Augment Name	Armor
Alleviating	The user of this armor can ignore any one Condition of his choice for 5 rounds. Activating this ability is a Free Action. Requires a 1-hour recharge between uses of this ability.
Cushioned	Reduce falling damage dealt to the user of this armor by 1 point.
Disguised	Armor is designed to conceal the user's ID. The user gains +2 to Disguise attempts made to conceal his identity while wearing this armor.
Distorting	You suffer no penalties to your Dodge when targeted by multiple opponents. Can function for up to 2 hours before needing a 1-hour recharge.
Durable	Armor Hardness is double the normal value.
Healing	The wearer of this armor can heal 1 point of damage per day as an Action. Requires a 1-day recharge between uses of this ability.
Impressive	The armor design is either famous or impressive enough that the wearer gains +1 to all Influence checks while visibly wearing the armor.
Injection	The armor can hold up to 0 doses of any combination of drugs. Using a dose on the wearer of the armor requires a Free Action.
Integrated	The user of this armor cannot be disarmed of any equipped items once this ability is active. Activating this ability takes a Free Action. This ability can be active for 4 hours before needing a 1 hour recharge
Light Weight	Decrease the Armor's weight by 50%
Low Friction	You suffer none of the penalties that normally apply when attempting to escape a lock. Additionally, when movement is forced upon you, you may choose to move 1 additional square.
Nano-Fiber	You cannot lose limbs while wearing this armor.
Reflective	The user of this armor suffers a –2 penalty to Stealth. However, he gains the "Deflect Bullets" Talent, but only for non-vehicle energy attacks.
Resistant	All attacks made against the character wearing this armor have their Threshold values increased by 1.
Self-Sustaining	Can only be applied to Sealed Suits of armor. The armor has the additional ability to recycle water so the user will not die of dehydration. This adds 10 pounds to the weight of the armor and this ability can function for 3 days before needing a 1-hour recharge.
Shock	Once active (requires an Action), anyone aside from the wearer of the armor who physically contacts it, such as in a grapple or through an unarmed melee attack, suffers 1 point of electrical damage (AP 1.) Requires a 20 EC energy clip to function and drains 1 EC per point of damage dealt.
Stable	The character wearing the armor reduces the distance of any movement forced upon him by 1 square. The user also has a 1 in 6 chance to ignore any attempt to knock him prone.

Optional Rule: Moving Augmentations: If the MC allows it, a player may move an augmentation from one item to another in the same class of equipment (armor augmentations can only be applied to other armor, etc.) The requirements to create this new equipment are the same as those for Combo Weapons, and the original item from which the augment was taken is destroyed in the process. Note that it is still recommended to not allow more than one augmentation per item.

Combo Weapons

A more advanced option for experienced MC's and players is giving the players the ability to combine 2 different weapons into a new, unique weapon. This process usually only works for Firearms, though it could be applied to certain other weapons as well provided the results make sense. The process to create a Combo Weapon is detailed below:

- The chosen characteristic from the Modifier weapon replaces that same characteristic on the Base weapon.
    - So, if one replaces the damage on a Defender Assault Rifle with the damage of an Omul Glob Rifle, the resulting weapon is identical to a basic Defender Assault Rifle, except it will deal 5 Bludgeoning damage with a slowing effect vs. the standard 5 (AP 1) ballistic damage.
- Additionally, it takes a successful Engineering skill check of 15 and at least 4 hours of work to properly combine 2 different weapons. Regardless of the Skill check result, the Modifier Weapon is destroyed. Finally, one needs an engineering toolkit or similar equipment to perform the task.
- Choose the 2 different weapons to be combined. For game balance reasons, the two weapons should be of the same general type (automatic weapons, longarms, etc.)
- Pick one of the weapons to be the Base weapon. This is the weapon that will have nearly all of its characteristics remain unchanged.
- Chose a single characteristic from the Modifier weapon, such as its damage (and all secondary effects of its damage), or its range, its ammo capacity, its firing modes, etc.

Combo Keys: Skilled Engineers consider these devices a "cheat" of sorts because they allow for easier creation of Combo Weapons. Typical Combo Keys are listed below, and they are consumed if used in the process of creating a Combo Weapon.

Combo Key Type	Cost	Level Restriction	Effect
Haste Key	1,000 C	5	Decreases the time required to create a Combo Weapon to 1 hour instead of the usual 4
Integration Key	7,000 C	15	Allows the user to take 2 properties from the Modifier Weapon and apply them to the Base Weapon.
Mastery Key	3,000 C	10	Gives the user a +4 bonus to the Engineering Skill check when attempting to create a Combo Weapon
Salvage Key	2,500 C	10	The Modifier Weapon is not destroyed in the process of creating the Combo Weapon

Combo Weapons and Game Balance: It won't take long for enterprising players to create overly powerful or absurd Combo Weapons, so for that reason, the MC should only approve Combo Weapons on a case by case basis. Tweaking ranges and damage types for a small improvement is acceptable, but somehow turning a pistol into a chain gun is bad for game balance and beyond the logical scope of the Combo Weapon ability.
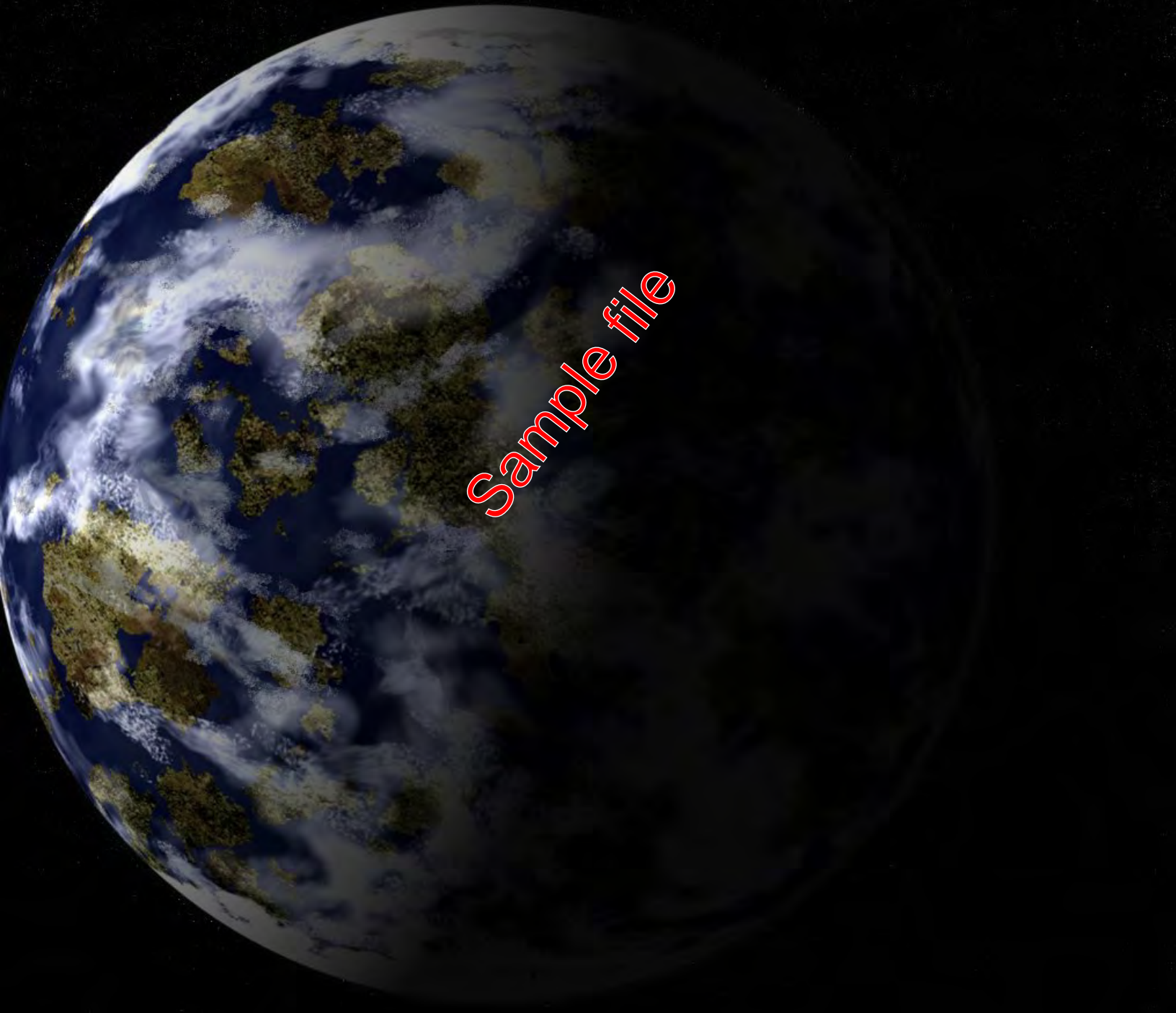
Chapter 5 - Customizing Vehicles, Aircraft, and Starships

Once the characters have amassed enough wealth, they will eventually want to buy vehicles of their own. Terrestrial vehicles are not that expensive and will be the logical entry point for vehicle ownership, but once characters are truly rich, they will want their own starships. Starships are highly customizable, unlike smaller vehicles, and players will want to take full advantage of the customization options available to them. This section covers how to handle this part of the game while summarizing the key rules involved in purchasing vehicles and adding components.

Luxury Starliner on approach to Serityl
-Courtesy of Novalux Resorts tourism guide

Sample file

Customizing Starships

Systems: Systems listed in italics do not apply a –2 penalty to Skill checks when damaged. Instead, their effectiveness is typically halved (see systems for details)

Starship modifiers: Time required to repair, replace, or jury-rig a system on a starship is twice what is listed in the System Cost table (See page 38), and all skill checks are 2 points higher. Starship systems cost twice what is listed in the table above.

Handling Vehicle Modifications: In the end, the MC has the final word on all proposed vehicle modifications. Small-scale modifications, such as swapping out one variety of weapons for another, or perhaps converting a large starship from a gunship to a carrier by replacing weapons with docking bays, are all reasonable requests and should be granted. Players should be encouraged to have their vehicle modifications planned out before a game session so that game play can continue without multi-hour debates on various proposed vehicle upgrade plans.

If the players wish to perform so many upgrades and changes to a vehicle that they completely change its function, the MC may decide that it requires additional time and money to complete these changes. Don't try to stifle the players' creativity or fun, but be realistic – it shouldn't be possible to convert a gunship into a carrier in a few days.

Starship Chassis Designs: Each starship is based upon a chassis design that follows several rules – note that these rules can be applied to the custom design of other vehicles, although these situations are less common in a science fiction game and also require far less expense or time.

> **Total number of system slots**: Every vehicle has a maximum number of available system slots that it can support.
>
> **Number of Engines**: The engines are the prime power source for the vehicle, and each design has a minimum number of engines required for it to function properly.
>
> **Number of High-Power Systems**: Each vehicle design can support a maximum number of high power systems – the ship's engines supply the power to these systems. High-power systems include: all weapons, shield generators, hyperdrive systems, and certain other unique systems (Stealth Skin, EM Fields, Imprisonment Fields, Resonance Crystals.) All other systems are considered low-power systems and are only limited in number by the total number of system slots on the vehicle.

Standard Starship Chassis Designs: All starships (with the exception of those created by more advanced races, such as the Veylek and Arunox) should fit into these rules.

> **Large Military Starship**
> **Starting hull value**: 35 SD
> **Armor**: 1 SD Armor (max hardness 16 SD)
> **Weapons**: All Omni, except missiles Forward or Rear

Vehicle and Starship Purchase: To determine the price of terrestrial vehicles, multiply the Hull by 10,000 C. For small spacecraft and air vehicles, multiply the Hull value by 100,000 C to get the price. Military vehicles cost 2 times as much as civilian vehicles, and large spacecraft cost 5 times as much as small ones.

> **Vehicle Cost Example**: A large, military starship with a Hull value of 10 SD would cost: 10 SD * 100,000 Credits * 2 (military modifier) * 5 (large starship modifier) = 10,000,000 Credits. This is actually very inexpensive by today's standard.

Number of System Slots: Each system takes up a number of slots on the vehicle, and each vehicle has a maximum number of slots it can handle. Note that some systems cannot have their quantities changed from the provided default values for the given class of vehicle:

5) **Engines**: core to the function of any vessel, changing the engines would completely change the vehicle's performance, speed, and ability to provide power.
6) **Sensors**: Cannot be changed from the default values or the vehicle would not perform as designed.
7) **Life-support**: Cannot be changed from default values unless the ship will not have any living crew on board.
8) **Other propulsion mechanisms**: For example, you can't reduce the number of tires on a wheeled vehicle, or the number of antigravity units on a skimcar.

Redundant Systems: Some systems are redundant; only 1 of the systems is actually required to carry out the mission, but multiples are installed because of how critical the system is. In these cases, only apply the effects of damaged systems and destroyed systems when all copies of the system in question are either damaged or destroyed, respectively. These systems have their quantity followed by an "R" in the system listing. If upgrading a Redundant system to an Advanced vehicle system, all copies of the system most be upgraded to gain the effects.

Total number of systems: 37 (max of 40 systems)
Number of engines: 4 to 6
(1,000 c top speed for 5 engines; 4 engines = 900 c, 6 engines = 1,100 c)
Maximum number of high-power systems: 19
(powered by 5 engines)
(4 engines = 18 high-power systems; 6 engines = 20 high-power systems)
Crew: 90 (+20 passengers)
Innate bonuses: Pilot: +0, Gunnery: +2, Sensor Limit: 20
Degradation (Damage/Systems): 10 SD = 3 Sys, 15 SD = +4 Sys, 20 SD = +5 Sys
Other Notes: Needs 4 sensor systems and 4 life-support systems to support the crew. Suffers a -4 penalty to pilot checks when flying in an atmosphere.

Small Military Starship: Fighter
Starting hull value: 4 SD
Armor: 1 SD Armor (max hardness 3 SD)
Weapons: 1 Omni, 1 Forward
Total number of systems: 12 (max of 13 systems)
Number of engines: 2 (210 c top speed)
Maximum number of high-power systems: 5
(powered by 2 engines)
Crew: 2 (+4 passengers)
Innate bonuses: Pilot: +2, Gunnery: +2, Sensor Limit: 15
Degradation (Damage/Systems): 1 SD = 1 Sys, 2 SD = +2 Sys
Other Notes: Needs 1 sensor system and 2 life-support systems to support the crew.

Small Military Starship: Heavy Escort
Starting hull value: 10 SD
Armor: 1 SD Armor (max hardness 7 SD)
Weapons: 2 Omni, 1 Forward
Total number of systems: 13 (max of 14 systems)
Number of engines: 2 (430 c top speed)
Maximum number of high-power systems: 6
(powered by 2 engines)
Crew: 3 (+6 passengers)
Innate bonuses: Pilot: +1, Gunnery: +2, Sensor Limit: 15
Degradation (Damage/Systems): 2 SD = 1 Sys, 4 SD = +2 Sys
Other Notes: Needs 1 sensor system and 2 life-support systems to support the crew. Suffers a -2 penalty to pilot checks when flying in an atmosphere.

Large Civilian Starship
Starting hull value: 24 SD
Armor: 1 SD Armor (max hardness 11 SD)
Weapons: All Omni, except missiles Forward or Rear
Total number of systems: 26 (max of 28 systems)
Number of engines: 3 to 4 (750 c top speed for 3 engines; 4 engines = 800 c)

Maximum number of high-power systems: 12
(powered by 3 engines)
(13 high-power systems if the ship has 4 engines)
Crew: 20 (+5 passengers)
Innate bonuses: Pilot: 0, Gunnery: +2, Sensor Limit: 15
Degradation (Damage/Systems): 4 SD = 2 Sys, 9 SD = +3 Sys, 14 SD = +4 Sys
Other Notes: Needs 2 sensor systems and 2 life-support systems to support the crew. Suffers a -4 penalty to pilot checks when flying in an atmosphere.

Small Civilian Starship
Starting hull value: 4 SD
Armor: 1 SD Armor (max hardness 3 SD)
Weapons: 1 Omni, 1 Forward
Total number of systems: 10 (max of 11 systems)
Number of engines: 2 (200 c top speed)
Maximum number of high-power systems: 4
(powered by 2 engines)
Crew: 2 (+4 passengers)
Innate bonuses: Pilot: +2, Gunnery: +0, Sensor Limit: 15
Degradation (Damage/Systems): 1 SD = 1 Sys, 2 SD = +2 Sys
Other Notes: Needs 1 sensor system and 2 life-support systems to support the crew.

Remote Controlled Vehicles: Some vehicles, such as Erwani Defense Drones, are remote controlled. Only Small vehicles can be remote controlled, and upgrading a vehicle to operate in this manner costs 5,000 C for the necessary hardware and software. Operating a remote controlled vehicle requires the following equipment (or a similar device, as determined by the MC):

Vehicle Control Rig (Cost: 10,000 C, R, 1 lb.) This helmet (which must be connected to a computer and communication system) allows the user to remotely operate any properly adapted vehicle, such as a starship, within 1 light-year without the usual penalties for remote operation. This high-speed response is created by directly linking the remote interface to the controller's brain, creating a full-immersion experience. However, this direct connection allows for potentially dangerous feedback. Whenever the remotely operated drone or vehicle takes damage, there is a 2 in 6 chance that the controller takes 1 point of unpreventable Neural Damage. The Vehicle Control Rig can be operated in "safe mode," which would apply the usual penalties to remote operation but remove all risk of feedback to the user. Entering and exiting "safe mode" requires an Action.

Role-playing Vehicle Modifications and Ownership: Keep in mind that it takes more than time and money to upgrade a vehicle, particularly a large starship. Skilled labor and tremendous technological resources are both required to accomplish this task, so just because the team has the funds and time to upgrade their old star cruiser to a powerful gunship doesn't mean that they can accomplish this in some back-water

star system where the most advanced piece of technology is a crude axe.

Additionally, modifying large vehicles draws notice. Unless the players have managed to create a corporation of loyal followers and secure a space-dock in a secret star system, their efforts to upgrade a vessel, particularly a military-grade capital ship, will draw attention. If these changes aren't too significant or are authorized by higher authorities, no one may care. On the other hand, if the players decide to build some rogue warship, somebody will probably notice. This can be a potential catalyst towards more plot development in later missions.

Upkeep Costs: Finally, owning a vessel with a sizeable crew has costs. For simplicity's sake, assume a cost of about 2,000 Credits per crewman each month. This will grant the crew a lower to middle-class lifestyle, while including some overhead cost, which doesn't get paid out to the crew. The players may choose to spend less money on their crew, but the less they are willing to spend, the harder it will be for them to find crewmen of appropriate level (comparable to the players) and skill, assuming they can find anyone at all to work for low wages. The other option is to simply run the vessel with fewer crewmembers, though most vehicles, particularly those that travel long distances, need at least 50% of the listed crew to run effectively.

> **Fueling Starships**: Most starships run on advanced fusion reactors that fuse hydrogen as their fuel source. Hydrogen is the most common element in the universe and can be found in abundance in locations ranging from gas giants to stars, so it is assumed that in most cases starship fuel is easy to find. A typical large starship carries enough fuel to travel 200 light years, while smaller ships only carry enough fuel to travel about 20 light years.

Annual Upkeep Costs: Regular maintenance, fuel, and basic upkeep all contribute to the cost of owning a starship. This cost can be simplified to 5,000 Credits for a small spaceship every year. Large spaceships cost 15,000 to maintain every year. This does not include crew payments, repairs or upgrades. For each year these costs go unpaid, the ship suffers a cumulative -1 penalty to all skill checks made with it.

Another "cost" of owning a large vehicle is that characters will draw attention to themselves. Any small corporation or group of powerful individuals who has the resources to travel the stars in their own military-grade cruiser will be worthy of interest by other powerful organizations. This can lead to interesting business opportunities and storylines!

Vehicle Weaknesses: In reality and in fiction, even the most powerful vehicles may have certain weaknesses that can be exploited by clever opponents. This can be simulated through the proper use of vehicle weaknesses. A vehicle weakness can present a challenge to find and exploit, and also allows the MC to pit the players against a more powerful than average vehicle since the odds will be evened once they discern its weakness.

Vehicle Weakness Examples: Some real-world examples of vehicle weaknesses will help explain how even a well-designed vehicle can still have flaws:

- **Bismark** (German battleship, WW II era): Despite a solid overall design, the Bismark lacked the ability to steer on propellers alone. This meant that if the ship's rudder was damaged or jammed, the battleship could not be steered. In the end, this doomed the ship, as a single torpedo from a British plane struck the stern and jammed the rudder; the ship was stuck moving in circles and could not escape its enemies.
- **Hood** (British battlecruiser, WW II era): The Hood was a respectable vessel with a good mix of firepower and speed. However, its upper deck armor was very thin, leaving it vulnerable to plunging shells that would fall from above and punch through the deck and into the ship. This resulted in the ship's destruction when a high-caliber shell from the Bismark passed through the thin deck plating and detonated in one of the Hood's magazines, utterly destroying the ship.

Sample file

Phoenix Corporation announces the activation of the Lucion-5 hydrogen refinement and fueling station. Based upon the successful Fusiondyne technology that powers all of Phoenix Corps refueling stations, this system advances the technology to the next level with invective magneto polarization technology, allowing for a 3% increase in fusion efficiency. The first of a new generation of refinement and refueling stations, Lucion-5 will lead the way in clean, efficient fuel. Phoenix Corporation is dedicated to providing clean, safe power for the galaxy, and is currently hiring fusion engineers and starship designers for future expansion of this technology.

Phoenix Corp.
"our flame burns bright"

- **Prince of Wales** (British battleship, WW II era): Sometimes a weakness may simply be untested new technology vs. an actual design flaw. When the Prince of Wales chased the Bismark, it was soon discovered that the new turrets for the main guns (each of which housed 4 guns instead of the usual 2 or 3) were unreliable. This made it more difficult for the British battleship to duel with its German rival.

Science fiction stories have their own examples of vehicles with weaknesses: main reactors that are prone to exploding, vulnerable shield generators, codes that can force a ship to drop its shields, sensor blind spots, and so on. The following table offers some examples suitable for starships, but feel free to create your own.

Example Vehicle Weaknesses (focuses upon starships)			
Engineering check to determine weakness	Cost reduction due to weakness	Weakness Trigger	Weakness description and effect
5	5-10%	Pre-existing, used condition	**Old / Poorly Maintained**: Vehicle is not in peak condition. This can be represented in a number of ways: the vehicle may have a −1 to Pilot or Gunnery, or perhaps it is missing some systems (extra guns, etc.)
10	5%	Over-modification	**Weak Spot**: Vehicle is more vulnerable to attacks from a certain Orientation (Orientations that would affect the Front or Rear). Gunnery attacks made from this Orientation against this ship gain +1.
10	5%	Excessive Weaponry	**Slow Tracking**: Vehicle's targeting system has trouble tracking small, fast moving targets. All other vehicles smaller than this vehicle gain +1 to Pilot to avoid this vehicle's attacks if they are in the same Battlezone as this vehicle.
15	5%	Over-modification	**Fragile**: Vehicle is not able to withstand significant combat damage. Its Degradation rate is 1 higher than normal for a vehicle of its type. For example, if a vehicle of this class has a normal Degradation of: 5 SD = 3 Sys, 10 SD = +4 Sys, 15 SD = +5 Sys, this vehicle has a Degradation of: 5 SD = 4 Sys, 10 SD = +5 Sys, 15 SD = +6 Sys
15	5%	Excessive Weaponry	**Sensor Limits**: Vehicle's sensors can be exploited. As long as it is not in the same Battlezone, other vehicles gain a +2 bonus to Stealth checks made to avoid this vessel.
15	5%	Over-modification	**Complex Design**: All Engineering and Cybertech checks made to repair, replace, or jury-rig systems on board this vehicle suffer a -2 penalty because of the design complexity.