti-personnel and anti-vehicle mines in its area of effect. Using advanced gravitic technology,



Czerka M9 "Boomer" Heavy Pistol

the rounds it fires produce powerful gravity fluctuations in a broad area upon impact. These gravity fluctuations trigger mines equipped with pressure or proximity sensors, causing them to detonate and clearing the way for troops and vehicles.

When a gravitic round detonates inside a minefield, it triggers every mine within medium range. Game Masters may use ⚙ ⚙ or ▽ to detonate only a fraction of the mines within the gravitic shell's area of effect. Undetonated mines remain active and still pose a threat to Player Characters, their allies, and their vehicles.

EXPLOSIVES AND ORDNANCE

Whether deserved or not, Engineers believe themselves the masters of anything related to explosive compounds and devices, no matter how tangential. For many, this belief is in fact accurate, as knowledge of how to build things is often useful when determining how to destroy them.

BKX-4 "SHOCKWAVE" GRENADE

The BKX-4 is one of a number of grenades built by Baktoid Personal Ordnance, a subsidiary of Baktoid Armor Workshop. Like its closest competitor, the Merr-Sonn G2, the BKX-4 causes damage with overpressure and shockwaves rather than shrapnel, baradium, or incendiary chemicals. The broad blast and shockwave caused by a detonating BKX-4 is strong enough to kill multiple unarmored targets and can seriously damage structures, machinery, and materiel. These grenades are popular with combat engineers, who use them to clear bunkers, sabotage installations, and generally cause immense amounts of mayhem and destruction.

If the user activates this grenade's Disorient or Knockdown qualities, these qualities affect all characters at short range from the target (even if they are not damaged by the weapon).

WP-19 INCENDIARY GRENADE

Incendiary grenades are relatively uncommon among the galaxy's militaries. Most civilized planets, especially in the Core, banned their use long ago as inhumane, and they often persecute users for war crimes. There are still many places where their sale and use are legal, however, and both the Imperial and Alliance militaries use them. Merr-Sonn's WP-19 is one of the more common incendiary grenades on the market. Filled with a volatile mixture of jellied incendiary compounds, accelerants, and adhesives, the WP-19 burns white-hot on detonation and spreads sticky, burning incendiary gel over a wide area. Imperial combat engineers are notorious for using these grenades to destroy enemy buildings and materiel, often with enemies and civilians alike trapped inside.

WW-41 CRYOBAN GRENADE

CryoBan is one of a number of chemical compounds used in the carbon freezing process. In its processed form, it creates intense, damaging cold by absorbing all heat in a given area. The WW-41 CryoBan grenade by Merr-Sonn was initially designed as an emergency fire-suppression tool and was used to put out fires aboard ships and space stations. The grenades resemble short, tapering batons with a ring at the smaller end. When they detonate, WW-41 grenades spray everything in their blast radius with supercooled CryoBan. These grenades also make excellent area denial weapons, as they can harm living organisms through shock, frostbite, and nerve damage.

A character using a CryoBan grenade adds ☐ to attempts to put out a fire.

EXPLOSIVE COMPOUNDS AND DEVICES

Alliance Engineers and their counterparts in the Imperial Army spend a lot of time handling explosives. Working with explosives covers everything from using shaped charges, to demolishing a structure, to blasting away natural features to build a road or base, to defusing a saboteur's bomb.

PROFILES FOR EXPLOSIVES

Countless types of explosive compounds are in use throughout the galaxy. While a door-breaching charge or a lump of detonite isn't technically a weapon, such items have many of the same characteristics as personally portable and vehicle-mounted weaponry. The profiles that follow are for a single unit of an explosive charge, and they are defined using the following characteristics:

NAME

The technical name or nickname of an explosive compound or device.

BASE DAMAGE

Damage dealt by a single charge. If the quantity of material needed is unspecified, a single charge requires roughly one kilogram of the explosive compound.

ADDITIONAL DAMAGE

Increased damage caused by including additional charges. Additional damage is typically a fraction of an explosive's base damage, but the combined blast from multiple charges can be exceedingly potent.

Setting multiple charges of an explosive compound or device is part of the Mechanics check made to place or construct the charge. The maximum size of an explosive charge or device is dictated by available materials, common sense, and the GM's discretion.

ENCUMBRANCE

The encumbrance rating of the explosive device or one charge of explosive compound.

PRICE

The price for a single explosive device or for one charge—or one kilogram—of explosive compound. An (R) next to the price means that the item is restricted and cannot be purchased on the open market.

RARITY

The item's rarity before modifiers (see page 164 of the **Age of Rebellion** Core Rulebook).

BLAST RADIUS

Explosive compounds and devices deal damage to everything and everyone in their blast radius, which is measured like a weapon's range. Most charges, especially shaped charges, have a blast radius of engaged, but more potent explosives have a wider area of effect. If a device contains numerous charges, GMs may increase the blast radius if they see fit.

The use of explosive compounds and devices requires a Mechanics check. Unless otherwise stated, the difficulty of the check is **Easy (◆)**, and increases by one per additional charge. ✡ scored on the check increases the damage dealt by the explosion by one per ✡. Failure typically means that the device was improperly built or deployed and either detonates but fails to damage its intended target or is a dud and fails to detonate at all. Explosives do not have a critical rating, and they deal personal-scale damage. Particularly powerful or purpose-built explosives deal planetary-scale damage (see **Starships, Vehicles, and Scale** sidebar on page 236 of the **Age of Rebellion** Core Rulebook).

TYPES OF EXPLOSIVE COMPOUNDS AND DEVICES

A dizzying array of explosive compounds and devices are in use throughout the galaxy. If not used properly, though, they can be as dangerous to the wielder as they are to enemy targets.

BARADIUM

Baradium is, quite possibly, the most volatile and dangerous explosive compound in the galaxy. Most commonly employed as the active compound in Class-A thermal detonators, baradium is a synthetic compound that expels intense heat and irradiated particles when detonated. It is not often seen in field demolitions due to its capricious nature, but often baradium charges are employed to level enemy bases and scuttle ships.

If the user generates ▽ when setting up a baradium charge, it detonates immediately, dealing the charge's damage (base plus additional damage) to everything in the current blast radius. Anything engaged with the charge when it detonates should add +50 to any subsequent critical injury or critical hit rolls on **Table 6–10: Critical Injury Result** or **Table 7–9: Critical Hit Result**, in the **Age of Rebellion** Core Rulebook, pages 231 and 258, respectively.

DETONITE

Detonite is one of the galaxy's most common and easily acquired explosive compounds. It is an extremely stable, putty-like substance that can be quickly formed into any shape and has numerous civilian and military applications. Detonite is typically sold in fist-sized blocks and requires an electrical charge to detonate. The compound can be detonated remotely by comlink or detonator, or the detonation can be set with a timer.

FLEX-5 DETONITE TAPE

Created and sold by Merr-Sonn, Flex-5 is an easy-to-use demolitions device designed to destroy small or lightly armored objects. It consists of a bulky roll of thick adhesive tape three centimeters wide and fifty meters long wound around a polycarbonate reel. The tape is, essentially, highly processed detonite that will stick to nearly any surface thanks to its built-in adhesive. Like detonite compound, Flex-5 tape requires an electrical charge to detonate and can be set off either remotely or by a timer. Alliance Engineers often use Flex-5 to breach doors and destroy equipment such as computer banks or civilian airspeeders.

A single charge of Flex-5 is a strip roughly a meter long. Since it is extremely simple to use—any trooper who has ever fixed a picture to a barracks wall or to the inside of a footlocker can use the tape—the difficulty of using Flex-5 does not increase past **Easy (◆)** with additional charges.

TABLE 2-2: EXPLOSIVE COMPOUNDS AND DEVICES

Name	Base Damage	Additional Damage	Encum	Price	Rarity	Blast Radius	Special
Baradium charge	3 (planetary scale)	+1 (planetary scale)	2	(R) 750	5	Long (personal scale)	
Detonite	15	+10	2	50	2	Short	
Flex-5 Detonite Tape	5	+2	1	30	4	Engaged	
Fuel-Air Bomb	9	+10	3	150	2	Medium	Concussive 1, Knockdown
Shaped Charge	15	+5	2	500	4	Engaged	Breach 1, Vicious 1

FUEL-AIR BOMB

These bombs are simple explosive devices made from cylinders of compressed volatile gas, most commonly used for welding, heating buildings, and powering vehicles or generators. They tend to be extremely destructive thanks to the potential energy held in gas and the pressure under which the gas is kept. The cylinders often add a cloud of dangerous shrapnel to the already-destructive blast. A large-enough blast from one or a series of fuel-air bombs can level a building or destroy a starship. The downside is that, thanks to the volatility of the gasses, these devices are touchy; a careless bomb maker can easily make a fatal mistake while working with them.

A fuel-air bomb's Concussive value increases by one for every additional charge. ◈ on a check to set up this bomb means it immediately detonates, dealing its total damage to everything in its current blast radius.

SHAPED CHARGE

Shaped charges are specially designed demolitions devices intended for pinpoint destruction. Such devices consist of a sizable detonite charge enclosed in a cone-shaped plasteel casing. When the charge is detonated, the specially shaped casing focuses the force of the explosion in a small area, creating a powerful jet of fine plasteel particles and kinetic energy that can cut through the strongest materials. Shaped charges are typically used to destroy buildings and other structures by cutting through load-bearing and structural members. They can also be used to bore holes, destroy obstacles, and even create ersatz anti-vehicle mines.

Shaped charges have the Breach 1 and Vicious 1 qualities, both of which increase by one for every additional shaped charge used.

NEW ARMOR

Although they are not expected to fight on the front lines, most Engineers spend much of their careers in the line of fire. Like their infantry colleagues, they are issued various suits of armor and other protective gear to shield them from enemy fire, shrapnel, and other attacks. Unlike combat armor issued to other branches, these suits are often tailored specifically for the unique missions of Engineers. They can provide extra protection from impacts, explosions, and caustic chemicals from repair or research efforts; include integrated load-bearing gear or tool belts; or aid in explosives and ordnance disposal.

ALLIANCE ENGINEER'S HELMET AND VEST

Similar to helmets worn by civilian engineers and construction workers, an Alliance engineer's helmet is made of sturdy, lightweight, fiber-reinforced polycarbonate and fitted with a shock-absorbing gel liner. They can be equipped with an optional flexible visor to protect the face and eyes from flying debris. These helmets are usually worn in conjunction with similarly sturdy protective vests made of reinforced cloth. While such helmet and vests are perhaps not the most effective armor, they have been known to turn a blaster bolt or shrapnel from a grenade.

While wearing an Alliance engineer's helmet and vest, the character counts as having 1 rank (or one additional rank) in the Durable talent.

CRESHALDYNE EOD-MK II EXPLOSIVES DISPOSAL ARMOR

EOD-Mk II armor by Creshaldyne is one of the most popular explosives disposal suits in the galaxy. Made to Creshaldyne's exacting standards, the EOD-Mk II is a heavy, bulky, awkward suit of armor designed to protect an Engineer from blast, shock, and shrapnel while working with explosive compounds and devices. These suits are constructed of thick overlapping plates covered with reinforced polycarb mesh. They also include extra integrated hard plates backed by ballistic gel pads at the knees, groin, chest, and elbows. A tall, stiff collar of gel-backed hard plates covered

TABLE 2-3: NEW ARMOR

Name	Defense	Soak	Price	Encumbrance	HP	Rarity
Alliance Engineer's Helmet and Vest	0	1	75	1	0	1
EOD-Mk II Armor	0	4	5,300	8	0	6
Fabricators' Protective Gear	0	1	450	1	0	1
Pioneer Armor	0	1	200	2	1	4

by poly mesh protects the neck, and the head is protected by a sealed, full-face helmet. Like most bomb-disposal suits, the EOD-Mk II does not come with gloves in order to maximize an explosive ordnance disposal (EOD) trooper's dexterity and precision. While this gives the wearer maximum hand mobility, it leaves the hands and forearms unprotected from accidental blasts.

Due to its extremely thick padding and ponderous form, characters wearing EOD-Mk II armor lose their free movement.

CUSTOMIZATIONS

EOD-Mk II Upgrade Options: EOD-MK II suits lack any standard modification options, but can be upgraded with two valuable attachments. These attachments are integrated load-bearing gear and a data link for controlling EOD and demolitions remotes, such as the EOD-Mk IV (see page 50). As the suits are designed for these upgrades, neither takes up any hard points for the armor, but each upgrade can only be taken once.

Integrated load-bearing gear reduces the suit's encumbrance by 3, and costs an additional 700 credits with a rarity of 3. The data link allows the wearer to control a single EOD remote (see page 50, and costs an extra 300 credits with a rarity of 4.

FABRICATORS' PROTECTIVE GEAR

Worn by welders, machinists, tinkerers, and mechanics throughout the galaxy, fabricators' protective gear is a catchall term for a varied collection of heavy padded clothing. These outfits are designed to offer protection from industrial mishaps as well as combat explosions. Most come complete with a full coverall, heavy gloves, dark-tinted goggles or face mask, and a reinforced apron. While not as effective as real combat armor, they can still protect an individual from the blast effects from splinters and shrapnel.

This armor allows the wearer to ignore the effects of fires or acids of rating 1 or 2 (see page 228 of the **Age of Rebellion** Core Rulebook). It has a soak value of 3 against damage from weapons with the Blast quality, but only when that quality is activated and used to inflict damage on the wearer. It provides only 1 point of soak against all other damage that was not inflicted through that quality.

PIONEER ARMOR

Designed with the combat engineer in mind, pioneer armor consists of a rugged, reinforced jacket and trousers; sturdy boots with plasteel toe caps; gloves; and a modified engineer's helmet. The suit is reinforced with thick layers of ballistic polymer to provide extra protection to sensitive areas. What sets pioneer armor apart from normal padded armor is the suit's integrated load-bearing system. Composed of numerous adjustable loops, straps, hooks, and sealable pockets and an integrated tool belt, the armor distributes weight and provides easy access to tools and supplies in the field.

Pioneer armor increases a wearer's encumbrance threshold by three.

Pioneer Armor

NEW GEAR AND EQUIPMENT

As a starfighter is to a pilot or a rifle to an infantryman, so tools are to an Engineer. The number of specialized tools made for and used by the many talented members of the Alliance Corps of Engineers is truly staggering. From powered shovels to droid brain scanners, for every job undertaken by Alliance Engineers there is a proper tool.

BUILDING, CONSTRUCTION, AND CARRYING EQUIPMENT

While many might assume Alliance combat engineers focus primarily on demolition and destruction, many of these soldiers spend much of their time in construction and building. There are always new barracks and landing pads to be assembled, as well as existing ones in need of battlefield repairs.

FOAMCAST

Foamcast is the commonly used term for a type of quick-setting aerosol foam found in construction and building maintenance. It comes in a tall can with a trigger-activated applicator, and a long, narrow tube provided with each can allows for precision application. When sprayed into a crack, dent, hole, or other space, foamcast expands and then quickly hardens. Once dry, a foamcast patch is nearly indistinguishable from its surroundings and has all the strength and wearability of plascrete. Foamcast can also be poured into molds to make light obstacles and temporary shelters.

Foamcast adds □ to checks to repair structures and vehicle hulls. The GM may spend ⚙ on such checks to indicate the foamcast dispenser can is depleted. A can of foamcast can be made into an improvised explosive with a **Hard (◆◆◆) Mechanics check**. When used in this way, a can of foamcast has the following profile: Mechanics; Damage 4; Critical 5; Range (Short); Blast 4, Ensnare 4, Inferior, Prepare 2. ▼ on the Mechanics check means the can ruptures and covers the user in foamcast.

MODEL 40 FIELD REPULSOR HOIST

The Model 40 field repulsor hoist began life as a field-expedient (aka jury-rigged) vehicle maintenance lift designed by Alliance Army mechanic Lidiah Alexakis. It is a simple device that uses small, low-output repulsors to lift a broken-down vehicle so that it can be moved, towed, and repaired more easily. The first field repulsor hoist (FRH) was little more than a handful of mismatched repulsor coils mated to some magnetic work clamps and controlled by a homemade control box. It soon spread to motor pools and bases throughout the sector as Sgt. Alexakis worked to perfect it. Eventually, after coming to the attention of Alliance Military R&D, the final version of the device was put into production as the Model 40.

Production hoists consist of a set of six fist-sized lifting units that contain a repulsor coil, a power cell, and either a powerful magnet or a multi-adhesive pad. The lifting units are packed into a shock-resistant, environmentally sealed carrying case along with a handheld control unit. To use the Model 40, an engineer simply attaches the lifting units to a vehicle or machine. Using the control unit, the trooper can move or lift the vehicle safely and effortlessly.

The Model 40 can lift a vehicle as large as silhouette 4 up to two meters off the ground. When suspended, the vehicle can be pushed, pulled, or rotated (slowly) in any direction via an Athletics check with a difficulty equal to the vehicle's silhouette.

PSF MK III POWER FENCE

Power fences are specialized shield emitters designed to provide perimeter protection for civilian and military installations. Power fences all have a field generator at their heart. Similar to shield generators found on starships, power fence generators produce a wall of energy that prevents objects and energy beams from passing through it. Each generator is hooked up to a series of thin durasteel amplifier pylons with flared stresscrete bases that come in heights of up to five meters. Once activated, the generators produce walls of crackling, translucent, blue-white energy that extend between the pylons, creating a solid barrier. Power fences are typically flanked with an alloy or plascrete gate, vehicle obstacles, and weapon emplacements to provide perimeter security at both Alliance and Imperial military installations.

TABLE 2-4: BUILDING, CONSTRUCTION, AND CARRYING EQUIPMENT

Item	Price	Encum	Rarity
Foamcast	25	1	2
Model 40 Field Repulsor Hoist (set of 6)	550	3	6
PSF Mk III Power Fence	10,000	10	7
Tool Belt	500	3	5

The PSF Mk III power fence by DefenStar Ltd. is a popular small-scale power fence perfect for defending small platoon or company-sized installations. It comes complete with a high-output PF.L-99 Barricade power fence generator and twenty amplification pylons, each four meters tall.

Power fences can be destroyed by either attacking the energy walls with ion weapons or by attacking the amplification pylons with regular energy or slugthrowing weapons. When attacked, power fences have the following profile: Defense 2, Armor 1, Wound Threshold (pylons) 15, Strain Threshold (energy wall) 20.

TOOL BELT

Tool belts come in a variety of styles tailored to specific jobs. While they vary wildly in construction, size, and layout, they all have a number of basic features in common. Basic tool belts have multiple pouches, loops, hooks, and straps for carrying necessary tools and materials such as nails, bolts, gloves, tape, marking pens, and other items an Engineer needs at hand on a job site. Unlike bulky toolboxes, tool belts carry only the necessities. Users each typically have their own unique way of organizing their belt.

The wearer counts as having a tool kit (see page 198 of the **Age of Rebellion** Core Rulebook).Once per encounter, the wearer may draw a tool from the tool belt as an incidental.

MODULAR BASE STRUCTURES

Delvin Constructs, a construction supply company based in the Corporate Sector, is best known for its line of affordable and surprisingly durable prefabricated structures. Designed for use in industrial, commercial, and military applications, their modular base structures use Delvin's patented Lockslab system. Easily stored and transported, the Lockslabs making up each structure are built from lightweight durasteel alloys, stresscrete, foamcast, and other light but sturdy materials. While not as durable as proper bases, they are more affordable and easier to set up. Even the most inexperienced troops can bolt or snap them together with a minimum of tools and effort.

Modular base structures are sold in a number of different patterns, from hangars and motor pools to command centers and barracks, and they are highly customizable using the various interior and exterior fitting kits sold by Delvin. In addition, Delvin sells environmental adaptation kits that seal and protect base structures against adverse environmental and atmospheric conditions. They require an external power connection and come complete with hookups for external utilities.

Setting up one modular base structure requires an **Easy (◆) Athletics check** and roughly 2 hours of narrative time.

Delvin sells hundreds of modular structure models to customers across the galaxy, from civilian explorers to colonial governments and more. The Alliance Military forces most commonly use the following models:

- **COM C-52 Modular Command Center:** A center can hold roughly twenty depending on its configuration, and grants the occupants □ on Computers, Leadership, and Vigilance checks. Only one command center can be purchased per base.
- **HNG F-304 Modular Hangar/Motor Pool:** These facilities usually take the form of simple buildings with an open floor area; a large, lockable bay door wide enough for vehicles to easily move through; and two smaller entry doors. They can hold a number of vehicles with a combined silhouette of 12 and no single vehicle larger than silhouette 4. Each also includes a full set of mechanics' tools (allowing characters to perform Mechanics checks to heal droids or repair vehicles or starships without penalty), and an oil bath for droids. When used to repair starships or vehicles stored inside, the character repairs 1 additional hull trauma or 2 additional system strain on a successful check.

  If purchased multiple times, they can be used as separate vehicle storage facilities. Alternatively, up to two additional units may be combined together with the original one to increase the silhouette limit by 10 per additional unit (although the maximum single vehicle size remains at silhouette 4).
- **MILBAR F-221 Modular Barracks:** Modular barracks come in many configurations for easy tailoring to a unit's specific needs. The F-221 model is a medium-sized building made to hold a platoon-sized unit and that unit's equipment. The barracks include a large common area; smaller rooms for offices, lounges, and refreshers; climate control; and an environmental sealing system proof against chemical and biological attacks.

TABLE 2-5: DELVIN CONSTRUCTS MODULAR BASE STRUCTURES

Item	Price	Rarity
COM C-52 Command Center	2,750	2
HNG F-304 Hangar/Motor Pool	4,200	2
MILBAR F-221 Barracks	2,100	3

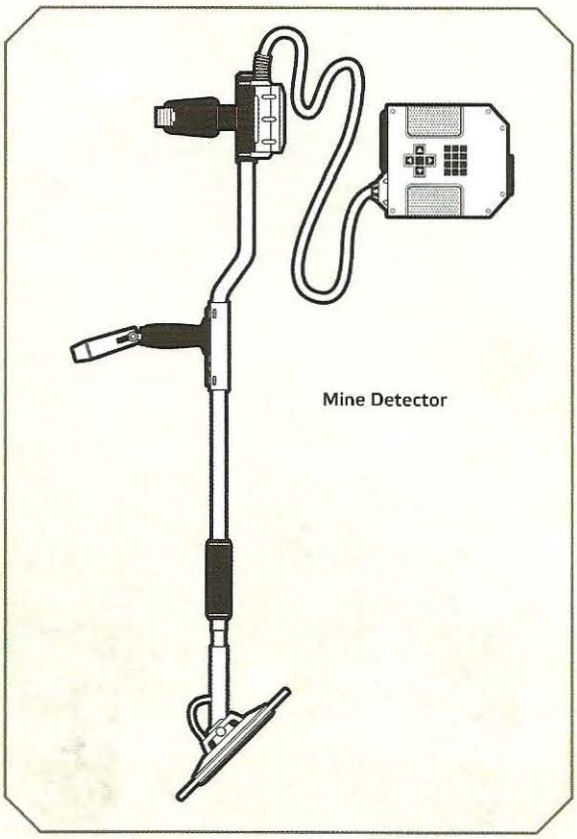
SURVEILLANCE AND SCANNING DEVICES

Alliance Engineers use a variety of devices in the field to detect enemy actions, vehicles, and operatives. Outside of combat, they also use these devices to aid construction efforts in actions that can be at least as valuable as battlefield operations in sustaining the fight against the Empire.

MINE DETECTOR

Mine detectors are specialized handheld scanners designed to locate buried or concealed anti-personnel and anti-vehicle mines. The simplest mine detectors are sensitive metal detectors that use a magnetic field to locate mines. More advanced models use technologies including ground-penetrating radar, ultrasound emitters, chemical sniffers, and the like.

Using a mine detector to locate concealed mines requires a **Hard (◆ ◆ ◆) Computers** or **Average (◆ ◆ ◆) Vigilance check** with appropriate modifications for environmental conditions such as weather, flora, rough terrain, or the composition of the ground. On a successful check, all mines and other explosive devices within medium range are revealed to the user.



Mine Detector

TABLE 2-6: SURVEILLANCE AND SCANNING DEVICES

Item	Price	Encum	Rarity
Mine Detector	350	1	4
SE-90 Scanner	675	1	6
Shipboard Systems Scanner	145	1	4
Surveyor's Equipment	700	6	8

SE-90 STRUCTURAL ENGINEERING SCANNER

The SE-90 from CryonCorp is ubiquitous in construction and engineering. Roughly the size of CryonCorp's EnhanceScan general purpose scanner, the SE-90 is designed for inspecting existing structures. Using an SE-90, an engineer can determine the materials used to build a structure and see through walls to the hidden structures within. It can detect stress fractures and weak points, concealed armor and reinforced sections, conduits, hidden spaces, and the like.

Using an SE-90 requires an **Average (◆ ◆) Computers check** modified according to construction materials and environmental interference per the GM's discretion. A character who succeeds can see through walls or bulkheads up to short range until the end of the encounter or the scanner is moved.

SHIPBOARD SYSTEMS SCANNER

Even the smallest, simplest starship has a staggering number of computer-controlled on-board systems. A shipboard systems scanner is used to connect to specific systems aboard a starship to properly diagnose any problems or failures. A typical scanner is the size of a common datapad. Once jacked into a shipboard system—a fire control computer, for example, or an on-board diagnostic computer—the scanner can read any error codes, trace circuits, and even detect pre-failure states.

A shipboard system scanner removes ■ from checks to remove system strain from starships and vehicles.

SURVEYOR'S EQUIPMENT

The first step in building anything on a planet is a good land survey, so most Alliance engineers are trained in equipment to aid in this task. Basic surveyor gear is often little more than a laser measurement system for calculating distance, macrobinoculars, a device for determining the position and movement of stars, a length of chain, and a compass. More advanced sets include various ground and terrain scanners, survey remotes, specialized hand tools, seismic recorders, and all manner of esoteric equipment.

Surveyor's equipment adds ☐ ☐ to a character's Perception checks when determining locations on a planet's surface, measuring distances, plotting settlements or bases, and creating detailed planetary maps.

TOOLS AND ELECTRONICS

Engineers are often judged by their tools, especially in the eyes of fellow Engineers. Some are especially skilled in improvising or jury-rigging tools as needed, a useful trait in forward combat positions where replacement tools might be impossible to find.

"BREAKER" HEAVY HYDROSPANNER

Built by Regalis Engineering, the Breaker is a massive, long-handled hydrospanner nearly a meter long. It is built of heavy reinforced alloys and has a forged, hydraulic-assisted head that can be adjusted to fit most common fasteners. The long handle allows for the application of extra leverage on a stuck fastener, and the tool's sturdy build prevents stripping, warping, and breaking. Most field mechanics keep at least one Breaker in their toolbox and use it for more than just snapping off bolts and reattaching plating.

Using a Breaker adds an automatic ◐ to Mechanics checks. When used as a weapon, a Breaker heavy hydrospanner has the following profile: Melee; Damage +2; Critical 4; Range (Engaged); Cumbersome 3, Disorient 1, Inaccurate 1.

DEMOLITIONS TOOL KIT

An essential part of any explosive ordnance disposal (EOD) trooper's gear, this kit is small (roughly thirteen centimeters long closed) and constructed of nonreactive, nonconductive materials. When it is unfolded, myriad specialized tools designed for working with explosives are revealed. A typical version contains a pair of pliers, cutters for both stranded and fuse wire, a cap crimper, multiple cutting blades, an electrical crimper, and a blasting cap crimper. In addition, many of them feature extensions that function as small hammers, carbon scrapers, bit drivers, detonite punches, and various other demolitions-related implements. While this item is not as comprehensive and effective as a full EOD tool kit, it still provides the essential tools needed to properly and safely work with explosive devices and compounds in a small and convenient package.

A demolitions tool kit counts as a tool kit (see page 198 of the **Age of Rebellion** Core Rulebook) for checks involving preparing, setting, or defusing explosives. When using it for these checks, the wielder may spend ◐ ◐ ◐ ◐ to remove ▽.

DRAXTON DF-15 MEDIUM-YIELD FUSION GENERATOR

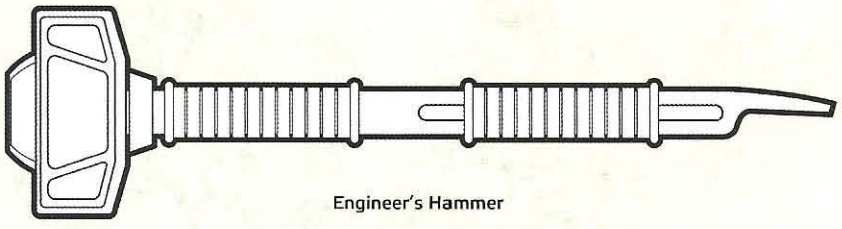
The DF-15 is a small fusion generator designed to power worksites or small buildings. It is a small cube roughly half a meter square with a number of universal power couplings on each face. The unit is surrounded by a sturdy frame made of bent alloy tubing that provides protection and handles for easy carrying. It is lightweight, quiet, and efficient and provides clean, stable power for up to ten years.

As a maneuver, a character may use a DF-15 to recharge an energy weapon or device that has run out of power or ammunition in the manner of an extra reload/power pack (see page 197 of the **Age of Rebellion** Core Rulebook).

ENGINEER'S HAMMER

An engineer's hammer is an all-purpose construction and demolitions tool. It has a meter-long, reinforced plasteel haft capped at one end with a heavy sledgehammer head and at the other with a prybar. It is typically used to breach doorways, destroy walls, pull down fixtures, and generally destroy structures by hand. It can also, in a pinch, be used as a melee weapon, a common occurrence with Alliance engineering units.

Using an engineer's hammer adds ☐ ☐ to any checks made to build or demolish structures. When used as a weapon, it has the following profile: Melee; Damage +3; Critical 5; Range (Engaged); Cumbersome 3, Disorient 1, Knockdown.



Engineer's Hammer

TABLE 2-7: TOOLS AND ELECTRONICS

Item	Price	Encum	Rarity
"Breaker" Heavy Hydrospanner	250	3	2
Demolitions Tool Kit	400	4	3
DF-15 Fusion Generator	550	4	4
Engineer's Hammer	350	2	2
EOD Kit	400	4	5
Merr-Son VX-A Intelligent Toolbox	2,500	3	8
Pioneer Squad Tool Kit	4,000	25	5
Powered Entrenching Tool	625	5	4
Vibro-Pickaxe	650	5	3

EXPLOSIVE ORDNANCE DISPOSAL (EOD) KIT

Disarming and disposing of explosive compounds, devices, and military-grade ordnance is a tricky business. It requires steady nerves, immense skill, and the proper tools. An EOD kit is perfect for such efforts, as it contains tools expressly designed for this dangerous line of work. A kit typically contains a specialized demolitions multitool, a small hand scanner, a borescope with a holographic display, and various hand tools and cutting implements. All of the items in an EOD kit are constructed of nonreactive, nonconductive materials to prevent the generation of static electricity or sparks that could set off explosive devices and compounds. Many Engineers and EOD troopers augment their basic kit with a handful of EOD remotes (see page 50), a powerful engineering scanner, and various other tools to assist them in their work.

An EOD kit adds automatic ↻ ↻ on any checks made to detect and disarm or otherwise neutralize explosive compounds and devices.

MERR-SONN VX-A INTELLIGENT TOOLBOX

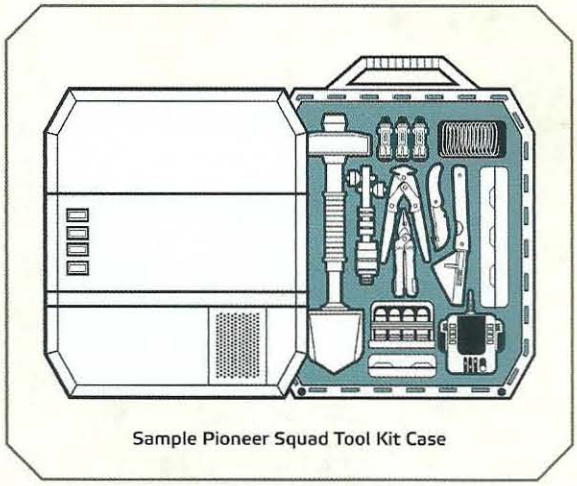
Produced by Merr-Sonn, this rigid backpack contains a suite of tools and portable supplies. The backpack also contains two built-in, multi-jointed arms that respond to the wearer's verbal commands. With a simple order, they can hand the wearer tools, hold equipment, and reorganize tools once the user is done with them, thus freeing up engineers to more quickly repair vital battlefield weapons and vehicles.

The MX-M counts as a tool kit (see page 198 of the **Age of Rebellion** Core Rulebook). Additionally, it reduces the time required for repairs, crafting, and other Mechanics-related tasks by 5.

PIONEER SQUAD TOOL KIT

A pioneer squad tool kit is a collection of gear essential for land-clearing and building-construction efforts. Packed into the six impact-resistant carrying cases is a variety of tools and gear that aid Alliance combat engineering squads in the construction of fighting positions, vehicle and infantry obstacles, ports, bases, and airfields. A standard complement includes shovels, axes, prybars, picks, vibrosaws, powered fastener drivers, collapsible ladders, repulsor hoists, glow rods, high-powered work lights, laser distancers and levels, climbing and rappelling gear, machetes, a portable power generator, and various safety gear.

The tools and equipment included in a pioneer squad tool kit adds □ □ on checks made to clear land, build structures, set up obstacles, set up or disable explosives, or engage in other construction or engineering tasks in the field.



Sample Pioneer Squad Tool Kit Case

POWERED ENTRENCHING TOOL

Essentially a small folding shovel at the end of a short plasteel haft containing a powerful pistoning mechanism, this tool can be used to forcefully dig holes and trenches as well as level areas for construction. The serrated blades cast into the sides also allow it to slice through heavy brush and obstacles. It's rare for a combat engineer not to possess at least one of these extremely versatile tools.

A character using a powered entrenching tool gains automatic ✲ on checks to build structures.

VIBRO-PICKAXE

Vibro-pickaxes are heavy-duty tools used for excavation and demolition. Common throughout the galaxy, these tools have a meter-long reinforced polycarbonate haft capped by a strong forged plasteel head. The two-sided head of the tool features a long, curved pick on one side and a broad, flat horizontal blade on the other. While they are excellent tools for general construction, vibro-pickaxes can also be used as weapons in an emergency.

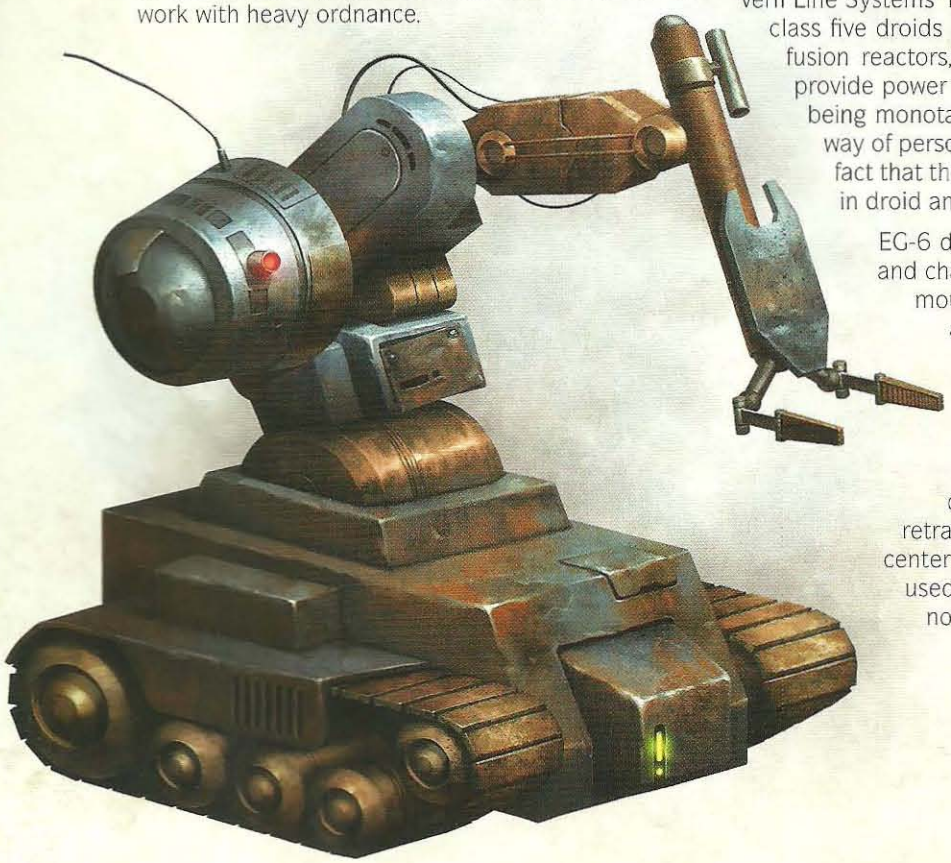
A vibro-pickaxe requires two hands to use and adds automatic □ to checks involving breaking rocks, ground clearing, and similar activities. When used as a weapon, it has the following profile: Melee; Damage +2; Critical 2; Range (Engaged); Cumbersome 4, Pierce 3, Sunder, Vicious 1.

DROIDS AND REMOTES

Few branches of the Alliance Military rely on droids and remotes more than the Corps of Engineers. From tiny surveying remotes to brilliant research droids, these ubiquitous automatons work side by side with their organic colleagues to bring down the Empire.

BT-SERIES ORDNANCE DROID [RIVAL]

Produced by Baktoid Fleet Ordnance, these sturdy droids toil away in military hangars and motor pools, loading, unloading, and maintaining ordnance and ordnance delivery systems. Anything from common shoulder-fired missile tubes to sophisticated starship proton torpedo launchers lies within their purview. They are programmed with an exhaustive knowledge of the various specialized information required to work with heavy ordnance.



These droids are very simply and sturdily constructed, with a tapering, rectangular, slab-sided body covered in thick ferroceramic armor. Their powerful arms can extend to three meters and are equipped with broad, grasping claws. Three smaller, retractable arms with dexterous fingers are mounted in the droid's chest for delicate work or tool manipulation.

Most BT-series droids, especially those that receive regular maintenance and memory wipes, have a very stiff and businesslike attitude. BT droids that develop personalities tend to be cavalier and jocular, with a daredevil, risk-taking attitude—especially when dealing with explosives—that makes their colleagues extremely nervous. Some BT-series droids in military service with the Alliance are programmed with the skills to perform explosive ordnance disposal duties and serve in various combat engineering units.

BRAWN	AGILITY	INTELLECT	CUNNING	WILLPOWER	PRESENCE
3	1	3	1	1	1

SOAK VALUE	W. THRESHOLD	M/R DEFENSE
7	15	0 | 0

Skills: Gunnery 1, Mechanics 2.
Talents: None.
Abilities: Droid (does not need to breathe, eat, or drink, and can survive in vacuum and underwater; immune to poisons and toxins).
Equipment: Built-in tool kit, built-in ordnance loading computer (adds □ to checks made to work on ordnance delivery systems or with explosive devices or compounds).

EG-6 POWER DROID [MINION]

Veril Line Systems' EG-6 units are the most common class five droids in the galaxy. Essentially walking fusion reactors, these droids were designed to provide power wherever it is needed. Thanks to being monotask droids, they have little in the way of personality. This is exacerbated by the fact that these droids can only communicate in droid and computer languages.

EG-6 droids have a squat, bipedal form and chassis reminiscent of two ziggurats mounted together at the base. They are surprisingly heavily armored and shielded. A busy control panel full of switches, light power couplings, and a handful of sensor lenses makes up what passes for a face. They do possess a small, meter-long retractable manipulator arm in the center of their front panel; it is rarely used, though, and many owners have no idea the droids have them.

TABLE 2-8: DROIDS AND REMOTES

Item	Price	Rarity
BT-Series Ordnance Droid	(R) 13,500	6
EG-6 Power Droid	3,800	2
EOD-Mk IV Remote	(R) 500	6
GT-Series Construction Droid	17,500	4
RH-Series Research Droid	11,000	8

These droids carry a medium fusion reactor good for recharging vehicles or providing power to small buildings or installations. They are also equipped with a powerful sensor suite that includes a spectrometer, a multi-spectral scanner, and a power diagnostics package that allows them to diagnose and repair power systems.

Skills (group only): Computers, Mechanics.
Talents: None.
Abilities: Droid (does not need to breathe, eat, or drink, and can survive in vacuum and underwater; immune to poisons and toxins).
Equipment: Built-in DF-15 fusion generator (see page 47), spectrometer, multi-spectral scanner, manipulator arm, power diagnostics package (removes ■ to checks made to remove system strain from vehicles or starships).

EOD-MK IV EXPLOSIVES DISPOSAL REMOTE [MINION]

EOD-Mk IV remotes are produced by Industrial Automaton for use in construction, demolitions, and explosive ordnance disposal (EOD) applications. These small, spherical remotes are designed to be operated from afar via a datapad that allows a user to maneuver the remote into tight spaces and see through its array of multi-optic sensors. They are equipped with two manipulator arms and a built-in EOD tool kit that an operator can use remotely to disarm explosive devices. An on-board demolitions scanner can detect explosive compounds and devices to assist the operator in locating hidden demolitions items. They are also equipped with a small demolitions charge to remotely detonate an explosive device should it be impractical or too difficult to disarm. While they are usually operated by a qualified EOD or demolitions operator, EOD-Mk IV remotes can operate autonomously, traveling in groups with preprogrammed orders.

Skills (group only): Mechanics, Perception, Vigilance.
Talents: None.
Abilities: Droid (does not need to breathe, eat, or drink, and can survive in vacuum and underwater; immune to poisons and toxins), Silhouette 0.
Equipment: Demolitions scanner (add □ to checks made to locate explosive compounds or devices), built-in EOD tool kit (see page 48), controlled demolition device (as an action, the remote can detonate a single explosive device at engaged range, destroying the remote and the explosive and inflicting damage as per the explosive's normal rules).

GT-SERIES CONSTRUCTION DROID [RIVAL]

These burly-looking class five droids from Veril Line Systems are the latest in a long line of construction droids dating back to the ancient AM-Mk II used in the mid-Republic era. They stand two meters tall and have broad shoulders, a narrow waist, and powerful legs and arms that are packed with an on-board suite of construction tools.

GT-series droids are relatively smart. Their construction and engineering programming allows these droids to carry out all common functions on a construction site, from basic labor to planning, problem solving, logistical tasks, and supervising other construction droids. They can even interface with VLS's I-C4a combat construction droid (see page 56) and are often used to replace that machine's organic crew.

These droids are overall quietly competent, going about the business of following orders and carrying out construction plans with little fuss. Those that have developed personalities, such as the ones that serve with Alliance engineering units in the field, enjoy working with organics. On a job site, they are quiet and focused, but off the clock they tend to be garrulous and occasionally didactic.

Skills: Computers 2, Mechanics 3, Perception 1.
Talents: Natural Tinkerer (once per session, may reroll any one Mechanics check).
Abilities: Droid (does not need to breathe, eat, or drink, and can survive in vacuum and underwater; immune to poisons and toxins).

Equipment: Fusion cutter (Melee; Damage 5; Critical 3; Range [Engaged]; Breach 1, Burn 3, Sunder, Vicious 3), built-in construction tools (counts as a tool kit), I-C4a droid interface programming suite.

RH-SERIES RESEARCH DROID [RIVAL]

RH-series research droids are a small-run series of science droids produced by Cybot Galactica. A variant of the company's 2R-series medical droid, they were designed to act as a combination research assistant and walking database for field scientists on research missions. Only a few thousand of these droids were produced, as they proved unpopular in the scientific community. Most of those produced are still active, though. They are commonly found working in far-flung laboratories carrying out experiments that are too dangerous for organics or assisting in the same. Occasionally, they can even be found leading biological, anthropological, or archaeological field research.

RH-series droids stand just shy of two meters tall, with a basic humanoid chassis covered in thick, protective plasteel plates. Their hands are packed with various manipulators, tools, probes, lights, and other small devices that allow the droids to carry out numerous scientific and research functions. They have a flat, oval-shaped head dominated by a single curving sensor window that resembles a helmet visor. RH-series droids are relatively agile and surefooted for droids, and they require little maintenance to keep running.

These droids have a reputation for reliability—both mechanical and personal—while working in the field. They are detail oriented, are often work-obsessed, and can be fussy or develop various compulsive behaviors if they go too long between memory wipes. Alliance R&D makes use of many RH-series droids, as do many freelance scientists and scholars the Alliance employs to discover new planets and make contact with new species.

Skills: Computers 2, Knowledge (Core Worlds) 2, Knowledge (Education) 3, Knowledge (Lore) 2, Knowledge (Xenology) 3.
Talents: Natural Scholar (once per session, may reroll any one Knowledge check).
Abilities: Droid (does not need to breathe, eat, or drink, and can survive in vacuum and underwater; immune to poisons and toxins).
Equipment: Built-in science database (adds automatic ◔ to Knowledge checks and adds automatic ◔◔ when assisting with a Knowledge check in addition to the standard assistance benefits).

NEW WEAPON ATTACHMENTS

The Alliance wages a war of galactic scale, with consequences to match. The troops and operatives of the Rebellion need every advantage in their struggle. Engineers provide one such edge in the form of customized weapons. A faster shot or added punch can make the difference between life and death. As always, adaptability can give the Alliance an edge over the Empire, with its rigid protocols that bind its troops to their factory-standard blasters.

DROID BRAIN DETONATOR

Weapons manufacturers, combat engineers, and saboteage specialists are constantly inventing new triggers and detonators for explosive devices of all kinds, in order to provide for every conceivable situation. One of the most sophisticated and uncommon triggers makes use of an actual droid brain. Whereas timers, proximity detectors, and other common detonators are all effective within their narrow parameters, a droid brain is adaptable for nearly any situation or plan. A droid brain is able to abide by extremely specific trigger conditions and to follow complex instructions. For instance, users might instruct a detonite charge to wait thirty minutes after several specific individuals have entered a facility before igniting, or tell their frag grenade to avenge them should they fall in battle.

Droid brain detonators are intensely loyal, even by droid standards, but they tend to develop distinct personality quirks over their relatively short existences. Some are annoyingly chipper and enthusiastic, perhaps owing to additional layers of obedience programming, while others exhibit anything from childlike naivete to nihilistic moroseness. This attachment can be applied to any grenade or explosive device.
Models Include: CryonCorp D9 Demolitions Droid, SoroSuub XS-3 Intelligent Detonation System.
Base Modifiers: The explosive's detonator is controlled by a droid brain that can activate under any predetermined circumstances its owner dictates.
Modification Options: None.
Hard Points Required: 0.
Price: 1,000 credits.

DROID TARGETING SYSTEM

Although droids are most commonly thought of as autonomous mobile constructs, the advanced artificial intelligence of droid brains has been used in a variety of other applications for thousands of years. A specialized droid mind equipped with sensors and miniaturized gyromotors can improve the accuracy of even the most experienced sentient marksman.

Many soldiers look down on the use of such systems, while others find the vibrations as the droid subtly adjusts their aim to be frustrating, to say the least. Droid targeting systems are known for their often bossy and impatient personalities. This attachment can be applied to any personal ranged weapon.
Models Include: Baktoid Industries T-80 Droid Targeter, GoCorp "Surefire" Enhancement System.
Base Modifiers: Upgrade ability on Ranged combat checks made with this weapon once.
Modification Options: 1 Add □ to one Ranged combat check per encounter Mod, 1 Suffer 3 strain to remove ▽ from Ranged combat check Mod.
Hard Points Required: 3.
Price: 3,200 credits.

GRENADE CLING

While some anti-vehicle explosive devices and some concussion grenades are equipped with an electromagnetic clamp as a standard feature, such capabilities are rare among anti-personnel grenades. With the addition of an electromagnet, adhesive polymer, plastoid webbing, or any of a dozen other measures, nearly any grenade or bomb can be made to latch onto its target, preventing escape and ensuring its destruction. The attachment can be added to any grenade or explosive device.
Models Include: Merr-Sonn Munitions CN-55 EM Lock, SoroSuub STK-17 Demolitions Device.
Base Modifiers: The grenade immediately adheres to its target and an **Average (◆◆) Athletics check** is needed to remove it. Among other potential uses, this essentially means a target struck by the grenade cannot avoid the blast or throw it back at the attacker, regardless of any time-delayed detonation. At the GM's discretion, some types of surfaces may resist the adhesion.
Modification Options: 2 Increase damage by 1 to stuck target Mods, 2 Increase difficulty to remove adhered grenade once Mods.
Hard Points Required: 0.
Price: 70 credits.

PROXIMITY DETONATOR

Although certain models of mines include proximity detonators as standard, some desire this feature for grenades and other explosive devices. A proximity detonator adds an alternative trigger method: rather than detonating via a timer or on impact, the grenade only detonates when it detects the movement of a being or creature nearby. With the addition of a proximity detonator, a simple frag grenade becomes a deadly trap. A well-placed concussion grenade can incapacitate an entire squad of pursuing stormtroopers, giving Rebels better chances for escape. This weapon attachment can be applied to any grenade or explosive device.
Models Include: Merr-Sonn Model 8 Smart Trigger, SoroSuub Mk III Proximity Detonator.
Base Modifiers: The weapon detonates when a being or creature with a size of at least silhouette 1 comes within short or engaged range, as determined by the user when placed. At the GM's discretion, other sources of movement within range may cause the device to detonate.
Modification Options: None.
Hard Points Required: 0.
Price: 120 credits.

ORDNANCE IMPELLER

Over the millennia, tinkerers, weapon designers, and desperate fighters have come up with countless delivery systems for explosives, from missile tubes to combat droids. One less-popular approach that nonetheless endures among certain demolitions experts is the use of a modified grenade or detonite charge capable of self-propulsion. Such modifications are almost always unique, although certain small droids and other devices are a popular basis, despite manufacturer warnings. From a proton grenade with wheels to a hovering thermal detonator, these makeshift devices—when successful—allow unparalleled control of an explosive device from a considerable distance. This is generally achieved via a small holocam and remote-control unit, although the addition of a droid brain detonator can be exceedingly effective. This weapon attachment can be applied to any grenade or explosive device with an encumbrance value of 3 or less.
Models Include: Ghelrar Consortium Multipurpose Repulsor Unit, Rebaxan Columni MSE-6 Repair Droid (modified).
Base Modifiers: The explosive is able to move overland at roughly the rate of a character on foot. The listed price includes a holocam and remote-control unit, allowing for operation and detonation of the mobile explosive from up to extreme range, although intervening materials may decrease this distance. Any skill checks to operate the mobile explosive use Computers or Piloting (Planetary) (character's choice).
Modification Options: 1 Add ten-meter maximum altitude Mod.
Hard Points Required: 0.
Price: 500 credits.

TABLE 2-9: WEAPON ATTACHMENTS

Item	Price	HP	Rarity
Droid Brain Detonator	1,000	0	4
Droid Targeting System	3,200	3	5
Grenade Cling	70	0	2
Proximity Detonator	120	0	3
Ordnance Impeller	500	0	4

NEW ARMOR ATTACHMENTS

In the ceaseless race between arms and armor, often only customizations can provide a suit with the durability needed to stand up to the latest blaster models. For many Engineers, such modifications go far beyond simple protection, incorporating a broad range of functions to provide an edge on the battlefield.

AUTOMATED WEAPON MOUNTING

Used by elite special forces across the galaxy—and the occasional bounty hunter—an automated weapon mounting is a sophisticated pseudocybernetic that allows the user to fire a blaster or other handheld weapon while keeping both hands free, possibly for additional weapons. Automated harnesses are most commonly shoulder mounted, although a variety of models are available, some incorporating articulated appendages of up to a half meter in length. Sappers and combat engineers often find automated weapon mountings particularly useful, particularly when combined with a droid brain targeting system, as the mountings allow them to effect battlefield repairs without leaving themselves vulnerable. An automated weapon mounting may be activated by voice or neural link. For obvious reasons, these attachments are rarely seen outside of a battlefield, and they are outlawed on most worlds.

A weapon must also be modified in order to be armor-mounted, requiring one hard point.

Models Include: Mitrinomon Transports "Quicker Draw" Hands-Free Trigger, Neuro-Saav Technologies Mk II Self-Defense Harness.

Base Modifiers: Allows the character to mount a single Ranged (Light), Ranged (Heavy), or Melee weapon of encumbrance 3 or less (subject to the GM's discretion) on the character's armor. Once per encounter, the character can spend a maneuver to make a combat action with this weapon without using his hands or arms. The difficulty of combat checks made with the mounted weapon are upgraded once.

Modification Options: 1 Add ■ to combat checks instead of increasing difficulty Mod, 2 Increase allowable weapon encumbrance by 1 Mods.

Hard Points Required: 2.

Price: 3,000 credits (R).

DROID BRAIN DEFENSE SYSTEM

An extremely unusual upgrade generally reserved for powered armor suits, a droid brain defense system uses a full sensor suite to alert wearers to and help them avoid threats. The most basic models simply warn the user of threats and indicate ideal cover positions through a haptic interface or by voice. More advanced models incorporate a system of complex motors or even repulsor generators throughout the armor to literally throw the wearer out of the way of incoming fire. These droids often develop highly paranoid personalities, and their earnest attempts to protect their master even outside of combat can prove highly inconvenient.

Models Include: Arakyd Industries Mk III Guardian Droid, Czerka "Autoguard" Cybernetic Reflex Suite.

Base Modifiers: Increase armor's defense by 1.

Modification Options: 1 Increase defense by 1 when taking Guarded Stance maneuver Mod.

Hard Points Required: 3.

Price: 5,000 credits.

TABLE 2-10: ARMOR ATTACHMENTS

Item	Price	HP	Rarity
Automated Weapon Mounting	(R) 3,000	2	5
Droid Brain Defense System	5,000	3	6
Repulsor Pack	2,500	2	4
Utility Arm	2,000	2	3

REPULSOR PACK

While lacking the range and power of a true jetpack, a repulsor pack provides a reliable—and less terrifying—alternative for those new to the realm of personal flight devices. A repulsor pack allows for controlled descents from nearly any height, as well as hovering speeds of up to thirty-five kilometers per hour. Its name being something of a misnomer, a repulsor pack actually consists of a number of small, relatively low-powered repulsor lifts mounted to the user's torso and limbs. Although the sight of an experienced user gliding through the air is quite impressive, the learning curve is steep. Perhaps due to the importance of leg movement in most packs for controlling movement and speed, the devices are sometimes disparagingly called "jet pants."

Models Include: Mitrinomon Transports T-8 Repulsor Pack, Astralor Corp. Mk I Personal Repulsorlift System.

Base Modifiers: Allows the user to function as a speed 1, handling –1, system strain threshold 2 vehicle that can only operate in atmosphere and has the same silhouette as the operator. It has a maximum altitude of seventy-five meters, and the operator's Coordination skill is used for any relevant checks.

Modification Options: 1 Increase handling by 1 Mod.

Hard Points Required: 2.

Price: 2,500 credits.

UTILITY ARM

For some species, it's a mystery how humans and their ilk get by with only two arms. In fact, it's often said that the first armor-mounted utility arm was invented by a Dug Engineer, although another tale attributes its origin to a cybernetics manufacturer with a product surplus. Regardless of its origin, the utility arm is now a common tool for Engineers and technicians of all species. Mounted on a harness or suit of combat armor, a utility arm is a mechanical appendage similar in function to many cybernetic and droid arms and ending in a manipulating "hand." Although utility arms are most often used to increase workshop productivity, combatants of all kinds have found them useful on the battlefield.

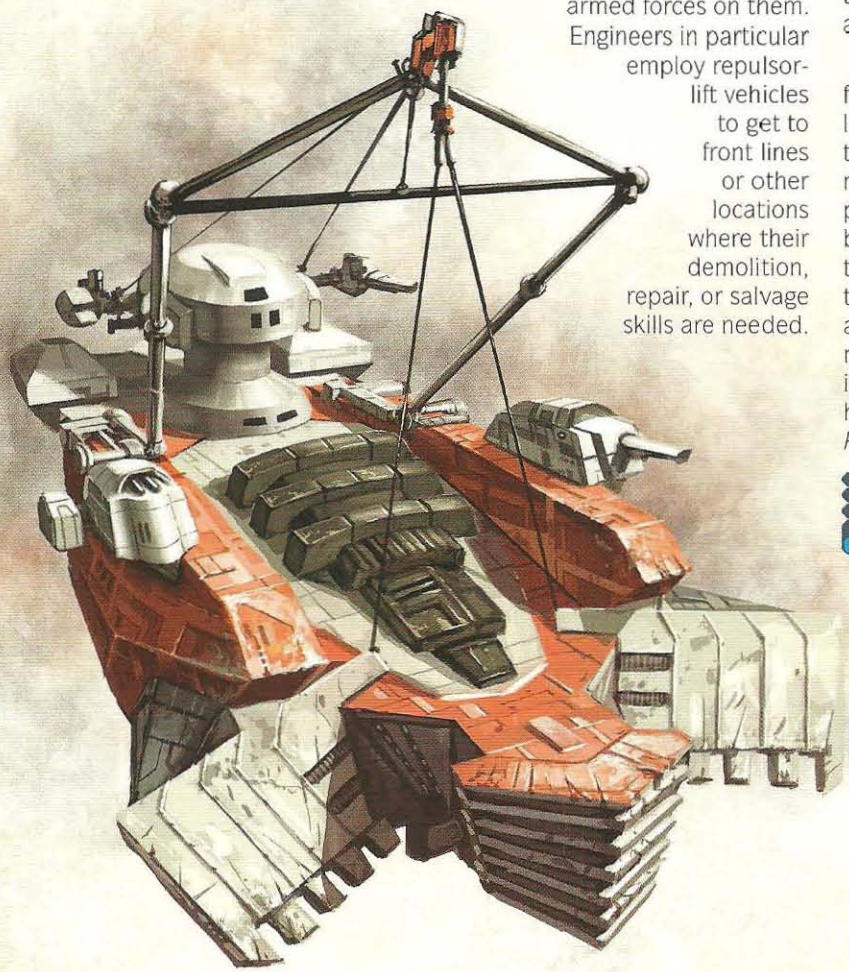
Models Include: Arakyd Industries Mk II Utility Manipulator, Crozo Industrial Products H4 "Handy" Auxiliary Cyber-Arm.
Base Modifiers: Provides the character with an additional mechanical arm that can function as one of the character's normal limbs, although it does not provide the character with additional actions or maneuvers. The utility arm adds ☐ to Mechanics checks and may modify other checks at the GM's discretion.
Modification Options: 1 Add ☐ to Mechanics checks Mod, 1 Spend 1 strain to gain an additional free maneuver per turn (character still may not perform more than two maneuvers) per turn Mod.
Hard Points Required: 2.
Price: 2,000 credits.

NEW VEHICLES

Alliance and Imperial combat engineering units field a handful of specialized engineering vehicles derived from fighting vehicles and civilian construction vehicles. These vehicles provide the Engineers with light armor support and heavy construction capabilities.

SPEEDERS

Speeders are perhaps the most common type of vehicle to be found on most planets, including among the armed forces on them. Engineers in particular employ repulsorlift vehicles to get to front lines or other locations where their demolition, repair, or salvage skills are needed.



T2-E *PETARD*-CLASS COMBAT ENGINEERING VEHICLE

Whereas the AT-CE (see page 56) is a construction vehicle that can do a bit of fighting, the T2-E *Petard* is a fighting vehicle that can do a bit of construction work. Based on the popular T2-B repulsor tank chassis, the T2-E was designed to provide combat engineering units with heavy siege capabilities while doubling as a light secondary engineering vehicle. Like the T2-B, the *Petard* is a light, relatively maneuverable, low-profile repulsor tank with an angular hull.

Instead of the T2-B's quad laser turret, the *Petard* features a turret-mounted demolition gun that fires large-caliber, fin-stabilized, shaped charges designed to destroy fortifications and buildings. A forward-mounted fixed auto-blaster provides it with anti-personnel and light anti-vehicle capabilities. The auto-blaster can be switched out for a heavy flame projector for further anti-installation capabilities. In addition to the weapon systems, the vehicle is equipped with a handful of construction systems similar to those mounted to the AT-CE. An articulated blade for pushing and grading is mounted to the front of the vehicle's hull, and a single light tractor beam emitter gives the *Petard* light lifting and towing capabilities.

SILHOUETTE	SPEED	HANDLING	DEF. FORE/PORT/STARBOARD/AFT	ARMOR
3	2	-1	1 - - 0	3

HT THRESHOLD	SS THRESHOLD
14	12

Vehicle Type/Model: Repulsor Tank/T2-E *Petard*-class.
Manufacturer: Yutrane-Trackata.
Maximum Altitude: 3 meters.

Sensor Range: Short.
Crew: One pilot, one vehicle commander, one gunner.
Encumbrance Capacity: 20.
Passenger Capacity: 0.
Price/Rarity: 88,000 credits (R)/7.
Customization Hard Points: 2.
Weapons: Turret-mounted demolition gun (Fire Arc All; Damage 8; Critical 3; Range [Short]; Blast 8, Breach 4, Inaccurate 2, Slow-Firing 3, Vicious 2).

Forward-mounted auto-blaster (Fire Arc Forward; Damage 3; Critical 5; Range [Close]; Auto-fire) or forward-mounted heavy flame projector (Fire Arc Forward; Damage 4; Critical 2; Range [Close]; Blast 4, Burn 5; Slow-Firing 1, Vicious 2).

Forward-mounted light tractor beam emitter (Fire Arc Forward; Damage –; Critical –; Range [Close]; Tractor 2).

UEV-M1 MARAUDER ENGINEER SQUAD CARRIER

The Marauder engineer squad carrier by SoroSuub is a medium armored repulsorlift vehicle designed to carry a squad of twelve combat engineers and their attendant gear into the field with armor support. Developed from a line of SoroSuub light armored vehicles designed for police and security use, the Marauder has a long, tapering hull with a sloped front and a blunt aft with a drop-down loading and unloading ramp. The ventral surface of the hull is heavily armored and steeply angled to protect it from mines and other explosive devices, and the dorsal armor gives the vehicle respectable protection from infantry weapons, shrapnel, and light anti-vehicle weapons. A pilot and co-pilot operate the vehicle from a cramped, environmentally sealed cockpit, and the rear passenger compartment holds twelve humanoid-sized individuals on bench seats mounted to the inner hull.

Along with transporting combat engineers safely into the field, this durable vehicle can provide anti-personnel and light anti-vehicle support with its built-in weapon systems. Its standard load-out includes a forward-mounted fixed-position auto-blaster, a pintle-mounted heavy repeating blaster forward of the dorsal hatch, and a retractable turret-mounted rapid-fire concussion grenade launcher operated by the co-pilot. In addition, each side of the hull has firing ports from which the embarked personnel can fire their personal weapons in the case of heavy enemy activity.

Marauders are often outfitted with large, articulated excavator blades like those used on the T2-E and AT-CE, and an optional repulsor trailer can be towed to haul extra tools and engineering equipment.

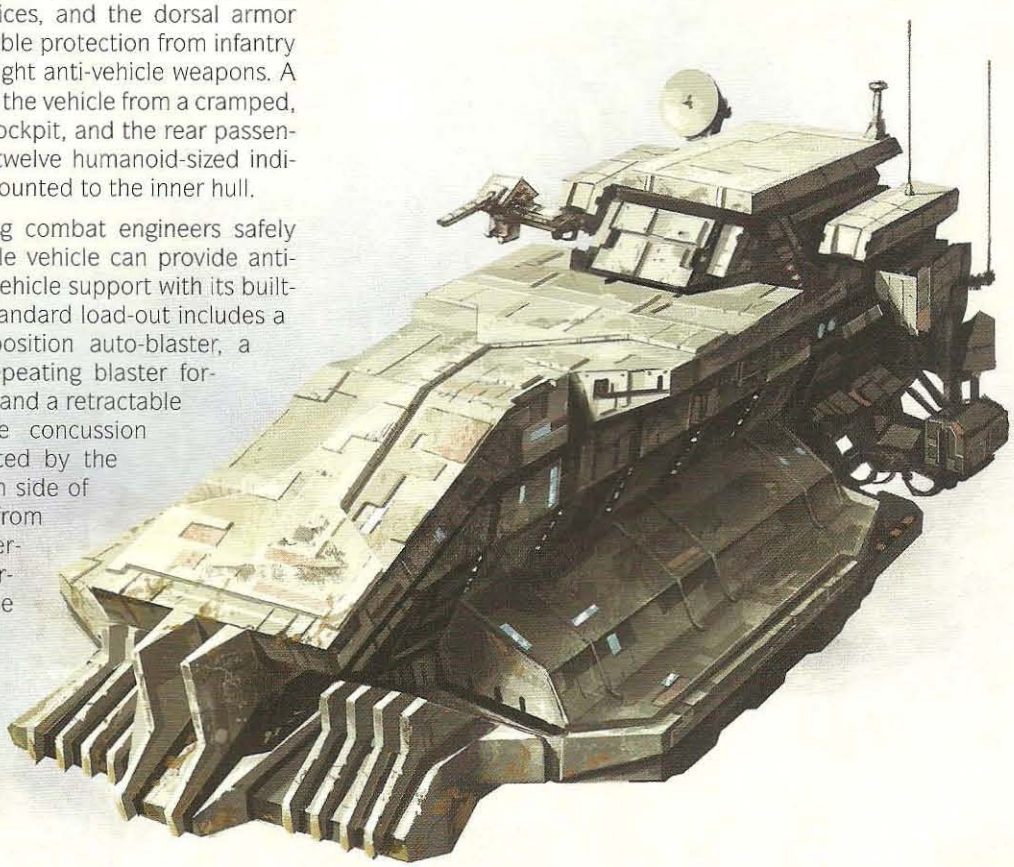
SILHOUETTE	SPEED	HANDLING	DEF: FORE/PORT/STARBOARD/AFT	ARMOR
3	2	+0	2 - - 0	5

HT THRESHOLD	SS THRESHOLD
15	8

Vehicle Type/Model: Armored Troop Carrier/UEV-M1 Marauder.
Manufacturer: SoroSuub.
Maximum Altitude: 3 meters.
Sensor Range: Close.
Crew: One pilot, one co-pilot.
Encumbrance Capacity: 60.
Passenger Capacity: 12 combat engineers.
Price/Rarity: 98,000 credits (R)/8.
Customization Hard Points: 2.
Weapons: Forward-mounted auto-blaster (Fire Arc Forward; Damage 3; Critical 5; Range [Close]; Auto-fire).

Dorsal heavy repeating blaster—this weapon's entire profile uses personal scale, not planetary scale (Fire Arc All; Damage 15; Critical 2; Range [Long]; Auto-fire, Pierce 2, Vicious 1).

Dorsal turret-mounted concussion grenade launcher—this weapon's entire profile uses personal scale, not planetary scale (Fire Arc All; Damage 10; Critical 4; Range [Close]; Blast 8, Breach 1).



TRACKED VEHICLES

Among some of the oldest components of locomotion in the galaxy, tracks and wheels still make more sense in some places than repulsorlifts and articulated mechanical walker limbs.

I-C4A COMBAT CONSTRUCTION DROID

The I-C4a is a smaller, militarized version of the massive I-C2 Civil-Industrial Droid. Produced by Veril Line Systems for the Imperial Corps of Engineers, it is an autonomous construction and fabrication droid. The I-C4a is a long, slow-moving, slab-sided vehicle propelled by a versatile articulated track system similar to the one found on Corellia Mining Corporation digger crawlers. Like that of its larger civilian cousin, the heart of the I-C4a is a powerful and versatile fabrication system consisting of a fusion furnace capable of producing slabs of building materials such as ferrocrete, stresscrete, armorplas, and plasteel from raw or recycled materials. The I-C4a is also equipped with dozens of lifting, tool, and fabricating appendages that allow it to clear land and build structures at a surprising rate.

An on-board droid brain programmed for construction and civil engineering controls the fabrication and construction system. In addition, two combat engineers ride along in an open-air cockpit to monitor the power, propulsion, and control systems.

The Imperial Army owns the majority of I-C4a units, officially classifying them as restricted military-grade materiel. As such, they receive regular memory wipes. Those units that have fallen into civilian or Rebel hands develop fast-talking, obsessive, often distracted personalities and speak in a dense mix of engineering jargon and scientific technobabble.

I-C4A COMBAT CONSTRUCTION DROID [RIVAL]

BRAWN	AGILITY	INTELLECT	CUNNING	WILLPOWER	PRESENCE
1	1	3	1	2	2

SOAK VALUE	W. THRESHOLD	M/R DEFENSE
-	-	0 | 0

Skills: Computers 2, Gunnery 2, Knowledge (Education) 3, Mechanics 2, Piloting (Planetary) 2.
Talents: None.
Abilities: None.
Equipment: None.

I-C4A COMBAT CONSTRUCTION DROID VEHICLE

SILHOUETTE	SPEED	HANDLING	DEF: FORE/PORT/STARBOARD/AFT	ARMOR
3	1	-2	0 | - | - | 0	2

HT THRESHOLD	SS THRESHOLD
25	15

Vehicle Type/Model: Droid-Operated Combat Engineering Vehicle/I-C4a.
Manufacturer: Veril Line Systems.
Sensor Range: Close.
Crew: None (droid operated).
Encumbrance Capacity: 150.
Passenger Capacity: 2 engineers.
Price/Rarity: 750,000 credits (R)/6.
Customization Hard Points: 1.
Weapons: Dorsal heavy repeating blaster—this weapon's entire profile uses personal scale, not planetary scale (Fire Arc All; Damage 15; Critical 2; Range [Long]; Auto-fire, Pierce 2, Vicious 1).

ADDITIONAL RULES

Tracked: Like all tracked vehicles, the I-C4A treats any terrain as if it were one step lower in difficulty.

Construction in the Field: The I-C4a can be used to fashion crude defense structures, fortifications, and other constructions at the GM's discretion even in the midst of battle. To do this, the onboard droid must make a **Hard (◆◆◆) Mechanics check**. Up to two characters aboard the vehicle can assist this effort, but anyone doing so (including the droid) can do nothing else each round while the droid attempts this check until the structure is complete or the effort is called off.

These structures provide cover for up to 20 characters that adds ■■ to Ranged combat checks made against them.

WALKERS

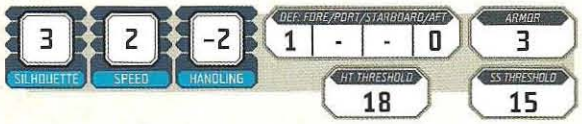
Though usually not as quick or versatile as speeders, walkers are reliable transportation for many engineering endeavors. Their ability to traverse a wide variety of terrain often makes them the only way to reach difficult locations, and their rugged nature means they can survive threats from both nature and enemies.

AT-CE COMBAT EXCAVATOR

The AT-CE combat excavator is another in Rothana Heavy Engineering's versatile walker series. Like its cousin the AT-EST exploration walker, the AT-CE is a low-slung, six-legged walker. Designed for use in construction and excavation, the AT-CE is a sturdy machine that performs exceedingly well in the rough-and-tumble conditions of a construction site. Its legs are heavily articulated and equipped with broad, four-toed feet for maximum stability. A forward, open-air tandem cockpit holds a pilot and a systems operator.

While the AT-CE is not designed to fight, as a combat engineering vehicle it has a number of defense systems. The sturdy frame is covered in remarkably heavy armor—ostensibly for deflecting falling debris, collisions, and explosions—that can easily turn a blaster bolt. It has only a single actual weapon system, a pintle-mounted heavy repeating blaster that can be fired by the systems operator to defend the walker from infantry and light vehicles.

The AT-CE has a wide variety of equipment. A pair of low-output light tractor beam emitters allows the crew to pick up and move equipment or lift items or building material into the air. A long, multi-jointed, hydraulic arm mounted to the back is equipped with a deep excavating bucket for digging holes and trenches. An articulated blade mounted to the front of the walker allows it to push soil and debris around, smooth out surfaces, and breach obstacles. The AT-CE also has a powerful beamdrill on a long, turret-mounted hydraulic arm in the center of its back that can drill through even the sturdiest, densest materials. In a pinch, a competent crew can use these tools as weapons to inflict shocking damage on troops, vehicles, and materiel.



Vehicle Type/Model: Walker/AT-CE.
Manufacturer: Rothana Heavy Engineering.
Sensor Range: Close.
Crew: One pilot, one systems operator.
Encumbrance Capacity: 15.
Passenger Capacity: 1.
Price/Rarity: 95,000 credits/6.
Customization Hard Points: 3.
Weapons: Dorsal heavy repeating blaster—this weapon's entire profile uses personal scale, not planetary scale (Fire Arc All; Damage 15; Critical 2; Range [Long]; Auto-fire, Pierce 2, Vicious 1).

Two hull-mounted light tractor beam emitters (Fire Arc All; Damage –; Critical –; Range [Close]; Tractor 2).

Beamdrill (Fire Arc All; Damage 10; Critical 4; Range [Close]; Breach 3, Inaccurate 3, Slow-Firing 1, Vicious 1).

Aft-mounted articulated excavator arm—this weapon's entire profile uses personal scale, not planetary scale (Fire Arc Aft; Damage 8; Critical 5; Range [Short]; Breach 2, Inaccurate 3, Knockdown, Slow-Firing 1).

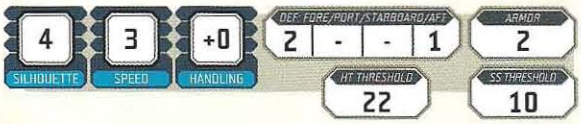
STARSHIPS

The Alliance uses a number of specialized vessels and stations in combat missions. These can be used to transport its forces to and from battles, and also to aid in maintaining and repairing the ships of the Rebel Fleet.

AINIK-CLASS SCIENTIFIC SURVEY VESSEL

SoroSuub's *Ainik*-class is a small survey vessel designed for remote scientific missions. Designed decades ago, these small and sturdy ships were named for the famous astronomer Renn Ainik. Popular with the galaxy's scientific community, the *Ainik* class is a long, broad, three-decked vessel with much of its interior given over to cargo holds, sensor arrays, and laboratory space. The top deck, which houses a lounge and meeting rooms, is covered in transparisteel, giving passengers an unparalleled view of the surroundings. The midships deck offers crew and passenger berthing, a galley, four modular laboratory spaces, and the flight deck. The bottom deck houses storage and engineering facilities.

As they are primarily survey vessels, *Ainik*-class ships are relatively lightly armed. They carry two quad laser turrets for self-defense, but largely rely on their shields and hyperdrives to survive hostile interactions. While their hulls are incredibly sturdy and they carry a respectable amount of armor, these ships' power systems have a poor reputation. Brownouts, burned-out equipment, fires, and electrical failures are distressingly common, especially in ships that have been in space for a long time.



Hull Type/Model: Survey Vessel/*Ainik*-class.
Manufacturer: SoroSuub.
Hyperdrive: Primary: Class 3, Backup: Class 12.
Navicomputer: Yes.
Sensor Range: Extreme.
Ship's Complement: One pilot, one co-pilot, two engineers/scientists.
Starfighter Complement: None.
Vehicle Complement: Two speeder bikes or one landspeeder.
Encumbrance Capacity: 150.
Passenger Capacity: 6.
Consumables: Six months.
Price/Rarity: 120,000 credits/7.
Customization Hard Points: 3.
Weapons: Dorsal and ventral turret-mounted quad laser cannon (Fire Arc All; Damage 5; Critical 3; Range [Close]; Accurate 1, Linked 3).

Forward-mounted light tractor beam emitter (Fire Arc Forward; Damage –; Critical –; Range [Close]; Tractor 2).

ADDITIONAL RULES

Research Labs: Characters add ☐ to Knowledge (Education) and Knowledge (Xenology) checks they make while in this vessel.

CAISSON-CLASS ENGINEERING TROOP CARRIER

A survivor of the Clone Wars, the *Caisson*-class is a heavy dropship designed to carry combat engineers and their equipment into action. A derivative of Corellian Engineering Corporation's CR-20 troop carrier, the *Caisson*-class is a tall, narrow, two-decked ship that strongly resembles CEC's *Consular*-class cruiser and YV-666 light freighter. Its aft is dominated by three massive ion engines that provide the blocky ship with surprising speed and agility. Directly below them is a reinforced boarding ramp for loading and unloading the ship. A blunt-faced flight deck rises from the forward section of the hull, and two small sponsons extend down the ship's sides, carrying its light weapons.

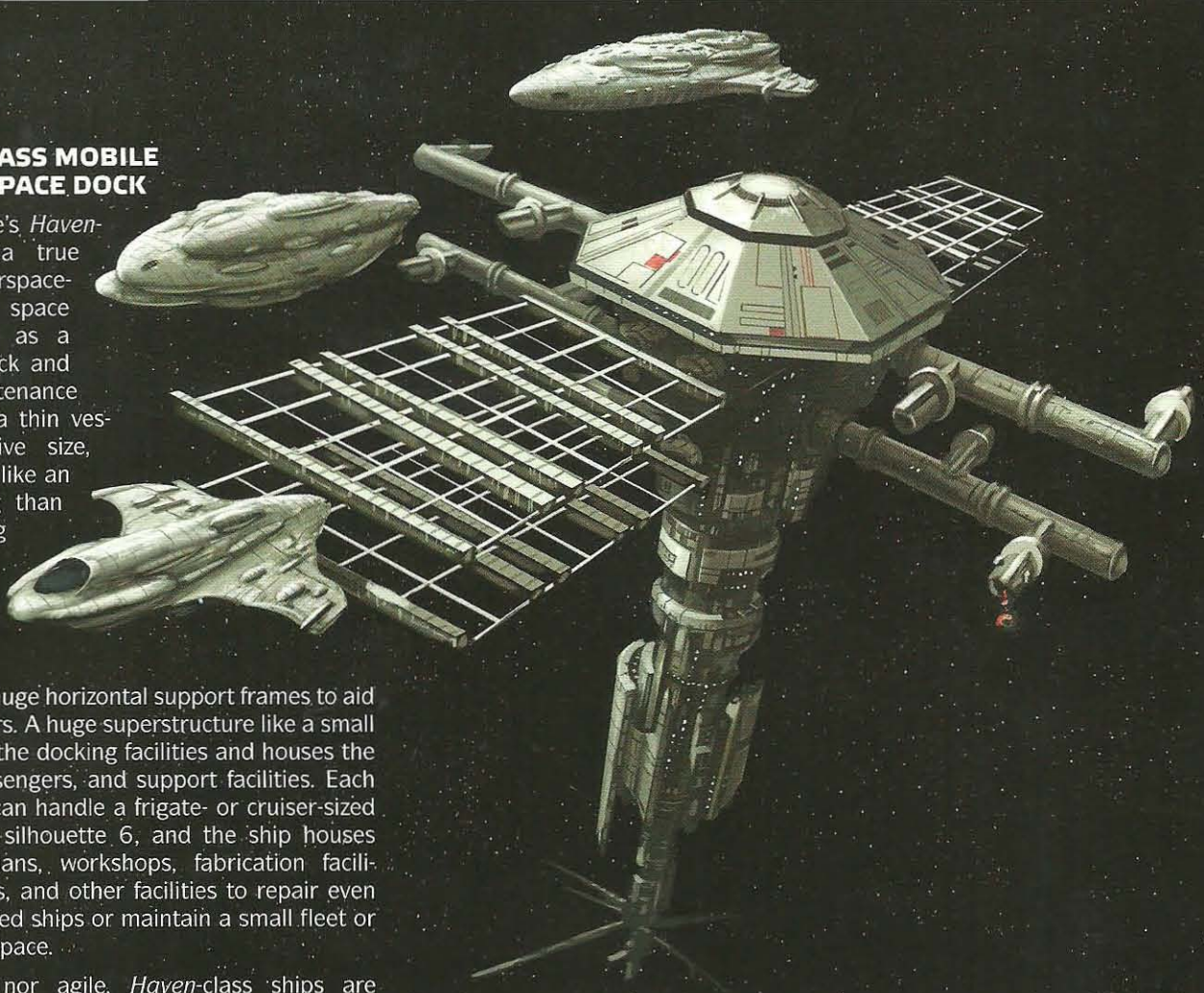
Like that of most troop carriers, the *Caisson*-class's interior is barren but cramped. The upper deck holds twenty combat engineers and their equipment, while the lower deck is designed to carry vehicles such as the UEV-M1 Marauder Engineer Squad Carrier, or a handful of speeder bikes or small construction vehicles. Few of these dropships survived the Clone Wars, and nearly all of them are currently in service with the Alliance Army. The Alliance Corps of Engineers is constantly on the lookout for these ships and their parts, as their age and the hard usage they are put to are slowly whittling away the Rebels' small fleet of these useful vessels.

SILHOUETTE	SPEED	HANDLING	DEF: FORE/PORT/STARBOARD/AFT	ARMOR
4	3	-1	1 - - 1	5

HT THRESHOLD	SS THRESHOLD
25	15

Hull Type/Model: Shuttle/*Caisson*-class.
Manufacturer: Corellian Engineering Corporation.
Hyperdrive: Primary: Class 3, Backup: Class 12.
Navicomputer: Yes.
Sensor Range: Short.
Ship's Complement: One pilot, one co-pilot, one comms operator.
Starfighter Complement: None.
Vehicle Complement: One UEV-1 Marauder Combat Engineering Vehicle (see page 55).
Encumbrance Capacity: 110.
Passenger Capacity: 40 combat engineers.
Consumables: Two months.
Price/Rarity: 190,000 credits/6.
Customization Hard Points: 2.
Weapons: One port and one starboard ventral turret-mounted twin medium laser cannons (Fire Arc Port, Forward, and Aft or Starboard, Forward, and Aft; Damage 6; Critical 3; Range [Close]; Linked 1).
One aft-mounted twin auto-blaster (Fire Arc Aft; Damage 3; Critical 5; Range [Close]; Auto-fire, Linked 1).

HAVEN-CLASS MOBILE SPACE DOCK



Rendili StarDrive's *Haven*-class ship is a true rarity: a hyperspace-capable mobile space dock. Designed as a traveling dry dock and starship maintenance facility, each is a thin vessel of impressive size, appearing more like an elegant building than a starship. Long docking arms with many ports project from the vertical main hull, along with huge horizontal support frames to aid in drydock repairs. A huge superstructure like a small city rises above the docking facilities and houses the ship's crew, passengers, and support facilities. Each docking facility can handle a frigate- or cruiser-sized vessel of up to silhouette 6, and the ship houses enough technicians, workshops, fabrication facilities, laboratories, and other facilities to repair even seriously damaged ships or maintain a small fleet or battle group in space.

Neither fast nor agile, *Haven*-class ships are extremely vulnerable to attack. While they have thick armor and a respectable weapons load-out, their weapons are more anti-fighter and anti-boarding weapons than for assault. Due to their vulnerability, these ships are typically escorted by one or more frigates to provide combat support, or are part of a larger battle group and rely on the strength of the other ships to defend them. Although they often have starfighters aboard from visiting ships that can be scrambled in an emergency, *Haven*-class ships are not set up to launch and recover fighters; doing so can be a chaotic and dangerous affair. Few of these valuable vessels exist, and almost all of them are in the Imperial Navy. The Alliance Navy currently owns two: a fully operational ship called *Sanctum*, and a heavily damaged recent capture that was known in the Imperial Navy as *Reserve*, currently undergoing repair and refit at an Alliance-controlled shipyard.

SILHOUETTE	SPEED	HANDLING	DEF: FORE/PORT/STARBOARD/AFT				ARMOR	HT THRESHOLD	SS THRESHOLD
7	2	-3	2	2	2	2	6	100	75

Hull Type/Model: Mobile Space Dock/*Haven*-class.
Manufacturer: Rendili StarDrive.
Hyperdrive: Primary: Class 3, Backup: Class 16.
Navicomputer: Yes.
Sensor Range: Long.
Ship's Complement: 4,500 officers, engineers, and enlisted crew.
Starfighter Complement: None.
Vehicle Complement: Numerous shuttlecraft and short-range runabouts.
Encumbrance Capacity: 30,000.
Passenger Capacity: 8,000.
Consumables: Two years.
Price/Rarity: 38,000,000 credits/9.
Customization Hard Points: 10.
Weapons: Six port and six starboard turret-mounted twin light turbolaser batteries (Fire Arc Forward and Port or Forward and Starboard; Damage 9; Critical 3; Range [Medium]; Breach 2, Linked 1, Slow-Firing 1).

Thirty port and thirty starboard turret-mounted quad laser cannons (Fire Arc All Port or All Starboard; Damage 5; Critical 3; Range [Close]; Accurate 1, Linked 3).

Ten hull-mounted heavy tractor beam emitters (Fire Arc All; Damage –; Critical –; Range [Short]; Tractor 6).

ADDITIONAL RULES

Massive 2: When making an attack targeting this starship, the critical rating of any weapons used counts as 2 higher.

MK IX ORBITAL MAINTENANCE DEPOT

Orbital maintenance depots are an important part of any space-going navy's logistical chain. Often anchored along heavily trafficked hyperspace routes or in sectors that are home to fleets or battle groups, they serve as far-flung homes away from home for the vessels and crews in their spheres of influence.

Core Worlds Engineering's Mk IXs are among the largest and most well-equipped maintenance depots currently in use. They are massive cylindrical stations festooned with docking arms, dry dock facilities, and boarding airlocks and studded with countless sensor and communications arrays. These floating shipyards can service nearly any ship currently in service, up to and including gigantic vessels like the Imperial Navy's *Executor*- and *Praetor II*–class ships. Most of the Mk IX series' production and fabrication facilities are automated to improve speed and efficiency, but the stations still have a large crew of technically trained personnel and other personnel who maintain the station and service incoming ships. The depot's guest facilities are comfortable but far from luxurious; crews tend not to linger, as they resemble military barracks and facilities rather than resorts.

These stations are impressively armored and shielded, and are also equipped with a respectable weapons load-out to defend against hostile ships. They also have hangar facilities and are commonly assigned a squadron of gunboats for patrol and anti-fighter duties. These stations are rarely attacked, however, since they are often surrounded by powerful warships waiting to dock or fresh off a refit, and these can provide all the defensive firepower that a station's crew could hope for. Both the Alliance and the Imperial Navy have a handful of these giant stations in service, and they are all priority targets for destruction.

Hull Type/Model: Space Station/Mk IX OMD.
Manufacturer: Core Worlds Engineering.
Hyperdrive: None.
Navicomputer: None.
Sensor Range: Long.
Ship's Complement: 20,000 officers, enlisted crew, and technicians.
Vehicle Complement: Six gunboats, six shuttles, numerous runabouts.
Encumbrance Capacity: 35,000.
Passenger Capacity: 22,000.
Consumables: Two years.
Price/Rarity: 22,000,000 credits/7.
Customization Hard Points: 9.
Weapons: Eight port and eight starboard turret-mounted light turbolasers (Fire Arc Forward, Aft, and Port or Forward, Aft, and Starboard; Damage 9; Critical 3; Range [Medium]; Breach 2, Slow-Firing 1).

Four port and four starboard turret-mounted twin medium laser cannons (Fire Arc Forward, Aft, and Port or Forward, Aft, and Starboard; Damage 6; Critical 3; Range [Close]; Linked 1).

Four port and four starboard turret-mounted twin light ion cannons (Fire Arc Forward, Aft, and Port or Forward, Aft, and Starboard; Damage 5; Critical 4; Range [Close]; Ion, Linked 1).

Ten hull-mounted heavy tractor beam emitters (Fire Arc All; Damage –; Critical –; Range [Short]; Tractor 6).

ADDITIONAL RULES

Massive 3: When making an attack targeting this vehicle, the critical rating of any weapons used counts as 3 higher.

Depot Resources: Reduce difficulty of repair and construction checks performed using this station by one.

NEW VEHICLE ATTACHMENTS

While the Empire has the manufacturing resources of a galaxy at its beck and call, the Rebel Alliance must make do with much more limited resources. Many of the vehicles and ships in its fleet and hangars are older than the Empire itself. Even those originally intended for military use have been rebuilt and repaired so many times that they may scarcely resemble their original forms. Of course, where others might see a lamentable state of affairs, Engineers see boundless opportunities for customization and experimentation.

ARMORED COMPUTER CORE

It's a tragic fact that all too often, the brave members of the Alliance fail to return from a mission. Nevertheless, even a failed mission can provide useful data for the cause and prevent such deaths in the future. In such cases, an armored computer core provides an opportunity for the Rebellion to recover a record of the mission from even the most devastated wrecks. Layers of laminamium plating, redundant data backups, and sometimes even an ejection failsafe ensure the survival of a computer core storing astrogation data, a record of ship activity, and—assuming mission leaders fulfill their duty—a log of the mission. Should the worst come to pass, the armored computer core can survive the ship's complete destruction, and is practically indistinguishable from the debris.
Models Include: Astralor Corp. "Black Hole Box" T-11 Armored Databank, Loronar Corporation "Sole Survivor" Backup Computer Core.

TABLE 2-11: VEHICLE ATTACHMENTS

Item	Price	HP	Rarity
Armored Computer Core	1,100	0	4
Autopilot Droid Brain	6,000	1	5
Overcharged Shields	4,000	1	4
Plasma Drill	4,000	1	4
Reinforced Armor Plating	4,000/ silhouette	2	2
Repulsorlift Boost	1,000/ silhouette	1	4
Sensor Baffler	(R) 8,000	1	6

Base Modifiers: Incorporates a computer core that records flight and system data and backs up any logs or records entered into the ship's computer. The computer core remains intact even if the ship suffers a "vaporized" Critical Hit result.
Modification Options: None.
Hard Points Required: 0.
Price: 1,100 credits.

AUTOPILOT DROID BRAIN

Although droids are used for countless tasks across the galaxy, many sentients remain uneasy with the idea of putting their lives in the circuits of a droid pilot. Statistically, droids are much less likely to make potentially disastrous mistakes; however, this has done little to deter the stigma. A droid brain installed in a craft can also make an effective co-pilot, which some individuals find easier to accept.
Models Include: Arakyd Industries F-9 Integrated Pilot, Industrial Automaton Overwatch Co-pilot.
Base Modifiers: Droid brain can perform Piloting checks for a vehicle or starship with a Piloting (Planetary) or Piloting (Space) skill of 2 and an Agility of 0 (if unassisted, it rolls ◆◆ for Piloting checks); may be summoned via a beckon call.
Modification Options: 2 Increase droid brain's Piloting (Planetary) and Piloting (Space) skills by one Mods.
Hard Points Required: 1.
Price: 6,000 credits.

OVERCHARGED SHIELDS

Most shield arrays have the potential to generate a stronger field. However, this has the potential to damage the array itself, leaving the ship with no protection. Despite the risks, some shipboard engineers modify the shields to allow for increased output with only a few moments' tinkering in the midst of combat, banking on the extra defense to allow them to escape or defeat the enemy before suffering the repercussions.
Models Include: Kuat Drive Yards Shield Boosters, Outlaw Tech Ray Shield Enhancement.
Base Modifiers: Once per encounter as an action, a character can attempt an **Average (◆◆) Mechanics check** to overcharge the ship's shields, adding two points of defense to all defense zones for one round, plus an additional round for each ✪ on the check. However, if the check generates ⚙ ⚙ or ▽, then the overloaded shields immediately burn out and cease functioning until repaired.
Modification Options: None.
Hard Points Required: 1.
Price: 4,000 credits.

PLASMA DRILL

Originally developed for asteroid mining, a plasma drill is a superheated auger capable of boring through virtually any material, given enough time. Although a plasma drill is rarely effective as a weapon, commanders and engineers alike have recognized myriad other uses for a vehicle mounting one, from tunneling under enemy fortifications to excavating hidden underground facilities for their own use.
Models Include: Pretormin Environmental Mk II Thermal Auger, Ghelrar Consortium "Worldsplitter" Plasma Drill.
Base Modifiers: The vehicle can tunnel through solid rock and most metals at a speed of 1, but its handling is permanently reduced by 2 due to the substantial additional weight and bulk. The vehicle's operator can make a Piloting (Planetary) check to employ the plasma drill as a weapon with the following profile: Fire Arc Forward; Damage 9; Critical 4; Range (Close); Breach 3, Inaccurate 2, Slow-Firing 1, Vicious 1.
Modification Options: 1 Increase handling by 1 Mod.
Hard Points Required: 3.
Price: 4,000 credits.

REINFORCED ARMOR PLATING

Over the millennia, manufacturers and shipwrights across the galaxy have developed countless esoteric methods of protecting a vehicle or starship, from deflector screens to proton shields to ion diffusers. Still, for many Alliance engineers, it's hard to beat extra durasteel layers for cost-effective protection.
Models Include: Various custom models.
Base Modifiers: Increase the vehicle's armor by 2. Reduce its handling by 1.
Modification Options: 2 Increase hull trauma threshold by 3 Mods.
Hard Points Required: 2.
Price: 4,000 credits per point of starship or vehicle silhouette.

REPULSORLIFT BOOST

Some obstacles are insurmountable for even the most versatile and powerful of factory-standard repulsor field generators. For tinkerers willing to ignore a whole host of safety warnings—and likely a few laws—most repulsor field generators can be pushed past factory limits, allowing for a drastic, if brief, increase in lift. Such an increase can allow the vehicle to "jump" over objects, gaps, or enemy vehicles or to higher ground. Some field mechanics have even been known to add specially overcharged repulsor fields to vehicles that rely on a different method of propulsion, just in case. More than one team of Rebel soldiers has escaped certain death in the face of overwhelming Imperial opposition, thanks to just such modifications.

Models Include: Numerous custom variants.

Base Modifiers: Once per encounter as an incidental, the pilot may have the vehicle suffer 2 system strain in order to double its maximum altitude (or gain a maximum altitude of 100 meters, whichever is lower) and increase its maximum speed by 1 for 1 round. This can be used only on vehicles of silhouette 4 or less.

Modification Options: 2 Increase duration by 1 round Mods.

Hard Points Required: 1.

Price: 1,000 credits per point of vehicle silhouette.

SENSOR BAFFLER

Using combination of broad-spectrum transmissions and low-power targeted ion pulses, a sensor baffler confuses enemy sensors, preventing them from determining a ship's precise location. A sensor baffler is not a passive system, but actively confuses enemy sensors, providing contradictory and nonsensical readings. As a result, the system does not truly conceal the ship's presence from enemies. Even inexperienced sensor operators can easily see that something is interfering with their system, but they are frustratingly unable to pinpoint the source. A sensor baffler does not include optical camouflage, and it has no effect on visible detection. Despite its shortcomings, a sensor baffler has lower power requirements and requires a less-sophisticated manufacturing process than a true cloaking device. This makes it an attractive alternative to those nearly unheard-of devices, and one available to a wider variety of ship types.

Models Include: Fabritech "Screamer" Omniband Broadcast Array, Sienar Intelligence Systems L4 Sensor Baffler.

Base Modifiers: When a vehicle's sensor baffler is active, upgrade the difficulty of checks to determine its location using sensors twice.

Modification Options: 2 Add ■ to Gunnery checks targeting the ship Mods.

Hard Points Required: 1.

Price: (R) 8,000 credits.

NEW VEHICLE WEAPONS

These items are new weapons that can be mounted onto starships or vehicles. Note that they do not replace existing weapons, but are extra weapons added to offer more firepower or combat flexibility. **Table 2–12: New Vehicle Weapons**, on page 63, details weapon profiles and lists the starship/vehicle silhouettes that are compatible with each weapon.

ELECTROMAGNETIC TOW CABLE LAUNCHER

While capital ships can rely on tractor beams to ensnare and immobilize targets, these weapons are not generally an option for smaller vessels and ground vehicles. For such vehicles, the closest approximation is often the tow cable launcher. This catchall term encompasses a number of different devices with similar function. The most common models incorporate an electromagnetic grapple and a length of durasteel cable fired by a hydraulic launcher.

Although these launchers were originally designed as tools rather than weapons, a number of desperate or inventive pilots have made use of these grapple launchers in combat over the years. Members of the Rebel Alliance are accustomed to making do with whatever tools they have at their disposal, and a number of non-combat vehicles sporting tow cables have seen use in battle. In fact, some commanders find the tactical uses for these tools versatile enough to specifically request their addition to combat vehicles.

Models Include: Prax Arms "Hangman" Harpoon Cannon, Merr-Sonn GX-3 Tow Cable Launcher.

Base Modifiers: See **Table 2–12: New Vehicle Weapons**, on page 63. If the Ensnare quality activates, a character on the target vehicle must make an **Average (◆ ◆) Piloting (Planetary** or **Space,** depending on the vehicle**) check** to free the vehicle (instead of an Athletics check as normal for the Ensnare quality). If the target is at least 1 silhouette value lower than the attacker and ⚙ ⚙ is generated on a failed check, the target is drawn 1 range band closer to the attacker.

Modification Options: None.

Hard Points Required: 1.

Price: 2,000 credits.

ION TORPEDO LAUNCHER

The rarely seen ion torpedo fills a specialized niche that a great many ship commanders and engineers overlook. Lacking the destructive potential of proton torpedoes while inflicting more substantial physical damage than other ion weapons, the ion torpedo might provide the perfect solution for a captain who wishes to end a battle quickly but still take the enemy vessel (mostly) intact.

TABLE 2-12: NEW VEHICLE WEAPONS

Name	Skill	Dam	Crit	Range	HP	Price	Rarity	Special	Compatible Silhouettes
Electromagnetic Tow Cable Launcher	Gunnery	–	–	Close	1	2,000	2	Ensnare 5, Knockdown, Limited Ammo 1	2–10
Ion Torpedo Launcher	Gunnery	10	3	Short	1	6,500	7	Blast 5, Breach 4, Guided 2, Ion, Limited Ammo 4, Slow-Firing 1	4–10
Repeating Ion Cannon	Gunnery	4	4	Close	1	6,000	6	Ion, Linked 4	3–10
Termite Torpedo Launcher	Gunnery	3	5	Short	1	(R) 10,000	8	Guided 3, Limited Ammo 3, Slow-Firing 1	4–10

An ion torpedo is designed to release a powerful energy pulse only after puncturing a ship's hull. Consequently, powerful deflector shields or thick armor can greatly mitigate the weapon's effectiveness. Still, a well-placed ion torpedo can hamstring nearly any ship, ensuring that this specialized ordnance sees continued use by the Alliance, particularly on sensitive missions to disable or capture experimental Imperial vessels.

Additional ion torpedoes cost 400 credits for a set of four.

Models Include: Taim & Bak Mk I Ion Torpedo Tube, Kuat Drive Yards "Pacifier" Ion Torpedo.
Base Modifiers: See **Table 2–12: New Vehicle Weapons**.
Modification Options: None.
Hard Points Required: 1.
Price: 6,500 credits.

REPEATING ION CANNON

Although the repeating cannon is less powerful than other ion weapons, its high rate of fire can provide a great advantage when employed against close formations of starfighters or the point defense systems of capital ships. While each pulse carries a lesser charge, the overall energy requirements of a repeating ion cannon rival or exceed even the most powerful traditional ion cannons. As a perhaps ironic result, after ignoring an Engineer's warnings, a number of captains have found their own ship drifting helplessly alongside the disabled enemy, its systems overloaded and drained.

Models Include: Sienar Fleet Systems Mk III Cycling Ion Cannon, Oriolanis Defense Systems K5 "Ion Storm" Defense Battery.
Base Modifiers: See **Table 2–12: New Vehicle Weapons**.
Modification Options: None.
Hard Points Required: 1.
Price: 6,000 credits.

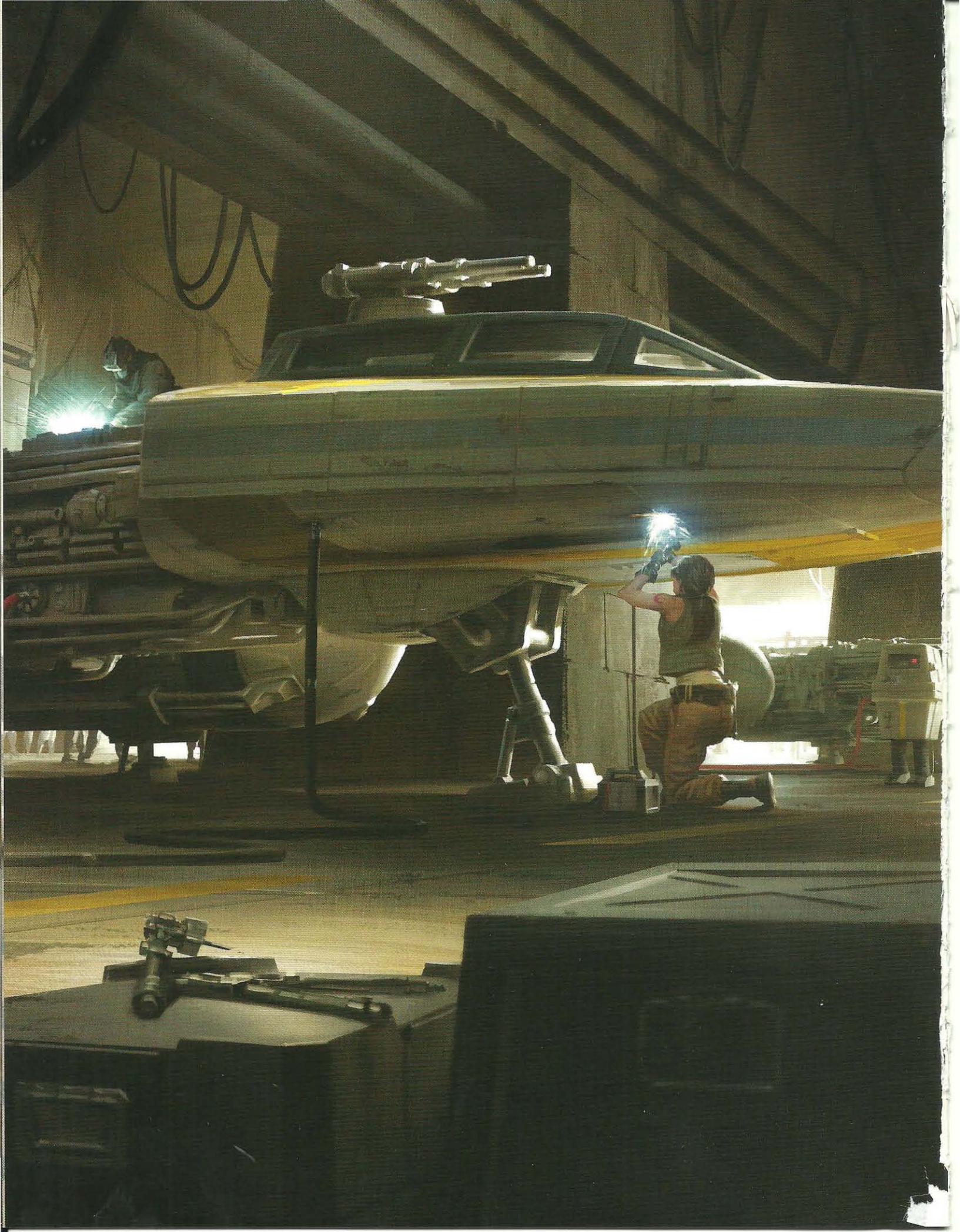
TERMITE TORPEDO LAUNCHER

Although unlikely to inflict significant damage upon initial impact, termite torpedoes are nonetheless among the most hated and feared weapons in the galaxy. Each torpedo houses dozens to hundreds of small, barely intelligent droids, variously known as termites, dismantlers, disassemblers, and a number of less savory names. After impact, the torpedo breaks open to release the droids. They scurry in all directions across the ship and use their laser cutters, magclaws, ion clamps, and other tools to burrow through the hull and attack ship systems. In short order, the droids can spread throughout a ship.

It can take weeks to clear an infestation—if the vessel survives that long. Many engineers serving with the Alliance (or aboard pirate crews) despise these weapons, as they make salvage difficult or downright impossible. On top of this, unsubstantiated rumors persist of termite droids lying dormant in salvaged systems, only to emerge and infect any vessel that inherits the affected parts.

Additional termite torpedoes cost 900 credits for a set of three.

Models Include: Arakyd Industries Dismantler Torpedo, Baktoid BT-30 Termite Droid Launcher.
Base Modifiers: See **Table 2–12: New Vehicle Weapons**. Additionally, after a ship is hit by a termite torpedo (whether or not it inflicts any hull trauma), for the remainder of the encounter, whenever crew perform a check while in the ship, the attacker can spend ⚙⚙ to have the ship suffer 2 hull trauma or system strain, and spend ▽ to inflict a Critical Hit on the ship. As an action, a character aboard the hit ship can perform a **Daunting (◆◆◆◆) Mechanics check** to repress the effects of the termite droids for 1 round. At the GM's discretion other skill checks can be used instead.
Modification Options: None.
Hard Points Required: 1.
Price: (R) 10,000 credits.



III

CRAFTING VICTORY

"Stop worrying about the shields!
I designed them myself, they'll hold!"

–Josiah Diar, First Engineer of *Alderaan Endures*

Engineers can be particularly enjoyable characters, as they often work in unique ways. Many are solitary individuals, more used to working with droids than with people. Interactions between Engineers can be quite interesting—especially when they differ on how to repair or create something. Character interactions when groups include Engineers can thus help give rise to memorable campaigns.

This chapter of **Fully Operational** offers GMs guidance for integrating Engineer characters into player groups. Players also gain additional uses of the Mechanics skill and suggestions on spending dice results from Engineering-focused checks.

Repair and construction are major responsibilities for Engineers, so this chapter includes GM guidance for undertaking such efforts in active combat situations and in environments ranging from deserts to urban environments to space. The Rebellion is always strapped for materiel, so players also gain ways to convert civilian vehicles and facilities for military use as well as to craft new vehicles and starships from scratch. Lastly, this chapter offers ideas for Engineering-themed campaigns and rewards to suitably challenge and recompense these characters.

INTEGRATING ENGINEERS

Technology powers galactic society, the Empire, and the Rebel Alliance. Keeping the endless and disparate equipment and machinery operating is vital to the success of everyone. This is true from the largest mechanized society to the smallest operational combat units and individuals. As such, Engineers usually have an important role to play in almost every Rebel assignment and operation, whether it is to build, repair, break, or destroy.

ENGINEER ORIGINS

Engineers' backgrounds are as varied as the equipment they design and work on. Generally speaking, they enter their engineering field via at least one of three typical pathways. Professional Engineers usually learn their trade through academics. Vocational Engineers learn primarily though formal or informal apprenticeships and practical applications. Tinkerers learn mostly through experience, and many stumble into becoming Engineers due to circumstances rather than through any planned career path.

The professional Engineers' academic approach takes years of higher education. Their training is built solidly on theory, mathematics, and formal instruction. While some Engineers concentrate on and explore the theoretical realm, most apply their knowledge to more practical pursuits through design and execution. The Scientist and Shipwright specializations are prime examples of this approach, though it can also apply to the Sapper and some types of Mechanics. Prior to joining the Rebel Alliance, Engineers with these specializations are likely to have worked in offices or industries that focused on the particular type of engineering they studied.

Vocational or apprenticed Engineers spend years learning the practical application of a type of engineering used in a specific trade. Some academic work may have been involved, but much of these Engineers' experience is from on-the-job training. Mechanics and Droid Specialists are likely to have had this kind of education. Sappers often learn their trade through military training programs that feature a healthy combination of classwork and field operations.

Tinkerers, hobbyists, and those who grew up in areas or social classes without access to formal education are the Engineers most likely to develop their skills almost entirely on the job. Essentially, they learn what they have to know for the task at hand, even if they don't fully understand the theory or specifics behind it. Some might learn from a family member. Others might be forced to work out how to accomplish a task simply to survive in harsh conditions on an isolated world. Some Engineers do not have the necessary educational access to easily learn their trade or skills. Saboteurs who must determine the best way to disrupt equipment or an operation on their own and in secret are one example of this. At the same time, plenty of Mechanics and Droid Specialists who are tinkerers start off working on their own gear or vehicles at a very young age.

Knowing how a character learned engineering skills is useful both for creating detailed backgrounds and for adding layers to an adventure or campaign. A character with a heavy academic background might have useful contacts spread throughout academia and industry. Such characters could call upon these as needed, or might find themselves contacted by old classmates, teachers, or even past rivals. Vocational or tinkerer Engineers who have worked on many vehicles or inside many facilities might gain a wide variety of contacts at different economic levels or in different social circles in a specific geographic area or segment of society.

ENGINEERING EXPERTISE

An Engineer may have a multitude of social, ideological, or other reasons to join the Rebel Alliance that have nothing to do with abilities or knowledge. However, it is likely that an Engineer's usefulness to the Rebellion hinges at least partially on technical skill. Within specific missions and adventuring parties, Engineers are probably present due to their specialized knowledge. Even when an Engineer's presence is required somewhere due to social or governmental connections, most Rebels expect Engineers to make use of their abilities there in a way that supports the ongoing battle against the Empire.

Some types of Engineers are a more natural fit for tasks common to Rebel teams clashing with the Empire. Mechanics and Sappers probably find themselves acting within their realm of knowledge much more often in this struggle than do Scientists or Shipwrights. Other types of Engineers might find it necessary to expand their training or at least figure out how to best adapt their skills to the current combat situation.

When creating new adventures, the GM should take into account what types of Engineers are active in the party. These characters should get regular opportunities to use their skills in some fashion. If their expertise is uncommon among those battling the Empire, the GM should have an idea of how they might contribute by adapting what they can do to the current situation, and allowing them to build upon it during the game session. The following are specific examples of potential uses for each specialization in the game.

DROID SPECIALIST

Though much maligned and often overlooked by the citizens of the galaxy, droids are a vital resource that the Rebellion must fully utilize in its scant workforce. There is never a shortage of droids to rebuild or repair, making Droid Specialists in demand throughout the Rebel Alliance. They may be assigned to almost any mission type, including starship crew duty, combat units, ordnance testing, and intelligence operations.

Given their focus, players of Droid Specialists expect regular opportunities to repair, modify, and even destroy droids. The GM must take this into account, because if an opportunity isn't granted, the player tends to seek one out, which may or may not fit well into a planned storyline. It is easy to envision Droid Specialists assigned to a Rebel base having plenty of opportunities to use their skills. However, Droid Specialist PCs are usually traveling around the galaxy rather than sitting around in a maintenance bay waiting for work to walk through the door.

There are several ways to provide regular access to droids for the tech to tinker with while actively carrying out Rebel missions or pursuing other adventures. The tech might own or be assigned one or more droids for use during operations or to work on between scenes. The tech might have to modify the droid for each mission or repair damage from the last one. In some cases, the tech might be looking to buy droids for the Alliance or to sell one to make a few credits.

One potentially interesting roleplaying opportunity occurs when the droid in question is another PC, and the interaction between droid and Droid Specialist plays out during the game. If both players are intent on modifying the droid regularly for adventures, the GM may need to step in, particularly if they begin to exploit or game the system too much. Any limiting factor should have reasonable in-universe explanations. For example, modifications take time to carry out, and adequate time may not be available. Upgrades and modifications don't always work, and constant tinkering could multiply the opportunities for failure. Parts are not cheap, and they might be very difficult to obtain for specific droid models, especially at the fringes of the galaxy.

Some missions may include droids as a target or significant obstacle. If this is known ahead of time, Droid Specialists can help the party plan the operation by relaying important information about the droid types and how best to defeat or circumvent them. A surprise arrival of droid guards, administrators, or maintenance crews during a mission can give Droid Specialists an opportunity to think on their feet and help the party while under pressure.

MECHANIC

Most view Mechanics as jacks of all trades, ready to enthusiastically take on any repair or modification. Mechanics are the easiest Engineer specialists to integrate into an adventuring party. There is virtually always something to repair, reconstruct, reprogram, or break into on every mission, and these characters usually have a good, if not the best, chance of success among the party members.

Whether they received formal training, served in vocational apprenticeships, or are self-taught, Mechanics share an enthusiasm for making things work, and work better. Some may begin their career on a completely different path, such as a pilot who becomes fascinated with improving a vehicle or weapon system. Scavengers may learn engineering concepts and techniques related to the parts or vehicles they pick apart to sell.

Newly minted Mechanics who have left such a role behind them could still easily retain connections with individuals they interacted with in that role. For example, a character might end up working on a ship flown by a former starfighter pilot, who could be a PC. Characters might take up Mechanics as a fallback. For example, a pilot who can no longer fly or fly effectively might turn to a career as a Mechanic to remain connected to that lifestyle or job.

Due to their characters' ability to work on a wide variety of technology, players of Mechanics might not actively seek creative ways to apply their characters' skills. GMs should keep an eye out to ensure Mechanics aren't continually being left behind to work on the ship rather than take part in an exciting mission. Mechanics shouldn't lose out on opportunities to share in story events simply because their characters are the ones expected to keep the group's equipment operational. GMs should avoid making it the norm, providing alternative solutions to keep Mechanics from being left behind. This can be as simple as having an NPC droid take care of a required task, thereby freeing Mechanics to go elsewhere. On the other hand, when Mechanics are separated from the party, it can give them the opportunity to go riding to the rescue to extract the party from a life-threatening situation.

SABOTEUR

Engineers with the Saboteur specialization are the ones most likely to have learned their skills on the job out of necessity. While the Rebellion does have a central training program for Saboteurs, many begin their destructive careers on their own or at the behest of a small local Rebel cell. In some circumstances, Saboteurs might have plenty of technical knowledge about a facility or vehicle they are trying to disable or destroy because they work at or with the target every day.

Given their likely grassroots recruitment and experience, Saboteur characters might more easily be integrated with the backgrounds of other PCs operating in the same area, even if they serve in different roles. However, once within the adventuring party, Saboteur characters must be ready to adapt to other roles unless the campaign specifically concentrates on clandestine infiltration campaigns to disable sensitive targets. Saboteurs may know much in the way of mechanical engineering or possess specific technical expertise that they can adapt to more typical repair and building operations. A lack of practical experience could be a limiting factor that drives Saboteurs new to the Rebellion to expand their expertise.

As with Droid Specialist PCs, the GM should try to provide suitable outlets for Saboteurs to fulfill their expected role. Saboteurs likely work best with other party members who are able to sneak into or otherwise infiltrate enemy facilities, but they can also work with more straightforward demolitions experts.

The clandestine nature of the Saboteur's work can provide interesting roleplaying opportunities as well. In stories of a darker tone, other party members might have been caught up in one of the Saboteur's early operations and suffered physically, mentally, or both as a result. A party member might be torn between appreciation of the operation's effect on the Empire and anger about a personal loss or experience. On the other hand, if the Saboteur's actions resulted in freeing captives or obviously improving someone's immediate circumstances, the party member might treat the character as a hero worthy of respect and inspiration.

SAPPER

The Sapper is a highly trained combat Engineer, as adept at fighting as at demolishing or building fortifications. From a background standpoint, players and Game Masters could approach this character as a combatant who was later trained as a Sapper, or as an Engineer who joined the Rebel Alliance and became a competent fighter. At minimum, the Sapper fits into most Rebel mission types as a combatant, but a Sapper's additional abilities can make the character much more dangerous in certain situations.

Few Sappers are truly self-educated in all of their skills, though some may learn through experience during missions rather than through a lot of formal military training. Knowing how to properly handle explosives and carry out effective demolition of structures is not something easily or safely learned without help. As such, Sappers likely have friends and colleagues they served with on missions who passed along knowledge from detailed military training and practical engineering experience. Other Player Characters might be such individuals.

Sappers who specialize in fortification of structures and similar enhancements may have had more interaction with, and thus a broader understanding of, Rebel organizations and facilities within a specific region or operational unit. The other Player Characters may have first met the character when the Sapper arrived to reinforce a bunker or build out a secret operations center. The Sapper might also return to expand such facilities as Rebel operations grow.

Within the party, the Sapper is likely to propose courses of action that selectively destroy enemy structures, or portions thereof. Demolitions is likely another key go-to attack strategy, and the GM should be prepared for this. In fact, demolitions is a natural focus for Sappers within the party. One aspect of the specialization that should not be overlooked is the Sapper's ability to help the group advance in creative ways under enemy fire. A Sapper could do so by tunneling under facilities, deploying transportable help such as portable shield generators, or setting up other non-traditional methods for protecting the group from attackers while on the move. Player Characters who are building their own base could have the Sapper assigned to their unit to provide military construction abilities as well as demolitions expertise.

SCIENTIST

The Scientist is the most highly academic of any of the Engineer specializations. Relatively few Scientists are self-taught, although that is an interesting story possibility. Since most Scientists engage in years of academic studies and detailed research, they often have much more theoretical knowledge and less field experience than the typical Engineer character. They are also the least likely to have a natural fit with a given mission or team assignment. The Scientist is the easiest specialization to envision as a fish-out-of-water style character, which can actually make it easier for the Game Master to integrate the character into the party. There are many examples in stories and other media of bookish scientists forced from the lab into the field and having to adjust to those new realities.

While it may not be immediately apparent, the Rebel Alliance can make good use of Scientists in certain missions and situations. A party sent on exploration missions might have Scientists along to help assess the local environment for threats and benefits before establishing a new base or hideout. Missions to infiltrate or attack a mysterious Imperial or commercial facility might take a Scientist along to ascertain what the enemy might be developing to use against the Rebels or the galaxy at large. Alliance Intelligence might use Scientists to analyze intercepted Imperial reports for similar reasons.

Using any of these mission types helps incorporate Scientists into the party, giving them a vital role in the mission success. However, if the party takes on more general missions, such as attacking Imperial facilities or recruiting new Rebels, they must find ways to adapt their knowledge to support the party. It could be that the Scientist has left a previous life behind and is training to become a Rebel operative. The Rebels might wish to take advantage of the Scientist's potentially extensive network of similarly minded people in the character's realm of work or education. This might make the Scientist a primary means of communicating with or recruiting past colleagues.

SHIPWRIGHT

Shipwrights are most at home in shipyards, modifications bays, or design centers for starships of any type. Within the Rebellion, it is natural to turn Shipwrights into highly skilled and perhaps overqualified ship's engineers or damage-control leaders. Shipwrights could play a similar role within an adventuring party. Some Shipwrights would be content with this assignment, while others would always be trying to improve or rebuild a ship, or to design their own in their off hours. GMs should talk with players to better understand expectations concerning their characters.

With the exception of a few carefully hidden and highly defended shipyards, the Rebels have virtually no facilities or time in which to securely design and build vessels from scratch. They must obtain and adapt whatever craft they gain access to or receive from sympathetic governments and organizations. Player Characters assigned to obtain such ships or prepare them for combat can make good use of a Shipwright. The Shipwright could select likely targets to acquire or help plot the best way to infiltrate and abscond with a vessel. If the party needs to repair a damaged vessel, refurbish an old one, or convert a civilian craft for combat, the Shipwright can both carry out some of the work and ascertain what the team might need to obtain in the way of parts or information.

In more typical Rebel missions, Shipwrights can aid with mechanical and electronic repairs or try to use their knowledge to assist in defeating enemy targets and vessels. The Shipwright may also continuously try to upgrade and repair the Player Characters' starship. Shipwrights' expertise might lead them to creative, unusual, or more effective upgrades than the typical Mechanic might provide.

EXPANDED MECHANICS RULES

Just as there's more to an Engineer's skill set than knowing a hydrospanner from a fusioncutter, there's more to engineering work than simple repairs and construction. Engineers serving in the Rebel Alliance are no strangers to difficult situations and active combat, and they quickly learn how to apply their knowledge to the situations that threaten them.

This section details special engineering actions Engineer characters can use to apply their skills on the battlefield, as well as additional options for spending narrative dice results on relevant checks.

NEW MECHANICS SKILL USES

Characters with the Mechanics skill can use their technical expertise on the battlefield to assist their comrades. While it never hurts to know how to fire a blaster, sometimes the knowledge and expertise an Engineer brings to the conflict can prove an even greater weapon, and the Rebellion is eager to exploit any advantage it can get against the Empire. Page 124 of the **Age of Rebellion** Core Rulebook outlines some of the ways this skill is commonly employed, and the following are alternative uses that players can adopt as well. As a base level, these skill checks should be of **Average (◆◆)** difficulty, but the GM should adjust this as needed based on the specific setting, availability of raw materials, and time devoted to the effort.

- **Craft improvised tools:** The character creates support equipment from surrounding items, such as an engine support made from stray girders, surveying levels from vines and stones, or a hammer that was once an X-wing landing gear support strut. For the remainder of the session, where applicable, these tools remove ■ from any Mechanics checks she makes when the correct tools aren't available.
- **Create an impressive set of tools:** The character spends extra effort to ensure her tools, sensors, and other implements are impressively displayed and polished, making them easily the envy of fellow grease monkeys. A character with such a personally improved set adds □ to social skill checks with other mechanically minded characters (even non-Alliance ones). The GM can spend ⚙ from a failed Mechanics check to remove this benefit, indicating the tools have become besmirched with dirt or nicks.
- **Perform a combat refit:** The character makes desperate repairs in the field for a personal item, such as a blaster or datapad. This returns it to full functionality, but at the end of the encounter (or after one hour), the item is irreparably damaged and can only be salvaged for parts.
- **Replenish field supplies:** The character prepares and restocks gearing grease, engine lubricants, cleaning oils, soldering wire, and other essential items that often are depleted in frontline settings. She adds automatic ⟲ to Mechanics checks to repair damaged items for the remainder of the session. The GM can spend ⚙ from such checks to indicate the supplies have run out.
- **Undertake a quick structural assessment:** Turning an experienced eye at an allied building (or vehicle of silhouette 5 or higher), the character can determine the most efficient means of repair. If the check is successful, the difficulty of the next check made to repair that building or vehicle is decreased by 1 to a minimum of **Simple (–)**. ⟲ on the check may also be spent to reduce the repair time by 30 minutes per ⟲, to a minimum of 30 minutes.
- **Write a tech manual:** Spending some time to record technical instructions allows others to make repairs or operate devices, even when lacking the requisite skills. The character identifies one device or vehicle and creates a detailed manual for it. This allows others to use a Knowledge (Education) check instead of a Mechanics check to operate or repair the item. Each manual must be stored on a separate datapad, and it takes a maneuver to look up the proper details before performing each separate check to operate or repair an item.

SPENDING ⟲, ⊕, ⚙, AND ▽ ON ENGINEERING-FOCUSED CHECKS

When checks with an engineering focus, such as those using Mechanics, Computers, or certain Knowledge skills, result in ⟲, ⊕, ⚙, or ▽, these may, as usual, be spent narratively or on the suggested results described in the **Age of Rebellion** Core Rulebook on page 219. **Table 3–1: Spending ⟲, ⊕, ⚙, and ▽ on Engineering-Focused Checks**, on page 71, offers further suggestions for spending these results. Players and GMs can use the effects from the table as presented, or adapt them into unique effects tied specifically into the ongoing session or campaign.

TABLE 3-1: SPENDING ⟲, ⊕, ⚙, AND ▽ ON ENGINEERING-FOCUSED CHECKS

Symbols	Effect
⟲ or ⊕	**Reduce to Essentials:** The character salvages useful parts from the item the character is working on, bypassing extraneous couplings or finding elements of value amid debris nearby. For each ⟲ result spent this way, the Engineer recovers 25 credits' worth of parts. **Inspiring Solution:** The character's current work leads to insight into the next project. Add □ to the next Engineering-focused skill check the character makes during this encounter.
⟲ ⟲ or ⊕	**Exceptional Performance:** The character wrings extraordinary performance from the item being worked upon. If the item generates □ or removes ■, it instead generates □□ or removes ■■ instead. **Efficient Modifications:** The character makes some key tune-ups to personal tools or to the subject of a current project. Add automatic ⟲ to the next Mechanics check the character makes during this session or to the next check made to use this item during the current session.
⟲ ⟲ ⟲ or ⊕	**Efficient Power Usage:** The character improves a weapon to better utilize its power source. If the character was making the check to repair or maintain an energy-based weapon (including a vehicle's weapons), that weapon cannot run out of ammunition for the remainder of the session. **Insightful Planning:** The character is able to draw on past and present experiences to plan for the future. She may take any number of ✲ after the first on the current check, remove them from the current check results, and add that number of automatic ⟲ to a single Engineering-focused skill check later in the same encounter.
⊕	**Surpass Limitations:** Adjustments to a piece of technology allow the character to get it temporarily working at a level beyond its normal specifications. Before making a subsequent check with this item during the current session, the character may add or subtract 1 from any of the item's characteristics, such as increasing the damage by one or reducing the critical rating by one. This can also be used to modify a range by one band or change a vehicle's handling by one. After the check is resolved, the improvement is lost. **Reverse Engineering:** After working on the item, vehicle, or ship, the character's comprehension of its technology becomes deep enough to rebuild it even better. The device has its number of hard points increased by one. This cannot be selected more than once per item.
⚙ or ▽	**Some Assembly Required:** The character's efforts require more work than anticipated, consuming further resources or time. The character must spend a maneuver (if in structured time), increase the time required to complete the task by 25% (if in narrative time), or use up to 10 credits in parts or salvage.. **Unconsidered Variables:** When making a check to acquire information, such as a Computers check to draw on a database or archive, or a Knowledge check of any kind, the character fails to consider an important variable in the search. The GM may choose a single check the character makes when acting on the acquired information in the future and add ■ to that pool.
⚙ ⚙ or ▽	**Temporary Overload:** The character's efforts to repair or use an item cause it to become unpleasant to operate. At the end of the encounter, when a character using or carrying this item recovers strain the amount the character recovers is reduced by 2. **Hit a Glitch:** Something in the recent operation of an item causes it to begin operating erratically. For the remainder of the encounter, add automatic ⚙ to all checks made to use or operate that item.
⚙ ⚙ ⚙ or ▽	**Equipment Failure:** A power surge, torn coupling, or other failure causes the character's tools to short out and fail. The GM selects one item or device the character is using. This item ceases to function entirely for the duration of the encounter or narrative scene, starting after the end of the character's current turn (or after the results of the current check take place in narrative time). This result normally only affects small items, such as dataspikes, fusioncutters, and hydrospanners, but the GM can spend ⚙ or ▽ to affect larger items. **Erroneous Calculations:** The character makes a crucial error in planning that causes trouble later on. The GM may add ■■ to a related or relevant Engineering-focused check the character makes later in the session.
▽ (successful check)	**Too Good a Job:** Allied Alliance personnel are quite envious of the character's success in her engineer endeavors, and upon realizing who she is grow uncooperative and disagreeable. Until the end of the encounter, add automatic ⚙ ⚙ to all social checks the character associated with this effort makes with allied characters outside of the character's immediate circle. . **Is It Supposed to Do That?:** The effort seems to succeed, but new problems arose that are undetectable until later use or access. For the rest of the encounter, any failed checks that involve use of this item inflict 2 strain on the character.
▽ (failed check)	**Loss of Confidence:** Whatever the character was hoping to accomplish ends in disaster as skills and resources fail spectacularly. Any tools or equipment used as part of the check are lost, and the terrible experience means difficulty of any similar checks is upgraded once until the end of the encounter due to the character's self-doubt. **Droid Gone Bad:** The effort to repair a droid goes quite poorly, and buried deep in its programming, it will always remember the terrible experience. This could also occur when a droid witnesses a frightening failure the character makes concerning other droids. The GM can have this droid surreptitiously sabotage efforts the PCs make, such as by adding automatic ▼ to checks where applicable, or otherwise (and perhaps unconsciously) attempting to inflict as much pain and stress on the PCs as was inflicted on it.

REPAIR AND CONSTRUCTION EFFORTS IN DIFFERENT SETTINGS

Engineers work to maintain the arms and vehicles of the Rebellion's forces, which means more than performing equipment maintenance work in a secure hangar. Sometimes, Alliance tech experts need to enter dangerous situations or exotic environments to salvage a crashed fighter, get a stalled speeder running again, or do any number of other vital but hazardous tasks in the field. In such situations, the difference between working in an uncontrolled environment—possibly even an active combat zone—and bustling about a workshop shows itself in many ways.

This section details how working in different sorts of environments can impact Mechanics checks to repair gear, use combat engineering, or perform other vital tasks. These environments are typically hostile to the work of an Engineer, but they might provide some limited bonuses or opportunities to spend positive dice results alongside the penalties and restrictions of such dangerous work. The main goal of these rules is to provide new ways to keep the lives of Engineer PCs challenging and exciting, not to prevent them from doing their job. At the GM's discretion, some or all of the modifiers for an environment might not apply to a particular check.

ACTIVE BATTLEFIELD

Although the Rebellion generally avoids full-scale military engagements against the Empire, sometimes it is forced into a major confrontation to cover the evacuation of a discovered base, or when a planned surprise attack is anticipated. The efforts of the Rebellion's Engineers are necessary in these conflicts in order to keep fighting vehicles operational and to ensure losses of materiel are as limited as possible.

Working on an active battlefield may impose up to ■ ■ on checks other than those involving personal equipment, depending on how close to the front lines the Engineer is and the fierceness of any nearby combat. Even operating at the very outskirts of a battle, far away from any actual combat, could impose ■ from interrupted resupply shipments or power failures. However, checks to salvage spare parts might receive □ instead, as replacement materiel and gear should be easy to find. Depending on the location of the battle, other modifiers for environmental factors (such as those following) may apply as well. The GM can also decide to upgrade the difficulty of Mechanics and Computers checks, based on the effort required and the current battlefield situation.

If a Mechanics check made on an active battlefield results in ◈, stray blaster fire or shrapnel might strike the Engineer or the Engineer's project, either inflicting a Critical Injury on the Engineer or damaging the item by one level (see **Table 5–4: Repairing Gear** on page 172 of the **Age of Rebellion** Core Rulebook), at the GM's discretion.

DESERT/TUNDRA

Working in an isolated, desolate environment is rarely a problem for Rebel Engineers, as long as the Alliance's supply lines remain able to reach them. The solitude keeps their work undisturbed, which is a rare advantage for engineers in the field.

However, extreme temperatures and blowing sands or snow might necessitate an environmental seal around the Engineer's workshop. Any checks to maintain or repair equipment or vehicles made in such conditions without the protection of a sealed workplace suffer ■. Additionally, improvising stable cover

STRUCTURED TIME AND DIFFERENT ENVIRONMENTS

The suggested modifiers in this section are applicable both in and out of structured time. In certain cases, some environments might lend themselves to working in structured time, but the scene should move at the pace appropriate to the PCs' actions, as structured and narrative time are both tools to support certain kinds of actions. Simply being in the presence of combat is not enough to force the PCs into structured time. Instead, the GM should use structured time if it assists in organizing the actions of the PCs and other characters present. An Engineer repairing combat vehicles on the outskirts of a battlefield would not use structured time, but one trying to jump-start a getaway speeder before being found by pursuing Imperial forces likely would.

When the party is operating in structured time, some of the environmental pressures described here might increase at the GM's discretion, and certain large-scale projects could become impossible due to the difficulty of completing them within the constraints of a single encounter.

amid sand dunes or snowdrifts is extremely challenging, increasing the difficulty of any checks to construct improvised defenses or structures once in addition to adding any ■ for lack of available materials.

HIGH ATMOSPHERE

Sometimes an Engineer needs to make repairs to an airspeeder or aerial platform, set up a listening station on a mountain plateau, or work near sheer drops for other reasons. Working in this type of location is different from working inside a sealed aerial environment such as a station in the atmosphere of a gas giant, which would likely count as an urban environment.

Working here does not modify checks by default (unless the Engineer has a phobia concerning heights), but if the character rolls ▽ an important tool or vital piece of gear might fall to the distant ground below.

FIREFIGHT

Operating in combat conditions is an occupational hazard for the Rebellion's Engineers. Even when they avoid being caught in true battles, combat operations often require their technical expertise.

Firefights cover any situation in which small-scale, skirmish combat is occurring. Often these are a result when enemy stumble upon each other, and neither is ready for a full battle. As such, firefights may overlap with other environment types, except for active battlefields. Most firefights operate in structured time, though given the lower scale of the action a GM may decide to run events in a narrative fashion. Mechanics and Computers checks in firefights typically suffer ■ or ■■ but depending on the associated environment and the exact engineering effort involved the GM may apply other penalties. Intricate crafting efforts that become interrupted with blaster fire, for example, might become nearly impossible to finish at all.

FOREST/JUNGLE

Working in heavily wooded areas is something of a nightmare for Engineers. Some of their tools can pose a serious risk for starting fires, and the abundance of pollen, moisture, and other contaminants can wreak havoc on sensitive equipment.

Mechanics and Computers checks may suffer one or more ■ in these lush environments. However, checks to fashion improvised defenses or structures can gain at least □ instead, due to the abundance of natural materials to work with.

The GM may spend ⚙ ⚙ or ▽ from an Engineers' Mechanics or Computers check while working in a forested to have contaminants work their way into their equipment, imposing ■ on future checks of the same type until they can get the offending elements removed.

SPACE

When working in low- or zero-gravity conditions, fine control of one's motions can become difficult, which causes problems for delicate engineering projects. Fortunately, most starships and space stations have sufficient control over their gravity to make this a non-issue, but doing external work on a ship's hull or operating aboard a damaged vessel can be an extremely difficult exercise.

When operating in low-gravity or zero-gravity conditions, the difficulty of checks involving delicate motions or fine motor control should be upgraded once. If the Engineer is tethered securely to a stable position or is working in an enclosed space that prevents drifting, simply add ■ instead. During structured time, making a Mechanics check in zero-g is impossible without spending a maneuver to maintain a stable position, unless the Engineer is tethered or firmly held in place.

UNDERWATER

Amphibious operations are among the worst possible missions to which an Engineer can be assigned, even among aquatic species like the Mon Calamari. Most standard equipment simply doesn't work underwater, and a simple leak can damage everything (machines and personnel alike) if not dealt with swiftly.

Making Mechanics checks involving anything but the most basic tools is impossible while underwater, unless the tools have been specifically designed to work in such situations. Even with the appropriate tools, the difficulty of checks to operate on machinery or vehicles while underwater should be upgraded at lease once or even twice, depending on the level of exposure and the degree of waterproofing involved. These penalties do not apply to work on the interior of an amphibious or submarine vehicle or station, unless the interior is flooded.

URBAN

While many engineering workshops can be found in cities, operating within a proper workshop and working on the fly amid back streets are very different circumstances. However, the streets and alleys of an urban environment remain more amenable to an Engineer's work than wilderness areas or combat zones.

Working in an urban environment does not generally modify Mechanics or Computers checks. □ should be regularly added to checks for crafting improvised defenses or structures in an urban environment, due to the widespread availability of girders, wall sections, rubble, and other materials to use. Similarly, checks to scrounge up spare parts or fuel may gain one or more □, especially in industrial districts or similar areas.

CONVERTING CIVILIAN VEHICLES AND FACILITIES FOR MILITARY USE

The Rebel Alliance is a powerful military force, but it lacks the dedicated factories, supply lines, and other logistical elements that a true military might take for granted. The Rebellion's forces must frequently make do with older models of military weapons and vehicles, when military models are available at all. In some cases, the Rebellion's Engineers must retrofit civilian vehicles and structures to fit their needs.

A retrofitted civilian vehicle is no match for a true combat speeder or starfighter, but it can be easier to conceal and is frequently less expensive. Similarly, a Rebel base might be concealed within an apartment complex or other civilian building, sacrificing isolation and security to hide in plain sight. In either case, these retrofitted examples are typically less efficient, more vulnerable, and harder to maintain than their military counterparts, but they serve their purpose well enough.

CONVERTING CIVILIAN VEHICLES

Most civilian vehicles are not designed for heavy modification. However, dedicated Engineers can typically find a workaround, sacrificing effectiveness in one area to add capabilities in another.

When retrofitting a civilian vehicle, a character may spend 500 credits and make a **Hard (◆ ◆ ◆) Mechanics check** to add a single hard point. Hard points added this way should be focused towards military use, and the GM has final say on how this retrofit is done and its purpose, as well as which vehicles are applicable for the work.

For each hard point added this way, though, one of the vehicle's other capabilities also degrades. These degradations reflect the vehicle's systems being pushed well past their inbuilt tolerances. The GM may come up with a custom effect to reflect this limit breaking, or may choose one from the following list:

- The vehicle's handling is reduced by one.
- The vehicle's system strain threshold is reduced by two.
- Whenever the vehicle incurs system strain, it suffers an additional point of system strain.
- ▽ on Piloting checks to control the vehicle cause it to seize up and immediately drop to speed 0.
- ▽ when using the vehicle's inbuilt systems or added attachments cause a system or attachment to fail for the remainder of the encounter.

CONVERTING CIVILIAN FACILITIES

The Rebellion sometimes sets up small hidden bases or other facilities within the cover of civilian structures. These converted buildings are never as efficient as a dedicated base, but they are far easier to set up and to conceal. In many cases, the so-called Rebel base on a given world is simply a tiny meeting room in the back of a cell member's dwelling. However, when the local operatives can manage it, they typically improve their headquarters with whatever upgrades they can manage to fit.

TABLE 3-2: CIVILIAN FACILITY REFITS

Upgrade Type	Upgrade Description	Price
Hidden Hanger	The facility incudes a large, reinforced room along with a wide passageway so that small vehicles can be stored inside and kept out of sight from Imperial eyes. This upgrade allows four vehicles of silhouette 2 or smaller to be secured inside the base. This upgrade may be purchased one additional time.	600 credits
Infirmary	The facility includes a basic infirmary stocked to handle basic medical crises. The infirmary has cots and treatment space for three patients, medical supplies (allowing characters to perform Medicine checks without penalty), and one bacta tank with supplies of bacta. This upgrade may be taken up to two additional times, increasing the number of patients it can accommodate by three and the number of bacta tanks by one each time.	2,400 credits
Repair Room	The facility has a tool room filled with spare parts and salvaged components gathered from junk yards and firefights. This allows characters to perform Mechanics checks to repair and modify weapons and armor without penalty. ❍ ❍ can be spent as ✲ on such checks here, but the GM can spend ▽ to exhaust its contents and the characters must spend 100 credits to restock the room before using it again. This upgrade can only be taken once.	350 credits
Security Upgrades	The once-civilian facility's security improves somewhat, better protecting the Rebels within. When this upgrade is purchased, select one of the following: • The exterior doors of the building gain better locks that can only be opened with a special electronic key, an **Average (◆ ◆) Computers check,** or a **Hard (◆ ◆ ◆) Skulduggery check**.. • The structure of the facility is reinforced, giving it an armor value of 1 (weapons unable to inflict more than 1 planetary scale damage cannot damage the facility). • The building's walls are fitted with scanner baffles and sound deadening insulation, which increase the difficulty of checks to detect life signs, movement, sounds, and other signs of activity within once. • The facility gains security cameras that can be monitored on terminals throughout the facility. • The facility has a disguised entrance set along a rubble-strewn wall or seemingly solid window panelling, detectable only though a **Hard (◆ ◆ ◆) Perception check**. This upgrade may be purchased four additional times, each time with a different option selected.	2,250 credits
Concealed Upgrades	When purchased alongside another upgrade, that upgrade no longer increases the risk of the facility's discovery, thanks to dampened energy signatures, smuggled supply shipments, or other efforts made to hide the changes. Up to three upgrades or upgrade repurchases may be modified this way. Additional upgrades beyond that number are impossible to fully conceal.	+1,000 credits

Possible upgrades for a converted civilian facility are listed in **Table 3–2: Civilian Facility Refits**. PCs working out of a civilian facility can upgrade it several ways. The simplest is to pay the cost in credits listed on the table. However, credits are often tight for Rebel agents. Alternatively, the PCs could acquire base upgrades as a reward for increasing their Contribution rank (see page 49 of the **Age of Rebellion** Core Rulebook). Each time the PCs use this reward to upgrade their base, they receive a number of upgrades chosen from **Table 3–2: Civilian Facility Refits** equal to their new Contribution rank (to a maximum of four). All upgrades added via Contribution rank are considered to be enhanced with the Concealed Upgrades refit at no additional cost, up to the normal maximum for that option.

The GM has final say on what upgrades can be selected depending on the facility used. Players with access to **Desperate Allies** should feel free to adopt the Rebel Base Upgrades in that book to add more potent (but more expansive) refits, especially for larger and more important facilities.

CIVILIAN FACILITIES AND SECRECY

Regularly shipping arms and medical supplies into a civilian facility, or reinforcing the internal structure of the walls with duracrete, tends to draw attention. Adding upgrades to a civilian facility risks making the facility an obvious hub of Rebel activity. A civilian facility that has any upgrades not enhanced with the Concealed Upgrades refit grants □ to checks characters make to notice its unusual activity or features. Every two additional unconcealed upgrades add an additional □ to such checks. A character still needs to be looking for signs of unusual activity or added security to receive this bonus, so the GM should not assume the upgrades installed in a converted facility automatically draw the notice of the ISB or similar groups. However, if the PCs' activities are potentially traceable back to the converted facility, the bonus applies to any attempts to do so.

STEPS IN CRAFTING NEW VESSELS

The rules in this section provide GMs and players with options for crafting their own vehicles and starships. When a player wishes to have a character craft an item, the player should consult with the GM. The two should then collaborate while going through the following steps to create the new item. As with all such items, anything the player wants to craft is subject to the GM's approval.

Crafting vehicles and starships follows four steps. First is **Step 1: Select Templates**, in which the PC chooses what kind of vessel to make. Here the PC selects a specific type of frame, type of engine, and type of hull from the respective template tables. Next is **Step 2: Acquire Materials**, in which the PC acquires the separate supplies to build these three essential core components. In **Step 3: Construction**, the PC actually crafts the new frame, engine, and hull with an associated skill check for each. After making these three checks there is **Step 4: Assembly**, in which the PC takes the various parts and fashions them together into the new vessel via a single Mechanics check. Once assembled, the new vessel is ready for battle!

STEP 1: SELECT TEMPLATES

To create a new vessel, the player first chooses one row in each of the three template tables (frame, engine, or hull; see pages 77–81). The template dictates the cost and rarity of required materials (Material Price/Rarity), the difficulty to build the item (Check), an estimate of how long construction takes (Time), and the item produced on a successful check (Name).

Each template can encompass a vast number of specific types of the item indicated. When designing a new starfighter, two Engineers might create completely different ships that fill the same battlefield role, each with its own foibles and advantages. A template describes what a crafted item does, but not necessarily how it accomplishes it or what embellishments it might possess; those are the mark of the crafter.

Thus, players and GMs should feel free to be creative in coming up with their own unique types of items that a given template can represent. Inspired GMs are encouraged to create their own unique templates; all a template needs is a Name, Material Price/Rarity, Check, Time, and profile for the result, which GMs can provide to their players as they see fit.

Step 1: Select Templates takes as much or as little time as the character spends planning before launching into hands-on work. After selecting templates, a character moves on to **Step 2: Acquire Materials**.

STEP 2: ACQUIRE MATERIALS

To attempt to build an item based on the chosen template, the character must acquire appropriate materials for the selected frame, engine, and hull types. The cost and rarity of these materials are listed under "Material Price/Rarity" on the relevant template table. For mechanical purposes, materials count as a single item with the listed price and rarity. As always, at the GM's discretion, certain supplies might not always be available for the listed price in any given market (see page 164 of the **Age of Rebellion** Core Rulebook).

Because Material Price/Rarity for a template is defined only in terms of price in credits and abstracted rarity, the particular nature of the materials used can vary wildly, and depends on the specifics of the item to be crafted. At the GM's discretion, PCs can acquire some or all of the materials via means other than purchase (such as via salvage or theft, or as gifts from Alliance-friendly companies). The details of such actions and the actual materials can be narratively resolved or become the basis for side-campaigns.

ACQUIRING TEMPLATES FOR MILITARY HARDWARE

From a narrative standpoint, there are many ways a character might learn how to build a particular item. A character might have acquired a prototype blueprint from a secret Imperial facility, invented the technology in isolation, or worked as part of a research team at a corporation. The Rebel Alliance might even provide blueprints for certain common components and technologies, upon which crafters can expand and improve.

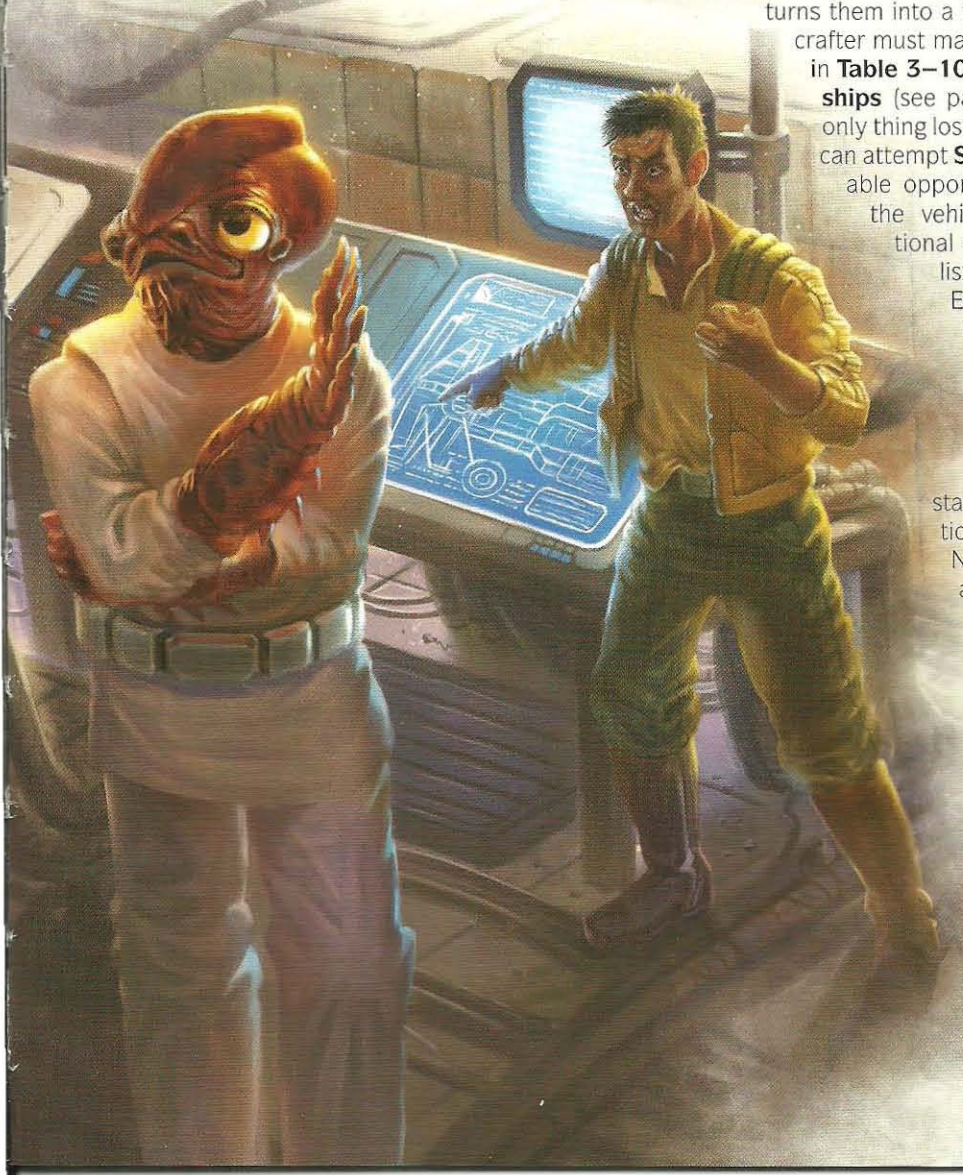
It is always up to the GM whether a given template is available to a PC. Generally, most templates should be available a majority of the time. The difficulty of turning abstract knowledge into a practical device is reflected by the difficulty of the checks to acquire materials and construct the device. However, for more interesting stories, the GM (or the player) can require the character to spend time on research or even go on a short adventure to complete **Step 1: Select Templates** for a particularly special item. Alternatively, a character's past successes (or failures) might open the door to crafting a brand-new item.

Step 2: Acquire Materials requires as much time as it takes for the PC to physically obtain the materials. This could be as short as a trip to a scrapyard or supply depot, or as long as an epic quest to find a rare metal, depending on the situation. After successfully acquiring materials, a character moves on to **Step 3: Construction**.

STEP 3: CONSTRUCTION

After acquiring the materials to make one of the three items, the character must make the associated check, listed under "Check" on the relevant table, to actually construct that item. If the character succeeds, the item is fully functional and has the profile corresponding with the name of its template. If the character fails on the check to construct a template, the single product that comes out of the attempt (frame, engine, or hull) is unusable and the materials involved are lost.

The tables on pages 81–85 include suggestions on how to integrate other results into construction. First, crafters can use ◐ and ⊕ results to make improvements to the item. Then, the GM can spend ⚙ and ▽ to add flaws. Unless a limit is specified, an option from these tables may be selected any number of times, and its effects stack.



BASES AND FORTIFICATIONS

Warships are, essentially, very large and mobile edifices. Engineers also frequently build large immobile structures such as bunkers, trenches, and similar constructions. While the GM is free to modify the rules presented here to simulate building large structures, the expanded rules for building Fortifications can be found in FORGED IN BATTLE, and rules for constructing and managing entire Rebel bases can be found in DESPERATE ALLIES.

The amount of time **Step 3: Construction** takes is determined by the estimate of working hours listed in the template under "Time." Every ✲ the PC scores on the check beyond the first reduces this time by four hours (to a minimum of four hours). At the GM's discretion, other factors can also affect the time required, such as expertise of support personnel, working conditions, and the local technical level.

STEP 4: ASSEMBLY

In this step the PC takes the finished components and turns them into a functional machine. To do this, the crafter must make a Mechanics check, as detailed in **Table 3–10: Assembling Vehicles and Starships** (see page 85). If the character fails, the only thing lost is the crafter's time. The character can attempt **Step 4: Assembly** at the next available opportunity. If the character succeeds, the vehicle or starship becomes operational after the number of working hours listed in the template under "Time." Every ✲ the character scores on the check beyond the first reduces this time by two hours (to a minimum of one hour). Other factors can also affect the time required, at the GM's discretion. Once successfully assembled, the vehicle or starship is functional, using the statistics provided by its core components. Note that assembly often requires additional resources to complete.

See **Table 3–11: Spending ◐, ⊕, ⚙, and ▽ on Assembly** (see page 85) for ideas on how to integrate other results into vehicle and starship assembly. First, crafters can use ◐ and ⊕ results to make improvements to the resultant craft. Then, the GM can spend ⚙ and ▽ to add flaws.

VEHICLE AND STARSHIP CRAFTING

When building a vehicle or starship, the crafter must first construct the three core components: a frame, an engine, and a hull. For each of these core components, the crafter performs **Steps 1–3**: choosing a template, acquiring the materials, and performing the listed checks over the amount of time specified.

- **Frame:** A frame is the skeleton of a starship or vehicle. It is treated as a ship or vehicle (albeit one that cannot operate until specific attachments are added during **Step 4: Assembly**). The frame provides the craft's baseline parameters.
- **Engine:** An engine is the craft's power source. It is treated as an attachment that can only be attached to a frame that does not already have an engine. It provides vehicle's speed, system strain threshold, and defense.
- **Hull:** A hull is the body and armor of the vessel. It is treated as an attachment that can only be attached to a frame that does not already have a hull. It provides the vehicle's armor and handling.

Once the crafter completes **Step 3: Construction** successfully for the selected frame, engine, and hull (by spending the requisite hours and succeeding on the listed check as usual), the character has the elements needed to assemble the starship or vehicle. At this point, the crafter is ready to perform **Step 4: Assembly**, adding the engine and hull to the frame. Once successfully assembled, the new vehicle or starship is fully operational and ready for a crew to use it against the Empire!

FRAME TEMPLATE PROFILES

The following profiles are used for starship and vehicle frames, which determine a craft's overall shape and function. While each frame is presented as a vehicle profile, a frame alone is nothing more than an unpowered skeleton of the craft it might eventually be.

SPEEDER BIKE

Fast and agile, speeder bikes offer one of the most exciting (and dangerous) ways to get around on the surface of habitable planets. Many aspiring designers have been known to build speeder bikes in the garage from spare parts in their early days of tinkering.
Vehicle Type: Speeder Bike.
Silhouette: 2.
Hull Trauma Threshold: 3.
Maximum Altitude: 15 meters.
Sensor Range: Close.
Crew: One pilot.
Encumbrance Capacity: 1.
Passenger Capacity: None.
Customization Hard Points: 6.

LANDSPEEDER

Landspeeders are how most citizens get around. From civilian trucks to battlefield tanks, they cover an incredible variety of machines.
Vehicle Type: Landspeeder.
Silhouette: 2.
Hull Trauma Threshold: 6.

SILHOUETTE, SPEED, AND DEFENSE

Although a vessel's speed and silhouette are dictated by its core components, there are still limits to how fast a craft of a certain size can go. The speed of a craft built using these rules can never exceed the value listed for its silhouette in **Table 3–3: Maximum Speed by Silhouette**. If various factors otherwise indicate a higher speed, the value listed here should be used instead.

If a core component calls for a craft to have a defense rating that its silhouette does not allow (such as a starboard or port defense on a vehicle of silhouette 4 or lower, as described on page 238 of the AGE OF REBELLION Core Rulebook), this value still counts as null.

TABLE 3–3: MAXIMUM SPEED BY SILHOUETTE

Silhouette	Maximum Speed
0	3
1	4
2	5
3	6
4	4
5–7	3
8+	2

Maximum Altitude: 20 meters.
Sensor Range: Close.
Crew: One pilot.
Encumbrance Capacity: 5.
Passenger Capacity: 2.
Customization Hard Points: 8.

AIRSPEEDER

The fastest craft in an atmosphere, airspeeders soar nimbly through the skies of countless worlds across the galaxy. While they lack the versatility of starships, airspeeders are far less expensive to manufacture and purchase, and are thus the vehicles of choice for many people who rarely leave their homeworld.
Vehicle Type: Airspeeder.
Silhouette: 2.
Hull Trauma Threshold: 5.
Maximum Altitude: 100 kilometers.
Sensor Range: Close.
Crew: One pilot.
Encumbrance Capacity: 5.
Passenger Capacity: 2.
Customization Hard Points: 8.

WALKER

Vehicles with legs have certain advantages over those without, including (but hardly limited to) the ability to maneuver across harsh terrain and in places where weather makes flight untenable. Many war machines are built as walkers for these reasons, but also for sturdy reliability and imposing looks.
Vehicle Type: Walker.
Silhouette: 3.
Hull Trauma Threshold: 15.
Sensor Range: Close.
Crew: One pilot.
Encumbrance Capacity: 2.
Passenger Capacity: None.
Customization Hard Points: 9.

STARFIGHTER

Perhaps the most romanticized of all starships, starfighters are small craft designed for close engagements, bombing, and harrying enemy forces. Many of history's greatest warriors are renowned for their skill in the cockpit of a starfighter, and many of the most storied Engineers are those who built and maintained these legendary craft.
Class: Starfighter.
Silhouette: 3
Hull Trauma Threshold: 8
Sensor Range: Close.
Crew: One pilot.
Passenger Capacity: None.
Encumbrance Capacity: 2.
Customization Hard Points: 7.

REPLACING CORE COMPONENTS IN EXISTING VESSELS

At the GM's discretion, an Engineer can replace one or more of the core components of an existing craft. In this case, the character uses the existing vehicle's profile as the frame, and replaces the engine and/or hull with the appropriate attachments, each of which replaces the listed elements of the craft as usual. The PC then makes the check from **Step 4: Assembly**, using the difficulty, time, and additional costs dictated by the craft's silhouette.

Many craft lack the customization hard points to have engines or hulls replaced by default. At the GM's discretion, during **Step 4: Assembly**, a character who is replacing the engine may remove the existing engine to add two customization hard points to the vehicle, and a character who is replacing the hull may remove the existing hull to add three customization hard points to the craft.

Some craft are too precisely built to be customized this way; the GM is always the final arbiter of whether or not a given vessel's core components can be replaced.

FREIGHTER

Traders from Coruscant to the farthest stars of the Outer Rim rely on freighters to move commodities, ship product, and manage chains of supply.
Class: Freighter.
Silhouette: 4.
Hull Trauma Threshold: 35.
Sensor Range: Close.
Crew: One pilot, one co-pilot.
Encumbrance Capacity: 100.
Passenger Capacity: 4.
Customization Hard Points: 10.

SHUTTLE

Dedicated transports are out of reach to most. Still, many diplomats, dignitaries, and leaders make use of personal shuttles to get around the galaxy. This frame has silhouette 4 and hull trauma threshold 25.
Class: Shuttle.
Silhouette: 4.
Hull Trauma Threshold: 25.
Sensor Range: Short.
Crew: One pilot, one co-pilot.
Encumbrance Capacity: 50.
Passenger Capacity: 10.
Customization Hard Points: 10.

TABLE 3-4: FRAME TEMPLATES

Name	Material Price/Rarity	Check	Time
Speeder Bike	250/1	**Average (◆◆) Mechanics check**	12 hours
Landspeeder	500/2	**Average (◆◆) Mechanics check**	24 hours
Airspeeder	1,000/2	**Hard (◆◆◆) Mechanics check**	24 hours
Walker	5,000/3	**Hard (◆◆◆) Mechanics check**	3 days (72 hours)
Starfighter	10,000/4	**Hard (◆◆◆) Mechanics check**	3 days (72 hours)
Freighter	50,000/3	**Hard (◆◆◆) Mechanics check**	10 days (240 hours)
Shuttle	75,000/3	**Hard (◆◆◆) Mechanics check**	10 days (240 hours)
Corvette	500,000/4	**Daunting (◆◆◆◆) Mechanics check**	20 days (480 hours)
Frigate	(R) 1,000,000/4	**Daunting (◆◆◆◆) Mechanics check**	20 days (480 hours)
Heavy Cruiser	(R) 2,500,000/5	**Daunting (◆◆◆◆) Mechanics check**	50 days (1,200 hours)
Destroyer	(R) 10,000,000/6	**Formidable (◆◆◆◆◆) Mechanics check**	50 days (1,200 hours)
Space Station	50,000,000/5	**Formidable (◆◆◆◆◆) Mechanics check**	100 days (2,400 hours)

CORVETTE

The smallest capital ships in most fleets, corvettes are nonetheless dominating war machines, capable of commanding wings of starfighters and inflicting untold devastation on targets in space and on land. This frame has silhouette 5 and hull trauma threshold 45.
Class: Corvette.
Silhouette: 4.
Hull Trauma Threshold: 25.
Sensor Range: Medium.
Crew: 100 officers, pilots, and crew.
Encumbrance Capacity: 500.
Passenger Capacity: 200.
Customization Hard Points: 12.

FRIGATE

Larger than corvettes but smaller than cruisers, frigates often operate in support capacities in fleets, keeping other ships supplied and laying down fire to suppress smaller enemy craft and drain the defenses of larger foes. This frame has silhouette 6 and hull trauma threshold 80.
Class: Frigate.
Silhouette: 4.
Hull Trauma Threshold: 25.
Sensor Range: Long.
Crew: 500 officers, pilots, and crew.
Encumbrance Capacity: 1,000.
Passenger Capacity: 250.
Customization Hard Points: 15.

HEAVY CRUISER

Cruisers are far larger and more destructive than corvettes, and the largest cruisers can even contend toe-to-toe with destroyers. With crews in the thousands and enormous weapon batteries, even a lone cruiser is a force to be reckoned with on the battlefields amid the stars. This frame has silhouette 7 and hull trauma threshold 95.
Class: Heavy Cruiser.
Silhouette: 4.
Hull Trauma Threshold: 25.
Sensor Range: Long.
Crew: 2,000 officers, pilots, and crew.
Encumbrance Capacity: 5,000.
Passenger Capacity: 200.
Customization Hard Points: 16.

DESTROYER

Truly massive warships, destroyers loom far larger than heavy cruisers and project an aura of dread and power that few can deny. A single destroyer can conquer a world, raining death from the skies and crushing any resistance smaller forces attempt to mount. This frame has silhouette 8 and hull trauma threshold 125.
Class: Destroyer.
Silhouette: 4.
Hull Trauma Threshold: 25.
Sensor Range: Long.
Crew: 30,000 officers, pilots, and crew.
Encumbrance Capacity: 10,000.
Passenger Capacity: 5,000.
Customization Hard Points: 17.

TABLE 3-5: SPENDING ⟲, ⊕, ⚙, AND ▽ WHEN CRAFTING FRAMES

Symbols	Effect
⟲ or ⊕	**Lessons Learned:** The character learns something valuable, and gains □ on the next check the character makes with the same skill before the end of the session. **Larger Scope:** Increase the craft's silhouette by one (this can only be selected once).
⟲ ⟲ or ⊕	**Extra Hard Point:** Add one customization hard point to the craft (this can only be selected once). **Integrated Improvement:** Increase or decrease the crew or passenger capacity by half, rounded up (this can only be selected once). **Reinforced Construction:** Increase the craft's hull trauma threshold by one.
⟲ ⟲ ⟲ or ⊕	**Hard Work Recognized:** The frame catches the attention of high-ranking Engineers; increase the crafter's Duty by two. **Efficient Construction:** A sizable portion of the material is unused or can be reclaimed from the process; the character retains supplies worth 50% of the Material Price needed to craft the item (this can only be selected once). **Elegant Design:** Reduce the craft's silhouette by one (this can only be selected once).
⊕	**Too Big to Hurt:** Add the Massive 1 special rule to the craft or increase the value of this rule by one (this can only be selected once). **Schematic:** Create a schematic that permanently reduces the difficulty of creating frames of this template by one (to a minimum of **Simple [–]**). **Modifiable:** Reduce the difficulty of checks to modify attachments on this vehicle by one (to a minimum of **Easy [◆]**).
⚙ or ▽	**This is a Tough One:** Upon completing **Step 4: Assembly**, the character suffers 5 strain.
⚙ ⚙ or ▽	**Difficult to Integrate:** When a character attempts **Step 4: Assembly** using this core component, upgrade the difficulty of the Mechanics check once.
⚙ ⚙ ⚙ or ▽	**Difficult to Repair:** Increase the difficulty of checks to repair this craft once.
▽	**Faulty Wiring:** The GM may spend ⚙ ⚙ ⚙ or ▽ that a character generates on a Piloting check with this craft to have it suffer the "Major System Failure" Critical Hit result from **Table 7–9: Critical Hit Result** on page 258 of the AGE OF REBELLION Core Rulebook.

SPACE STATION

There are few sights more inspiring to an Engineer than an orbital shipyard or battle station, alight and alive with activity as it maintains, repairs, and constructs dozens of massive ships simultaneously. When engines are set on a space station frame, the vehicle's speed remains zero no matter the engine type (other attributes from the engine apply as normal).
Class: Space Station.
Silhouette: 8.
Hull Trauma Threshold: 150.
Sensor Range: Long.
Crew: 60,000 or more administrators, technicians, and laborers.
Encumbrance Capacity: 100,000.
Passenger Capacity: 40,000.
Customization Hard Points: 50.

ENGINES

The roaring heart of a vehicle or vessel, the engines presented here run the gamut from highly specialized starfighter engines to the plodding, reliable drives found in cargo haulers or lumbering walkers.

SINGLE ION COIL

Perhaps the most basic of sublight drives, these engines are still attractive due to their price.
Base Modifiers: Installing this core component changes a craft's speed to 1, defense to 0/0/0/0, and system strain threshold to 3 x silhouette.
Modification Options: 3 Increase speed by one (to a maximum of 6) Mods, 3 Increase system strain threshold by silhouette Mods.
Hard Points Required: 2.

ELECTRON BAFFLED ENGINE

Baffled engines not only offer increased speed due to their vectoring mechanisms, but also add additional defense to the aft sections of a ship.
Base Modifiers: Installing this core component changes a craft's speed to 2, defense to 0/0/0/2, and system strain threshold to 5 x silhouette.
Modification Options: 2 Increase speed by two (to a maximum of 6) Mods, 2 Increase system strain threshold by silhouette Mods, 2 Increase aft defense Mods.
Hard Points Required: 4.

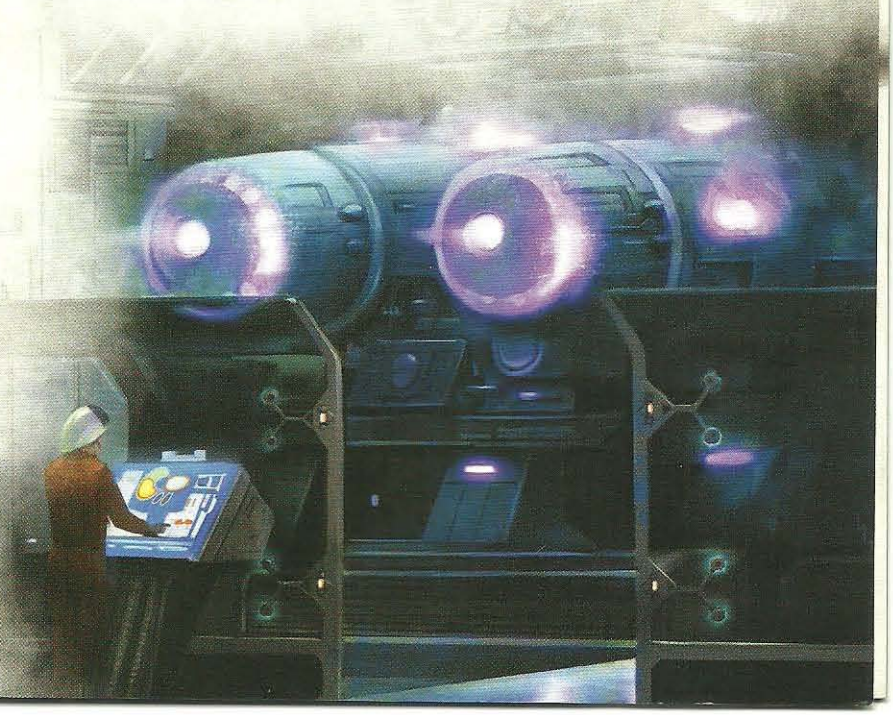


TABLE 3-6: ENGINE TEMPLATES

Name	Material Price/Rarity	Check	Time
Single Ion Coil	500/2	**Easy (◆) Mechanics Check**	24 hours
Electron Baffled Engine	1,000/3	**Average (◆◆) Mechanics check**	2 day (48 hours)
Ion Turbine Engine	2,000/2	**Average (◆◆) Mechanics check**	2 days (48 hours)
Fusial Thrust Engine	2,500/4	**Hard (◆◆◆) Mechanics check**	2.5 days (60 hours)
High-Performance Repulsor Cluster	3,000/4	**Hard (◆◆◆) Mechanics check**	5 days (120 hours)
Ion Drive Array	5,250/5	**Daunting (◆◆◆◆) Mechanics check**	5 days (120 hours)

ION TURBINE ENGINE

Reliable and compact, these engines are often found in freighters seeking power without sacrificing space.
Base Modifiers: Installing this core component changes a craft's speed to 1, defense to 1/0/0/0, and system strain threshold to 10 x silhouette.
Modification Options: 1 Increase speed by one (to a maximum of 6) Mod, 5 Increase system strain threshold by silhouette Mods, 2 Increase fore defense by one Mods.
Hard Points Required: 3.

FUSIAL THRUST ENGINE

Fusial engines are common in starfighters, where high speed is often the most important factor.
Base Modifiers: Installing this core component changes a craft's speed to 3, defense to 1/0/0/0, and system strain threshold to 4 x silhouette.
Modification Options: 2 Increase speed by one (to a maximum of 6) Mods, 2 Increase aft defense by 1 Mods.
Hard Points Required: 3.

HYPERDRIVE MODULES

Compared to sublight engines, hyperdrive modules require less thrust ducting and other complex integration work. Thus, they are handled as a starship attachment.

Base Modifiers: Add one primary hyperdrive (Class 4 or Class 8; see costs below) and astromech droid socket (starfighters only).
Modification Options: 4 Reduce primary hyperdrive rating by 1 (to a minimum of .5) Mods, 1 Add Class 14 backup hyperdrive Mod, 4 Reduce backup hyperdrive rating by 1 Mods.
Hard Points Required: 1.
Price/Rarity: 3,000/3 (Class 8), 6,000/4 (Class 4).

HIGH-PERFORMANCE REPULSOR CLUSTER

While bulkier than other engines, repulsor clusters can offer high speed and increased protection for vehicles operating within a planetary atmosphere. This engine type cannot be mounted on starships.
Base Modifiers: Installing this core component changes a craft's speed to 4, defense to 1/1/1/1, and system strain threshold to 5 x silhouette.
Modification Options: 1 Increase speed by one (to a maximum of 6) Mod.
Hard Points Required: 4.

ION DRIVE ARRAY

Ion drive arrays provide excellent speed as well as plenty of opportunities for modification.
Base Modifiers: Installing this core component changes a craft's speed to 4, defense to 0/0/0/0, and system strain threshold to 2 x silhouette.
Modification Options: 2 Increase speed by one (to a maximum of 6) Mods, 1 Increase system strain threshold by silhouette Mod, 1 Increase fore defense by one Mod, 1 Increase aft defense by one Mod.
Hard Points Required: 4.

HULLS

Though the frame gives a ship its rough shape, it is the hull plating that turns a metal skeleton into a real ship. Each hull offers differing degrees of protection, aerodynamics, cargo capacity, and maneuverability, and Engineers must factor in all of these when choosing and building a vessel's exterior.

SLEEK CARAPACE

This hull sacrifices speed for maneuverability, and often provides for increased attractiveness.
Base Modifiers: Installing this core component changes a craft's armor to 0 and handling to +2.
Modification Options: 1 Increase armor by one Mod, 1 Increase aft defense by one Mod, 1 Increase handling by one Mod.
Hard Points Required: 2.

TABLE 3-7: SPENDING , , , AND WHEN CRAFTING ENGINES

Symbols	Effect
or	**Lessons Learned:** The character learns something valuable, and gains □ on the next check the character makes with the same skill before the end of the session.
or	**Enhanced Output:** Increase the craft's speed by one (to a maximum of 6). **Fine-Tuned Circuits:** Increase the craft's system strain threshold by 1.
or	**Efficient Construction:** A sizeable portion of the material is unused or can be reclaimed from the process; the character retains supplies worth 50% of the Material Price needed to craft the item (this can only be selected once). **Enhanced Power to Deflectors:** Increase each vehicle defense zone's rating by one or one zone's defense rating by two (this can only be selected once). **Easy to Repair:** Reduce the difficulty of checks to repair Critical Hits this craft is suffering by one (to a minimum of **Simple [–]**).
	Fine-Tuned: Remove ■ from Piloting checks caused by navigation hazards and difficult terrain (this can only be selected once). **Schematic:** Create a schematic that permanently reduces the difficulty of creating engines of this template by one (to a minimum of **Simple [–]**).
or	**This is a Tough One:** Upon completing **Step 4: Assembly**, the character suffers 5 strain.
or	**Difficult to Integrate:** When a character attempts **Step 4: Assembly** using this core component, upgrade the difficulty of the Mechanics check once. **Treacherous to Repair:** Upgrade the difficulty of checks to repair Critical Hits this craft is suffering once (this can only be selected once).
or	**Unreliable Output:** The GM may spend or that the pilot generates on a Piloting check with this craft to have it suffer the "Power Fluctuations" Critical Hit result from **Table 7–9: Critical Hit Result** on page 258 of the AGE OF REBELLION Core Rulebook (this can only be selected once).
	Prone to Failure: The GM may spend that a character generates on a Piloting check with this craft to have it suffer the "Engines Down" Critical Hit result from **Table 7–9: Critical Hit Result** on page 258 of the AGE OF REBELLION Core Rulebook (this can only be selected once). **Fuel Hog:** Whenever this vehicle suffers 1 or more system strain, it suffers that amount plus 1 instead.

EXPANDED-CAPACITY HOLDS

Used for freighters, this hull allows for additional cargo space and the promise of paying passengers.
Base Modifiers: Installing this core component changes a craft's armor to 1 and handling to –2, and adds 25 to both the encumbrance capacity and the passenger capacity.
Modification Options: 2 Increase armor by one Mods, 10 Increase encumbrance capacity by silhouette Mods, 8 Increase passenger capacity by silhouette Mods.
Hard Points Required: 4.

LIGHTLY ARMORED HULL

The improved armor in this hull increases survivability.
Base Modifiers: Installing this core component changes a craft's armor to 1 and handling to –1.
Modification Options: 2 Increase armor by one Mods, 1 Increase encumbrance capacity by silhouette Mod, 2 Increase passenger capacity by one Mod, 1 Increase handling by one Mod.
Hard Points Required: 3.

TABLE 3-8: HULL TEMPLATES

Name	Material Price/Rarity	Check	Time (per Silhouette)
Sleek Carapace	450/3	**Average ( ) Mechanics check**	24 hours per silhouette
Expanded-Capacity Holds	500/2	**Average ( ) Mechanics check**	24 hours per silhouette
Lightly Armored Hull	500/4	**Average ( ) Mechanics check**	2 days (48 hours) per silhouette
Deflective Plating	700/5	**Hard ( ) Mechanics check**	3 days (72 hours) per silhouette
Combat Plating	1,500/7	**Hard ( ) Mechanics check**	4 days (96 hours) per silhouette

TABLE 3-9: SPENDING , , , AND WHEN CRAFTING HULLS

Symbols	Effect
or	**Lessons Learned:** The character learns something valuable, and gains ☐ on the next check the character makes using the same skill before the end of the session. **Cargo Pods:** Increase the craft's encumbrance capacity by its silhouette. If the vehicle is a freighter, increase its encumbrance by twice its silhouette (if spending this increase is doubled to four times the silhouette).
or	**Extra Hard Point:** Add one customization hard point to the craft (this can only be selected once per hull). **Layered Plating:** Increase the craft's armor by one (this can only be selected a number of times up to the vehicle's silhouette).
or	**Efficient Construction:** A sizable portion of the material is unused or can be reclaimed from the process; the character retains supplies worth 50% of the Material Price needed to craft the item (this can only be selected once). **Maneuvering Fins:** Increase the craft's handling by one (to a maximum of +3).
	Integrated System: Add +1 hard point to the craft, then install one applicable vehicle attachment that requires 1 or fewer hard points. No check is required to obtain this attachment, and it costs zero credits. **Schematic:** Create a schematic that permanently reduces the difficulty of creating hulls of this template by one (to a minimum of **Simple [–]**). **Too Tough to Hurt:** Add the Massive 1 special rule to the craft or increase the value of this rule by one (this can only be selected once per vehicle).
or	**This is Tough One:** Upon completing **Step 4: Assembly**, the character suffers 5 strain.
or	**Difficult to Integrate:** When a character attempts **Step 4: Assembly** using this core component, upgrade the difficulty of the Mechanics check once.
or	**Tight Quarters:** Add ■ to all checks except Piloting and Gunnery made while aboard this vehicle (this can only be selected once).
	Loose Plating: The GM may spend that the pilot generates on a Piloting check with this craft to have it suffer the "Destabilized" Critical Hit result from **Table 7–9: Critical Hit Result** on page 258 of the **Age of Rebellion** Core Rulebook (this can only be selected once).

BIG DESIGNS, BIG REQUIREMENTS

Building a warship is, simply put, not a one-person job. This sort of construction project usually requires an entire team of technicians led by a Shipwright rather than a lone builder. While droids can perform many tasks more efficiently than organic laborers, the effort involved in building any ship of silhouette 5 or higher is staggering, and requires a huge contingent of support personnel, potentially over the course of multiple years.

These efforts also generally require other material and supplies to support the final assembly. These are represented in **Table 3–10: Assembling Vehicles and Starships** (see page 85) as Additional Resources Needed. They reflect the fact that ships of varying size have extremely different needs. The engine from an A-wing is simply not going to be sufficient to power an MC80 star cruiser, for example, but an insightful and clever Engineer might be able to find ways to leverage its innovations when constructing the massive engine needed. The extra cost in credits at this stage accounts for considerations such as expanding the size of certain core components, plus other raw materials needed to integrate all of the systems and complete the assembly.

DEFLECTIVE PLATING

Hulls featuring these protective plates give a tradeoff between defense and maneuverability.
Base Modifiers: Installing this core component changes a craft's armor to 2 and handling to –2.
Modification Options: 2 Increase armor by one Mods, 1 Increase fore defense by one Mod, 1 Increase hull trauma threshold by silhouette Mod.
Hard Points Required: 4.

COMBAT PLATING

Combat plating offers perhaps the best protection a hull can provide, but reduces the steering to glacial levels of responsiveness.
Base Modifiers: Installing this core component changes a craft's armor to 3 and handling to –3.
Modification Options: 3 Increase armor by one Mods, 1 special rule (Massive +1) Mod, 2 Increase hull trauma threshold by silhouette Mods.
Hard Points Required: 5.

TABLE 3-10: ASSEMBLING VEHICLES AND STARSHIPS

Frame Silhouette	Check	Time	Additional Resources Needed
0–1	**Average (◆◆) Mechanics check**	1 day (24 hours)	—
2	**Hard (◆◆◆) Mechanics check**	2 days (48 hours)	1,000 credits for additional supplies
3	**Hard (◆◆◆) Mechanics check**	5 days (120 hours)	10,000 credits for additional supplies
4	**Daunting (◆◆◆◆) Mechanics check**	10 days (240 hours)	A team of 5 or more, 25,000 credits for additional supplies
5–6	**Daunting (◆◆◆◆) Mechanics check**	50 days (1,200 hours)	A team of 100 or more, 100,000 credits for additional supplies
7–9	**Formidable (◆◆◆◆◆) Mechanics check**	100 days (2,400 hours)	A team of 5,000 or more, 2,000,000 credits for additional supplies

TABLE 3-11: SPENDING , , , AND ON ASSEMBLY

Symbols	Effect
or	**Lessons Learned:** The character learns something valuable, and gains □ on the next check the character makes with the same skill before the end of the session. **Improved Safety Features:** Whenever a character in this vehicle would suffer wounds or strain from a Critical Hit the vehicle suffers, as a result of working on the vehicle, or other similar occurrences, the character suffers two fewer wounds or strain, to a minimum of 1. This does not apply to strain or wounds suffered voluntarily (this can only be selected once).
or	**Customized Controls:** Choose a pilot; that character adds □ to Piloting checks made with this craft (this can only be selected once). **Under Budget:** The character retains supplies worth 25% of the credit cost in the Additional Resources Needed column during **Step 4: Assembly** (to a minimum of 50% of the credit cost).
or	**Distinctive Style:** Crew of the craft add □ to Charm, Coercion, and Negotiation checks made in the presence of the vessel (this can only be selected once). **Ahead of Schedule:** Reduce the time required for **Step 4: Assembly** by 25% (to a minimum of one hour).
	Masterful Construction: If this craft ever suffers the "Vaporized" Critical Hit result from **Table 7–9: Critical Hit Result** (see page 258 of the **Age of Rebellion** Core Rulebook) or should otherwise be instantaneously destroyed, it suffers the "Breaking Up" Critical Hit result instead. **Assembly Plans:** The crafter fashions a detailed manual covering how the item was assembled, including tips learned in the effort. This permanently reduces the difficulty of assembling starships and vehicles of this silhouette by one (to a minimum of **Simple [–]**).
or	**This is Tough One:** Upon completing **Step 4: Assembly**, the character suffers 5 strain.
or	**Finicky Interface:** Increase the difficulty of checks to modify attachments to this craft by one (this can only be selected once). **Doesn't Look Like Much:** Decrease the price that any buyer is willing to pay for this craft by 50% (this can only be selected once).
or	**Complex Construction:** Increase the difficulty of checks to repair this craft once (this can only be selected once). **Specialized:** The crafter chooses one environment of operation (such as space, low atmosphere, or high atmosphere). Outside of this environment, the pilot adds ■ to Piloting checks made with this vehicle (this can only be selected once).
	Defective Seals: The GM may spend that a character generates on a Piloting check with this craft to have it suffer the "Major Hull Breach" Critical Hit result from **Table 7–9: Critical Hit Result** on page 258 of the **Age of Rebellion** Core Rulebook (this can only be selected once).

ENGINEER CAMPAIGNS

The following three campaign ideas are designed to bring Engineer abilities to the forefront of the story while still providing significant and sometimes leading roles for PCs of other careers. GMs should be able to use equipment, locations, and NPCs found in this book and in the **Age of Rebellion** Core Rulebook to adapt these ideas for use in their own campaigns as well.

SHIPYARD SLEIGHT OF HAND: A SHIPYARD CAMPAIGN

The Alliance Fleet is the Rebellion's most important military asset. Starships are not only a vital fighting force, but an equally important distribution network connecting Rebel units throughout the galaxy. With the exception of a few still-hidden and well-defended shipyards, the Rebels have few significant facilities for properly maintaining their capital ships. Some repairs can be carried out while operating in deep space, but major repairs and refits normally require a properly staffed and supplied shipyard. The Rebels cannot maintain stationary targets for very long, though. Imperial military might is swift and overwhelming. A dedicated shipyard or a moderately sized starship repair space station is too much of a stationary target to operate openly.

In this campaign, the PCs take partial control of a shipyard in order to clandestinely repair and upgrade Rebel starships. Operating virtually in plain sight, the characters must move ships in and out without raising suspicion. They must repair the craft and see them safely returned to Rebel operations. The PCs must secure parts and materials to carry out the work. Essentially, the PCs must keep the operation hidden, supplied, and ready for evacuation of all personnel at a moment's notice.

The GM must keep up the suspense without letting it dominate every adventure. Some operations should become routine if the PCs work out reasonable methodologies to avoid drawing undue attention. The more successful they are, the smoother their operation becomes.

MISSION GOAL

In a short campaign, the Player Characters must take over a single shipyard berth to stage emergency repairs of a specific ship and withdraw before anyone is the wiser. In a longer campaign, they attempt to expand control of the shipyard and hold it. If the PCs want to take on other adventures while the operation is running successfully, they can temporarily cede control to other Rebel groups or be reassigned for those missions.

The threat of Imperial discovery is important, but imminent Imperial attack is not the campaign's predetermined end. PC actions determine if it occurs, whether due to failure to keep the shipyard hidden or as a result of a failed operation. A single small mistake should not doom them, though, and they should get a chance to recover from lesser errors. It is more fun for the PCs to work themselves into and out of jams than to be punished for every mistake. However, a serious error could doom the entire operation with little warning.

ACQUISITION

The PCs must first acquire control of the shipyard or space dock. Any major or well-traveled system can serve the needs of this campaign. Operating in the Core Worlds or similar areas of Imperial control makes the mission much more challenging. Facilities may be planet-side, in orbit, or somewhere unusual such as at an asteroid base. The choice of facility determines the size and type of ships that can be worked on.

The GM may jump-start the campaign if the PCs are already involved with a facility. They could be Rebel sympathizers moving to take advantage of their situation to help the Fleet. With this option, each PC should contribute expertise to specific aspects of the operation. PCs without this advantage must find another way to gain control of the facility. Generally speaking, the Rebellion leadership frowns on threats or outright bribery, preferring instead to succeed through recruitment of important individuals or sneaky ways of assigning the characters to important positions. Ultimately, the PCs need control of or influence over a space dock, its maintenance and repair crews, its supply chain, and its security. Shipyards are enormous operations, and the PCs won't be able to control everything or trust everyone.

TYPICAL OPERATIONS

Typically, the PCs must secretly sneak a Rebel ship into the dock, assess its damage, and then determine whether they have the parts, raw materials, and repair expertise necessary to effect repairs. Since Rebel operations rarely have enough cash, resources, or personnel, the PCs must figure out how to acquire them. Then, the actual repairs must be carried out as quickly as possible in order to minimize the risk to everyone involved.

THREATS

Ongoing and periodic threats plague the facility. Ongoing threats pose continual but predictable problems for the Player Characters to eliminate or circumvent, while periodic threats are unexpected issues requiring immediate attention.

ONGOING THREATS

- Regular Imperial or other security patrols under enemy control.
- Imperial Security Bureau or other undercover enemy agents watch the facility.
- Yard workers accidentally discover the PCs' activities, propaganda, personnel, or obvious Alliance equipment.
- Unusual shipments or obvious military supplies arrive regularly at the facility, potentially tipping off delivery services or neighbors.
- A high-ranking official or administrator becoming suspicious of the PCs' activities.

PERIODIC THREATS

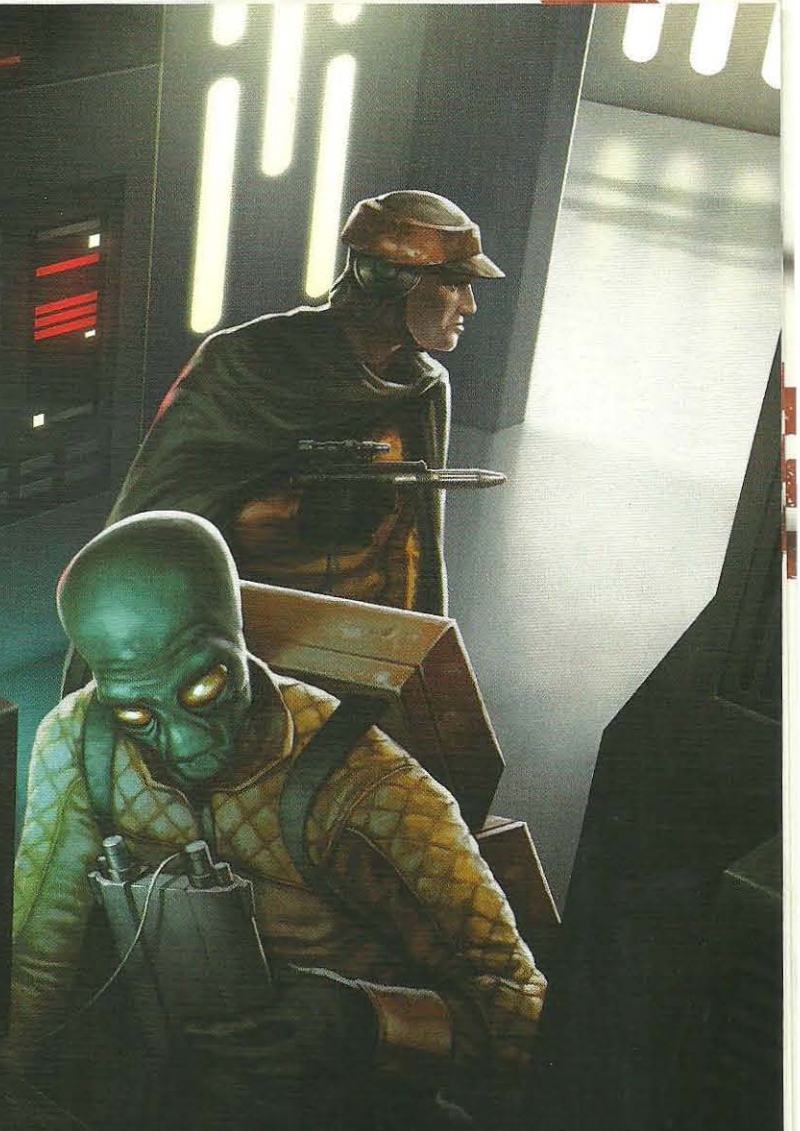
- Discovery of an undercover enemy agent.
- An internal accident or external incident causes damage to the facility and brings Imperial or other governmental agencies into the area for damage control and to investigate.
- Crews and personnel with the damaged starship have public warrants and wanted posters, or draw undue attention.
- Imperials or criminals pursuing the ship track it to the facility, requiring the PCs to either hide the vessel or immediately evacuate it.

EXAMPLE CAMPAIGN

The following is an outline for a possible campaign:

Assignment: The PCs are notified that local Rebel activity is expected and are ordered to prepare a facility to secretly repair damaged Alliance ships.

Episode I—Acquisition: The PCs can rent a space dock of suitable size in a system with a light Imperial presence. They must arrange a substantial deposit and a daunting amount for rent. The PCs strike deals with local Rebel sympathizers to gain the funds needed. They discover that the shipyard owner's shady reputation allows them go about their business without too many questions. A criminal syndicate unexpectedly tries to outbid the PCs at the last moment, forcing them to scramble to sweeten the deal or deter the interlopers.



Episode II—Setup: After securing the location, the PCs recruit the substantial number of Rebel and non-Rebel Mechanics and other workers needed to run the facility. They must also arrange for suppliers and security. The PCs soon discover the downsides of operating under shady ownership. Imperials and law enforcement regularly raid criminal elements working out of other bays. It becomes clear there are secret agents or informants aiding them. The PCs must identify the threats and neutralize or eliminate them. The PCs might be able to convince troublesome neighbors to leave, or hinder them economically to force them out of the area.

Episode III—Incoming Craft: The first Rebel starship arrives unexpectedly early. The Player Characters must hastily create a cover story for the ship. The ship is not marked as a Rebel vessel, but it is a model frequently used by the Alliance, drawing immediate suspicion. If the PCs' cover story fails, ISB agents attempt to infiltrate the workforce. The PCs personally assess the damage to the ship, along

MOBILE SHIPYARDS

Mobile shipyards (such as the one on page 59) are gigantic mobile stardocks fitted with powerful engines and hyperdrives. Some aren't much more than a framework with engines and minimal living and storage facilities. Others are self-contained cities dedicated to traveling to and repairing stranded capital ships and bulk freighters.

Adapting the campaign to a mobile shipyard changes the threats and enables the PCs to escape with their facility if threatened. However, acquiring one is extremely difficult, as most are controlled by military forces or powerful interstellar corporations. These stations also take considerably longer than normal starships to prepare to move or jump to hyperspace, and typically can't jump when docked with capital ships.

with a team of experts. They discover that a damaged reactor is not stable when it begins to spectacularly fail. The PCs must take emergency measures to prevent a catastrophe. If they fail, the shipyard owner, emergency services, and Imperials intervene.

Episode IV—Repair Strategy: The PCs develop a strategy for fixing the ship. The requirements include: replacement of a gigantic engine the size of a small starship, replacement of military-grade shield generators that are simply not available off the shelf, and upgraded weapons. The PCs must personally negotiate the purchase and delivery of these items. If ISB agents managed to infiltrate the workforce, they trigger unfortunately timed official inspections.

Episode V—Escape Valve: As the PCs are completing work, an Imperial capital ship arrives and commandeers neighboring facilities for emergency repairs. The ship is badly damaged. It turns out that the Imperial ship was part of the skirmish that damaged the Rebel ship in the PCs' dock. The current damage to the Imperial ship is not from that battle. The PCs must go into full diversion mode, coming up with ways to conceal the Rebel ship or reinforce their previous cover story. The Imperials initially are distracted by their own repairs. The Rebel ship might depart without attracting attention, or it might escape, yet still draw Imperial interest. In a worst-case scenario, the Imperials realize exactly what the ship is and immediately attack to capture or incapacitate it. The Imperials might demand use of the PCs' dock while the ship is there, or after it leaves. The PCs might find themselves with a rare opportunity to sabotage an Imperial vessel while purportedly repairing it.

OPERATION SHIELD BASH: A BATTLE STATION CAMPAIGN

Operation Shield Bash is a bold plan to publicly rebuild a Clone Wars–era battle platform under the pretense of protecting nearby Imperial orbital operations—and, ultimately, attack those same operations. Secret Rebel sympathizers within the upper ranks of the Truwel system government have convinced the Alliance of a unique opportunity to inflict severe damage on the remote system's Outer Rim Imperial Navy waystation. The GM can use this in a variety of ways, from fitting a few limited but important adventures into an ongoing campaign to having the PCs run the entire operation from its start to the final attack.

Multiple levels of deception are required to succeed. PCs adept at infiltration and espionage must carry out reconnaissance missions within Imperial operations. Pilots and gunners are tasked with performing diversionary attacks and feints against the Imperials to convince them that additional protection is needed. Diplomats and characters with social connections must drum up support within the Truwel government and the population, either for the secret Alliance operation or for public Imperial defense arguments. Engineers and other technical characters assess and rebuild the battle platform. Everyone has a role in the surprise attack at the end of the operation.

MISSION GOAL

Imperial Supply and Waystation 5346, located in the remote Truwel system in the Outer Rim, is an important but outdated Imperial supply and repair station. It has been in operation since the Clone Wars, but the Empire keeps it only minimally maintained. Local Rebel sympathizers in the government believe (correctly) that if the Imperial waystation is destroyed, the Empire will move its operations to newer facilities strategically located elsewhere in the Outer Rim.

STATION STATUS

The *Sentinel Flare* is a *FireStar II*–class Rendili StarDrive Republic-era orbital defense station (see page 89) that provided the waystation's primary defense during the Clone Wars. A surprise Separatist strike severely damaged the orbital defense platform in the final days of fighting. With the war's abrupt end, the new Empire saw no need to restore the platform and returned only its core functionality to service. It remained as an intelligence asset for a few years before being handed over to the Truwel planetary government. Entire sections of the *Sentinel Flare* were left abandoned. The waystation, on the other hand, received five new service stations in which to tend to Imperial starships.

SENTINEL FLARE ORBITAL DEFENSE STATION

The following is the general layout of the *Sentinel Flare*, noting the current status of each vital section within the battle station.

Hangar Deck: The battle station's central deck is flanked above and below by the weapon rings, with hangars for fighters and freighters on each of the four sides. About half of the hangars are operational. No fighters are currently aboard.

Maneuvering Clusters: Each corner of the hangar deck extends beyond the rings and ends in a cluster of thrusters for maneuvering the station. These are fully operational.

Weapon Rings: The weapon rings are a pair of circular platforms with tracks to allow laser turrets and missile pods to rotate to the side of the station where they are most needed. The design is susceptible to damaged weapons' clogging up the tracks, but damaged weapons can be ejected if the situation demands such drastic measures. About one half of the upper-track weapons operate. The lower track requires a complete rebuild, however.

The Core: The central levels of the battle station within the rings house the crew quarters, administration levels, surveillance systems, and communications. Most of this section is functional. The surveillance systems are outdated.

Reactor Levels: The reactors sit below the core, surrounded by the lower weapon ring. About half are operational. The rest normally power the weapon systems and must be restored.

Upper and Lower Spires: Three spires each extend from the core well above and below the rings. The spires house additional weapons and surveillance equipment. The lower spires are heavily damaged and abandoned below the reactor levels. One upper spire is functional; the other two are only partially so.

A Rebel hit-and-run attack against the waystation provided the inspiration to local sympathizers for Operation Shield Bash. As the Imperials searched for ways to cheaply increase defensive operations, the sympathizers seized their opportunity. After meeting local Rebels, they managed to convince the Imperials to allow the *Sentinel Flare* to be rebuilt and upgraded.

FIRESTAR II-CLASS ORBITAL DEFENSE STATION

The *FireStar II*–class battle station was designed to provide concentrated firepower from a smaller, less expensive, and more easily produced station than the original *FireStar*.

Hull Type/Class: Orbital Defense Platform/*FireStar II*.
Manufacturer: Rendili StarDrive.
Hyperdrive: None.
Navicomputer: None.
Sensor Range: Long.
Ship's Complement: 300 officers and enlisted crew.
Encumbrance Capacity: 5,000, depending on station configuration.
Passenger Capacity: 200.
Consumables: One year.
Price/Rarity: 8,500,000 credits (R)/8.
Customization Hard Points: 5.
Weapons: Six forward, six aft, six port, and six starboard turret-mounted medium turbolasers (Fire Arc Forward, Aft, Port, or Starboard; Damage 10; Critical 3; Range [Long]; Breach 3, Slow-Firing 1).

Six forward, six aft, six port, six starboard, four upper ring, and four lower ring turret-mounted quad laser cannons (Fire Arc All; Damage 5; Critical 3; Range [Close]; Accurate 1, Linked 3).

Two forward, two aft, two port, two starboard, four upper ring, and four lower ring turret-mounted assault concussion missile launchers (Fire Arc Forward, Aft, Port, or Starboard; Damage 7; Critical 3; Range [Short]; Blast 4, Breach 5, Guided 2, Inaccurate 1, Slow-Firing 1).

ADDITIONAL RULES

Massive 2: When making an attack targeting this station, the Critical rating of any weapons used counts as 2 higher.

SENTINEL FLARE CURRENT STATUS

Though damaged and badly in need of repairs, the battle station still is formidable in the right hands.

- **Defense:** 1 in all zones.
- **Armor:** 7.
- **Hull Trauma:** 80.
- **System Strain Threshold:** 50
- **Ship's Complement:** Down to 100 officers and enlisted crew.
- **Encumbrance Capacity:** 3,000.
- **Passenger Capacity:** 100.
- **Consumables:** Six months.
- **Customization Hard Points:** 4.
- **Weapons:** Half of turbolasers are damaged. Half of upper ring weapons are damaged. All lower ring weapons are damaged. Half of non-ring-mounted missile launchers are destroyed.

MISSION TYPES

The following are typical tasks for the PCs to undertake, often more than once.

- **Station Assessment:** Engineers make surveys of areas that need repairs or upgrades. In long-ignored sections, which are often unpressurized and have never been fully repaired, work is dangerous. There are hazardous environmental conditions, undiscovered and unexploded ordnance, and dozens of combat droids trapped in their deployment rockets lodged within the wreckage.
- **Supply Runs:** The station needs seemingly endless parts and supplies. Systems can be replaced with modern versions or with refurbished and scavenged equipment. The PCs must acquire most goods offworld. As an official, publicly known project, they have access to government funds and supply chains. However, since the Alliance's goal is often to clandestinely upgrade the station's systems, official channels aren't always an option, requiring black-market shopping.
- **Repair Operations:** Repair operations are dangerous due to the hazardous conditions. The PCs are involved when a major system is installed or replaced. Their success or failure in all repair operations should contribute to the success or failure of the final attack.
- **Staged Attacks:** The first Rebel attack spooked the Imperials, so the Rebels continue to make regular attacks to keep up the pressure. The attacks justify further upgrades to the *Sentinel Flare*. However, they must avoid becoming too much of a threat, which might prompt the deployment of greater Imperial forces or an Imperial takeover of the *Sentinel Flare* to hasten the job. The PCs plan and participate in the attacks. Success or failure influences Imperial reactions.
- **Recon Missions:** The Rebels need intelligence to plan their staged attacks. They also keep an eye on starships and other units involved in Imperial operations that occur elsewhere in the sector. The Rebels always need more information to plan their strategy for the final attack against the waystation.

EXAMPLE CAMPAIGN

The following is an example framework for a campaign:

Assignment: Newer PCs are assigned to aspects of the campaign that best match their abilities. Veterans may be placed in charge of the operation and may deal with the complexities of strategy as well as the immediate mission difficulties.

Episode I—Vacuum Packed: The PCs make a full assessment of the abandoned lower levels of the station. Shifting debris cuts them off, followed by the release of dormant buzz droids trapped in the wreckage. The PCs must hunt them throughout the station and contend with Imperial concerns and investigations prompted by the ensuing chaos.

Episode II—Gear Up: The PCs go to another system with a bulk freighter to retrieve an assortment of parts, turbolasers, and shield generators. They're also secretly seeking a large cache of powerful longer-range missiles, and are hoping to secure them without letting the Imperials find out. If the PCs are discovered, the Imperials confiscate the weapons. Diplomats visit local Imperial leaders to repair any loss of trust in the process.

Episode III—Rebel Pressure: The Rebels stage an attack on the waystation. The PCs participate in the attack or play a role in establishing *Sentinel Flare* as a solid Imperial ally during the attack. They might well play both sides.

Episode IV—Support and Suspicion: Unfortunately, the operation draws the interest of local authorities and the Imperials. The PCs must allay the fears of Imperial investigators or rebuild support for the project among local politicians. The PCs provide technical explanations for their upgrades or incidents. Diplomatic characters persuade, bribe, or otherwise cover up any problems at government offices or high-class entertainment events. The PCs' success or failure affects the Imperials' readiness against the ultimate attack on the waystation.

Episode V—Ignition: Using the station, the PCs launch a devastating attack against the Empire with recon missions establishing the way. The characters staff the weapons and direct all damage control on the *Sentinel Flare*. The Imperials have reinforcements standing by, thanks to the previous attacks. The strength and speed of the reinforcements depend on the PCs' previous success in deceiving or inhibiting the Imperials. The *Sentinel Flare* sustains heavy damage, and it is up to the PCs to save it or escape. If the PCs fail to drive the Empire out of the system, a new campaign might start with the PCs' defending the local sympathizers from Imperial reprisals, or evacuating them altogether. Station survival is temporary, as an Imperial fleet eventually arrives to destroy it.

THE BUNKER BUILDERS: A COMBAT ENGINEERING CAMPAIGN

As the Rebellion grows, so does the need for secure shelters, hideouts, and bases. With facilities springing up across the galaxy, the need far outstrips the number of qualified Engineers and defense systems experts available to harden a location. While some local Rebel operations are perfectly capable of defending themselves, most Rebels and Rebel sympathizers are not military defense specialists. One way the Rebellion tries to compensate for this deficiency is through the use of combat engineering teams and systems experts.

In this campaign, the Player Characters serve as these mobile specialists. They travel across the galaxy to provide expertise to fledgling Rebel cells and organized military operations alike. Upon arrival, the PCs must assess the best way to help the local Rebels, obtain the raw materials and equipment needed to finish the job, and move on without attracting Imperial attention. As one or more of the PCs are also experienced Sappers, it's not uncommon for the local operation to lean on them for explosives experience or even draft them into performing missions. Adding to the danger is that the PCs often break one of the most basic rules when dealing with secret Rebel cells: by necessity, the PCs often learn where and who they are. Capture and interrogation by Imperial forces could be devastating to Rebel operations throughout a sector or region of the galaxy.

MISSION GOAL

The PCs must reinforce Rebel operations, assist missions where needed, and avoid capture. All parameters are adjusted to the exact conditions of the mission at hand. The GM may send them to support anything from the smallest Rebel safehouses to the largest secret bases.

MISSION TYPES

Below are typical missions for the team. Each type can be used more than once, but the specifics and the local personalities should be very different each time.

- **Hideout Hardening:** Whether it's an apartment, underground cavern, bunker, abandoned starship, or royal estate, every hideout has its own unique quirks and requirements. Fortifying or hardening the area includes installment of reinforced plating, sensor grids, encrypted communications, electronics countermeasures, shielding, and even booby-traps. The PCs must obtain the raw materials and systems and then install them without alerting neighbors or the authorities.

REBEL PERSONALITIES

The Bunker Builders campaign introduces the Player Characters to a wide-ranging selection of Rebels around the galaxy. The PCs arrive at each location with their own plans or notions of how to best accomplish the mission. On top of that, they likely have specific orders from their Rebel commanders as to what they are to achieve, and in what capacity they are allowed to act. One or both of these sets of opinions are likely to run counter to what the local Rebels want or need. Part of the mission is for the PCs to facilitate the process and smooth over any difficulties. While the PCs must get the job done, they also don't want to create rifts between the locals and distant Rebel leaders.

With so many different Alliance characters involved, the Game Master should spend some time developing distinct personalities for the main characters the PCs deal with. This helps the players differentiate between the characters and keeps the Rebel Non-Player Characters from becoming overly generic.

The GM should take into account the NPCs' species, role in the Rebellion, status among the local Rebels, and background. Some leaders should have an overabundance of personality, whether that makes them very easy or very difficult to work with. Others might be weak or insecure leaders, looking for the PCs and overall Rebel Alliance to add legitimacy to their status.

Also, the GM should consider what Duties and Motivations drive the local leaders. Using these elements helps tie them into the **Age of Rebellion** setting and could provide some meaningful hooks into PC backstories. Those elements are also useful for fleshing out NPCs on the fly.

- **Vehicle Upgrades:** Modern military gear being difficult to obtain, most Rebels must upgrade civilian vehicles and vessels for combat duty. The local units usually have the vehicles, although the state of repair varies widely. The PCs skillfully enhance such craft quickly and effectively. Some enhancements are for specific missions that the PCs could be drafted into.
- **Base Building:** The Rebels need true military bases of operation. Given their secret nature, the locations are remote and often in inhospitable environments. The PCs are selected to build or expand a remote base. They must contend with the extreme environment, local wildlife, and temperamental, patched-up systems. They may also need to work closely with natives accustomed to the local hazards, something that may be as difficult as the actual engineering work.
- **Base Protection:** It's not enough for a base simply to exist—it needs defenses as well. The PCs may need to construct defensive trenches, lay in and test shield generators, and survey the surrounding area for locations suitable for forward defensive positions.

EXAMPLE CAMPAIGN

The following is an example framework for a campaign that can be adapted as needed:

Episode I—Blasting and Building: The Player Characters are first assigned to help a Rebel cell build a secure bunker in the rugged canyons at the outskirts of a major metropolitan area. The local cell has selected several potential sites; the PCs must decide which one to use and carry out construction. At the selected site, the overbearing cell leader demands their help to destroy an important communications tower. Its loss helps hide Rebel actions for weeks or months before it can be repaired.

Episode II—Operation Ordnance: The PCs are transported to a secret asteroid hangar complex. There, they work with a hundred other Rebel techs to urgently upgrade dozens of freighters to serve as escort vessels and raiders. These ships were designed to sneak into Imperial convoys and bases in order to steal military weapons and supplies. The PCs are ordered to go along to complete upgrades aboard one straggling vessel as the mission begins, and they soon find themselves integral members of an infiltration and demolitions team. Their Sapper abilities prove to be key in circumventing enemy fortifications around an enormous supply and munitions depot.

Episode III—Enemy Territory: A call for immediate aid sends the PCs to an important Imperial Core World to rebuild and better conceal the hidden command center for the world's Rebel cells. The PCs must physically conceal the location and install advanced sensors for local protection and intelligence gathering. All work must be completed while deceiving active Imperial Security Bureau investigations. To achieve this, the PCs also build a decoy stronghold for the Imperials to discover and destroy. In a bid to further confuse Imperial intelligence, the base also holds a treasure trove of disinformation about Rebel operations.

Episode IV—Imperial Reckoning: By now, Imperial Intelligence has likely assembled enough information to target the PCs directly. How long and effective the pursuit becomes depends on how successful the PCs were at avoiding Imperial incidents in the previous

episodes. The Imperials set up a trap of their own, either in revenge for being duped in the previous episode or because they have learned something specific enough about one or more of the PCs to draw them in. If the Imperials know how to contact any of the PCs, they pose as Rebel sympathizers wanting to join the Alliance. If the Imperials don't have a way to contact the PCs directly, they instead arrest or put pressure on any of the PCs' relatives or friends they have been able to identify.

When the PCs come to investigate, the Imperials attempt to arrest or kill them. They also attempt to seize any starships, droids, and record-holding devices, hoping to find information about Rebels throughout the galaxy. The PCs must rescue any captured allies and retrieve lost data and equipment. If they can't, the PCs must alert their Rebel superiors and immediately take steps to protect any Rebels they worked with previously.

Episode V—Starfighter Base: The PCs are ordered to carve a small base suitable for a starfighter squadron in a range of bluffs and crags made of crumbling conglomerate rock. The PCs discover that no single cavern is stable. They must design a network of caves and facilities to make the operation work. Cave-ins are a constant threat, and hardening all areas is key.

Unfortunately, materials are in short supply everywhere, except in the black market. Other options are for the Player Characters to contribute to building known locations such as Tierfon Outpost or Arda I. If the campaign takes place in the setting for the *Rebels* television series, this episode could be replaced with one in which the PCs help establish Chopper Base on Atollon. This episode can serve as an optional end for the campaign.

Episode VI—The Big One: If the PCs succeed in the previous episode (and the timeframe is compatible), they are ordered to move on to building one of the Alliance's main bases, possibly on Yavin 4 or Hoth. Yavin 4 requires adapting the original temple site to Alliance requirements. Hoth offers the challenge of carving caves in the ice and contending with cold and creatures. Assuming they remain long enough, the PCs could participate in the events of the movies. On Yavin 4, they might be tasked with preparing the fighters for the Death Star assault. On Hoth, the PCs likely end up helping with the evacuation, although a few likely fight as well.

ENGINEER REWARDS

Engineers run the same risks as any other members of the Rebel Alliance once they take to the battlefield. Even operating behind the front lines is no guarantee against the myriad weapons and agents of the Empire. On top of risking life and limb alongside their colleagues, Engineers also see their handiwork—from customized vehicles to unique droids—blown apart by the enemy. When one considers how strongly they may feel a sense of attachment to their creations, it is no wonder that Engineers should stand to gain as much as they lose in order to sustain their efforts.

Rewards for Engineers can take any number of forms and can be as unique as the campaigns that provide them. This section presents guidelines for some of the narrative and mechanical rewards unique to Engineer characters. They can gain these rewards as a result of the game's story and personal character arcs, alongside those benefits of Duty, XP, and credits that apply to all characters.

RESOURCES AND RESPONSIBILITY

Like any **Age of Rebellion** characters, Engineers stand to rise through the ranks as their Duty increases and they prove their capabilities. As Alliance High Command's esteem of a PC grows, so do the resources available to the PC—and the PC's accompanying responsibilities. These often takes the form of a promotion, along with the requisite facilities and subordinates.

Skilled Shipwrights might be placed in charge of a hangar in a hidden base or aboard a capital ship, or might oversee maintenance of an entire fleet, with anywhere from a handful to hundreds of lesser-ranked Engineers reporting to them. Although this comes with obvious advantages, increased responsibility is a double-edged vibrosword. While the additional resources could be invaluable for working on the party's own ships, the Shipwright might also be expected to prioritize a certain squadron, perhaps even rivals to the PCs. Scientists who make a name for themselves could suddenly find themselves overseeing a top-secret development project, ordered to keep the details from their comrades.

Responsibility often also means difficult decisions. Should Droid Specialists wipe the memory of all the droids under their purview, even if one saved their life? Does a Sapper trigger the demolition charges on a bridge's supports even though doing so risks stranding allies or civilians in the line of the Imperial advance? Such challenging situations present great roleplaying opportunities for all players involved in the situation.

While capable sentient assistants and subordinates can be extremely helpful, droids make for useful rewards for even the most independent Engineer, or one for whom the mantle of command could never sit right. Blurring the line with more traditional rewards in the form of gear, characters must decide for themselves if a droid is a simple tool or something more. In any case, even a single pit droid can greatly increase an Engineer's work output, while a whole team of droids could rival the production of a small factory. Although many models of droid, from dedicated repair droids to astromechs, are designed specifically to assist in engineering and similar mechanical tasks (perhaps due to a bias on the part of their designers), Engineers of any

specialization are likely to modify a droid to better suit their needs. Droids are likely to be assigned to an Engineer as part of the increased resources that come with a promotion in rank, or simply to help the Engineer with a particular task. Similarly, non-droid aides and interns could also be assigned to help the character with projects. Such support droids or organics might be reassigned once the task is complete, unless the PC convinces superiors of a continued need for the assistance.

Ultimately, promotions and increased responsibility are meant to serve as rewards. While they may put a PC in difficult situations at times, the PC should generally be able to reap the benefits. These can come in the forms of additional □ on relevant checks making use of the PC's facilities, or access to the parts needed to mod an attachment at no cost. The Engineer might order human or droid assistants to undertake routine maintenance tasks, freeing time up for experimentation and pet projects.

Regardless of rank, Engineers who prove themselves capable might suddenly find new responsibilities thrust upon them, whether through pragmatism or sheer necessity. This type of situation could form the basis of entire game sessions or adventures (although the GM should, of course, make sure each character gets such a time in the spotlight). A superior might take a Shipwright off other duties with orders to oversee the retrieval of a damaged capital ship, or even of the newly discovered wreck of an ancient and powerful vessel. Likewise, a Droid Specialist might be given the urgent task of salvaging a droid with vital data in its memory banks, or a Sapper could be placed in charge of fortifying defenses for an imminent Imperial attack. Regardless of the situation, the GM should help all players find a way for their characters to contribute.

PROVEN EXPERTISE

Even within a given specialization, an Engineer might demonstrate truly remarkable proficiency in a narrower field. Whether a Mechanic whose modified blasters are the envy of fighters the galaxy over or a Droid Specialist whose astromechs are known for unerring accuracy, an Engineer with proven expertise is a truly exceptional craftsman in a narrow area of specialty. This stellar proficiency in turn brings rewards.

Proven expertise is available to Engineer PCs at the GM's discretion. In order to qualify, the character must demonstrate in-game exceptional ability in designing or constructing a specific type of equipment or in carrying out a particular task. The GM and player should work together to define this area of expertise and sum it up as briefly as possible. For instance, a character might have proven expertise in blasters, starfighters, weapon attachments, or battlefield repairs.

A character with proven expertise may spend ⟲ ⟲ as ✲ on relevant checks, as determined by the GM. These most commonly include checks for crafting, item repair, and attachment installation. However, the effect is not necessarily limited to Mechanics checks; the character's expertise may prove useful when bartering for parts, impressing an important NPC, or identifying the origin of a device. The character is simply so proficient in the specialty that failure will not occur without some sort of extenuating circumstances, even in the sort of challenging or narratively important situation that normally calls for a check. In fact, the GM should take a character's proven expertise into account when determining whether a task requires a check.

Proven expertise is not an ability a character gains, as with a talent, but a way to mechanically reflect a facet of the character revealed by the ongoing story. There is no particular requirement a character must meet in order to qualify for proven expertise. A player might set the distinction as a goal, having a Sapper Player Character focus on developing uniquely effective methods for demolishing enemy fortifications, or having a Mechanic spend every minute of downtime tinkering with the other PCs' weapons. However, as in many parts of the narrative, a roll of the dice could provide the perfect inspiration. For instance, after noticing a player frequently rolls ⊕ when repairing or customizing blasters, a GM might suggest to the player that the character has proven expertise in this area. Whether a player requests proven expertise or the GM suggests it based on in-game events, the two should work together to develop a field of expertise that reflects the character's abilities.

Typically, a character should not possess proven expertise in more than one area. Such broad proficiency is better demonstrated with appropriate skill ranks and talents. However, as a character continues to grow and change, the player and GM might work together to tweak, shift, or slightly expand a character's area of expertise.

MAKER'S MARK

The greatest of crafters and artisans are known the galaxy over, and their work is easily recognizable by any expert in such matters. Whether it is an actual stamp bearing the name of the creator or the creator's company, a special feature, or an inimitable quirk of design, such a maker's mark is a sign of quality and distinctiveness.

In **Age of Rebellion**, a maker's mark represents an Engineer character's unique approach to crafting a particular variety of item. Any Engineer character may develop a maker's mark, with the GM's permission. Once a character has reached an appropriate point in the game's narrative, based on the character's

experience with and success as a crafter, the player and GM can work together to decide the form that Engineer's mark takes in-game, as well as the mechanical benefits.

A maker's mark can be virtually anything that distinguishes an item as the work of a particular character. At its most basic, this is a literal stamp or engraving bearing a name or logo. More sophisticated marks could include a certain personality quirk shared by all droids a character designs, uniquely balanced vibro weapons, or exceptionally efficient ion drives on all ships from a manufacturer.

A fundamental aspect of any maker's mark, however, is not just its presence, but the fact that other Engineers and experts quickly recognize the character's handiwork; such characters' reputations precede them, perhaps even more than they realize. This can prove a boon when dealing with others in their line of work. At the GM's discretion, this might grant □ or more on social skill checks dealing with technicians or experts who know the character's reputation. However, such a reputation can also be a liability. Although most Engineers and designers hold the proper respect for their colleagues, some who are lacking in their own expertise may resent the character. Such jealous NPCs might impose ■ on social skill checks, or even plot to sabotage the PC. In extreme cases, a maker's mark could have a significant impact on the storyline. For instance, Imperial agents might recognize a customized blaster recovered from an attack as the PC's work, making that character a target.

To represent the particular nature of a character's work, a maker's mark also has a mechanical effect. A maker's mark works hand-in-hand with the crafting rules presented on page 76. When the GM and player work together to decide the form a mark takes, they also decide how best to represent it in the results of the character's crafting. After selecting the most appropriate template or item type, they consult the relevant table for spending ⟲, ⊕, ⚙, and ▽ during **Step 3** of crafting, and choose the result that best matches the maker's mark. For all future crafting checks, the character reduces the ⟲ cost of this benefit by one, to a minimum of one.

With the GM's permission, a character's mark might apply to more than one type of related item, although the mechanical effects should be similar, or correspond in a way that makes sense to everyone. For instance, the character's unique method of folding durasteel might improve droid chassis as much as vehicle plating. These additional effects need not be gained at once, and should probably accrue over the course of a campaign as the character demonstrates increased ability. Such versatility is the mark of a true master, and should be earned through additional roleplaying and in-game dedication to the craft.

PARTS AND PLANS

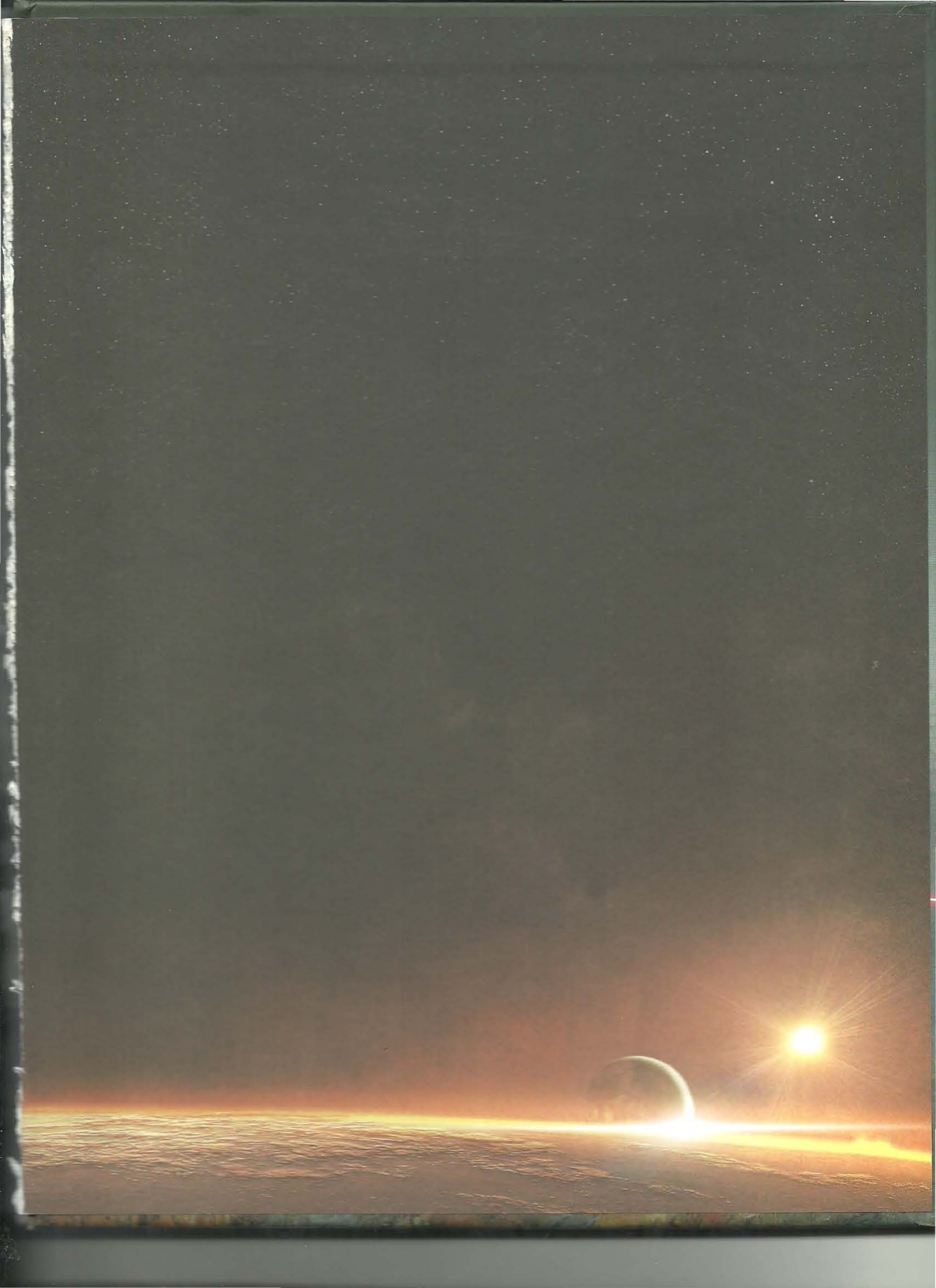
While other characters might hope for spoils of war or awards from their superiors in the forms of weapons, armor, scientific devices, or vehicles, for Engineers, the best reward is often simply the parts and diagrams needed to build their own. Not only are such custom-built items often more effective than their factory-standard counterparts, but using them provides a sense of pride and accomplishment.

An Engineer needs two primary elements to craft or modify an item: the raw materials and the knowledge of how to fit them together. The latter is generally obtained from consulting plans and schematics or disassembling an extant unit, whether it is in proper working condition or not. While many components and schematics are relatively easy to acquire on the open market, and others within the Rebellion, some rare materials and designs might only be available as a narrative reward.

To truly feel like a reward, a material or design must be something the PC would have great difficulty acquiring normally, and certainly not with simple skill checks. While the prohibitive factor may be price or rarity, the most memorable rewards are those that are either unique or perfectly tailored to the character's goals, if not both. Examples of such resources include an ancient suit of Cortosis-weave armor, a holotape with the partial schematics for a true cloaking device, a unique sensor suite, or a krayt dragon pearl.

Such material rewards are the most memorable and have the most impact when they come as a natural result of the narrative. This could be as simple as a high-ranked officer rewarding the PC with a component important for a pet project, or as fortuitous as a grateful civilian or ally gifting the character with a simple trinket from their home planet, which just happens to be made of the torbidium ore the Engineer has been looking for.

While materials and diagrams might come as gifts or rewards from NPCs, they can also come into the Engineer's possession by simple chance, or as the result of a specific plan. For an Engineer in service to the Rebellion, perhaps the most probable way to obtain a useful resource is through salvage. Salvage is always important in wartime, but it is doubly so for the Rebellion, which lacks so dramatically in resources compared to the Galactic Empire. One advantage to providing raw materials or damaged but repairable components in the aftermath of battle is that such "lucky finds" need not appear as rewards at all. Whether dragging a damaged war machine back to base for study or finding valuable data on a computer in ancient ruins, such experiences provide the player with a useful reward while reinforcing the breadth of the galaxy and enhancing immersion in the game setting.



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