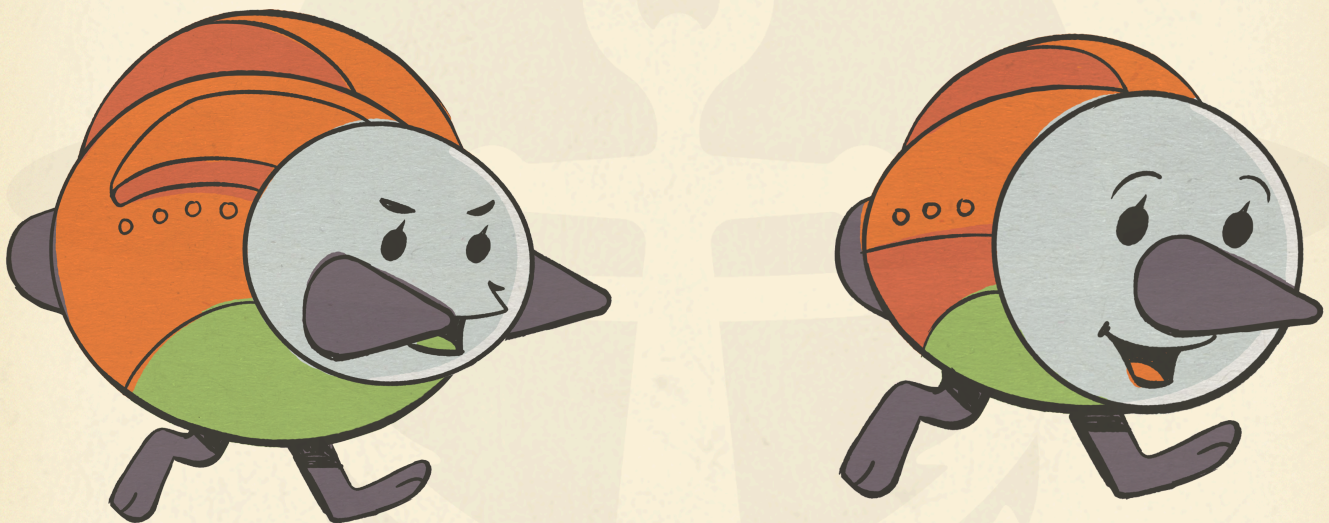


Enemies of Riptide

A Capstone Concept Document



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Overview

Introduction

Greetings Captain, and welcome to this automated training briefing. As I'm sure you're aware, our struggle for independence against the monarchy has not been peaceful. Ever since our parliament was able to break through the stalemate, we have been met with harsh and heavy resistance. In an attempt to regain control over us, loyalist ships, turrets, and even remote outposts have been refitted with new state of the art weapons technology. To prepare you for combat, this guide covers the most recent surveillance data we have on the armaments and assets of the Monarchy's fleet.

As an overall disclaimer, all numbers displayed below are percentages drawn from the current Health UI script, which uses a scale from 0-1 for the player's health.

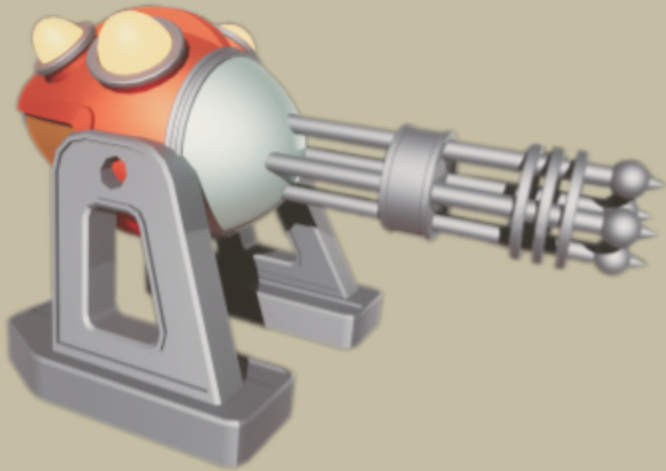
Turrets and Weapons

Overview

Turrets act as standard armaments to all Monarchist and Parliament naval vessels. In space combat, the ability to swivel and aim an individual weapon rather than the ship itself provides a high tactical advantage. Currently, there are three known classifications of enemy turrets: Light, Medium, and Heavy.

While the majority of these weapons will be attached to enemy vessels, larger and more durable variants can be affixed to satellites and ground anchors, providing static weapon platforms to immobile outposts. Despite the wealth of the Monarchy, this cheaper alternative has been encountered an average of 81% of the time.

Auto Turrets



Shields
5%

Hull
50%

Fire Rate
High

Damage
10 DPS

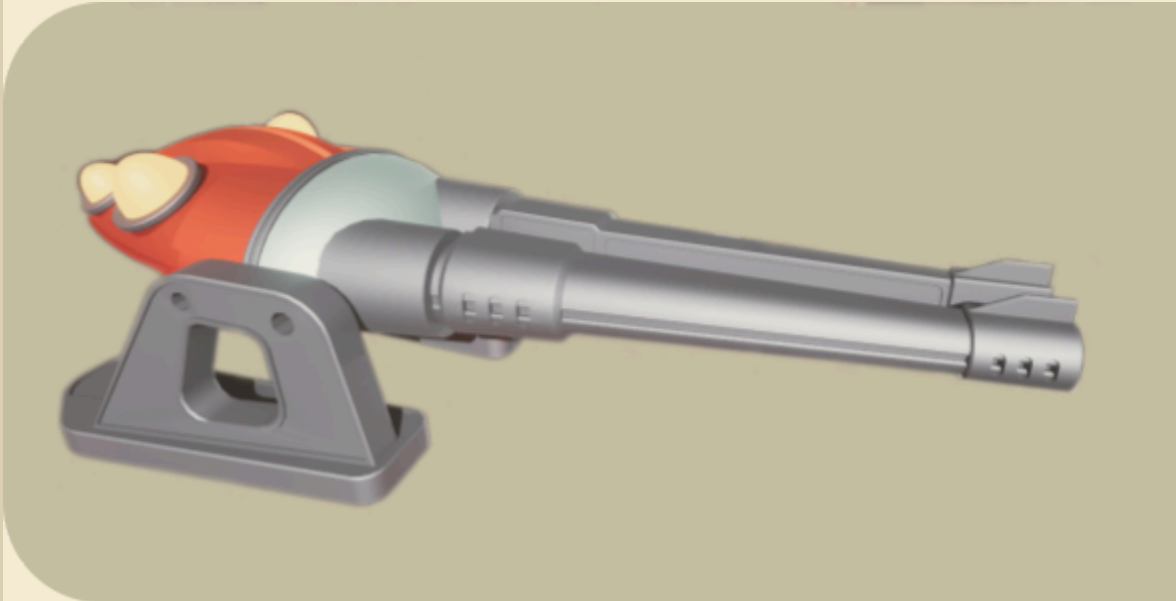
Description:

Auto turrets bolster a high rate of fire for a relatively low damage output. The lightest and most robust of the three, these weapon platforms sacrifice shields for more ammo, making them easy targets to eliminate.

General stats:

- 0.05 shields, 0.5 hull
- Fire rate of 5 rounds per second, rounds do 0.02 overall damage
- Light turret's have a shorter 'view range', and engage targets immediately on sight. After the player is out of range, it takes 15 seconds to de-agro.

Railgun Turrets



Shields

100%

Hull

5%

Fire Rate

Slow

Damage

12.5 DMG

Description:

While slower to aim and fire, railgun ammo is accelerated to extreme velocities to penetrate any armor. While it's rare to find this emplacement in levels, the delicate machinery requires a built-in shield generator, and has little hull health on its own.

General stats:

- 1 shields, 0.05 hull
- Fire rate of 0.25 rounds per second, rounds do 0.25 shield damage and 0.5 hull damage
- Heavy turret's have a large 'view range', and engage targets immediately on sight. After the player is out of range, it takes 10 seconds to de-agro

'Torpedo' Turrets



Shields
-%

Hull
-%

Fire Rate
Slow

Damage Type
Hull

Description:

Torpedoes are slow moving, long range projectiles that deal heavy damage to a vessel's hull. To accommodate their explosive payload, torpedoes lack an auto-navigation system, and must be carefully aimed to hit a target.

General stats:

- # shields, # hull
- Fire rate of 0.25 rounds per second, rounds do 0.25 shield damage and 0.75 hull damage
- Torpedo launcher turret's have a far-sighted 'view range', and engage targets at medium distances or closer. After the player is out of range, it instantly de-agros, and takes 5-10 seconds to fire when the player is within range.

'Flak Cannon' Turrets



Shields

-%

Hull

-%

Fire Rate

Fast

Damage Type

Hull

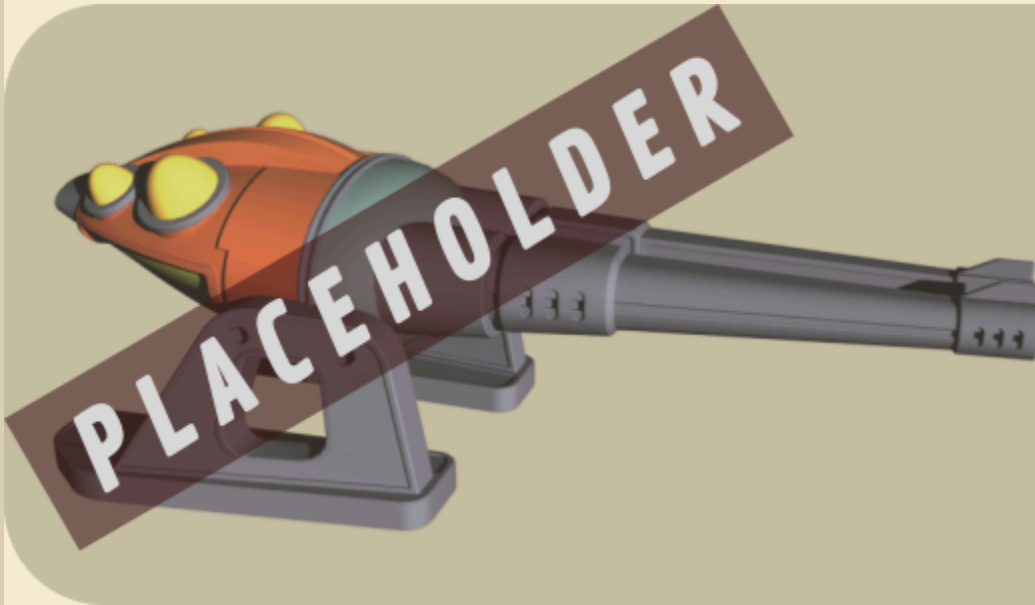
Description:

Much like their distant ancestors, Flak cannons fire explosive shells that detonate into shrapnel after a few seconds. When combined with its burst fire ability, a single turret can be lethal to any ship at close range.

General stats:

- # shields, # hull
- Fire rate of 5 rounds per second, shrapnel from rounds do 0.05 shield damage and 0.10 hull damage each
- Light turret's have a shorter 'view range', and engage targets immediately on sight. After the player is out of range, it takes 15 seconds to de-agro.

Naval 'Sea' Mines



Shields

-%

Hull

-%

Fire Rate

N/A

Damage Type

Shld + Hull

Description:

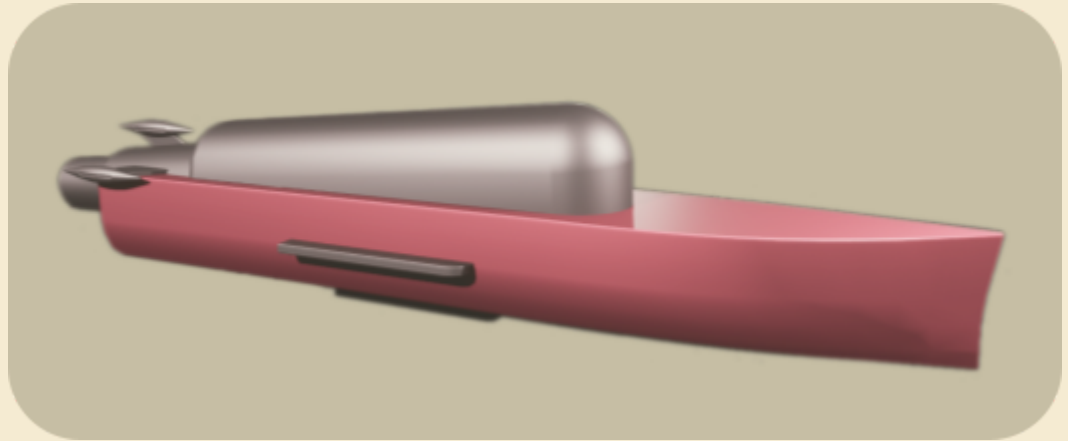
The use of sea mines has not changed much since their invention in the 14th century by the Ming Dynasty, and its further refinement in the 20th century. While a cheaper alternative to patrol squadrons and turrets, the shrapnel from their explosions has been known to cause chain reactions throughout the minefield.

General stats:

- # shields, # hull
- Sea mines have a large 'view range', and their exterior lights begin to flash/blink when the player is in range. After the player is out of range, the mines return to an inactive state.
- If the player ventures too close, the mine will explode, dealing massive hull and moderate shield damage to the player, and any nearby enemies.
 - If a mine is hit by the explosion, that mine will explode as well, triggering a chain reaction.

Ship Classes and Designs

Corvettes



Description:

The smallest classification of enemy vessels, Corvettes bolster an impressive movement speed, sacrificing their components for maneuverability. To be as light as possible, these vessels are restricted to only one weapon, and have no shield capabilities. Due to their high fuel consumption, these vessels are found berthed close to outposts or carrier ships, and often fly in small formations.

General stats:

- 0 shields, 0.5 hull
- Fire rate of 5 rounds per second, rounds do 0.02 damage
- Light ships fly in small formations, and can swarm players.
- Fastest movement & fire rate of all enemies.
- On death, they have a chance to explode, and damage other ships.

Detection/Sight:

- Smallest detection range of all ships, and an even smaller 'attack' range
 - Attack range is $\frac{1}{2}$ detection range
- If detecting the player, they can alert other nearby vessels within a large 'communications' range, setting other ships hostile to the player
- If the player is out of range, light ships will try and 'seek' them, for 20 seconds before returning to their original position/patrol
- Constantly stays within an even larger range of either an Outpost or large vessel? (stretch goal for possible future implementation of 'refueling' ships to increase patrol radius size/location)

Cruisers



Description:

Comparable to the player, Medium enemy vessels are the most rounded enemy to encounter. While not as agile as light ships, these destroyers have a versatile range of maneuverability and, with 3 weapon slots, can be very deadly in combat. While not powerful enough to hold more than one heavy weapon, medium vessels pack quite a punch in combat, often draining opponents' shields to let others sweep in for the kill.

General stats:

- 0.75 shields, 0.75 hull
- Equipped with 2 medium and one small turrets
- Medium ships fly alone, or can be assigned to escort large ships
- Main attacks on the player only damage shields, and cannot damage hull
- Average fire rate

Detection/Sight:

- Average detection range of all ships, and a slightly smaller 'attack' range
 - Attack range is $\frac{2}{3}$ detection range
- If detecting the player, they can alert other nearby vessels within a small 'communications' range, setting other ships hostile to the player
- If the player is out of range, medium ships will maintain position to try and 'target' them for 20 seconds before returning to their original position/patrol

Battleships



Description:

While uncommon, heavy monarchist vessels can pack quite an excessive punch. Often flying with Medium escorts, these ships are equipped with a variety of heavy and small weapons. Designated as line breakers, one shot from this ship can cripple any vessel's armor.

General stats:

- 2 shields, 0.75 hull
- Equipped with 2-3 Heavy and 2-3 small turrets
- Large ships fly escorted by two or more medium ships, or one other Large ship
- Main attacks on the player slightly damage shields, and greatly damage hull
- Slowest fire rate of all vessels

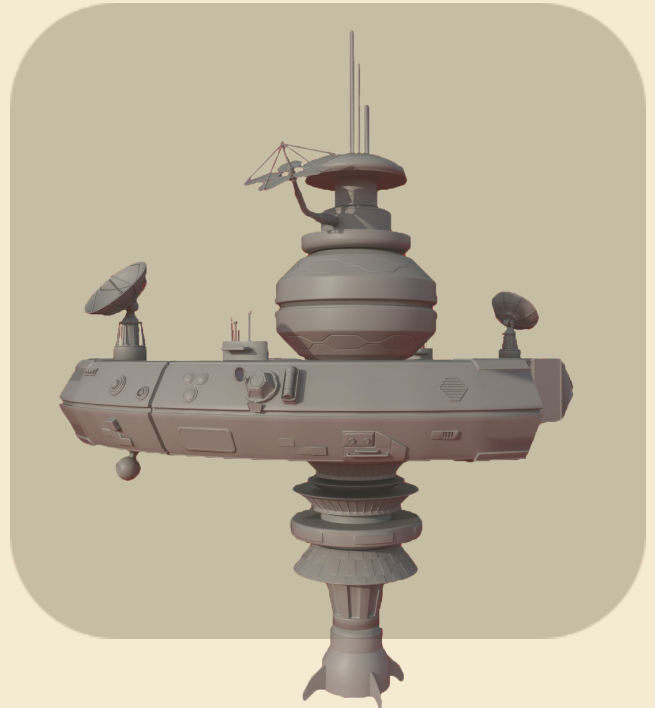
Detection/Sight:

- Large detection range of all ships, and a smaller 'attack' range
 - Attack range is $\frac{1}{2}$ detection range
- If detecting the player, Large ships will cease all movement, and will begin to open fire after a short 'charge up' delay
- If the player is out of range, Large ships will maintain position to try and 'target' them for 20 seconds before returning to their original position/patrol
- If Large ships have no escorts or other 'friendly' vessels in its detection range, it will try and 'retreat' back to the nearest outpost or enemy vessel.
 - If none exist in the level, it will continue to maintain position and call for 'reinforcements', spawning in a small group of light ships nearby.

Objectives

Outposts:

From listening posts to shipyards, outpost stations provide the monarchy with both tactical information and support to try and crush our resistance. Each station is outfitted with an industrial grade shield generator, and reinforced ablative armor on its hull. While not bolstering defenses of its own, nearby deployed turrets and berthed vessels guard each station.



Once attacked, the station will set off an emergency signal to all nearby vessels and defenses, alerting them to your presence. It's advised to destroy all currently nearby enemies before engaging the outpost, yet beware incoming reinforcements. Once eliminated, a quick escape is recommended.

General stats:

- 5 shields, 5 hull

Detection/Sight:

- Average detection range
- If detecting the player, outposts alert other enemy vessels and turrets throughout the map, setting all enemies hostile to the player
- If the player is out of range after being detected, outposts will remain on 'alert' status for 45 seconds, before alerting all vessels and turrets to stand down
- Upon destruction, the outpost will explode, rewarding the player with a very large mission bonus.
 - The debris will remain in the level as a 'levolution', and all turret enemies will be permanently disabled/destroyed (scope goal for spring semester)

Future Additions



Bossfight

The most deadly vessels in the monarchy's royal fleet, Capital ships, such as carriers and battleships, fly in formation with a variety of light, medium, and heavy ships, and are outfitted with unique heavy weapons.

General stats:

- 5 shields, 5 hull
- Equipped with Heavy 'experimental' weapon types
 - Possible weapons include: energy disruptors, particle cannons, heavy auto-railguns, light ship turrets, and more.
- Unique attacks on the player come from 'Turret' style weapons, which can be destroyed/disabled
- Capital ships fly escorted by a variety of small, medium, and/or large ships
- Capital ships are immobile

Detection/Sight:

- Large detection range of all ships, and a slightly smaller 'attack' range
 - Attack range is $\frac{2}{3}$ detection range
 - If the player is close enough, turrets cannot target or attack them
- If detecting the player, Capital ships will alert all enemy vessels, and will begin to open fire and/or deploy fighter squadrons
- If the player is out of range, Capital ships and all enemies will remain hostile
- If Capital ships have no remaining escorts or other 'friendly' vessels in its detection range, its attack speed will increase.
- Upon destruction, the ship will explode, rewarding the player with a very large mission reward.

Risk Assessment

Variation

In maintaining a fun and unique gameplay loop, different variations of the previously listed enemies in this document need to be made, as harder and more unique challenges to the player. Ideally, this would mean one to four different variants of each type of standard enemy, aside from bosses and space stations, each having their own unique mechanic assigned to them.

By developing a modular system to change weapon damage types, enemy health and shields, movement speed, and sight radius within the editor, we can rapidly develop several different types of enemy variants to add variety and complexity to our gameplay. Additionally with this system, new unique behaviors and other components can be attached to each enemy to create unique challenge levels for the player.