

WHY USE THIS HANDBOOK

To put it bluntly, although the official starship crafting rules that appeared in the “Fully Operational” source book is by and large a good framework/architecture (they are a good FIRST DRAFT), the details of its implementation leave a bit to be desired. It is not particularly well balanced, e.g. it permits obscenely high armor ratings on small silhouette vehicles, while not providing enough hard points to mount adequate weapons on large warships. It doesn’t even come close to being able to reproduce the range of ships listed in other official materials, e.g. speed, encumbrance, passengers. There are also holes in the rules, e.g. missing rules for sensors, escape pods, and carried craft.

My intent for these rules were to be the smallest/simplest departure from the official rules that adequately addresses the above deficiencies. However, I likely have greater tolerance for complexity, than the average gamer and am fighting against my own tendencies by trying to keep it simple. Fortunately, I have you the reader there to keep me honest, err... I mean simple. I named this fan source book “The Nubian Design Collective’s Whole Vehicle Crafting Handbook” because I intend for it to be a community effort, and because in universe the Nubian Design Collective makes freakin’ awesome starships, and I want gamers who follow these house rules to be able to do the same, without them being (too) overpowered compared to official ships.

One thing though, don’t take the names applied to various components/rules too literally. These labels are only intended to be EXAMPLES of things that could provide certain functionality. For instance, feel free to use the walker frame to represent a tracked tank. So without further ado, let’s get on to the rules...

When building a vehicle or starship, the crafter must first construct three core components: a frame, an engine, and a hull. “Realistically” they would be designed simultaneously with feedback between them during system optimization. However, as a game mechanical abstraction, whenever order is important, they are crafted in the above listed order. There are 4 steps in the vehicle crafting process requiring specified checks that take the listed amount of time. Step 1 must be done first, step 4 must be done last, and for each core component step 2 must proceed step 3, but the core components can be crafted sequentially or in parallel.

Step 1: Select templates for each of the 3 core components. This is the “design phase” for the ship.

Step 2: Acquire materials for the core component(s).

Step 3: Construction of the core component(s). This is sometimes more accurately described as Research and Development or prototyping, because for large vehicles, the constructed “sample” engine or section of hull will need to be scaled up or “mass produced” in the final step.

Step 4: Assembly: The engine and hull are “attached” to the frame. This is also the step where most other subsystem attachments are built and attached to the frame.

While they will be covered in more detail later, the three core components can be briefly described as follows.

- **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 Assembly). The frame provides most of the crafts baseline parameters.
- **Engine:** An engine is the vehicle’s power source. It is an attachment that can be added to any vehicle that does not currently have one, provided the vehicle has the necessary hard points available. An engine provides the vehicle’s speed, system strain threshold and defense (i.e. baseline shields). Removing the original engine from an existing vehicle adds 2 hard points, and provides a way to modify those specific characteristics.
- **Hull:** A hull is the body and armor of the vehicle. In these house rules, a hull is a zero hardpoint attachment that is balanced as an opportunity cost, since you can only have one hull, choosing “this” hull means you can’t also have “that” hull on the ship. This works because, hulls provide unique functionality that have a big impact on how well a ship can perform in various roles. Unlike in the official rules in Fully Operation, these house rules do not permit the replacement of a vehicle’s hull. The justification for this limitation is that the design of a vehicle’s frame and hull are too tightly coupled.

The base difficulty to modify any of these three core components is the same as the difficulty to craft it; to be clear, when the “schematic” crafting upgrade is applied to a particular template for a core component, it also lowers the **base** difficulty to modify a core component with that template to a minimum of simple. As with attachments, each additional mod installed in a core component beyond the first (including the one being currently attempted) cumulatively increases the difficulty of the Mechanics check by one ♦ above the base difficulty. Each mod also costs an additional 1,000 credits beyond the base cost.

A vehicle’s size can greatly affect its performance characteristics, for example it’s top speed, the number of passengers and amount of cargo it can carry. Many characteristics linearly depend on the Vehicle Scaling Law (VSL) which is tabulated below for your convenience. Note that the VSL is determined from the final silhouette of the vehicle, i.e. after the “larger scope” or “elegant design” frame upgrades have been

applied. Also, the top speed listed for each silhouette is a potential that can be lived up to (or not) depending on the quality of the engine rather than a base characteristic. Nevertheless this potential can be increased by particular choices for the frame (patrol ship) and hull (race ship), the “high output ion turbine” vehicle attachment and certain talents (such as “full throttle”, “supreme full throttle”, and “push the specs”).

Vehicle Silhouette	Vehicle Scaling Law (VSL)	Maximum Speed
1	1	3
2	5	4
3	10	5
4	15	4
5	25	3
6	35	3
7	50	3
8	65	2
9	80	2
10	100	2

The maximum armor rating of most vehicles is limited to silhouette+1. However, the maximum armor rating of vehicles with the “Ship of Line” hull are instead limited to silhouette+2. Talents such as “bolstered armor” and non-core-component attachments can raise a vehicles armor rating above the just listed limits.

FRAME TEMPLATE PROFILES

The following profiles are used for starship and vehicle frames which largely determines a craft’s overall shape and function. While each frame is presented as a partial 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 the surface of habitable planets.

Vehicle Type: Speeder Bike
Silhouette: 2
Hull Trauma Threshold: Silhouette
Maximum Altitude: 15 meters
Crew: One pilot
Encumbrance capacity: 1
Passenger Capacity: None
Customization Hard Points: 2+Silhouette

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: Silhouette+VSL
Maximum Altitude: 20 meters
Crew: One pilot
Encumbrance capacity: 5
Passenger Capacity: Silhouette
Customization Hard Points: 1 + 2x Silhouette

AIRSPEDER

The fastest craft in atmosphere, airspeeders soar nimbly through the skies of countless worlds across the galaxy. They are the vehicle of choice for many sentients who rarely leave their homeworld.

Vehicle Type: Airspeeder
Silhouette: 2
Hull Trauma Threshold: VSL
Maximum Altitude: 100 kilometers
Crew: One pilot
Encumbrance capacity: 5
Passenger Capacity: 2
Customization Hard Points: 2 + 2x Silhouette
Special: Airspeeders can receive the “larger scope” frame crafting upgrade twice.

WALKER

Vehicles with legs have the ability to maneuver across harsh terrain and in places where weather makes flight infeasible.

























Vehicle Type: Walker
Silhouette: 3
Hull Trauma Threshold: VSL
Crew: One pilot
Encumbrance capacity: 5
Passenger Capacity: None
Customization Hard Points: 2 + 2x Silhouette
Special: The Walker frame comes with the All Terrain Legs vehicle attachment from page 65 of Special Modification; however a walker with the race ship hull has a base speed of 3 rather than 2.

STARFIGHTER

Starfighters are small craft designed for close engagements, bombing, and harrying enemy forces.

Vehicle Type: Starfighter
Silhouette: 3
Hull Trauma Threshold: VSL
Crew: One pilot
Encumbrance capacity: 5
Passenger Capacity: None
Customization Hard Points: 2 + 3x Silhouette.

SPENDING AND WHEN CRAFTING FRAMES

Symbols	Effect
 or 	<p>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.</p> <p>Officers' Quarters: increase number of crew by one OR convert X passenger space to X crew space where X is a number less than or equal to the craft's passenger space.</p> <p>Passenger Quarters: increase the number of passengers buy an amount up to half the vehicle's silhouette round down.</p> <p>Reinforced Construction: Increase the craft's hull trauma threshold by one (this can be selected silhouette times).</p>
  or 	<p>Extra Hard Point: Add one customization hard point to the craft (this can only be selected once per frame).</p> <p>Integrated Improvement: double or halve the crew or passengers; round remainders up (this can only be selected once).</p> <p>Larger Scope: Increase the craft's silhouette by one and double the crew and passengers (this can only be selected once)</p>
   or 	<p>Hard Work Recognized: The frame catches the attention of high ranking Engineers: increase the crafter's Duty by the craft's silhouette (this can only be selected once).</p> <p>Efficient Construction: A sizable portion of the materials 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).</p> <p>Elegant Design: Reduce the craft's silhouette by one and halve the crew and passengers, rounding remainders up (this can only be selected once).</p>
	<p>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).</p> <p>Schematic: Create a schematic that permanently reduces the difficulty of creating frames of this template by one (to a minimum of Simple [-])</p> <p>Modifiable: Reduce the difficulty of checks to modify attachments on this vehicle by one (to a minimum of Easy [♦] this does not apply to core components.)</p>
 or 	<p>This is a Tough One: Upon completing Step 4: Assembly, the character suffers 5 strain.</p>
  or 	<p>Difficult to Integrate: When a character attempts Step 4: Assembly using this core component, upgrade the difficulty of the Mechanics check once.</p>
   or 	<p>Difficult to Repair: Increase the difficulty of checks to repair this craft once.</p>
	<p>Faulty Wiring: The GM may spend   or  that a character generates on a Piloting check with this craft to have it suffer a "Major System Failure" Critical Hit result from Table 7-9: Critical Hit Result on page 258 of the Age of Rebellion Core Rulebook.</p>

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 4x 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 by one Mods.

Hard Points Required: 4.

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 VSL.

Modification Options: 1 increase speed by one (to a maximum of 6) Mod, 3 increase system strain threshold by silhouette Mods, 2 increase defense in 1 arc by one Mods.

Hard Points Required: 3

FUSIAL THRUST ENGINE

Fusial thrust engines are often found 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 4x silhouette.

Modification Options: 2 increase speed by one (to a maximum of 6) Mod, 2 increase aft defense by one Mods.

Hard Points Required: 3

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 can not 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 4x 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 2x 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

TABLE #: ENGINE TEMPLATES

Name	Materials Price/Rarity	Check	Time
Single Ion Coil	500/2	Easy (◆) Mechanics Check	24 hours
Electron Baffled Engine	1,000/3	Average (◆◆) Mechanics Check	2 days (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)

TABLE #: 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 sizable portion of the materials 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 from 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 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. Safety Limiters: Decrease the craft's handling to -1; the safety limiters can be turned off to restore the craft's full handling but doing so causes all aboard to take 3 strain whenever the pilot performs a piloting maneuver; droids and, at the GM's discretion, characters with 4 or more cybernetic enhancements suffer only 1 strain each time instead.

TABLE #: HULL TEMPLATES

NAME	MATERIAL PRICE/RARITY	CHECK	TIME (PER SILHOUETTE)
Basic	VSL x 500 /2	Average (◆◆) Mechanics Check	2 days (48 hours) per silhouette
Race Ship	VSL x 1000 /3	Hard (◆◆◆) Mechanics Check	3 days (72 hours) per silhouette
Bulk Freighter	VSL x 1000 /3	Hard (◆◆◆) Mechanics Check	3 days (72 hours) per silhouette
Transport	VSL x 1,000 /3	Hard (◆◆◆) Mechanics Check	3 days (72 hours) per silhouette
Scout Ship	VSL x 1,000/5	Hard (◆◆◆) Mechanics Check	3 days (72 hours) per silhouette
Gun Ship	VSL x 2,000/5	Daunting (◆◆◆◆) Mechanics Check	4 days (96 hours) per silhouette
Ship of the Line	VSL x 3,000/7	Daunting (◆◆◆◆) Mechanics Check	4 days (96 hours) per silhouette

HULLS

Although a frame gives a ship its rough shape, it is a the hull that turns that metal skeleton into a real starship. While, they are presented as separate steps in this handbook for the sake of simplicity, frames and hulls are actually codesigned to allow the vessel to fulfill its intended role. Because the different hulls listed here go a long way towards allowing the craft fill a specific role, they represent an opportunity cost instead of using up hard points.

Basic

Basic hulls are simpler and cheaper to make than other options. That frequently makes them the go to choice when something more specialized isn't needed.

Base Modifiers: Installing this core component changes is armor to 1 and handling to -2.

Modification Options: 2 Increase armor by 1 Mod, 1 increase defense in all arcs by 1 Mod, 1 increase handling by 1 Mod.

RACE SHIP

A race ship hull is a stripped down minimalistic design that carries no unnecessary weight. Many are also sleek/aerodynamic to improve the craft's performance in atmosphere. Interceptor starfighters typically are typically built with a "race ship" hull.

Base Modifiers: Installing this core component changes is armor to 1 and handling to +1, decreases both hull trauma threshold and system strain threshold by Silhouette (to a minimum of 1), and strips off 1 hard point. But It also increases the both the ship's speed and the maximum speed allowed for a ship of its silhouette by 1 (this stacks with the increase provided by a Patrol Ship frame).

Modification Options: 1 increase handling by 2 Mod, 1 Increase armor by one Mod, 2 increase defense by one in 2 arcs Mods, Silhouette increase system strain threshold by one Mods.

BULK FREIGHTER

A Bulk Freighter hull is specifically designed/ optimized to allow it to make better use of the volume available for carrying cargo. They are restricted to Sil ≥ 5 vessels and tend to fly like bricks.

Base Modifiers: Installing this core component changes is armor to 1 and handling to -4. Dedicated cargo bays installed in ship with a freighter hull also have a significantly higher encumbrance capacity than for other vessels; see the description of "dedicated cargo bays" for more details.

Modification Options: 2 Increase armor by one Mod, 2 increase defense by one in 1 arc Mods, 1 increase handling by one Mod.

TRANSPORT

While ships with a Bulk Freighter hull absolutely excel at the no frills carrying of cargo, a "transport" hull allows ships to move a large amount of sentients in relative comfort while also being able to haul cargo. and smaller vehicles, better than the average vessel.

Base Modifiers: Installing this core component changes is armor to 1 and handling to -2.

Special: For a ship with a transport hull, the per bay hp cost to install dedicated cargo bays, dedicated hanger bays, dedicated passenger berths, and dedicated repair bays are reduced by 1 to a minimum of 1.

Modification Options: 2 Increase armor by 1 Mod, 1 increase defense in all arcs by 1 Mod, 1 increase handling by 1 Mod, 1 halve crew requirement (round remainders up) or double passenger capacity Mod, 2 increase consumables by VSL days mod.

























SCOUT SHIP

The term "scout ship" can describe a stealthy military recon craft, slightly more combative vehicles with "hunter seeker" or "probe the enemy's defenses for weaknesses" missions, or a deep space exploration vessel tasked with finding new inhabitable worlds and making first contact. What these varieties of ships have in common is that they usually operate by themselves or with a small number of similar vessels, which means they need to perform adequately in several roles. Scout ship hulls are designed with that in mind.

Base Modifiers: Installing this core component changes its armor to 2 and handling to +1. A scout ship hull also decreases the hp cost of installing Dedicated Repair Bays by 1 to a minimum of 1.

Modification Options: 1 increase armor rating by one Mod, 1 increase handling by 1 Mod, 1 increase defense in all arcs by one or on 1 arc by 2 Mod, 1 can double or halve crew requirement (round remainders up) Mod, 1

TABLE #: SPENDING , , , AND WHEN CRAFTING HULLS

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. Cargo Pods: A cargo pod increases encumbrance capacity by an amount equal to that of a dedicated cargo bay on a ship one silhouette smaller (this can only be selected up to 3 times per hull).
  or 	Engineering Access: Install the Engineering Access attachment without the expenditure of hp or credits. 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 rating by 1 (this can only be selected a number of times up to the vehicle's silhouette). Maneuvering Fins: Increase the craft's handling by one (to a maximum of 3, this can only be selected up to 3 times per hull)
   or 	Efficient Construction: A sizable portion of the materials 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) Folding Seats: Install the Folding Seats attachment without the expenditure of hp or credits.
	Integrated Systems: Install one vehicle attachment that requires 2 or fewer Hardpoints. No check is required to obtain this attachment and it costs zero Credits. Installing this vehicle attachment uses 0 hp. 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 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. Flies like a brick: Decrease the craft's handling by one (to a minimum of -5).
   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 a character generates on 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).

can double or halve passenger capacity (round remainders up) Mod, 1 add silhouette number of customization hard points AND double the crew requirements Mod, 2 increase consumables by 3 months Mods.

GUNSHIP

A "Gunship" is a dedicated war machine that is designed to A) withstand a lot of punishment and B) carry bigger and more weapons than other vessels of similar size. They accomplish the latter by also requiring bigger crews to man, maintain, and otherwise support their deadly arsenals. Gunship hulls are designed with those requirements in mind.

Base Modifiers: Installing this core component changes its armor to 3 and handling to -2, can mount 1 "oversized weapon" i.e. a weapon that is normally restricted to a vessel that is one silhouette larger than the gunship.

Special: The size increase of the allowed "oversized weapon" stacks with that of the "oversized external weapons mount" attachment found at the end of this document, i.e. used together they enable a weapon that is normally restricted to vessels that are 2 silhouette's larger than the gunship.

Modification Options: 2 increase defense in all arcs by one or in 1 arc by 2 Mods, 1 increase armor by one Mod, 1 increase handling by one Mod, 3 can mount one

additional oversized weapon or increase the linked quality of an already mounted oversized weapon by 1 Mod, 2 add silhouette number of customization hard points AND double the crew requirements Mods.

SHIP OF THE LINE

A "Ship of the Line" can be thought of as bigger version of a Gunship, and because it's bigger there is typically no need to mount oversized weapons. This hull is restricted to silhouette of 5 or larger vehicles.

Base Modifiers: Installing this core component changes the ship's base armor rating to 5 and handling to -2. Furthermore, ships of the line also have a maximum armor rating of Silhouette +2 instead of Silhouette+1, and installing each Dedicated Medical Bay on a ship of the line only costs 1 hp.

Special: Silhouette 5 ships with this hull can also mount weapons banks (they are normally restricted to silhouette 6 or larger ships).


























Modification Options: 2 increase defense in all arcs by one or in 1 arc by 2 Mods, 1 increase armor by 1 Mod, 1 increase hull trauma threshold by silhouette Mod, 2 add silhouette number of customization hard points AND double the crew requirements Mods, 1 Add the Massive 1 special rule to the craft or increase the value of this rule by one Mod.



TABLE #: 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, VSL x 5,000 credits for additional supplies
7-9	Formidable (◆◆◆◆◆) Mechanics Check	100 days (2,400 hours)	A team of 5,000 or more, VSL x 50,000 credits for additional supplies
10	Formidable (◆◆◆◆◆) Mechanics Check	250 days (6,000 hours)	A team of 50,000 or more, 10,000,000 credits for additional supplies

TABLE #: 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 per vehicle).
  or 	Extra Hard Point: Add one customization hard point to the craft (this can only be selected once per assembly of frame and hull). Customized Controls: Choose a pilot, that character adds  to Piloting checks made with this craft (this can only be selected once per vehicle) 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 during 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 a 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 per vehicle). 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 per vehicle).
   or 	Complex Construction: Increase the difficulty of checks to repair this craft by one (this can only be selected once per vehicle). 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 per vehicle).
	Defective Seals: The GM may spend  that a character generates on 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 per vehicle).

DEDICATED BAYS AND BERTHS

Dedicated bays and berths are a special kind of attachment in that unlike other attachments (which have a limit of 1 each), the number of dedicated bays and berths of any type that a vehicle can equip is limited to Sil x 2. Neither dedicated bays nor berths can be added to existing ships, they have to be designed in.

Dedicated Cargo Bays:

Hp Cost: each dedicated cargo bay normally requires 3 hp, but the Transport, Corvette, Destroyer, and Space Station frames, and Bulk Freighter and Transport hull each cumulatively reduce the per bay required hp by 1 to a minimum of 1.

Benefit: the amount of additional encumbrance capacity provided by each dedicated cargo bay depends on the silhouette and type of hull of the vehicle it is being installed in. That relationship is given in the following table.

Vehicle Silhouette	Cargo Bay Enc. For Bulk Freighter hull	Cargo Bay Enc. for other hulls
1	-	+3
2	-	+10
3	-	+30
4	+255 (cargo pod)	+80
5	+1,025	+245
6	+4,100	+730
7	+16,500	+2,200
8	+65,500	+6,600
9	+265,000	+20,000
10	+1,050,000	+60,000

Dedicated Hanger Bays

Hp Cost: normally 3 hp, but the transport hull, and the carrier, destroyer and space station frames each cumulatively reduce the required hp by 1 to a minimum of 1. Most frames are restricted to having at most Sil dedicated hanger bays, but the carrier, cruiser, destroyer, and space station frames may have up to Sil x2 dedicated hanger bays. Only vehicles with Silhouette greater than or equal to 2 can mount a dedicated hanger bay.

Benefit: each dedicated hanger bay allows the vehicle to carry smaller craft with total silhouettes up to the value listed in the following table. The silhouette of these smaller craft are normally individually restricted

to being 2 silhouettes smaller than the vehicle with the dedicated hanger bay, but at most 1 carried craft per dedicated hanger bay may be only 1 silhouette smaller than the vehicle the dedicated hanger bay is installed in.

Vehicle Silhouette	Hanger Bay Total Silhouette for Carrier frame	Hanger Bay Total Silhouette for other frames
1	-	+0
2	-	+1
3	-	+10
4	-	+15
5	+50	+25
6	+70	+35
7	+100	+50
8	+130	+65
9	-	+80
10	-	+100

Dedicated Medical Bays

Hp Cost: Each dedicated medical bay normally requires 3 hp, but only 1 hp per dedicated medical bay is required for the transport and ship of the line hulls, and the frigate, heavy cruiser, destroyer, and space station frames.

Benefit: Each dedicated medical bay, comes with 1 bacta tank, and the medical droids and space to support a number of simultaneous surgeries equal to the Silhouette of the vehicle it is installed in. While in a dedicated medical bay, you also always count as having a medpac.

Special: A dedicated medical bay can only be installed in a vehicle with silhouette of 4 or larger. Ships of Silhouette ≥ 6 , get 1 free, 0 hp, dedicated medical bay.

Dedicated Repair Bays

Hp Cost: Each dedicated repair bay normally requires 3 hp, but that is (cumulatively) decreased by 1 for the transport and scout ship hulls, and the carrier, destroyer, and space station frames.

Benefit: Each dedicated repair bay increases the encumbrance capacity of the vehicle it is installed in by +VSL, and increases the total silhouette of carried craft by +Silhouette. The maximum individual silhouette of any vehicle in the repair bay is Silhouette-2. When making mechanics checks in a dedicated repair bay, you always count as having "the right tools for the job."

Hardpoints Required: Sil of the modular pod.

Price: TBD

Rarity: TBD

MOTHERSHIP DOCKING CLAMP

A mothership docking clamp can only be installed on a vehicle or starship of silhouette 5 or less. If it is designed in at the time of construction, a mothership docking clamp costs 0 hp but causes the vehicle's frame to provide hp as if its silhouette were the smaller of 4 and its actual silhouette instead of the normal hp based on its silhouette. A mothership docking clamp can also be retrofitted to vehicles/starships of silhouette 4 or smaller for an hp cost of 1.

Base Modifiers: A mothership docking clamp qualifies the vehicle it is installed in as a modular pod, allowing it to dock at a modular pod docking clamp designed to accommodate its silhouette.

Modification Options: 1 add a hatch to the mothership docking clamp Mod (allows transit between mothership and modular pod if the mothership's modular pod docking hatch the pod is docked to has the matching Mod); 1 Data Link Mod (allows sensors etc. to be shared between mothership and modular pod if the mothership's modular pod docking hatch the pod is docked to has the matching Mod).

Hardpoints Required: 0 or 1 (see above).

Price: TBD

Rarity: TBD

OTHER ATTACHMENTS

ASTROMECH DROID SOCKET

This replaces the entry on page 63 of Stay on Target. Astromech sockets are typically found in starfighters, shuttles, and the occasional airspeeder. Installed during construction and fully integrated into a vehicle's systems, an astromech droid socket allows an astromech droid, typically one of Industrial Automaton's R-series droids, to access the ship's various systems through its SCOMP interface. A droid installed in an astromech socket acts as co-pilot, engineer, and radio/weapons systems operator, assisting the pilot during combat, monitoring onboard systems, performing astrogation calculations, and repairing damage on the fly. Most ships or vehicles can benefit from the inclusion of an astromech droid, especially those not equipped with an astromech droid socket. For these ships, Industrial Automaton sells a standalone astromech socket ready for installation in ships not already equipped.

Although astromech sockets can be designed into vehicles as small as a silhouette 2 landspeeder, aftermarket models can only be retrofitted into ships or vehicles of silhouette 3 or higher. After a lengthy and involved retrofit installation process requiring heavy modifications to both the ship's hull and its onboard systems, the ship and pilot gain all the benefits of an astromech droid when one is installed in the socket. These benefits range from enhanced damage control to

the ability to make hyperspace jump calculations. When installed on larger starships, the attachment can represent more than a single socket. These ships often employ an entire bay capable of housing multiple astromechs and deploying them to the outer surface of the ship to aid in repairs.

Models Include: Industrial Automaton Mk. 1 Astromech Socket.

Base Modifiers: Allows the starship to link to an astromech droid via SCOMP.

Modification Options: 1 Automated droid ejection system Mod.

Hardpoints Required: 2

Special: At the time of its construction, a silhouette 4 or smaller starship that has either a hyperdrive module or mothership docking clamp but not a navicomputer may add an astromech droid socket at the discounted hp cost of 1 hp at the time of construction.

Price: 3,000 credits

Rarity: 5

AUXILIARY GENERATOR

Each auxiliary generator increases the craft's system strain threshold by its silhouette. While it is uncommon to add more than one, it is possible if done at the time of the vehicle's construction.

Hard Points Required: 2.

Price: VSL x 500 credits.

BIKE RACK

Crews of small starships, such as light transports, may desire to bring their own planetary transportation yet not have, or be willing to spend, the hard points and/or credits to retrofit a hanger bay, or to design in a dedicated hanger or repair bay. In these cases, installing a speeder bike rack may be preferable.

Benefit: a bike rack enables a silhouette 3 or larger starship or vehicle to transport a number of silhouette 2 or smaller speeder bikes (or similar vehicles such as swoops) equal half the vessel's silhouette round down.

Modification Options: a number of carry +1 speeder bike mods equal to half the vessel's silhouette round up.

Hard Points Required: 1.

Price: Sil x 500 credits.

ENGINEERING ACCESS

Starships can be designed to be easily maintained from within; however, it is notoriously difficult to retrofit this capability into an existing ship. Engineering access may only be installed on craft of silhouette 4 or larger and only during their initial construction.

Benefit: Anyone working on the internal systems of the craft, such as the power system, hyperdrive, computers, sensors, etc. gains to any Mechanics or Computers checks thanks to the ease of reaching systems that are typically hidden behind bulkheads and sealed beneath deck plates.

Hard Points Required: 1.

Price: VSL x 500 credits.

FOLDING DESIGN

Speeders and walkers of silhouette 2 or smaller can be designed to fold into a space saving storage mode that is 1 silhouette smaller than their normal size (where "normal size" includes the effect of elegant design and larger scope). However, vehicles with a folding storage mode can not carry any more than 2 (silhouette 1) sentients (including both crew and passengers). If vehicle folded storage mode is silhouette zero, it takes up 5 encumbrance of space.

Hard Points Required: 2 (TBD).

Price: VSL x 500 credits.

FOLDING SEATS

Some vessels need to be able to be quickly reconfigured transport sentients or cargo. For large starships, modular pods are the go to solution. For silhouette 5 or smaller vehicles, folding seats may be a preferable alternative.

Base Modifiers: Folding seats can be installed in Silhouette 5 or smaller vessels; they allow passenger space to be quickly converted into encumbrance capacity. Each passenger seat that is folded into the floor decreases the vessels passenger capacity by one and increases its enc by 10. Switching the mode, between passenger and cargo, of one seat costs one maneuver.

Modification Options: none

Hard Points Required: 2

Price: VSL x 1,000 credits.

Rarity: 3

ESCAPE PODS

All starships of silhouette 4 or larger are mandated to have adequate escape pods available for the ships crew and passengers by Imperial law; consequently the available customization hard point totals listed for each frame earlier in this handbook already account for meeting the minimum legal requirement. Although most shipyards typically install the most basic escape pods that still meet the legal requirements as a cost cutting move, more advanced options are available.

Base Modifiers: Provides basic escaped pod(s) (close range sensors, speed 2, 0 armor, 0 defense, no hyperdrive), sufficient to ensure the survival of the crew and passengers for 15 days.

Modification Options: 1 vessel's cockpit is an ejectable/an escape pod Mod, 1 increase speed of all escape pods by 1 Mod, 1 add a x14 hyperdrive to all escape pods Mod (includes a baseline navicomputer with no modification options), 1 increase armor rating of all escape pods by 1 Mod, 1 increase defense in all arcs by one for all escape pods Mod, 1 increase sensor range of all escape pods to short Mod.

Hard Points Required: 1 for silhouette 2 or 3 craft, 0 for silhouette 4 and larger vessels.

Price: VSL x 1,000 credits.

Rarity: 3.

HIGHLY AUTOMATED SYSTEMS

Although the separatists' use droids during the Clone Wars have biased the galaxy against them, ships with highly automated systems can get by with much smaller crews than comparably sized vessels.

Base Modifiers: Halves the required crew (round remainders up).

Modification Options: 1 additional halve the required crew (round remainders up) Mod.

Hard Points Required: 2.

Price: VSL x 2,000 credits.

HIGHT OUTPUT REPULSOR COILS

High output repuslor coils can be installed on any speeder to increase it's maximum altitude.

Base Modifiers: Multiply maximum altitude by 10 (to a maximum of 200 kilometers).

Modification Options: 1 Double maximum altitude (to a maximum of 200 kilometers) Mod

Hard Points Required: 1.

Price/Rarity: VSL x 100 credits.

HYPERDRIVE MODULE

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).

Modification Options: 4 Reduce primary hyperdrive rating by 1 (to a minimum of 0.5) Mods, 1 Add Class 14 backup hyperdrive Mod, 4 Reduce backup hyperdrive rating by 1 Mods.

Hard Points Required: 1.

Price/Rarity: 3,000 (Class 8), 6,000 (Class 4) /4.

LIFE SUPPORT SYSTEMS

Life support systems allow a craft's crew to survive in environments without a breathable atmosphere and recycle/purify waste water. This attachment can be installed multiple times to increase the consumables.

Base Modifiers: Provides VSL days of consumables.

Modification Options: 3 increase consumables by VSL days mods.

Hard Points Required: 1.

Price/Rarity: VSL x 500 credits..

MILITARY GRADE SHIELD GENERATORS

While civilian ships have basic shields for protection, military grade shields can be retrofitted in. However, it is significantly easier to install military grade shields on ships designed to support them. Installing these shields on an existing ship require 3 hp, but when they are installed at the time of construction, these shields only require 2 hp. Military grade shield generators can only be installed on ship that are silhouette 5 or larger.

Base Modifiers: Increases defense in all arcs by 1 to a maximum of 4.

Modification Options: 1 increases defense in all arcs by an additional +1 to a maximum of 4 Mod.

Hard Points Required: 2 or 3 (see description)

Price/Rarity: Silhouette x 5,000 credits/ 7 (R).

NAVICOMPUTER

Traveling through hyperspace requires a hyperdrive, doing so safely also requires a navicomputer (or astromech droid socket).

Hard Points Required: 1 (0 hp for Silhouette \geq 5 ships)

Modification Options: 2 remove ■ from astrogation checks Mods.

Price/Rarity: 8,000 credits/ 6

OVERSIZED EXTERNAL WEAPONS MOUNT

This replaces the attachment on page 60 of Dangerous Covenants. The search for ever-increasing firepower often leads to weapon systems larger than were intended for a vehicle. However, if “oversized” external weapon mounts are designed in, then as many as half of silhouette, round down, of these mounts can be installed **at the time of construction**, otherwise at most 1 of these attachments can be installed.

Base Modifiers: Each of attachments allows the vehicle to mount one weapon with no linked rating (a linked rating of zero) intended for a craft one silhouette size larger. The first oversized weapon mount installed decreases the ships handling by -1 and system strain threshold by 4.

Special: Ships with either the gunship or ship of the line hulls do not suffer the -1 handling and -4 sst for having any installed oversized external weapon mounts.

Modification Options: 1 increase the linked rating of the weapon that can be mounted Mod (e.g. this attachment with this mod would allow a silhouette 4 vehicle to mount a linked 1 twin light turbolaser).

Hard Points Required: 2.

Price/Rarity: VSL x 500/3.

REINFORCED FRAME

When building a brand new ship it is possible to reinforce the frame, and the amount of reinforcing material that can be attached to the frame is primarily limited by the available hp (i.e. multiple copies of this attachment can be installed at the time of construction). However, it is prohibitively difficult to retrofit this upgrade into an existing ship.

Base Modifiers: Increase hull trauma threshold by Silhouette.

Hard Points Required: 2.

Price/Rarity: 3,000.x Sil credits

BASIC SENSORS

Basic sensors are typically installed when the cost of more advanced sensors is prohibitive in terms of either the required hard points or credit cost.

Base Modifiers: Add close range sensors to the craft.

Hard Points Required: 0.

Price/Rarity: 1,000/3.

SENSORS

Slightly bulkier and more expensive than the basic model, these sensors offer slightly better performance out of the box and can be modified for significant performance gains.

Base Modifiers: Add short range sensors to the craft.

Modification Options: 3 increase sensor range by 1 range band Mods.

Hard Points Required: 1.

Price/Rarity: 5,000/4.

WEAPONS BANK

The simple fact of the matter is that extremely large vehicles can mount vast numbers of weapons and this is accomplished by mounting weapons in banks. A weapons bank can only be installed on a vehicle of silhouette 6 or greater or one that has the “ship of the line” hull.

Base Modifiers: Each weapons bank provides 0 hp mounts for silhouette number of weapons with a linked rating of 3 or less, each weapons bank added decreases system strain threshold by 2. The frigate, heavy cruiser, destroyer, and space station frames take -1 sst instead of the normal -2 sst per weapons bank. The gunship and ship of the line hulls also reduce the per weapons bank sst penalty by one. Thus the sst of a destroyer with a ship of the line hull would not decrease with each weapon bank is added.

Modification Options: 3 add one adjacent fire arc per weapon Mods; note that the weapons in a weapons bank can have different fire arcs.

Hard Points Required: normally 2, but only 1 for a vehicle with the heavy cruiser, destroyer, or space station frame.

Price/Rarity: Silhouette x 1,000/4.