# Hookscrap GDD

## Surprise Studios

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1.1	Harpoon Changes, Loot update, SPF Flagship	Jack Murray	5/16/2022	
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1.5	Significant Developments, Major changes from playtests	Jack Murray	9/20/2022	

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## **Narrative**

## **Synopsis**

The player is a space pirate vessel in the Omicron Galaxy. Using their hacking harpoon, they catch roaming spacecraft unfortunate enough to be traveling during their patrol. As the player scavenges ships, they collect scrap and loot to upgrade their ship. The only thing stopping them is the law. The SPF (Space Police Force) is hot on the players tail and will do anything to crush them into space dust.

### Background

- Omicron is controlled by Government Inc. a megacorporation which bought the old empires and sectors out entirely.
- Government Inc. outlaws warp drives to stop any attempts of citizens organizing a rebellion.
- Your pirate ship, an old relic has an ancient model of warp drive that requires a gate to function.
- You must repair the gates and destroy the Government Inc. flagship the last ship with a warp drive.

## **Gameplay Minute**

FIRE! The captain barked as our harpoon impaled the oblivious space-yacht. The ship briefly struggled before its systems shut down and our hook started reeling them in. As our crew cheered, we suddenly felt a crash into our starboard side as an SPF patrol ship fired upon us. Thinking quickly our captain took manual control of the ship, spinning it clockwise before releasing the space-yacht from our harpoon. The vessel flew off crashing into the SPF ship obliterating it. We lost our score, but we lived another day.

## **Game Description**

### Game Goals

Facilitate explosive, fast-paced, physics-based action gameplay with deep long-term strategy and replayability as the player battles against the campy Space Police Force.

## **Game Features**

2D top-down shooter rogue-like set in space with themes of action, campy-sarcastic humor, and retro-sci-fi aesthetics. *Hookscrap* is stylized with geometric ship designs and a retro sci-fi arcade aesthetic. The goal is to collect items by scrapping ships to become powerful enough to defeat the Space Police Force Flagship.

## Gameplay

## Summary

#### Movement

The player can activate their various directional thrusters using (WASD) accelerating forward, backwards, left, and right respectively. The player orients their direction via the mouse.

### Harpoon

- M1 fires the harpoon directly ahead of the ship. Upon hitting an object, the harpoon disables it and the
  cable automatically retracts, bringing the skewered object to the player.
- Releasing M1 after firing releases any skewered object(s) and reels in the harpoon. This can used to fling objects.
- M2 detonates the hook, reeling in the harpoon and launching the skewered object straight forward in the direction the player faces.

### Scrapping

When ships are destroyed, the player receives random **scrap** based off the ship. Rarely, ships drop **loot**; stackable items that give statistical bonuses and downsides for the player.

### **Bounty**

A counter that slowly increases the longer the player stays in a level. Destroying & scrapping ships also give the player **bounty**. **Bounty** determines the difficulty and the directions that SPF Waves spawn around the player. SPF ships spawn and pursue the player from the edges of the level.

### Warp-Gates

Each level has a **warp-gate** located randomly within the level. When nearby, the player is prompted with an interface displaying the required **scrap** to repair the warp-gate using "E".

### **System Map**

When the player uses the **warp-gate**, they exit the level and are prompted with a map with random **systems** and hyper-lanes between them. The player can then travel to any adjacent system with the end goal of catching the SPF Flagship. After the player chooses the system they want to enter, the Flagship moves on the system map as well, avoiding the player.

#### **Rest Stations**

These systems don't have a playable level but instead allow the player to exchange **scrap** for HP and craft **Components** to install in the modules of their ships, upgrading them.

### **Mechanics**

### Movement

The player slides through the environment with minimal friction to emulate space. They use "W" to activate the main thruster, accelerating forward and "S" to activate the brake thrusters, accelerating the player backwards. "A" and "D" activate the left and right thrusters respectively. If the player flies outside the level, they have five seconds to return to the before teleporting to the middle of the level and taking 75 damage.

### Camera

The camera follows the player slightly ahead of where they're moving to. The camera is constrained within the level bounds.

## Hacker Harpoon

### Firing (M1)

The player fires the harpoon using M1 directly in front of their ship, towards the crosshair. A crosshair UI element indicates where the harpoon would be fired. The harpoon has a default maximum range of 6UU. Upon reaching this range, it suddenly stops as if it ran out of cable. After shooting to the max range or hitting a target, the harpoon automatically reels in, ready to be fired again once it returns to the ship. If the harpoon hits a target, it reels in at 50% of the speed otherwise.



Figure 1 Harpoon

#### Release (Letting go of M1 after firing)

The player releases the object from the harpoon, the cable automatically reels back into the ship before its able to be fired again. The object then continues its trajectory while it was held by the harpoon, meaning it can be flung as a projectile. If the object is a ship, its thrusters stay disabled until the ship slows down significantly. Meaning the ship can't correct itself while its being flung.

### Launch (M2)

If an object is hooked, it can be launched straight ahead of the player as the harpoon explodes with M2. After such, the cable reels back.

### Scrapping Ships

### Scrapping

When a skewered ship is reeled into the player or is destroyed, it bursts into pieces and debris as it gets scrapped.

### Scrap

The player receives random **Scrap** based off the loot table of the ship they scrapped. **Scrap** is dropped around the ship as small UI elements that lerp into the player's ship, collecting them.

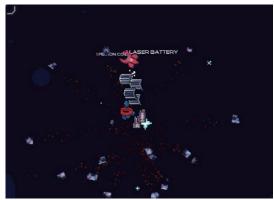


Figure 2 Player picking up scrap

### Loot

Rarely, ships drop **loot**, stackable items that provide statistical bonuses and downsides to the player's ship. **Loot** items are flung a random direction and distance between 10-20UU from the scrapped ship. **Loot** must be flown through to be picked up. If loot is left alone for 10 seconds, it begins blinking then disappears after 5 more seconds.

### **Dynamics**

The player can plan future item crafting by targeting different types of ships during gameplay. The player can also use this information to help them open the warp gate by targeting specific ships. Some ships are worth more than others, the player must prioritize targets by their danger and their value in **Scrap** dropped.

## Collision Damage

Objects deal damage to targets they collide with based off their respective velocities. This occurs when the player flings objects with the harpoon, when player and NPC ships collide, when NPC ships collide, and when ships collide with objects such as asteroids. Upon taking damage, if the player still has hit points remaining, they gain 3 seconds of invulnerability as their ship blinks.

## Space Police Force Ships

### Wave Spawning

SPF ships spawn in waves that increase in difficulty as the game progresses. At the start of a wave, "WAVE INCOMING" text appears onscreen briefly. After this the total amount of SPF ships that spawn this wave are spawned, each with a chance to be a **Brute Drone** or **Seeker Platform**. After 2 minutes or 15 seconds after all SPF ships are destroyed, the next wave begins just as the first.



Figure 3 Wave Incoming

- Wave progression formula: ships per wave = 1.08x+3 (x = current wave)
- Chance to spawn special enemy: 1% per 72,000 **Bounty** (max 55%)

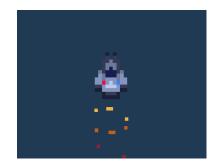
### Ship Al

All SPF ships have similar Al that tracks the players movement and *attempts* to avoid obstacles in their path towards the player. Ships that fire projectiles don't fire at all unless within 15UU of the player. Ensuring that SPF ships don't try to unfairly "snipe" the player.

### Ship Types

#### 1. Cruiser

The most common enemy, a small patrol ship. SPF Cruisers have a mounted laser cannon which starts firing at the player once they are within 15UU. The turret always fires in the direction the cruiser is facing every two seconds. This laser moves steadily in the same direction it was fired, disappearing if it hits an object or after 3 seconds. If the laser hits an object, it deals 15 damage. SPF cruisers have low hit points and are decently maneuverable.



### 2. Brute Drone

Large, shielded charger enemy. Has a large triangular shield guarding the front of the ship. The hook immediately retracts upon collision with the shield. The brute drone pursues the player until its within 15UU. Over .5 seconds, the drone stop moving and turns to face the player, flaring its engines. It then charges straight forward at high speeds dealing 20 damage on collision. The brute drone takes no damage during this charge. After charging, the engines turn off as the drone overheats, sitting still for 4 seconds before pursuing the player again.



#### 3. Seeker Platform

Special weapons ship. If not within 100UU of the player, pursues the player. Once within this range, fires two heat-seeking missiles every 6 seconds. Heat seeking missiles pursue the player quickly with no pathfinding to avoid collisions. Missiles can be caught and thrown by the harpoon. If the player is within 30UU it attempts to flee away from the player.



## Civilian Ships

### Spawning

Civilian ships spawn outside the level at random locations at random intervals between a min and max time per level type. The type of Civilian Ship that spawns is random with a percentage chance as determined by each level.

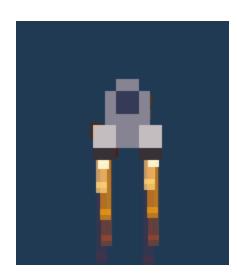
### Movement

Various ships travel throughout the stage, choosing a location outside of the stage to travel towards at a static pace per ship type.

### Shuttle

## Drops

Scrap Name	Min Amnt	Max Amnt	Drop Rate	AVG Drop
Supersteel	2	4	100%	3
Fusion Coils	2	4	50%	1.5
Laser Batteries	0	0	0%	0
Gravity Disks	0	0	0%	0
Al Fragments	0	0	0%	0
Mythium	0	0	0%	0
Neutron Wiring	3	5	50%	2



**Loot Drop Chance:** 5%

Object to Otat	
Shuttle Stat	S
Max HP	35
Speed	150
Bounty	75
Mass	1

## Space Hauler

Scrap Name	Min Amnt	Max Amnt	Drop Rate	AVG Drop
Supersteel	0	0	0%	0
Fusion Coils	0	0	0%	0
Laser Batteries	0	0	0%	0
Gravity Disks	1	1	40%	0.4
Al Fragments	2	2	40%	0.8
Mythium	5	8	40%	2.6
Neutron Wiring	3	3	40%	1.2

Hauler Stat	s
Max HP	100
Speed	75
Bounty	40
Mass	1



## Repair Ship

### Drops

Scrap Name	Min Amnt	Max Amnt	Drop Rate	AVG Drop
Supersteel	0	0	0%	0
Fusion Coils	15	15	100%	15
Laser Batteries	0	0	0%	0
Gravity Disks	0	0	0%	0
Al Fragments	0	0	0%	0
Mythium	0	0	0%	0
Neutron Wiring	0	0	0%	0

Repair Ship S	tats
Max HP	75
Speed	100
Bounty	60
Mass	1

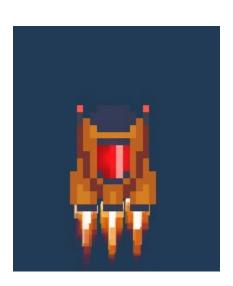


## Mining Ship

Explodes when destroyed, dealing 50 damage in an area.

Scrap Name	Min Amnt	Max Amnt	Drop Rate	AVG Drop
Supersteel	0	0	0%	0
Fusion Coils	15	15	100%	15
Laser Batteries	0	0	0%	0
Gravity Disks	0	0	0%	0
Al Fragments	0	0	0%	0
Mythium	0	0	0%	0
Neutron Wiring	0	0	0%	0

Repair Ship S	tats
Max HP	75
Speed	100
Bounty	60
Mass	1



### **Broadcast Drone**

### Drops

Scrap Name	Min Amnt	Max Amnt	Drop Rate	AVG Drop
Supersteel	0	0	0%	0
Fusion Coils	15	15	100%	15
Laser Batteries	0	0	0%	0
Gravity Disks	0	0	0%	0
Al Fragments	0	0	0%	0
Mythium	0	0	0%	0
Neutron Wiring	0	0	0%	0



Repair Ship S	tats
Max HP	75
Speed	100
Bounty	60
Mass	1

## Space Yacht

Scrap Name	Min Amnt	Max Amnt	Drop Rate	AVG Drop
Supersteel	0	0	0%	0
Fusion Coils	15	15	100%	15
Laser Batteries	0	0	0%	0
Gravity Disks	0	0	0%	0
Al Fragments	0	0	0%	0
Mythium	0	0	0%	0
Neutron Wiring	0	0	0%	0

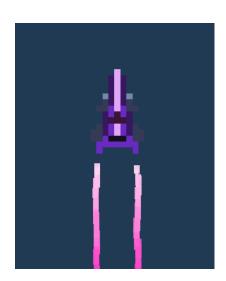
Repair Ship S	tats
Max HP	75
Speed	100
Bounty	60
Mass	1



## 1. Space Racer

Very Rare, spawns in all systems. Very fast speed, low HP, drops large quantities of rare **scrap**.

Scrap Name	Min Amnt	Max Amnt	Drop Rate	AVG Drop
Supersteel	0	0	0%	0
Fusion Coils	15	15	100%	15
Laser Batteries	0	0	0%	0
Gravity Disks	0	0	0%	0
Al Fragments	0	0	0%	0
Mythium	0	0	0%	0
Neutron Wiring	0	0	0%	0



Repair Ship Stats					
Max HP	75				
Speed	100				
Bounty	60				
Mass	1				

## Warp Gates

In each playable system, a warp gate spawns in a random location within the bounds of the level. When the player is nearby the warp gate, the gate has an outline and UI boxes containing the type of and required amounts of **Scrap** that appear above the gate. The text displaying the number of **Scrap** required is red when the player doesn't have the listed amount, and green when the player does. The scrap requirements choose random requirements available to each level. When the player has all the requirements to repair the warp gate, an "e to repair the warpgate" text appears. When the player presses E, the gate begins activating and after 15 seconds, the **system map** opens.



Figure 4 This warp gate needs Fusion Coils and Mythium Alloy

## System Map

UI

When the player repairs the **Warp Gate**, they warp out of the level and the system map opens. In the system map the player sees their current scrap, loot, bounty, unequipped ship components, ship modules, and the map of the systems. The ship modules are displayed identically to the one in the **Rest Station** menu and function identically, allowing the player to swap items in between systems.



Figure 5 System Map

### Map Layout

The map of systems is randomly generated each run with different pre-made systems in different locations. Rest Station systems are infrequent. When the player hovers over a node, text reading the System Type is displayed, and if the player is adjacent to that node, the dotted path between them and that node becomes a highlighted line, indicating that the player can click to travel to it.

### SPF Flagship

After the player chooses a system to travel to, the SC Judgement (Flagship) moves in the system map. The SC Judgment's chooses where to move based on distance in nodes from the player. Before moving, there's a 15% chance the "Warp Drive Fails" and the Judgement stays in the same system. If its 3 or more nodes away, it chooses a random point adjacent to move to. If it's closer than that, it moves as far away as possible, randomly picking between ties in distance from the player.

#### Start Locations & Capturing

The player starts in the center of the system map, and the SC Judgement starts at a random point near the edge of the map. When a player travels to a new node, they must play through that level and activate the warp gate to continue traveling. Once a level has been

completed, its node becomes **Captured**, meaning the player cannot replay that stage, and the SC Judgement cannot move to that node.

Systems

### 1. Star System

Standard star system. Contains some asteroids and spawns all types of civilian ships. Generic, with multiple planets and moons.

### 2. Asteroid Belt

Empty vastness of space. Contains some static **asteroids**, many slow-moving **asteroids** throughout the level. Primarily spawns **mining ships**, **space haulers**, and **civilian shuttles**.

### 3. Dead System

Barren, with some asteroids and dead planets. Primarily spawns **Space Haulers**, **Broadcast Drones**, and **Space Racers**.

### 4. Hive System

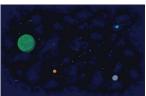
Filled with over-populated city planets. Primarily spawns Civilian Shuttles, Space Haulers, and Broadcast Drones.

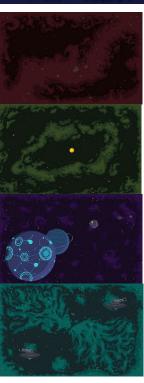
### 5. Defense Outpost

A military defense outpost. Mostly spawns **Space Haulers**, and **Broadcast Drones**.

### 6. Rest Station

Opens the crafting, repair, and ship module menus.





### **Rest Stations**

A larger UI Menu with two buttons at the top for each menu the player can select. The options are "Component Crafting", and "Ship Repairs"

### Component Crafting

Inside the crafting menu the player sees two UI sections, one containing the recipe requirements and results for a **Component**, and one a scrollable list of components. In the recipe box, the number of **scrap** types required is listed similarly to the **Warp Gate** repair requirements. Above this is the **Components** name, sprite and module it fits into. When the player hovers over the sprite, a description box appears describing its effects. At the very bottom of the recipe section is a "CRAFT" button that is highlighted when the player can craft a **component.** 

### Ship Repair

In the Ship Repair menu there are three random options of **Scrap** costs from the **Ship Repair Table** to repair the ship to full health. The costs are listed identically to that of the Component Crafting menu and Warp Gate. Every 10000 bounty, the rest station offers the player a free repair.

### Ship Modules

In both menus on the left side of the UI is a blueprint-like screen with square slots on different parts of the ship. There are five different slots, the harpoon, top-mount, hull, thrusters, and auxiliary. Each of these slots displays what item is equipped to that slot if any, and if hovered, displays a description box with the effects of the **Component.** To the right of the menu, the player sees a scrollable list of the currently unequipped **Components.** The player can drag these **Components** into their appropriate slot, equipping them.

## Bounty

During gameplay the player has a wanted Bounty listed in the UI. This number represents the players score and the current difficulty. While the player is in a non-Rest Station system, the bounty slowly increases by 100 credits per second, in addition when a ship is scrapped or destroyed a "+X c" text appears next to the VFX and this amount is added to the bounty. The higher this amount is, the faster SPF ships spawn, and more types of SPF ships spawn.

## SC Judgement (Flagship)

When the player warps to the system with the SC Judgement in the **System Map**, they fight a massive SPF ship to win the game. A large health bar for the Judgement is always displayed with its current hit points. The flagship has three stages, each with its own movement and attack patterns. The player cannot hook the flagship but can instead damage it by flinging objects into the flagship. Dealing damage to the reactors on the sides deals 1.5x damage.

### Stage 1

The flagship always follows the player. It has two attacks; one uses its missile batteries to fire barrages of all 6 missile racks identical to the seeker platform, the other it stops moving for a second, rotating to face the player then launching itself 100UU towards the player in a straight line. If the player is within 30UU and the flagship is not currently in an attack, it uses its charge attack, otherwise it uses its missile attack.

### Stage 2

The flagship's massive laser cannon reveals itself and targets the player. From this point on, the flagship between firing three bursts of three large laser projectiles that deal 10 damage, and a charged shot. When the flagship begins its charged shot attack it stops moving and rotating and plays its charge animation. Once fully charged, it fires and begins rotating a full 360° over 8 seconds. Once it stops rotating, it returns to its laser burst attacks.

### **Attack Pattern**

- 1. 3x Laser Burst
- 2. 3x Laser Burst
- 3. 3x Laser Burst
- 4. Charged Laser

### Stage 3

The flagship continues stage 2 attack patterns while also using missile and charge attacks from stage 1.

## Metrics

## Ship Stats

Cruiser Stats		Brute D	Prone Stats	Seeker Platform Stats		
Max HP	30	Max HP	100	Max HP	50	
Speed	300	Speed	200	Speed	75	
Mass	1	Mass	1	Mass	1	
Bounty	75	Bounty	200	Bounty	200	
Laser		Charge		Missile		
Damage	10	Damage	20	Damage	10	
Laser		Charge		Missile		
Cooldown	3	Cooldown	4	Cooldown	6	
Range	20	Range	20	Range	100	
				Retreat		
				Range	30	

Flagship P1 Stats		Flagshi	p P2 Stats	Flagsh	ip P3 Stats
Max HP	500	Max HP	500	Max HP	300
Speed	200	Speed	250	Speed	150
Bounty	10000	Bounty	50000	Bounty	100000
Missile		Burst Laser			
Damage	5	Damage	10		
Missile		Burst Laser			
Cooldown	10	Cooldown	3		
Charge		Charge Laser			
Damage	30	Damage	30		

Shu	ıttle Stats	Haul	er Stats	Repair Ship Stats		
Max HP	35	Max HP	35	Max HP	35	
Speed	200	Speed	80	Speed	100	
Bounty	20	Bounty	20	Bounty	20	
Mass	1	Mass	1	Mass	1	

Mi	ner Stats	Droi	ne Stats	Racer Stats		
Max HP	35	Max HP	35	Max HP	35	
Speed	120	Speed	350	Speed	500	
Bounty	20	Bounty	20	Bounty	20	
Mass	1		1		1	

## Ship/Object Drop Rates

Ship Name	Scrap Name	Min Amnt	Max Amnt	<b>Drop Rate</b>	AVG Drop
-	Supersteel	2	3	100%	2.5
a	Fusion Coils	2	2	50%	1
Ŧ	Laser Batteries	0	0	0%	0
Shuttle	Gravity Disks	0	0	0%	0
<b>4</b>	Al Fragments	0	0	0%	0
S	Mythium	1	2	70%	1.05
	Neutron Wiring	1	1	50%	0.5
	Supersteel	5	8	100%	6.5
_	Fusion Coils	1	3	55%	1.1
Hauler	Laser Batteries	3	3	30%	0.9
<u> </u>	Gravity Disks	1	1	30%	0.3
<u> </u>	Al Fragments	2	2	30%	0.6
_	Mythium	4	8	30%	1.8
	Neutron Wiring	3	3	30%	0.9
	Supersteel	5	12	80%	6.8
_	Fusion Coils	0	0	0%	0
Miner	Laser Batteries	3	6	100%	4.5
2.	Gravity Disks	0	0	0%	0
5	Al Fragments	0	0	0%	0
	Mythium	6	9	80%	6
	Neutron Wiring	1	2	10%	0.15
	Supersteel	0	0	0%	0
	Fusion Coils	6	12	100%	9
e e	Laser Batteries	0	0	0%	0
Racer	Gravity Disks	2	4	100%	3
<b>8</b>	Al Fragments	0	0	0%	0
_	Mythium	2	6	100%	4
	Neutron Wiring	0	0	0%	0
	Supersteel	0	0	0%	0
O	Fusion Coils	2	3	20%	0.5
n n	Laser Batteries	0	0	0%	0
Ō	Gravity Disks	1	2	100%	1.5
_ <u>`</u>	Al Fragments	1	3	100%	2
_	Mythium	0	0	0%	0
	Neutron Wiring	2	4	20%	0.6
٠	Supersteel	8	15	100%	11.5
Space Yacht	Fusion Coils	0	0	0%	0
(aí	Laser Batteries	3	3	40%	1.2
(P)	Gravity Disks	2	2	40%	0.8
) m	Al Fragments	2	2	40%	0.8
þ	Mythium	0	0	0%	0
<b>(</b> )	Neutron Wiring	2	6	80%	3.2

## Ship/Object Drop Rates 2

Ship Name	Scrap Name	Min Amnt	Max Amnt	<b>Drop Rate</b>	AVG Drop
E	Supersteel	0	0	0%	0
Jo	Fusion Coils	0	0	0%	0
atí	Laser Batteries	1	4	60%	1.5
ᇫ	Gravity Disks	1	3	100%	2
ē	Al Fragments	1	1	15%	0.15
Seeker Platforn	Mythium	0	0	0%	0
Se	Neutron Wiring	3	6	75%	3.375
	Supersteel	3	5	80%	3.2
<u>_</u>	Fusion Coils	1	2	20%	0.3
Cruise	Laser Batteries	1	3	100%	2
· <del>=</del>	Gravity Disks	0	0	0%	0
	Al Fragments	0	0	0%	0
	Mythium	3	4	80%	2.8
	Neutron Wiring	1	1	20%	0.2
Ø	Supersteel	5	10	65%	4.875
Drone	Fusion Coils	3	6	100%	4.5
2	Laser Batteries	0	0	0%	0
	Gravity Disks	0	0	0%	0
Brute	AI Fragments	1	1	75%	0.75
	Mythium	5	10	100%	7.5
ш	Neutron Wiring	1	3	30%	0.6

## Warp Gate Repair

Systems Entered	Number of Costs	Cost 1	Cost 2	Cost 3	Cost 4	Cost 5	Cost 6
0 – 1	2	10 - 15 Supersteel Plating	4 - 8 Fusion Coils	4 - 6 Laser Batteries	5 – 7 Mythium Alloy	N/A	N/A
2	2	12 - 20 Supersteel Plating	10 - 12 Fusion Coils	8 - 10 Laser Batteries	8 - 10 Mythium Alloy	N/A	Neutron Wiring
3	3	22 - 25 Supersteel Plating	14 - 18 Fusion Coils	12 - 16 Laser Batteries	12 - 14 Mythium Alloy	1 - 2 Gravity Disks	2 - 4 Neutron Wiring
4 – 5	3	26 - 30 Supersteel Plating	18 - 22 Fusion Coils	20 - 26 Laser Batteries	16 - 18 Mythium Alloy	2 - 3 Al Fragments	4 - 6 Neutron Wiring
6 – 7	4	32 - 35 Supersteel Plating	22 - 25 Fusion Coils	28 - 34 Laser Batteries	18 - 20 Mythium Alloy	3 - 4 Al Fragments	6 - 8 Neutron Wiring
8+	4	36 - 55 Supersteel Plating	25 - 30 Fusion Coils	36 - 46 Laser Batteries	20 - 22 Mythium Alloy	4 - 5 Gravity Disks	8 - 10 Neutron Wiring

Component Metrics						
Component Name	Effect	Module	Flavor Text			
Dura-Thicc Armor	"+20% HP +20% Mass"	Hull	More between you and the cold vacuum of space.			
Null-Mass Hull	"-20% HP -20% Mass"	Hull	Faster than light? Probably not. But still fast!			
Arc Defense System	Objects that hit with the player take 25 extra damage	Hull	Usually mounted on cargo ships traveling through space-bug infested systems.			
Anti-Pursuit Net	Spawns a net when SPF Ship is 15 UU behind the player. Net dissapears after 3 seconds.	Top Mount	A simple yet elegant solution to eliminating pursuers.			
Auto Cannon	Turret rapidly fires at closest SPF ship within 30UU, deaing 10 Damage per shot	Top Mount	I don't know if you have the proper permit for this thing.			
Energy Shield	"-50% Max HP, HP Regenerates if untouched for 4 seconds"	Top Mount	Military grade, except it was made at a rest stop out of scraps.			
Supernova Accelerator	"-25% Accel, +45% Max Speed, at max speed in a straight line take 50% less collision damage	Thruster	Experimental is an understatement.			
Retrofit Thrusters	"+25 % Accel +20% Turn Speed +20% Max Speed	Thruster	More thrusters = more faster.			
Thruster Amplifier	Back Thruster deals 5 DPS to objects it touches	Thruster	Caution, very hot.			
Piercer Harpoon	Harpoon can pierce through 3 objects, has 50% longer range	Harpoo n	Nothing beats a good space kebab.			
The Tri-Poon	Fire 2 additional harpoons 15 degrees from the center	Harpoo n	What could go wrong with more harpoons!			
The Maw	Harpoon can't fire, scraps ships that hit the front, if so the player takes no damage	Harpoo n	Like the jaws of a space shark.			
Nuclear Radar	Displays location of SPF ships relative to player within 200UU	Auxiliary	Nuclear power is so 27th century.			
Asteroid Salvager	Asteroids can be scrapped	Auxiliary	Nobody told us that asteroids had shiny bits too!			
Auto-Repair System	Scrapping ships heals the player 2% max HP. Reduces Scrap Dropped by Ships.	Auxiliary	Can fix anything up with enough duct tape and automatic repair drones.			

Loot Metrics					
Name	Effect	Description			
Hyperfuel "+X Max Speed +Y Acceleration"		Only illegal if the SPF catches you, and they probably won't.			
Advanced Sensor	+5% Camera Size	It'll help you spot a needle in an asteroid field.			
SPF Signal Jammer	-5% Bounty from destroying ships	Overloads SPF comms with used spacecraft advertisements.			
Improved Hull Skeleton	+10 HP	Maybe you should replace your bones too considering your line of work.			
Impact Dampener	-5% Damage from collisions	For bad pilots.			
Modulated Harvesters	+10% Chance to drop a random extra scrap when scrapping	These robots disassemble ships faster than you can s- oh they're done.			
Auxiliary Service Cable	+X Harpoon Range	Made to charge ships and transfer data, incredibly durable too.			
Starship Ballast	+X Mass	A stabilizing core for unbalanced highly mobile craft just like yours.			
Rest-Station Rewards Card	-5% Ship Repair Cost at rest station	All ten visits punched out and everything.			

## Ship Repair Costs

Systems	Cost 1	Cost 2	Cost 3	Cost 4	Cost 5	Cost 6
Entered						
0 – 1	10 - 15 Supersteel	4 - 8 Fusion	4 - 6 Laser	5 – 7 Mythium	1 Gravity Disk	1 Neutron
	Plating	Coils	Batteries	Alloy		Wiring
2	12 - 20	10 - 12	8 - 10	8 - 10	1 Gravity Disk	2 Neutron
	Supersteel Plating	Fusion Coils	Laser Batteries	Mythium Alloy		Wiring
3	22 - 25	14 - 18	12 - 16	12 - 14	1 - 2	2 - 4
	Supersteel Plating	Fusion Coils	Laser Batteries	Mythium Alloy	Gravity Disks	Neutron Wiring
4 – 5	26 - 30	18 - 22	20 - 26	16 - 18	2 - 3	4 - 6
	Supersteel Plating	Fusion Coils	Laser Batteries	Mythium Alloy	Al Fragments	Neutron Wiring
6 – 7	32 - 35	22 - 25	28 - 34	18 - 20	3 - 4	6 - 8
	Supersteel Plating	Fusion Coils	Laser Batteries	Mythium Alloy	Al Fragments	Neutron Wiring
8+	36 - 55	25 - 30	36 - 46	20 - 22	4 - 5	8 - 10
	Supersteel Plating	Fusion Coils	Laser Batteries	Mythium Alloy	Gravity Disks	Neutron Wiring

Name	Scrap Name	Amount	Name	Scrap Name	Amount
Dura-thicc Armor	Supersteel	100	-	Supersteel	0
	Fusion Coils	0	l ole	Fusion Coils	25
	Laser Batteries	0	يَ	Laser Batteries	0
<u>::</u>	Gravity Disks	0	<b>S</b>	Gravity Disks	15
두	Al Fragments	0	<u> </u>	Al Fragments	C
<u> </u>	Mythium	25	Energy Shield	Mythium	10
۵	Neutron Wiring	0	ш —	Neutron Wiring	C
=	Supersteel	0	_	Supersteel	35
쿠	Fusion Coils	0	rato	Fusion Coils	0
S	Laser Batteries	0	cele	Laser Batteries	25
<u>a</u>	Gravity Disks	15	a Ac	Gravity Disks	15
<u> </u>	Al Fragments	0	'nov	Al Fragments	0
Null-Mass Hull	Mythium	55	Supernova Accelerator	Mythium	0
Z	Neutron Wiring	0	S	Neutron Wiring	5
٤	Supersteel	0	S	Supersteel	55
ste	Fusion Coils	0	ter	Fusion Coils	25
Ş	Laser Batteries	5	ırus	Laser Batteries	C
Auto-Repair System	Gravity Disks	6	Ę	Gravity Disks	0
	Al Fragments	10	ofit	Al Fragments	0
	Mythium	0	Retrofit Thrusters	Mythium	0
	Neutron Wiring	0	8	Neutron Wiring	5
Ε	Supersteel	0	er	Supersteel	0
ste	Fusion Coils	25	<b>!</b>	Fusion Coils	35
Arc Defense System	Laser Batteries	15	Thruster Amplifier	Laser Batteries	0
	Gravity Disks	0	Ā	Gravity Disks	C
	Al Fragments	0	te	Al Fragments	C
Õ	Mythium	0	Ĭ Ž	Mythium	15
Ā	Neutron Wiring	30	[ -	Neutron Wiring	0
et	Supersteel	0	_	Supersteel	30
Anti-Pursuit Net	Fusion Coils	0	Piercer Harpoon	Fusion Coils	C
퍒	Laser Batteries	0	r g	Laser Batteries	С
IZ	Gravity Disks	10	Ξ̈́	Gravity Disks	С
ج ف	Al Fragments	0	Cer	Al Fragments	C
₽	Mythium	25	ier	Mythium	55
A	Neutron Wiring	35	ے	Neutron Wiring	C
Auto-Cannon /	Supersteel	0		Supersteel	C
	Fusion Coils	0		Fusion Coils	20
	Laser Batteries	20	uc	Laser Batteries	C
S	Gravity Disks	0	Tri-Poon	Gravity Disks	C
Ò	Al Fragments	8	Tri-	Al Fragments	5
Ĭ	Mythium	0		Mythium	C
⋖	Neutron Wiring	5		Neutron Wiring	18

Component Costs 2							
Name	Scrap Name	Amount	Name	Scrap Name	Amount		
	Supersteel	45		Supersteel	0		
≥	Fusion Coils	20		Fusion Coils	0		
<u>Ja</u>	Laser Batteries	0		Laser Batteries	0		
The Maw	Gravity Disks	0		Gravity Disks	0		
he	Al Fragments	10		Al Fragments	0		
F	Mythium	0		Mythium	0		
	Neutron Wiring	0		Neutron Wiring	0		
	Supersteel	0		Supersteel	0		
qal	Fusion Coils	25		Fusion Coils	0		
Nuclear Radar	Laser Batteries	0		Laser Batteries	0		
ar	Gravity Disks	10		Gravity Disks	0		
C e	Al Fragments	10		Al Fragments	0		
٦	Mythium	0		Mythium	0		
_	Neutron Wiring	15		Neutron Wiring	0		
	Supersteel	25		Supersteel	0		
Asteroid Salvager	Fusion Coils	0		Fusion Coils	0		
	Laser Batteries	15		Laser Batteries	0		
s pi	Gravity Disks	0		Gravity Disks	0		
eroj	Al Fragments	0		Al Fragments	0		
Astı	Mythium	0		Mythium	0		
	Neutron Wiring	2		Neutron Wiring	0		

Star System Civ Rates		Asteriod System Civ Rates		Hive System Civ Rates		Defense System Civ Rates	
Name	Rate	Name	Rate	Name	Rate	Name	Rate
Shuttle	34%	Shuttle	15%	Shuttle	28%	Shuttle	8%
Repair	5%	Repair	5%	Repair	5%	Repair	5%
Hauler	17%	Hauler	15%	Hauler	20%	Hauler	32%
Miner	18%	Miner	42%	Miner	15%	Miner	10%
Racer	3%	Racer	1%	Racer	2%	Racer	2%
Drone	18%	Drone	20%	Drone	20%	Drone	43%
Yacht	0.05	Yacht	0.02	Yacht	0.1	Yacht	0

Dead System Civ Rates				
Rate				
5%				
20%				
20%				
10%				

20%

20%

5%

Drone

Yacht

Repair