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## Game Design Document

### Game Description:

Game Title: THE OORT CLOUD

Your cryo-sleep has overrun, you two are lost on the outer rims of the galaxy. You must survive out here but there are few inhabited planets to settle on so you must try and find your way home.

THE OORT CLOUD is a co-op RPG, the players decide where to go and what to do in an open world. NPC's (Non-player Character) can give you quests or odd jobs to complete along the way if you are

willing to accept them, narrative choices are key to playing the game like talking yourself out of a difficult situation or bribing a pirate.

Combat is key, defending yourselves out in space is of the utmost importance – each player picks a role, either being a Pilot or a Gunner. The Pilot navigates and chooses where to go in both combat and the game map. The Gunner aims and fires the weaponry, this includes shields and other abilities.

Conversation is highly important; each player has different responses in a conversation and if they don't choose in time, they stay silent similar to how conversation works in Telltale's games. The players choose their background origin and why they are with each other, there are several backgrounds to pick from.

### Genre

THE OORT CLOUD is a Co-op/Action-RPG, where the players are dropped into an open world filled with quests, narrative choices, and exciting combat. As the game is an open world the players can go anywhere at any point they choose too.

### Theme

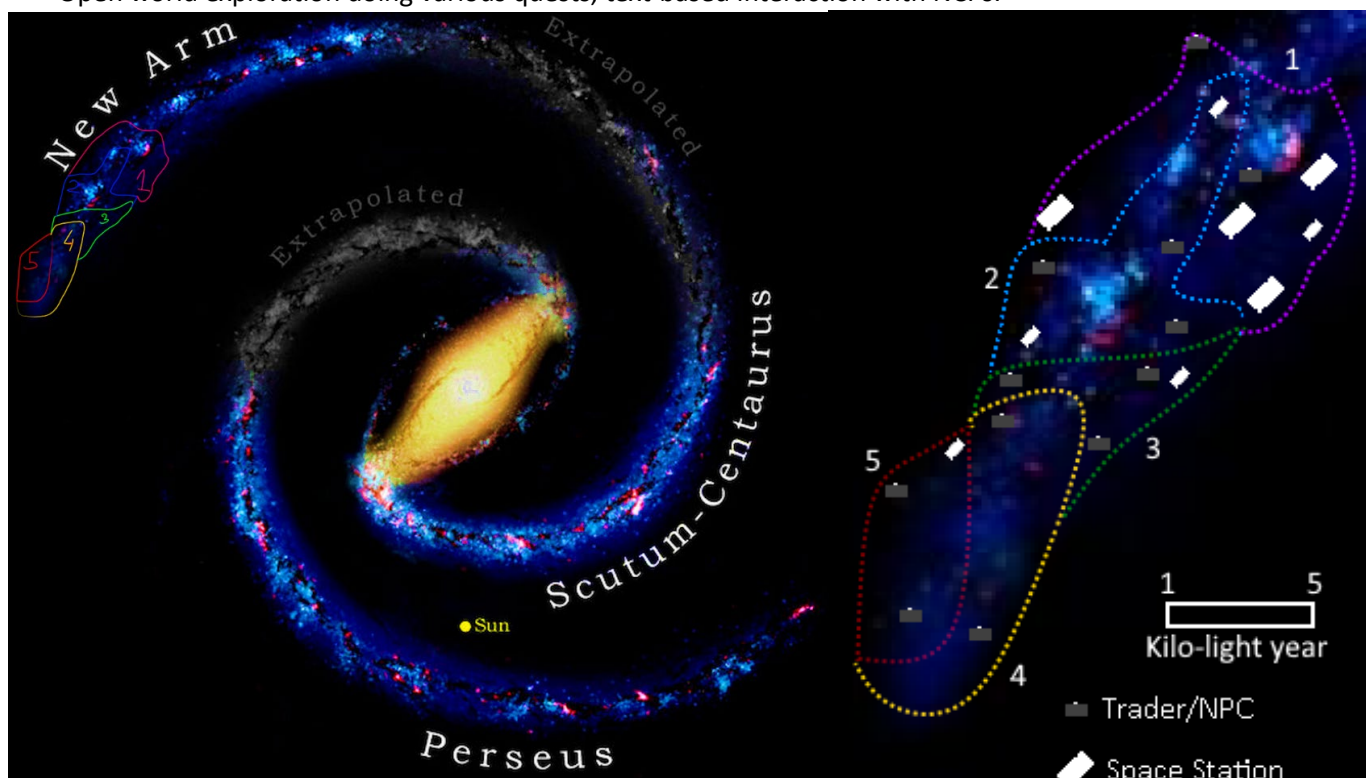
The overall theme of the game is that of contrast, the players are pushed into a bleak and hostile environment where they need to survive and form some kind of living. This can be emphasised with the NPC's appearing sad or disillusioned with their life, this should be contrasted with the NPC's that are close to the player having a more positive outlook and trying to make their surroundings better.

### Overall Gameplay and Design

The overall structure will work much like that of Death Trash and Caves of Qud. The player will have quests to do, shown in a journal, which they can do, or they can explore the game world finding combat encounters or side quests. One challenge to overcome when designing quests is that of dungeon crawling, as the players do not leave the ship, the exploration is done via a world map and most quests would involve some sort of combat.

### Level Design

Open world exploration doing various quests, text-based interaction with NCPs.



(Dane, n.d.)

## Setting

The game is to be set in the farthest extent of the Scutum-Centaurus (Centaurus for short) arm of the Milky way; the game will be split up into five areas of increasing difficulty. Unlike most space games there are no aliens, humanity has colonised and spread across the galaxy and is governed by a federation of sorts that manages resources and keeps money flowing where it should. As the Centaurus arm is distant from Earth there is little in the way of civilisation, each area acts essentially as its own country – referred to as states – and has its own set of laws or lack thereof.

### Area 1

Area 1 or New Thessalia is essentially a part of the Federation in all but name, being here you'll deal with the government very often. The western half of the state is connected by a small corridor right next to Area 2, it is fairly dangerous as New Thessalia is the richest and easiest to steal from.

### Area 2

This state is filled to the brim with petty criminals, thieves, brigands, and the like call this place home. Often this area is called "The first Step" due to its proximity to Fed Space.

### Area 3

Volos is less dangerous than The First Step, this state has an inhabited planet making it a refuge of sorts for the less dangerous people of the states. "The Planet" as it is called is in severe decline as previously it received massive amounts of funding from the Government but after a recent political shift the Feds have withdrawn all support leaving Volos open to attack.

### Area 4

Area 4 is the least populated and only state to lack any kind of name. There are no stations due to the proximity to Area 5. By far the poorest, however Area 4 is subject to recent scientific research due to a planet discovered within its bordered which may have harboured alien life. A group of scientists live on the planet giving what people do live here someone to trade with.

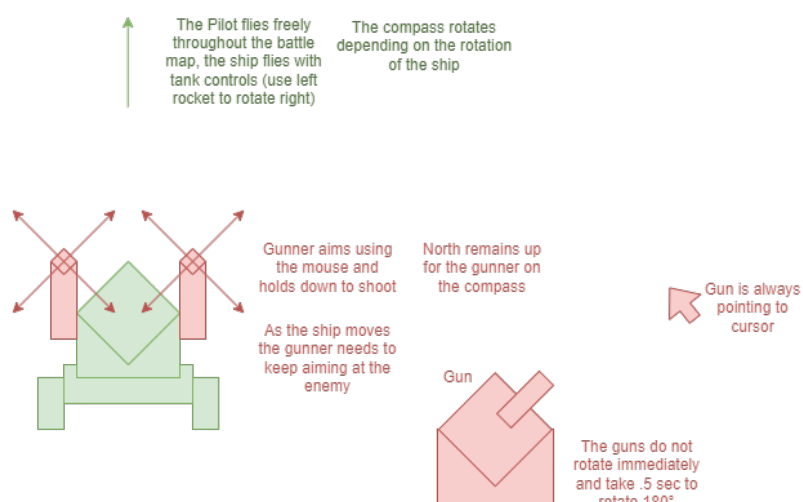
### Area 5

"The Depth" is the most dangerous, the government doesn't have any input here. People born here are barred from leaving The Depth or entering Fed (Federation or government) space without strict security. This state is the drain of the galaxy, fleeing criminals find refuge here.

## Gameplay Mechanics

### Combat

Getting into an engagement is a common thing out in space, initially you are greeted by a text prompt of your combatant giving you a chance to try and talk your way out of it by bribing, intimidating, or even seducing. This most likely will not work meaning you two will be put into the combat screen. Each player will see different information depending on their role.



## Ship Basics

### Power

Power is the main resource you need to manage in combat. Thrusters, Shields, and Guns all rely on power – each component is allocated a certain amount of power, acting as ammunition. When the component isn't being used power regenerates. If the component runs out of power and is still being used it will drain power from all of the other components

### Thrusters

Thrusters are entirely for sub light-speed travel. They consume the least amount of power. The thrusters work like tank controls.

### Shields

The shields prevent gun fire from hitting your ship's hull, while the shields are active you cannot shoot the guns. Shields consume the most amount of power.

### Guns

The guns are the simplest form of offensive fire, they are a constant stream of plasma pellets firing at your enemy. They consume a middling amount of power.

### Torpedoes

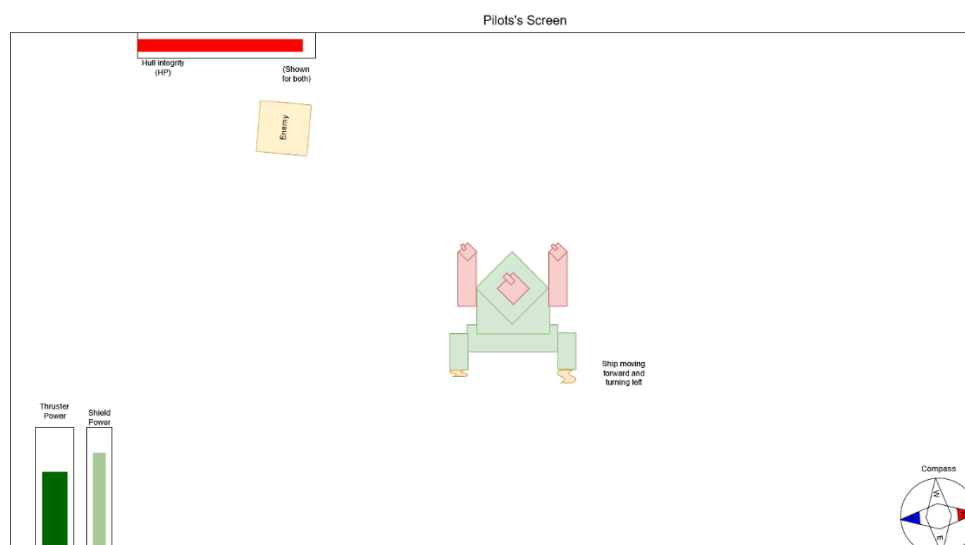
Torpedoes disrupt shields, if the torpedo detonates right on the shield generator will prevent the shields from working for 8 seconds. Once fired the torpedo will detonate after 1 second. By default, the players have four torpedoes.

### Hull Integrity

The hull integrity represents your health, the hull is the only thing protecting the players from the vacuum of space and when the hull breaks you die.

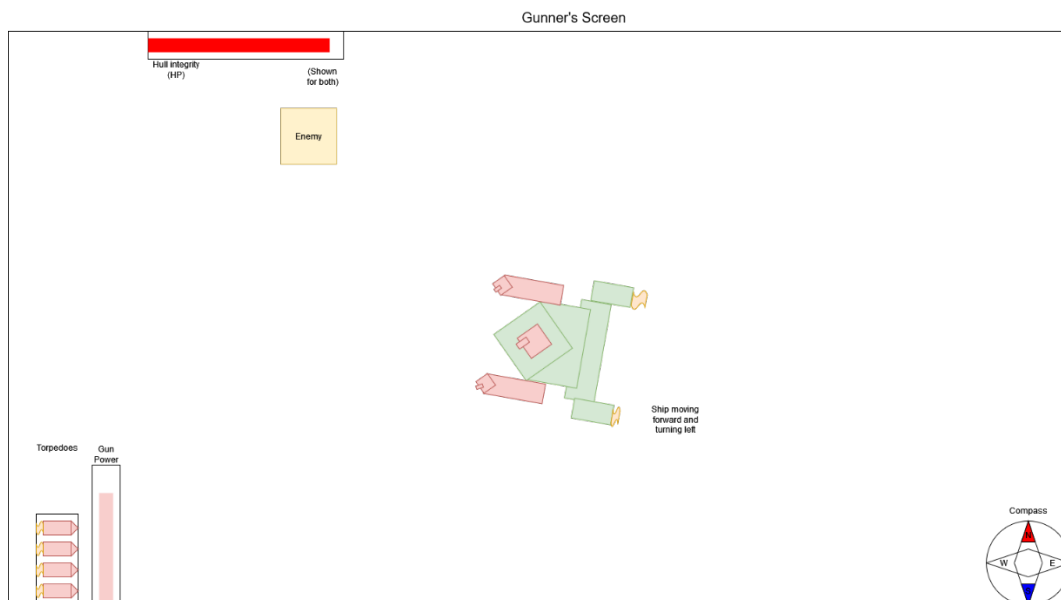
## Pilot's Role

The pilot moves the ship in space, their camera rotates depending on where the front of the ship is pointing. Their role is to try and avoid enemy fire whilst keeping in range so the gunner can do their job. They control the ships movement through space by using the keyboard, the ship would move via tank controls e.g., there are two thrusters and using the left one turns right, the right one turns left and using them both pushes the ship forward through space. Along with moving the camera, the pilot activates the shielding depending on the incoming attacks. The shields prevent gunfire from reaching the ship's hull, however they are deactivated by torpedo fire.



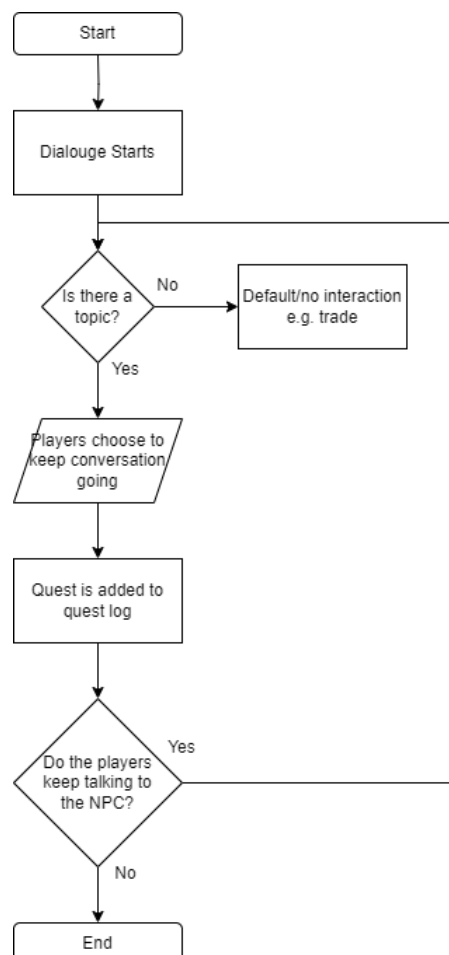
### Gunner's Role

The gunner has control over all the offensive weaponry including guns and torpedoes. The gunner's camera stays rotationally locked meaning they must continuously aim their mouse towards the enemy. The gunner points their cursor towards the enemy ship and can begin firing at any time, but the guns require time to rotate towards the chosen direction. It takes around half a second to rotate the guns 180°. Firing the guns is done by holding down on the left mouse button and firing a torpedo is done by the right mouse button with a 3 second delay between each firing.



### NPC Conversation

Talking to NPC's is a highly important aspect of this game. As a narrative-driven RPG, conversation is an important aspect of the game. NPC's will usually be in other spaceships or space stations which you can find in your exploration of the game world. A typical conversation with an NPC would follow this algorithm:



Dialogue options would change depending on past interactions with the NPC and the players relationships to the NPC, along with this the players backgrounds would also change how you can respond. For example, if the pilot has chosen a criminal background the NPC would be willing to trust them more or less depending on who the NPC is as a character.

### Traversal

To traverse across the game map is done via a world map and requires a resource (Tachyons) to achieve Faster-than-light travel, Tachyons are a resource that can be both gathered or traded between the players and NPC's. From Area 1 to Area 5 it would take two weeks of in game time, this should be represented in game by increasing the speed at which they reach the destination the further the players have to travel.

### Story/Lore

It is 8000AD, Humanity has long made its home among the stars. Two thousand years ago, a government emerged that started uniting planets along the Perseus Arm eventually they had most of the galaxy under one banner. They have no official name, people more loyal call it the Government but those less have many names most popularly is the Feds. This game takes place in a far-flung segment of the Galaxy, one of the last places to be colonised by humanity its population of 20,000 and with only about 500 planets even capable of holding life. The five states as they are called are a "non-administrative area" outside of the Governments control with severe tariffs put upon them. Tachyons are prevented from going in or out, making leaving the states incredibly difficult as the Feds have removed all natural sources outside of the area within a lifetimes search. This prevents the players from leaving the states without being stranded in the zone.

### Main Quest (Homeward Bound)

This is the main quest of the game and when it comes to and end so does the game. The quest is split up into various stages in between which the players can go off and do side quests and explore the game.

Each segment should take the player through each Area to give them an incentive to go through and explore the game world.

The end goal for the players is to return home, however the main quest should take them through the struggles of the States.

### Side Quests

#### *New Wall for New Thessalia*

New Thessalia is in desperate need of protection against Area 2, there have been plans for decades for a colossal border between the two states. You can aid in construction or sabotage the construction.

#### *The Arena*

Inspired by Elder Scrolls Oblivion's own arena quest line, this side quest will take the players on a series of space battles with opponents. The fights are of increasing difficulty and are meant to challenge the player as they go up the ranks.

#### *Help "The Planet"*

Fresh out of money The Planet needs help, or it will return to chaos. You can try and find a new source of income for the planet or try to convince the Government to return their aid.



## A new kind of life

Some explorers have found what they may be alien life in Area 4, they need you to collect samples from planets across the five states and return them to the scientists for a potential reward depending on how the tests go.

## NPC - UNDONE

NPCs as a rule shouldn't make the player their top priority as they are their own character and have things going on in their lives. Dialogue should be as convincing as possible and distinguishable per character. Along with this the player doesn't need to be able to interact with every single person in the entire game world as that would not only be impossible to make but it wouldn't add much unless they each had a quest associated with them.

## Dr Lietzau

Dr Lietzau is the head researcher for the quest "A new kind of life", he acts as your main point of contact throughout the quest. He is highly eccentric and paranoid due to the secretive nature of his work. He doesn't trust any of the people working below him as they are affiliated with the government, and he wants you two to do some surveillance on his employees along with collecting samples from other planets across the five states.

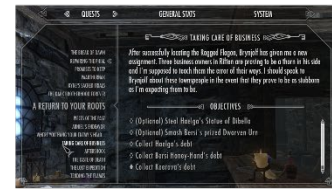
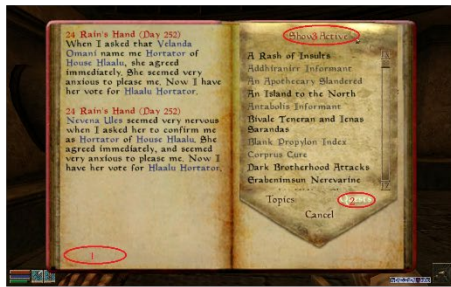
## User Interface



No map markers!

Fairly boring

## Quests



Not like this

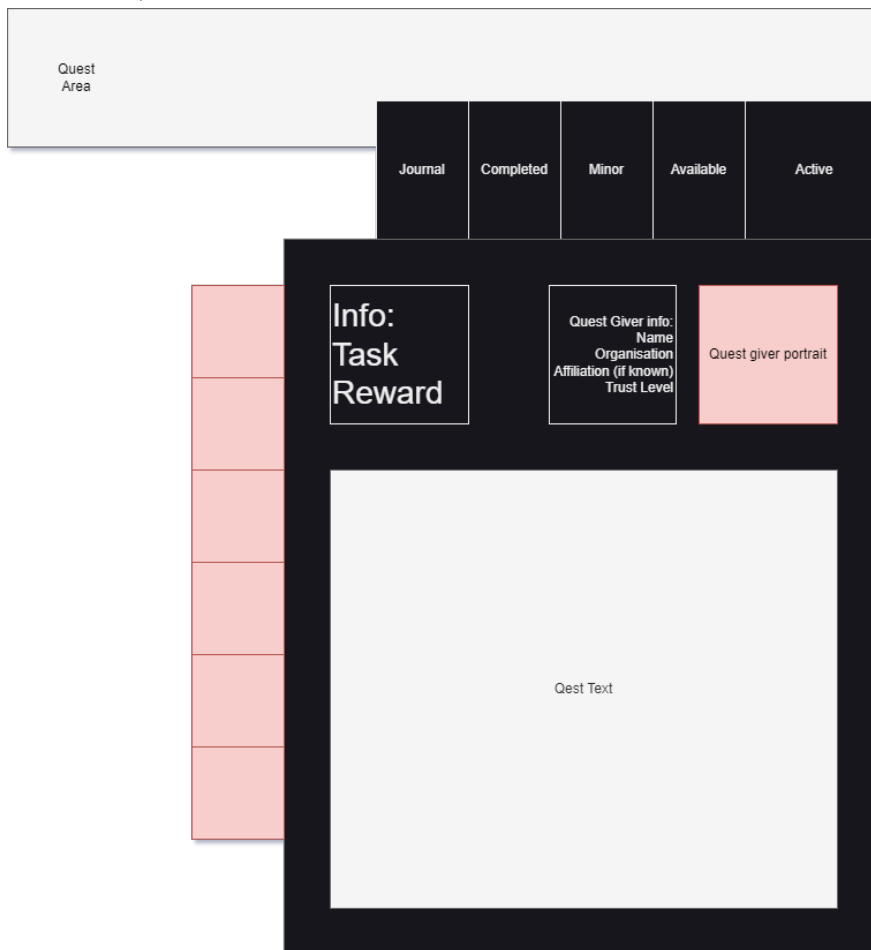


Not a quest but still good



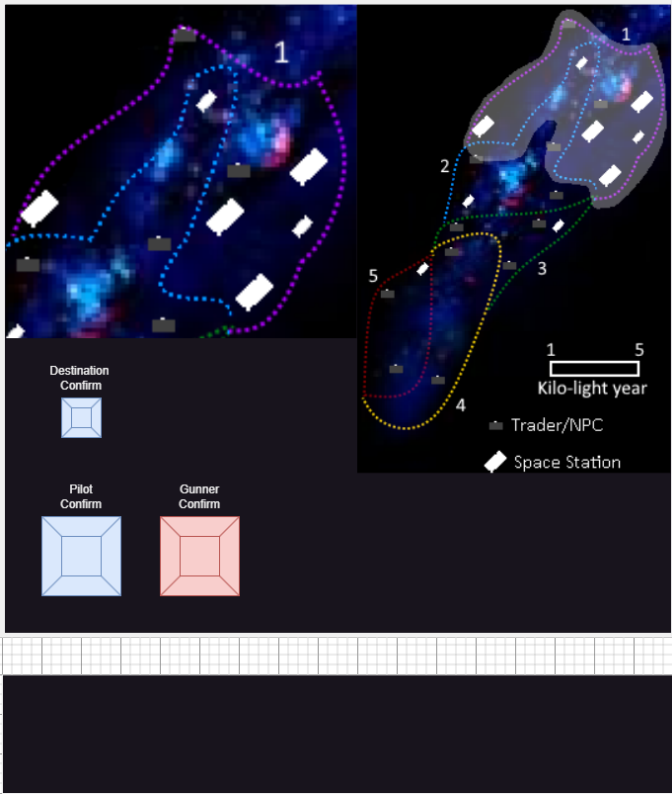
This moodboard shows how I would want the final look of the UI to be. Overall, I wanted to go for a look of skeuomorphism. This is because it is a unique style that not many games go for. Along with this it will help with immersing yourself within the game and making the whole game experience seamless.

## Quest/Map UI

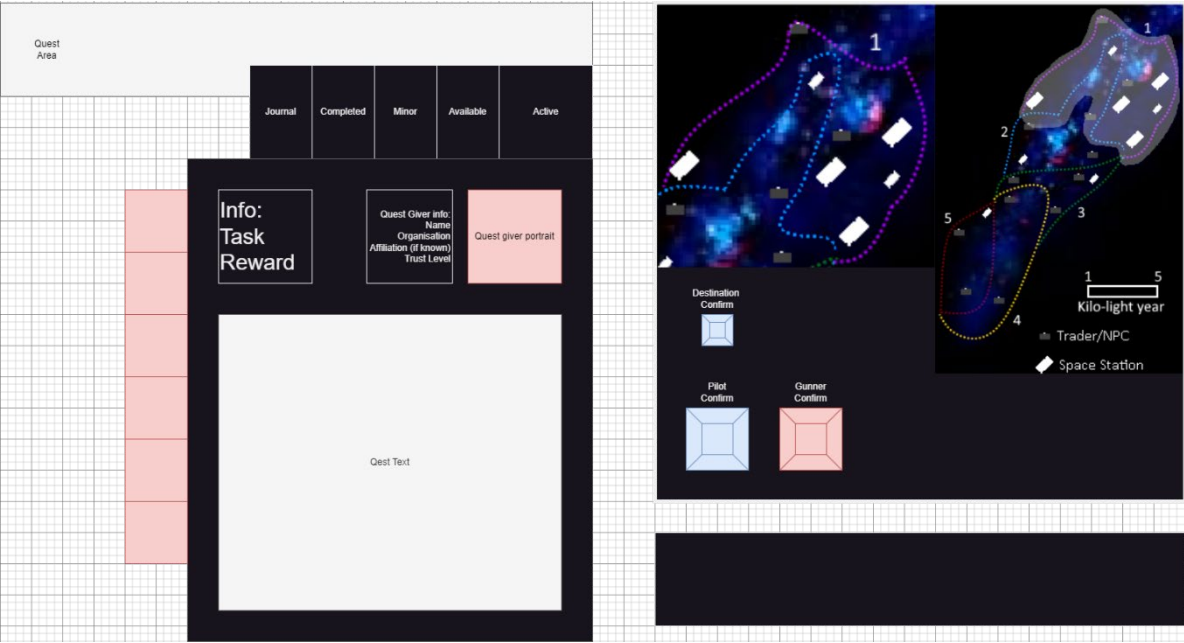




Here is the user interface (UI) prototype for the quest log and journal. I chose to create an interface that is friendly to both keyboard, mouse and controller users as for a mouse you would only need to click on the menus and sub menus while a controller would use the face buttons to represent certain actions and actions within menus like scrolling with the analouge stick.

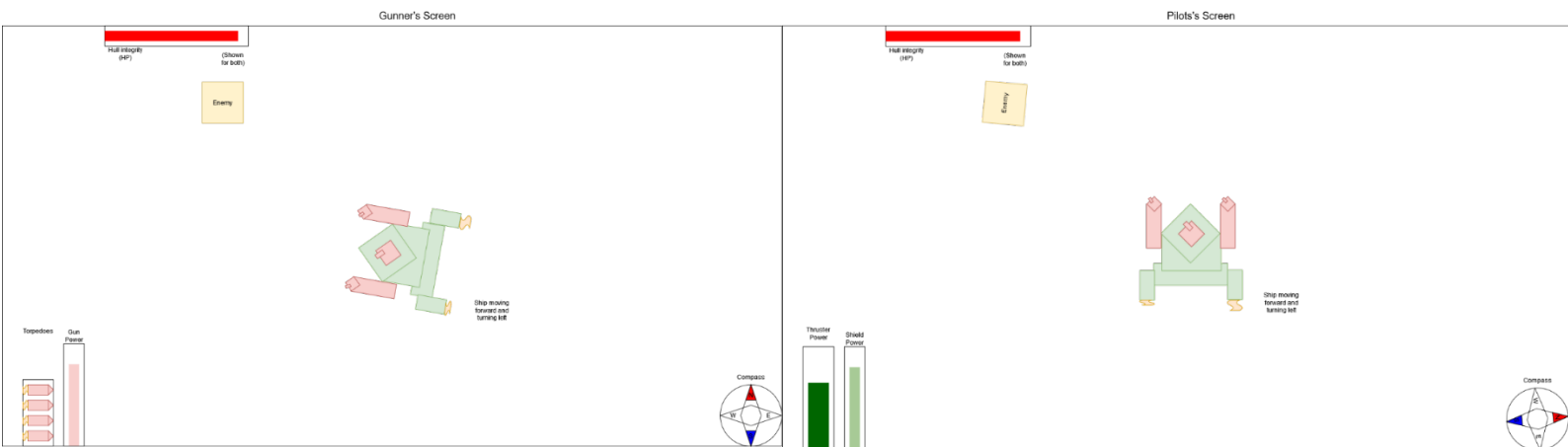


For the map UI, I needed to think about how you could intergrate two players actions within one screen. Unlike the Quest UI the map remains the same across both players screens. Either player could confirm a destination but without both of them confirming the destination they would not travel. Each area can be highlighted and then expanded on the area on the left, you then select a destination within that larger selected area.



Here I chose to integrate both the Quest and Map UI into one screen as it would make sense to combine them because if you wanted to go to a quest specific area you would want to check where you are going in the active quests tab before using the fuel.

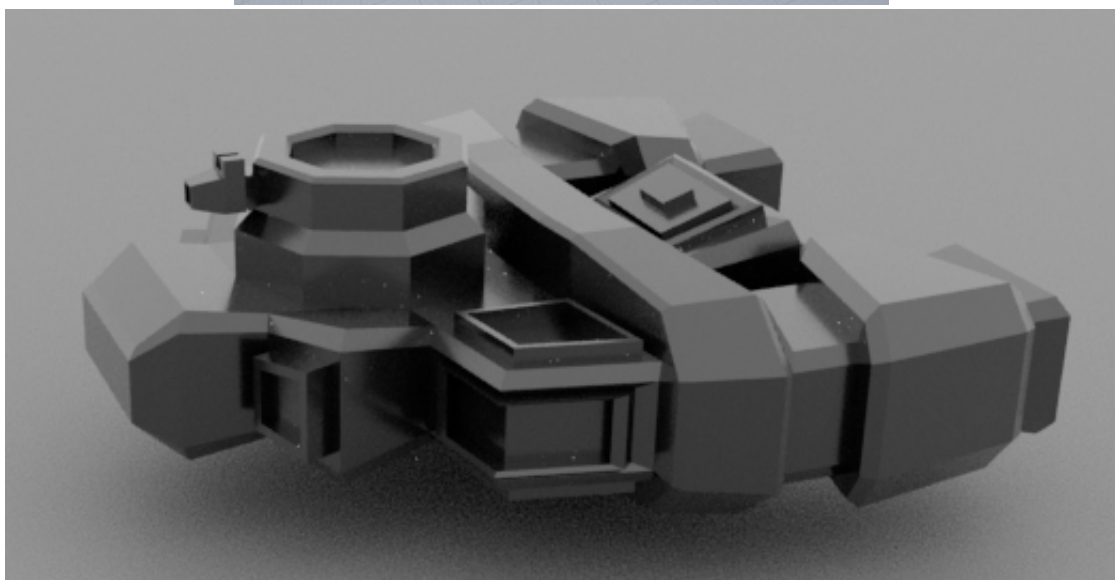
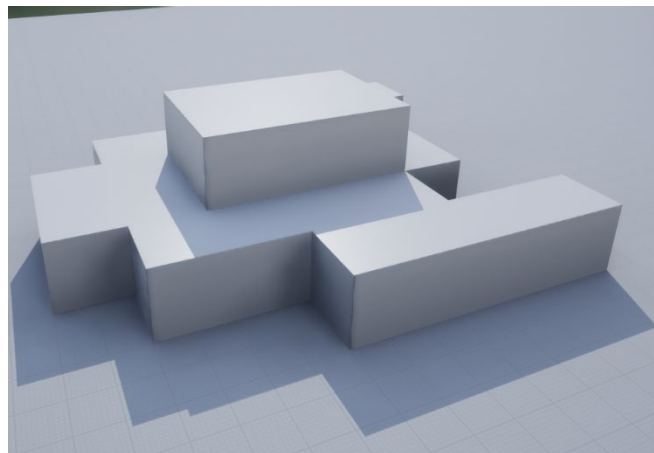
## Combat UI

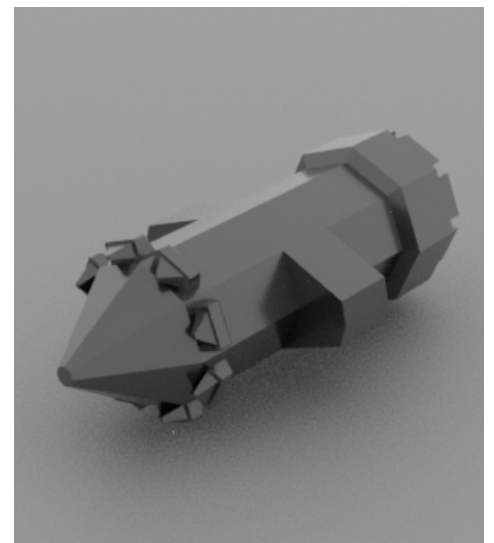
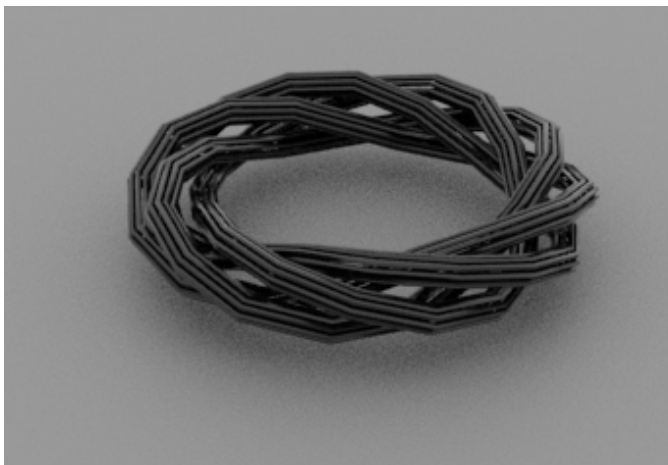
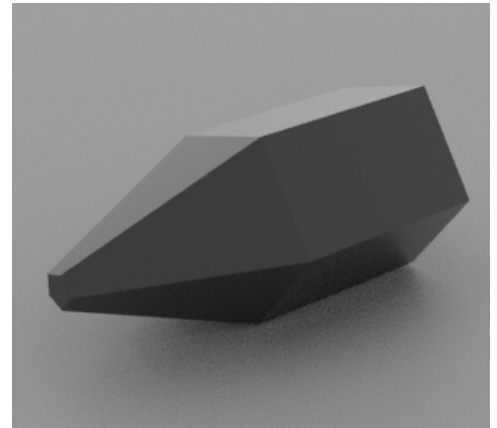
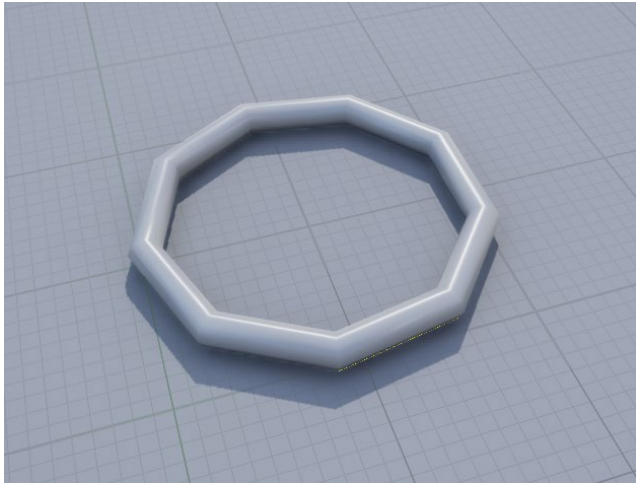


Further expanding on the Combat UI, on the left is the Gunner's Screen where they direct the angle of their gun. On their screen it shows the amount of torpedoes along with the Power for the Guns in the bottom left.

The Pilot's Screen shows shield and thruster power. As previously stated, if one of the power levels runs out and one of the players is still using it, it will drain power from other systems. This should be indicated by the other power levels flashing bright colours to indicate this information to the other players UI.

## Model Prototypes





Here are my prototype models, I have included these into my visual prototype in order to get a better sense of scale in engine.

## Bibliography

Dane, T. (n.d.). Retrieved from <https://pweb.cfa.harvard.edu/news/new-distant-arm-milky-way-galaxy>