Weekly Summary

Week 3/6/2020 – 4/10/2020

**Michael Hayes:** This week I focused on making the grappling hook more fluid. At first I decided to make an impulse towards the direction of the impact of the grappling hook. This method made you fly towards the direction you clicked but ends up making the grappling hook unusable for swinging because you would end up hitting or flying towards the block you attached to. So in the end I decided to rework the original code for the grappling hook having it adjust the gravity of the physics world when using the grappling hook only. This allowed the grappling hook to have a more fluid look and allowed for bigger swings for reaching the next grappling hook spot. I then fixed the gun model I added last week so that it does not clip through the floor or a wall you are standing next to. I added a sound effect to both the grappling hook and jump.

**Next Task:** Next week I’m going to look into model bobbing for the gun since I did not have time this week. If necessary I may scrap the idea altogether so that the game is complete on time. I also plan on adding a walking sound effect in addition to the other sounds. I will be adding a shooting feature for left clicking that will use a raycaster for a hitscan to detect a hit on enemy models.

**Ryan Slaybaugh:** I worked on optimizing the code for the menu objects, removing unnecessary extra loading of the fonts so that we only loaded it once and then applied it to the text. I did the same for the in-game menu. I also moved the ingame menu loaded into the queue of other loaders so that it shows up during the loading screen. I also reworked some of the bounding boxes so that there is only a single bounding box for each set of stairs. I also removed additional unnecessary code for the screen blocker/load screens. Lastly, I modified some of the ingame objects to make level traversal a little easier.

**Next Task:** This next week I plan to work on bgm audio for the game as well as look for other opportunities to optimize if possible.

**Semira Pinder:** I worked on making the cat move on a set path with Yuka.js. First, I tested the paths, vehicles and steering with a small sphere, and I successfully made it go on a path reliably. Next, I attempted to make the cat move on a path, but the collision box on it made it hard to do. I managed to make the mesh of the cat move on the path at first, then I attempted to do it with the box. The box was hard to move on the ground with just Yuka, but for demonstrative purposes, the cat now floats in the air and moves on its path. You have to look up in the game to see the movements, though.

**Next Task:** Later I will investigate ways to move the cat on the ground and after that I will investigate advanced movements like seeking and chasing the player. I will also try to refactor some parts of the code so that the cat object, the vehicles and the bullets can be used on other levels easily.