## Overview

This document shows the process from initial ideas to the product. The game had multiple system changes since pre-production, and the level design was drastically changed, benefiting the systems.

Initial Level design plan

From the start of the project, the one clear thing that was established was that the entire game takes place within a greenhouse.

So, the artists and I talked about the overall size of the greenhouse to accommodate our goal.

Mood board
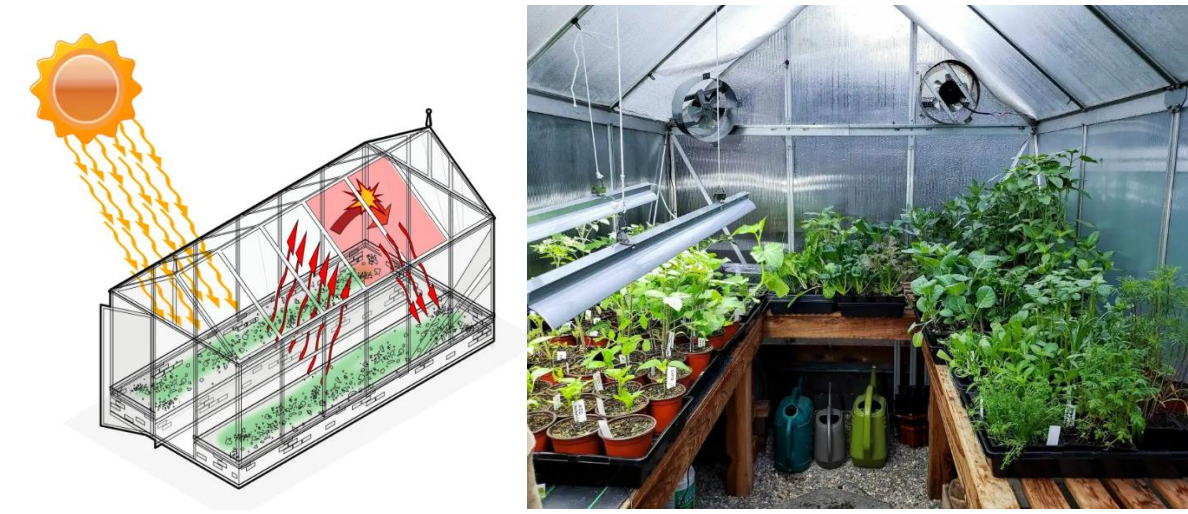
- We collected reference images for Art purposes, but that gave me an idea of how the player has to traverse from the start to the end point of the game.

- The game's location was pitched as Greenhouse, and the player character is a tiny flower-based creature. My initial thought process when I heard the pitch was, "Honey, I shrunk the kids, Grounded, and It takes two."

- We took a short trip to a nearby Greenhouse from our college and collected reference photos. I was focusing on the layout of the tables to get inspiration for the level tables in the game.
- Then I discussed with the environment artists who would benefit us better in the game, considering both the visual and gameplay aspect of it.
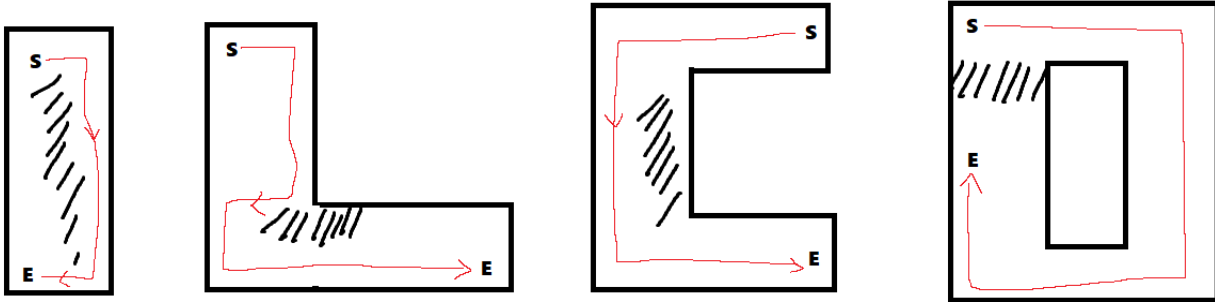
- These were the initial greenhouse size pitched from my end. The artists liked the first one for the Semester 1 submission (Vertical Slice) and wanted to expand it later based on our professors' feedback.
- I liked the 3rd and 4th designs I pitched. It had more potential to show our art assets and give players more free space to walk before an arena encounter.

After the feedback, we planned to expand our greenhouse to accommodate five to six encounters.
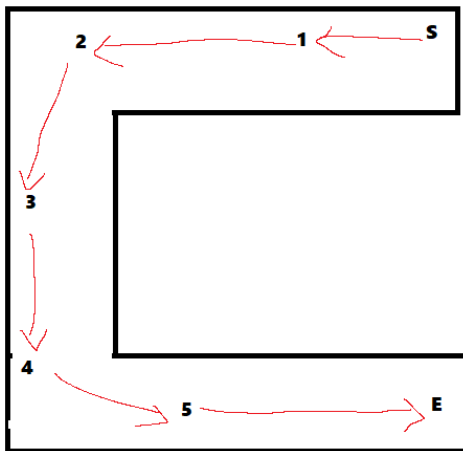

- This was the final size we came up with for the remaining project. We had a maximum gameplay cap of 15 to 20 minutes for our academic submission, and this size was apt for our vision. We agreed to expand further if needed.

Tutorial

Movement and Jumping Prompts

The prompts for movement are shown at the start of the game. Once the Intro-cinematic ends, the movement widgets are displayed.
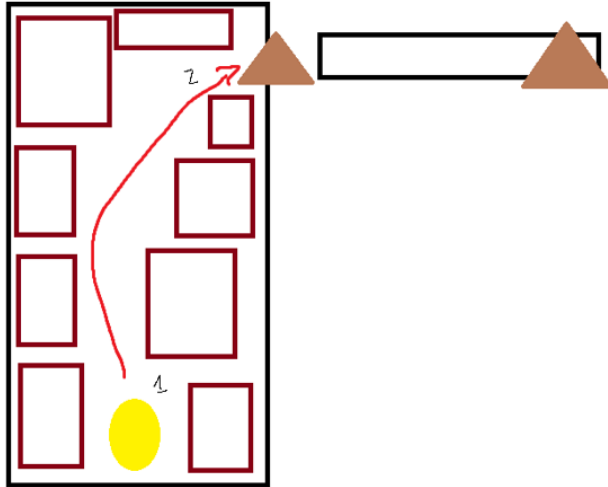
This was the idea for teaching the movement in the game. The yellow marker displays the player spawn area.

- My idea was to block the movement with props, motivating the player to move forward – revealing the path as they progress forward.
- The comparison between two images from Semesters 2 and 3 shows the iteration for the prop placement and spatial changes to help the guidance for players.
- The props were aligned differently to guide them, and the path was more open than the previously closed route.

- Jumping prompt appears at the end of table 1. The open scissor signifies an open gate, and the jump tutorial popup before that teaches the player to jump.

- The jumping tutorial is followed by introducing the jumping flower pads to help solidify the player's learning here. Again, doing something repetitive helps the player remember things in the long process.
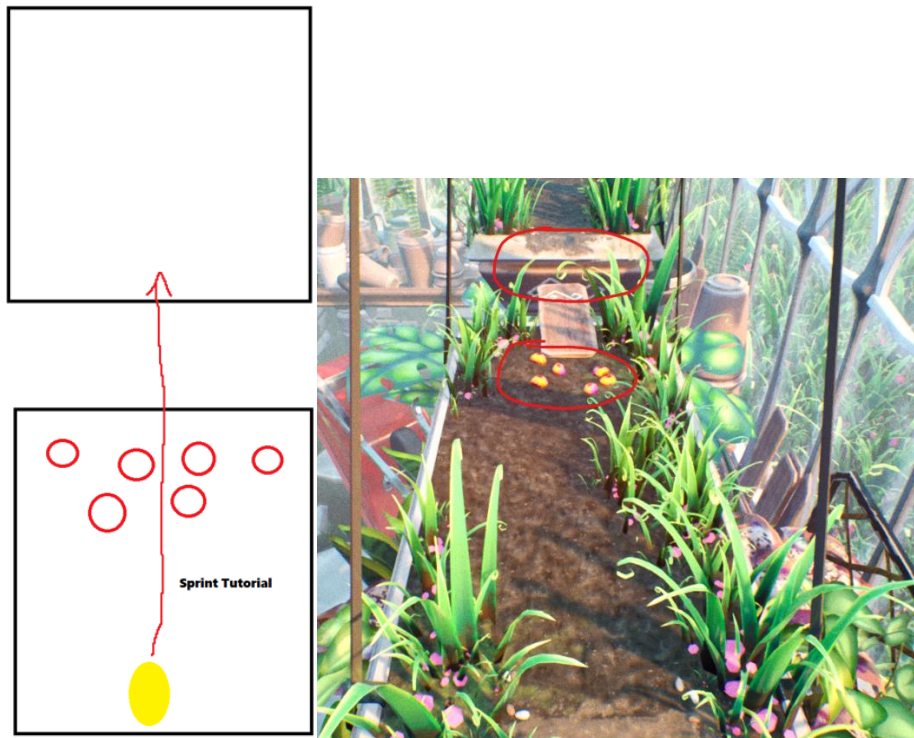

- The sprint tutorial was introduced along with sprint jumping, which had the minespores (Mine traps) that deal damage if the player stands on them for longer.
- I believe the best way to teach sprinting is to introduce the minespores because sprinting is one way to escape its damage trigger.

Combat Prompts
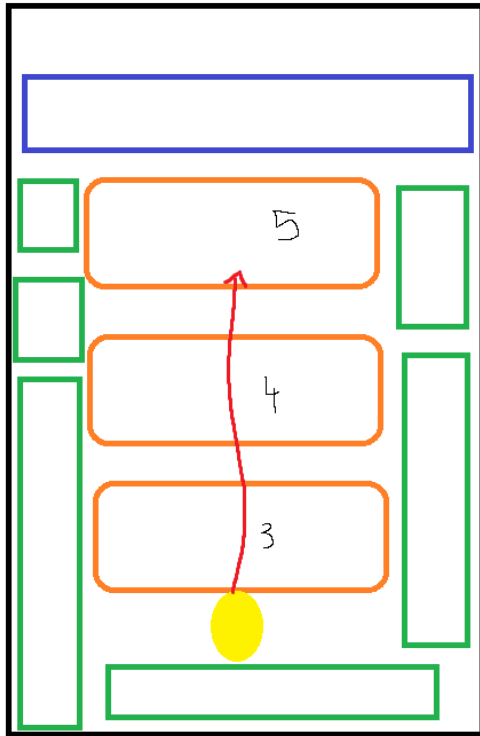
- In semester 2, for the combat tutorial – light attack, dodge, and heavy attack; all were taught simultaneously (in the same table). There was a delay between the timing, but all three popped before the player left the table.
- This was a bad idea – too much information for the player, and the playtesters often missed out on one or the other prompt because of combat and widgets happening at the same time.
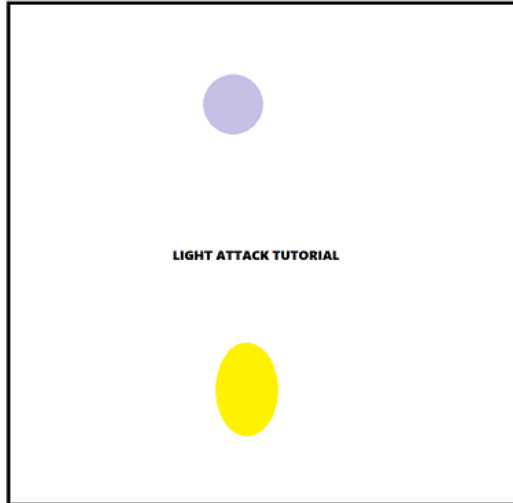
- Light attack tutorial is introduced first to teach the player to engage in combat by introducing one small melee enemy.
- Once they learn the light attack – they are put to the test of the first encounter, where they fight a few small enemies.
- This is to reinforce their learning of the light attack tutorial.
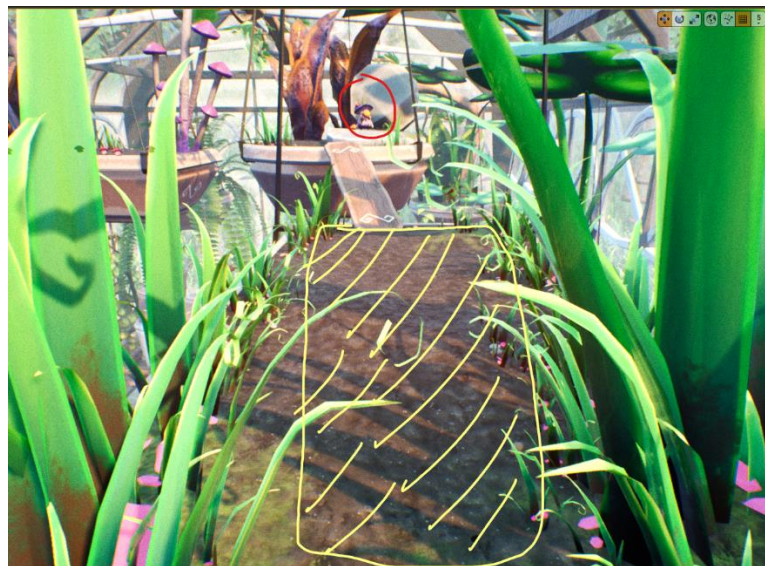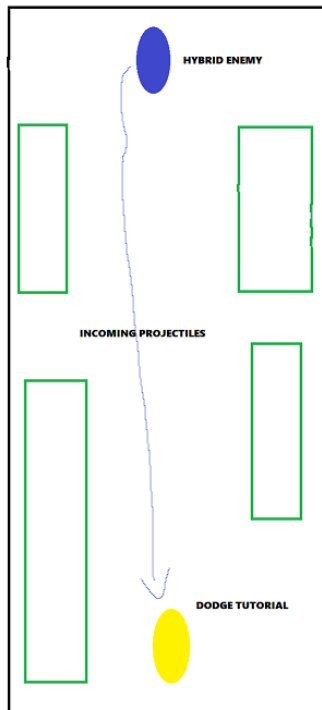
- This was for teaching dodge – here, the Ranged enemy is introduced in this section, and the dodge tutorial pop-ups teach players to dodge through the incoming projectiles.
- Giving players a space and a situation would help solidify their understanding of the dodge mechanic.
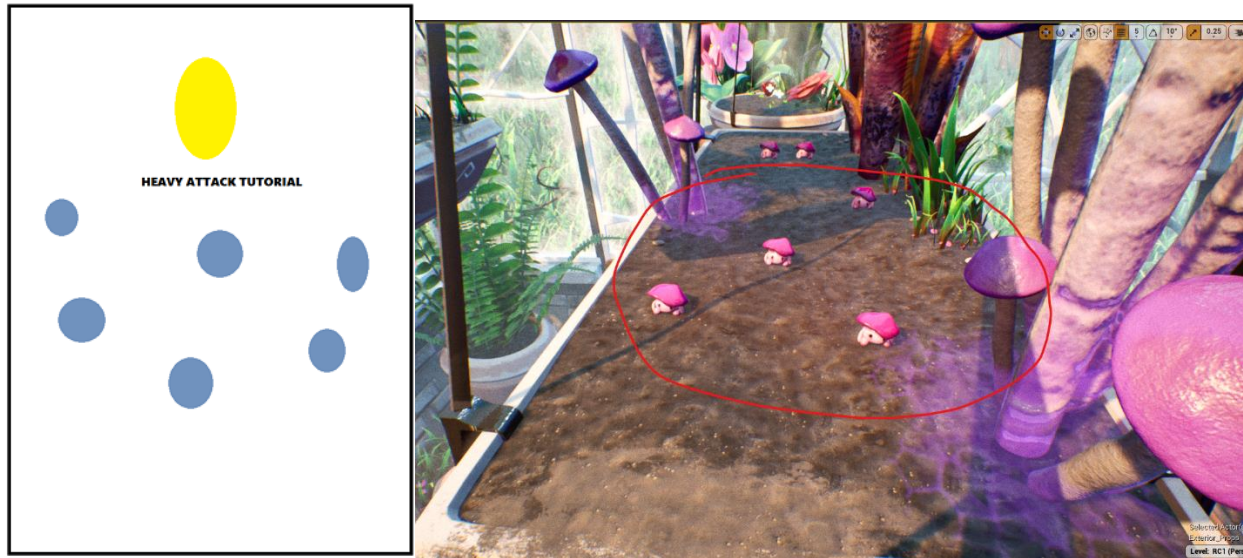
- The heavy attack widget popups when players enter the table with several small enemies. The small enemies die from one heavy attack.
- Heavy attack is an area-of-effect attack that destroys the enemies in range. Here, informing the player and teaching them the area of effect attack – to focus on multiple enemies than single targets. Of course, they can be used for a single target for more considerable damage, but the AOE is registered here.
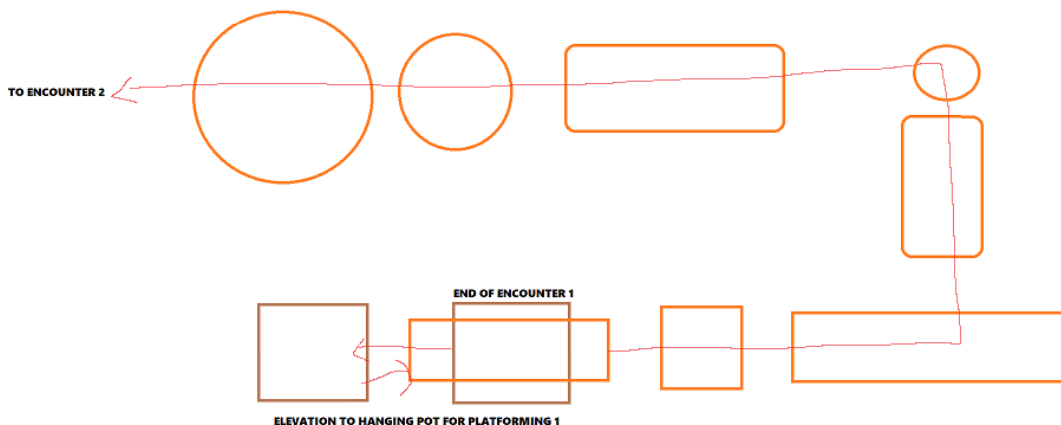
Traversal Design
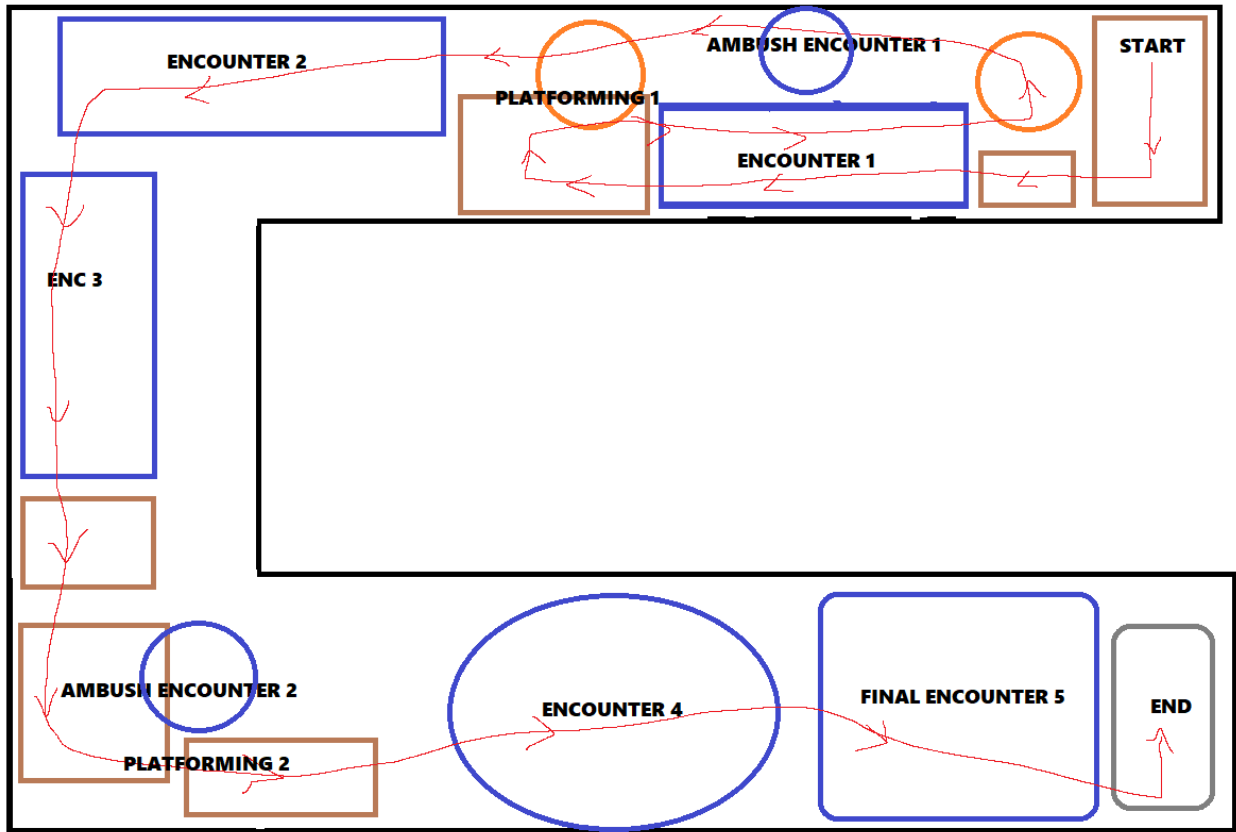
The targeted game length at the end of semester 3 was 15 to 25 minutes for an average player run.

I redesigned the platforming areas, spreading them out for tutorials and showing more variety in the traversal.

<u>Platforming</u>

- The biggest challenge was taking the player to the elevation without making them work for it.
- This was the start of the game; making them climb multiple pots before reaching the elevated area was the previous level design (Semester 2), and players did not enjoy it.
- For semester 3, I reused the flower pad to create a space in one of the shelves and redirected them to the correct route by blocking objects in front of them.
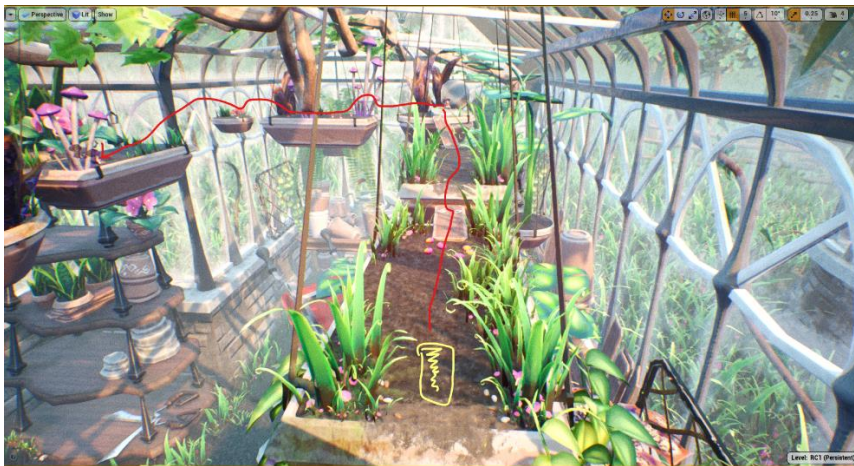

- This part of the platforming introduces sprinting, dodging, and heavy attacks.
- This area is a bit intense because of the introduction of enemies and tutorials at the same time – but I had to do it here to prevent air traffic congestion in other parts of the area and to give my art department less tedious work here.
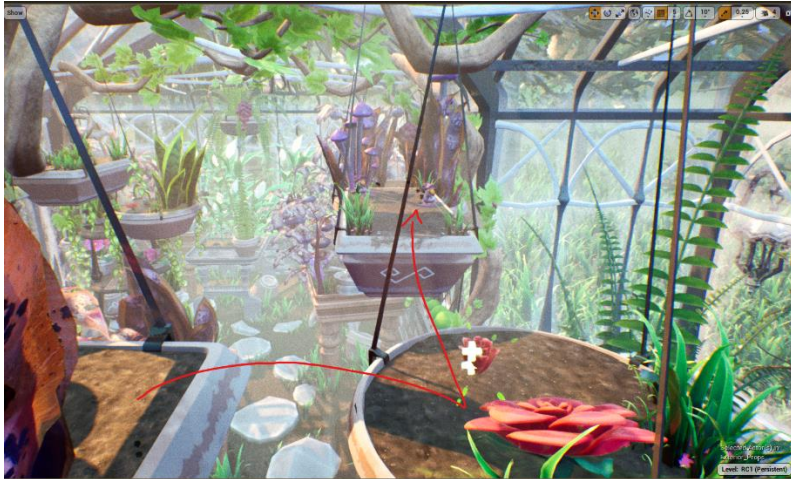
- This is one of my favorite parts of the map. One of my gameplay programmers did the camera rotation when you jump onto the flower pad as the camera rotates to the correct position.

- This part reintroduces the ranged (hybrid) enemies and the ambush enemies, which attack the player on the visible range.
- This also gives the player a refresh to their attacking memory with the enemies to fight on to their encounter two arenas.

FROM ENCOUNTER 3

AMBUSH ENEMIES 2

LEAVES PLATFORMING

FLOWER PAD PLATFORMING
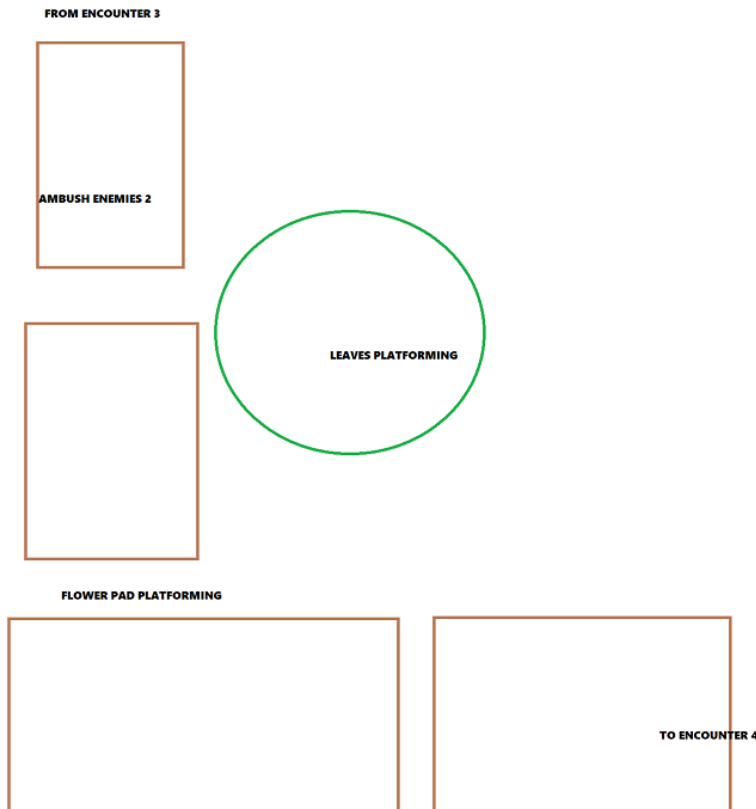
TO ENCOUNTER 4

- After encounter 3, players will be introduced to a more difficult platforming with ambush enemies hiding around the corner and a problematic flower jumping section.
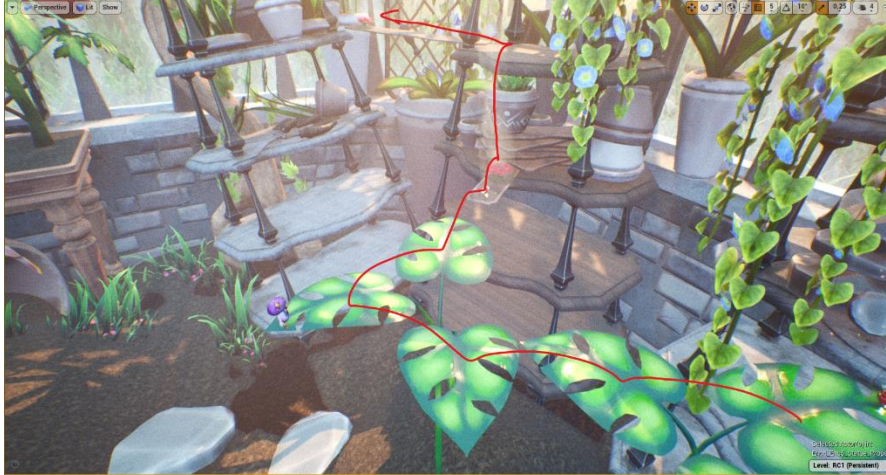
- This was one of the fun encounters to test with – the ranged enemy can be pushed off by hitting it once. The real challenge is jumping around the flowers to reach the hybrid enemy or entirely skip them over and hit the jumping pad.

- After crossing the flower area, the jumping pad elevation acts as a relaxed space for the players to jump before reaching encounter 4.
  Also, this acts as a practice run for the final platforming before reaching the end goal.
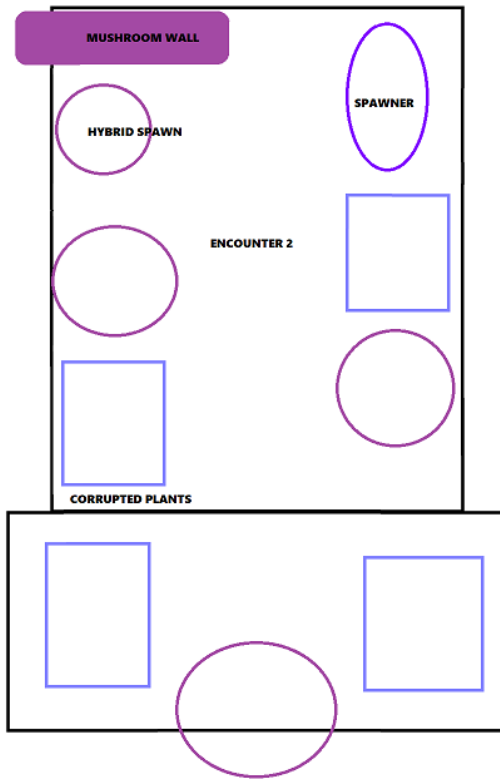
Arenas
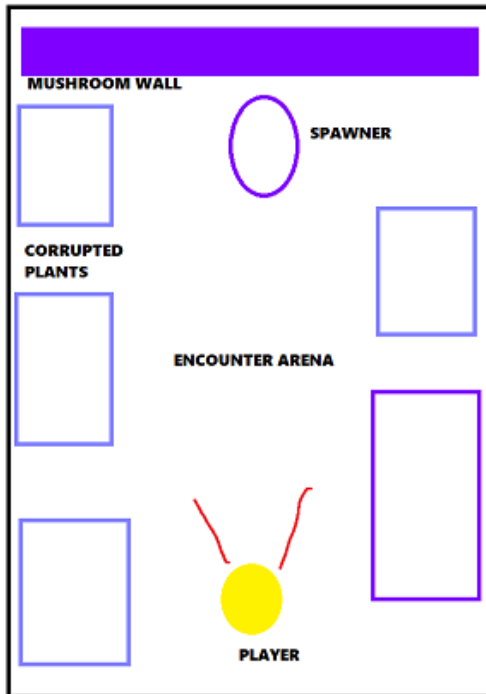
- The goal of this encounter is to introduce combat to the player, a small enemy enclosing the corrupted walls and decorruption of the plants and walls.
- I designed a smaller space to focus on the player learning combat one-on-one with the enemies.

- In semester 3, we added more grass that can be accessed for better visual quality, and the size remained the same.


- For semester 3, I removed encounter two and merged it with encounter 3 to make that Encounter 2 with Ranged (Hybrid) and small enemies.
- The arena was altered for the new enemy type and gave the players a good amount of space to dodge enemy attacks and retreat if needed.

- The arena is 1.5 times bigger than the previous iteration to accommodate the enemy types and spawn times.
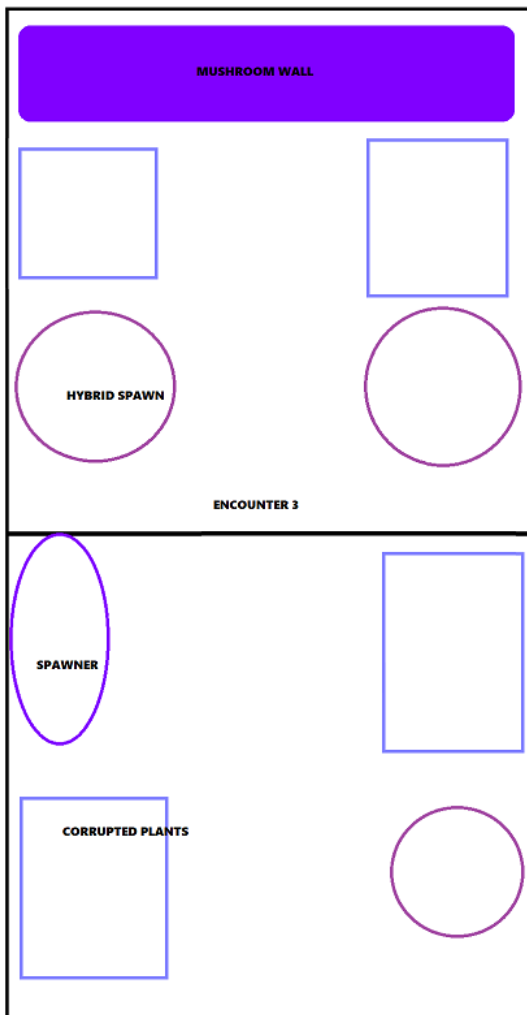
- Encounter 3 is where the Buffshrooms are introduced. The center space is where the Buffshroom animation spawns.
- I wanted to have a central space where the players can focus on the newly introduced enemy and the remaining spawns on the sides to test the player's skills after a while.
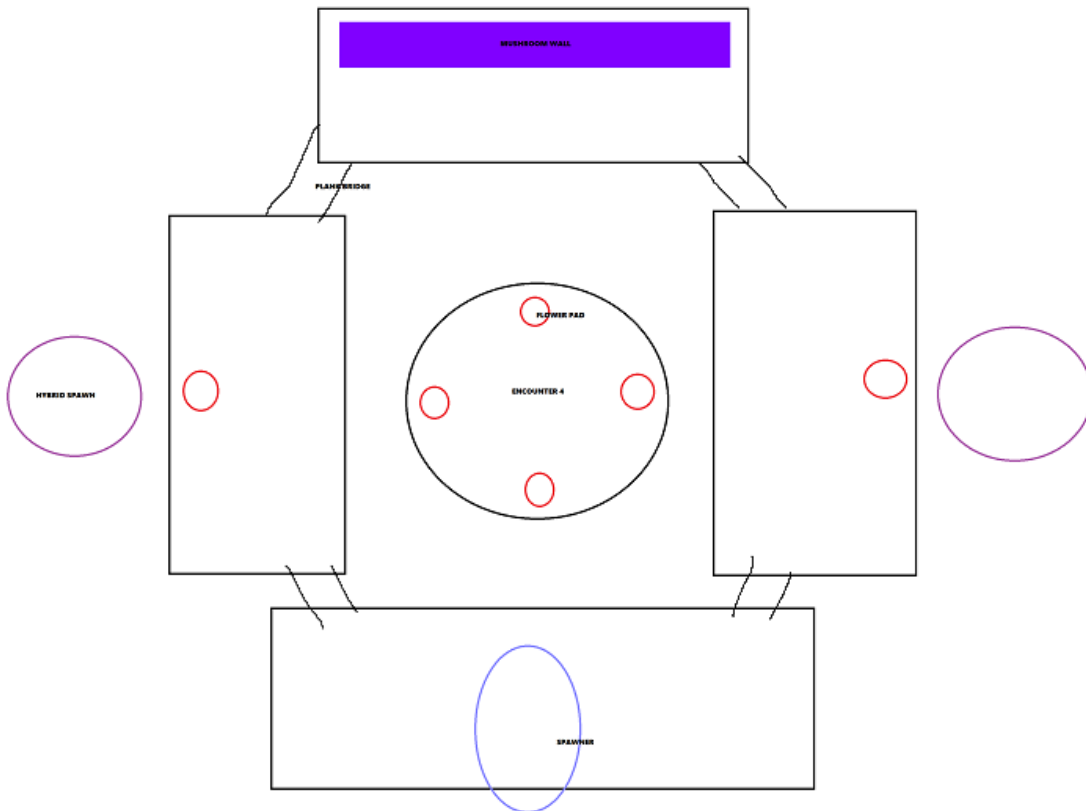
- This was my favorite arena encounter layout I designed for the semester. The mixture of jumping pads and encounter worked together.
- The jumping pads were previously established for the players and how it works – it was reintroduced here to incorporate with the combat.
- The flower pad idea is to reach the ends of the encounter easily without running and jumping around.
- The flower pad is placed in the proper spacing where the players can get through the entire layout by jumping on them.
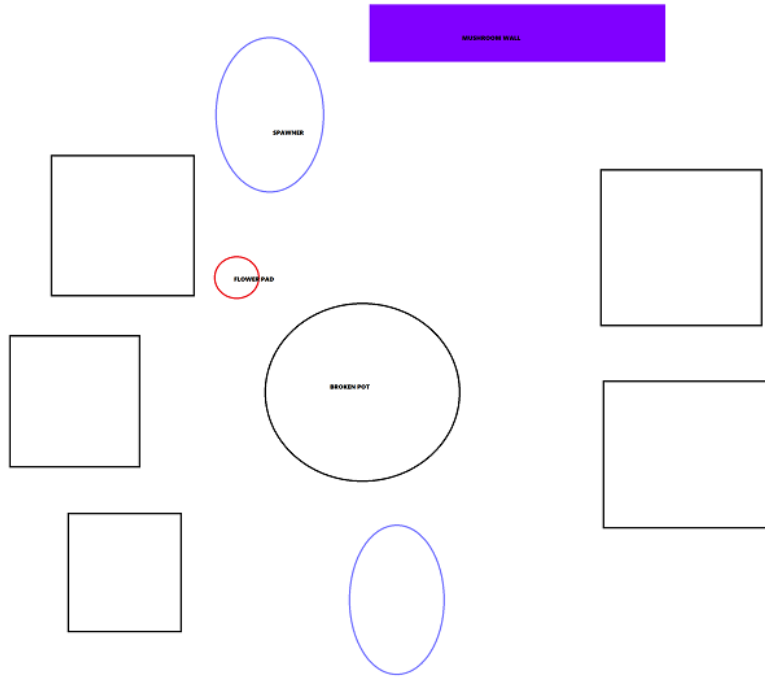
- The last encounter was redesigned to give players more space to run around and acts as a mix of all the previous meetings.
- There are sniper towers, platforming, and combat space in this encounter.
- The visual and traversal changes were refreshing to many players and one of our exceptional achievements in this project.