

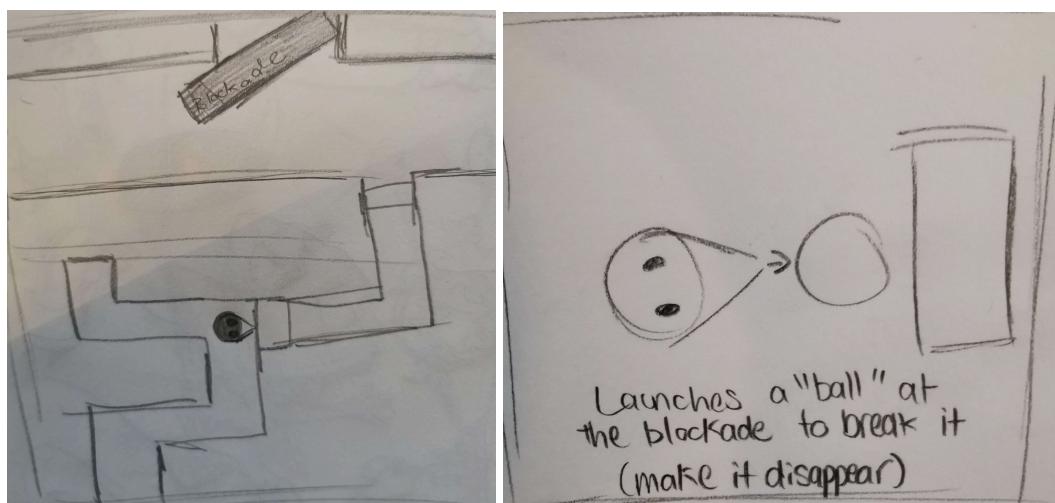
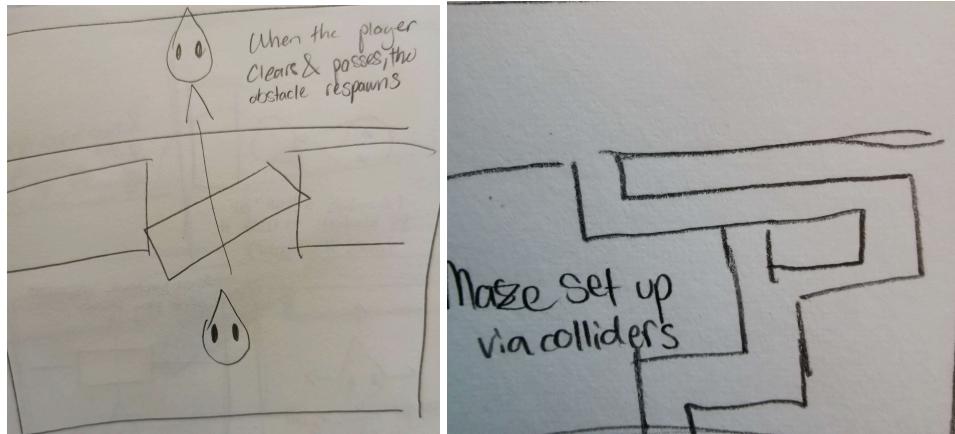
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Assignment 1 Pictures (Conception & Tasks)



Here are a few concept images for the various “mechanics” of my mini-game. You have to go through the maze (set up by colliders and a bunch of rigidbodies), and then you will arrive at a gate. Using a prefab “ball”, you launch it at the blockage and then you pass

through! This also demonstrates the concept that once you passed the line, something would happen (i.e. the gate closing behind you).

I wanted to use the plague doctor sprite I made in my Game Asset's class, so that is the odd bird character you see here and in the game itself.

Task Outline

Task 1 Setup: Create a basic layout (import assets, create background, etc.), Create a maze & add Cinemachine

Task 2 Player Movement : Make the player move on WASD

Task 3 Maze Collision : Add collision to the maze (player cannot walk past the walls of the maze)

Task 4 Fireball : Create a “fireball” prefab, whenever the player presses SPACE (or maybe E), the fireball is launched and destroys obstacles

Task 5 Trigger: When the player passes the gate, they will trigger the obstacles to respawn.

Difficulties & Problem Solving

The big issue I had with Task 4 was to do with the Fireball prefab. Admittedly, a lot of my problems might have been avoided if my game objects and matching scripts were more organised. The first issue I had was that my fireball would spawn a few ways away from my plague doctor character. The solution to this was that I was using transform.position to initialise my fireball as opposed to using a game object as a spawn point. The solution was to make a public game object called spawn point, assign it for my code and then change transform.position to spawnPoint.position.

The second problem I had with my fireball was trying to assign the obstacle in its script for collision. Due to the fact that it was a prefab, it would not accept my obstacle as a game object. Instead of using obstacles, I just created a dialogue of code in my OnCollisionEnter2D so that when the collided object was called “Obstacle” it would be set to inactive so it would no longer be there. Then of course, the trigger later developed would bring it back.

My only issue with the triggers was that I needed one to actually serve as a trigger and the other to just serve as a blockade, my mistake was trying to combine both. The trigger needed “Is Trigger” to be set to true, but in order to use my Platform Effector so I could have a blockade, “is Trigger” needed to be set to false. The solution was to just make 2 separate pieces, and I realised that they had no real reason to be combined in the first place.

Pseudocode

- 1) Import “Character Sprite”
- 2) Add a Cinemachine camera to follow the player
- 3) Create a background (Sprite Square)
- 4) Create a maze layout (Multiple sprite squares)
- 5) Create a final wall(^^)
- 6) Make the character move via key inputs
- 7) Create collision between maze walls and the player
- 8) Create the blockade at the gate
- 9) Create collision for blockade
- 10) Create a “fireball” prefab
- 11) When the fireball is launched via space, it destroys blockades.
- 12) Create a trigger so when the player passes the blockade, the obstacle respawns.