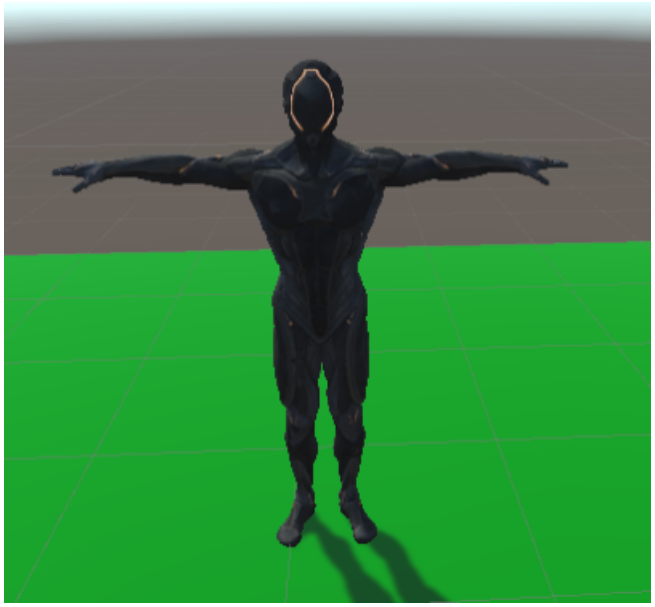
Working Title: Mr. Running
Names: Elliot Fisk, Steven Le, Ronin Prather

- Overview:
  The main objective is to complete the obstacle/parkour courses as fast as possible. The player's main opposition is time. The faster a player completes a level, the better the medal they get. Falling off a stage will teleport them to a checkpoint and increment their death count, which may lower how fast a player completes a level.

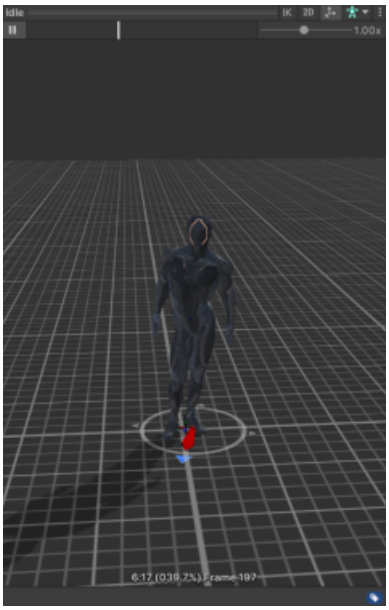
- Gameplay:
  The focus of the gameplay is speed. In order to beat the levels as quickly as possible, the player will likely have to employ different strategies or shortcuts, creating replayability.

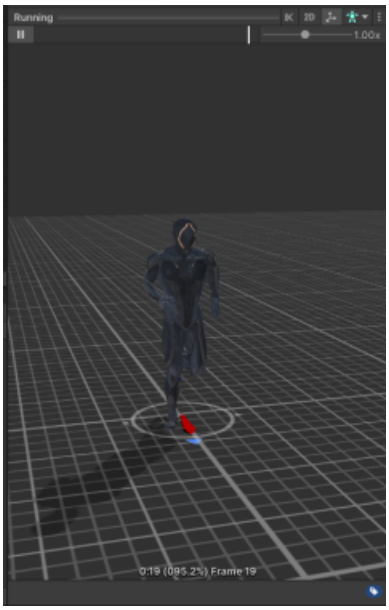
  The player will regularly receive new abilities by reaching fixed points throughout the levels. Both the level completion time and death count will be tracked and considered in level score. As the player gets access to more and more abilities/tools, they will have to consider more options for which to use in a given situation.

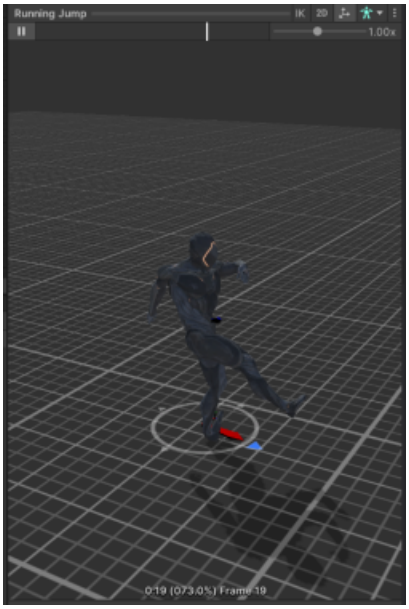
- Main Character:
  The player controls a being in a high tech suit.

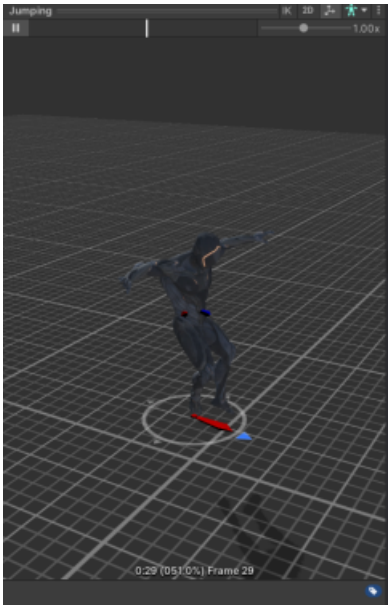
  3d Model: 

  Health will not be tracked but deaths will, any obstacles will one hit kill the player upon impact. Stamina will be included for wall running/climbing specifically. There will be no inventory system.

Idle: 

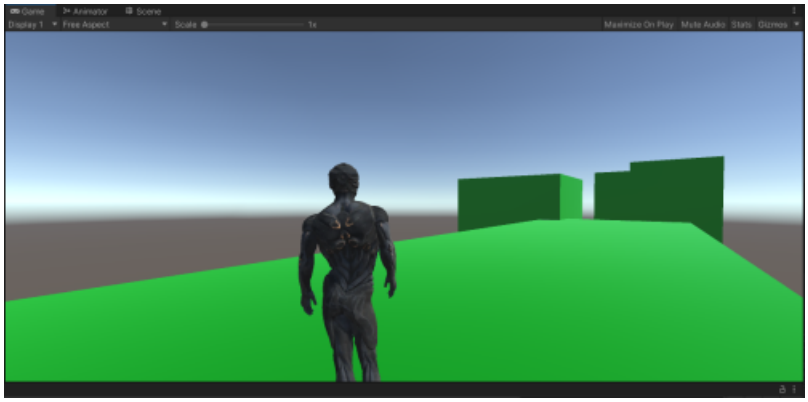
Running: 

Running Jump: 

Jump: 

- Control Scheme

  The player has controls to run and jump. The player starts with basically no abilities and unlocks them as they progress through the stages in each level. Abilities will include double jumping, dashing, time slowing, grappling, attacking, and wall running/climbing. The camera follows behind the player and always faces the same direction as the main character model.

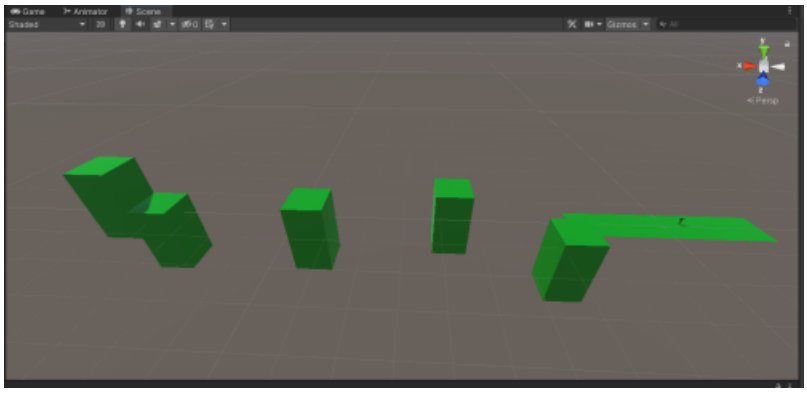
Player Perspective: 

- Player Rewards

  Level 1 specifically has key pick ups to open locked doors. Level 2 and 3 do not have any pick ups. There will be no powerups. Once the player finishes a level, they will get a different medal depending on how long they took to finish. The medals are purely for bragging rights and do not affect gameplay.

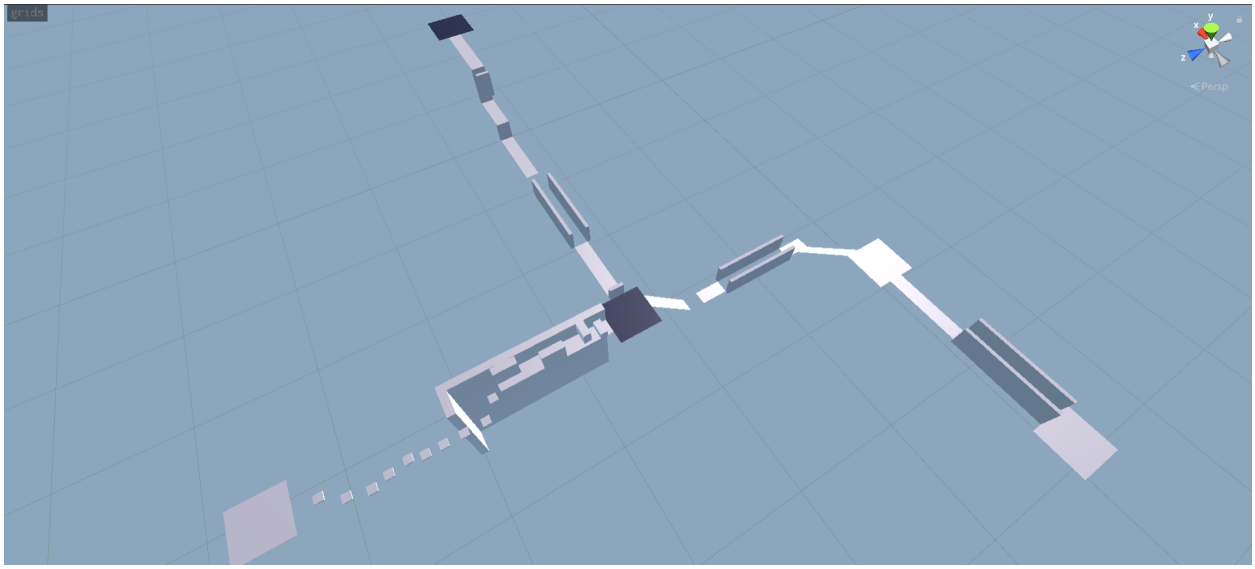
- Level Design

  All three levels will share a cyberpunk environment during the night.
  Level 1: tutorial

  Level one consists of a few platforms for the player to learn the basic controls

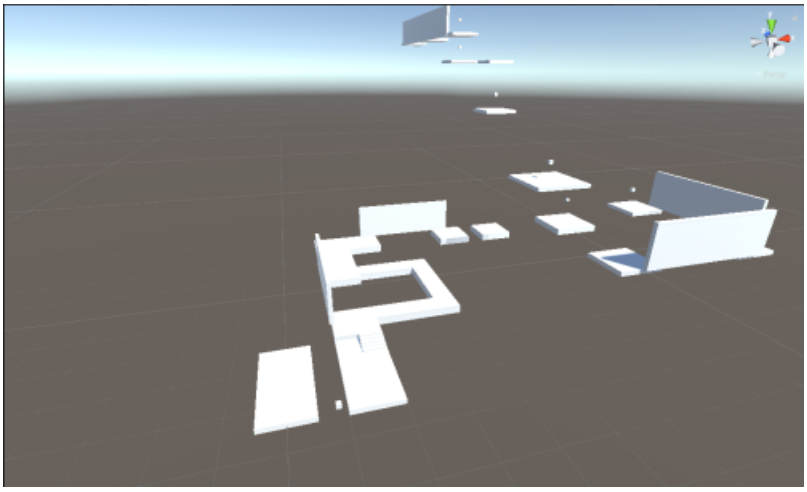
Level 2:



Level 2 will be set on top of a skyscraper. The player starts in the lower black square and needs to get two keys from two different sections before they can go to the final section and beat the level. This level provides the player with wall running, wall climbing, and jumping. The first two sections can be done in any order.

The bottom left section introduces jumping and basic movement to the player.
The bottom right section introduces wall running and jumping between walls.
The final top section introduces wall climbing and vertical wall jumping.

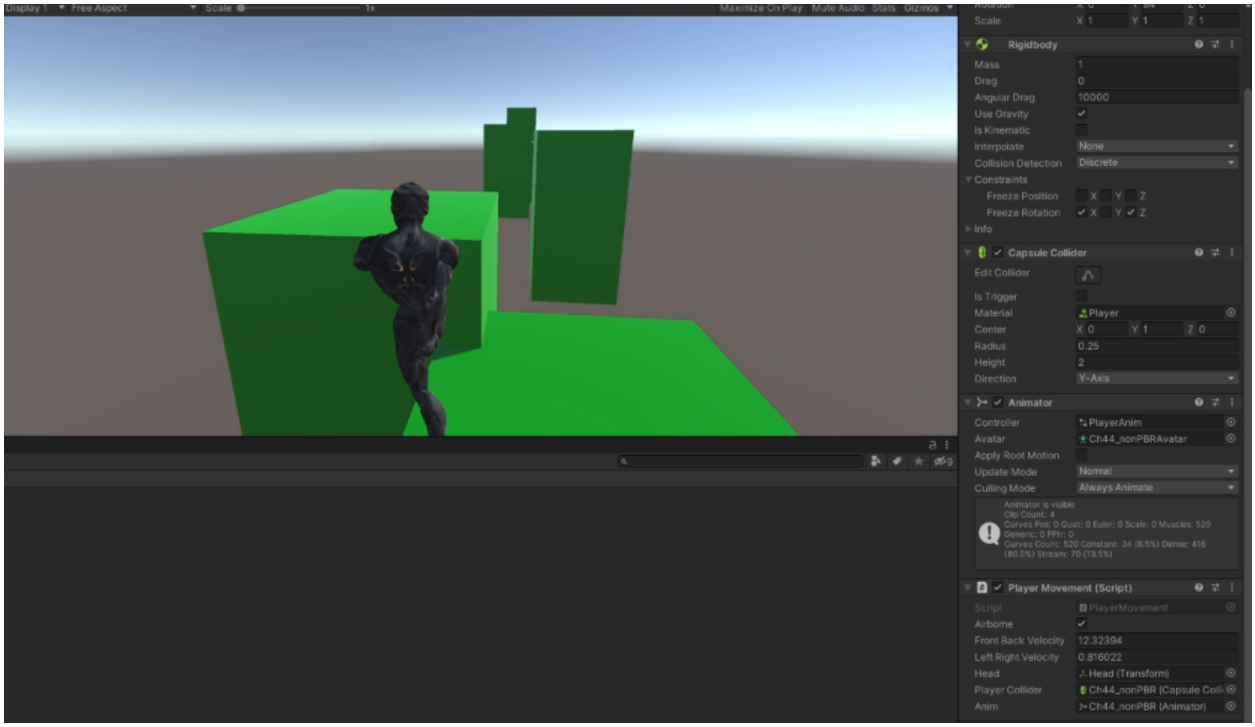
Level 3:



Level 3 utilizes two player abilities that we intend to implement: grappling and wall running. It has three sections separated by checkpoints, and ordered by difficulty. The main difficulty in all three parts is fall, which resets the player to their last checkpoint.

- Milestone 1 Progress

  We have whiteboxed the major stages of our game, and dialed in on our player movement script. In order to give the player a feel of momentum and inertia, we calculate player velocity and increment it to a cap while they are holding a direction.

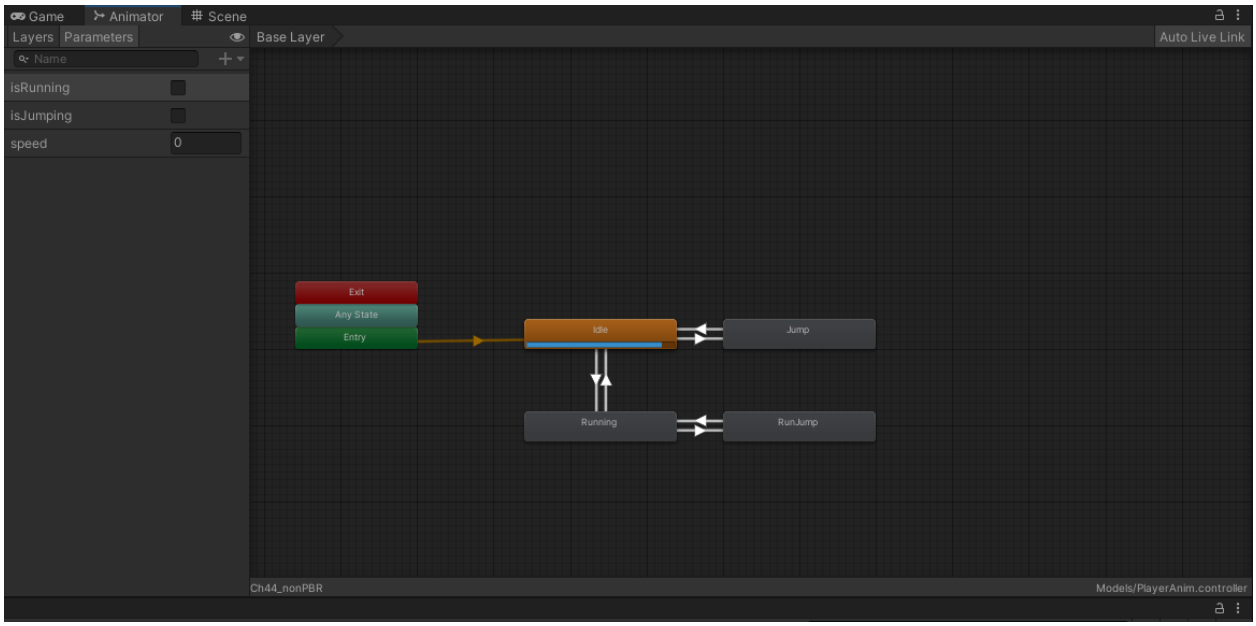


  Visible in the frame is the real time velocity calculations for the player, as well as the airborn bool determined by raycasting.

MouseController.cs PlayerMovement.cs

Assembly-CSharp

this the code

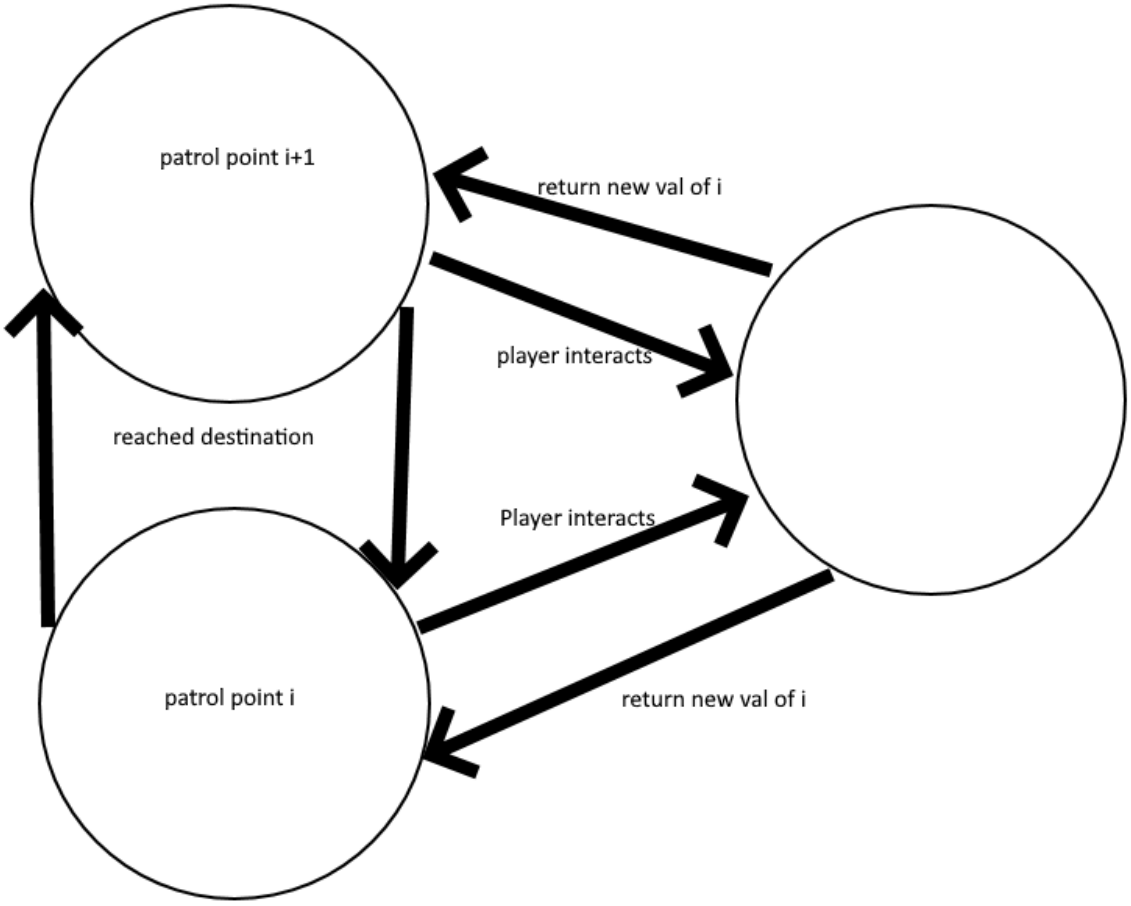


Each group member was in charge of whiteboxing a level, and we set up a call so everyone could contribute to scripts and animation controls.

Milestone 2:

Antagonistic Elements:
Environmental Hazards. Falling down is the main antagonistic element. AI moves around depending on player position and makes what would be static obstacles more challenging.

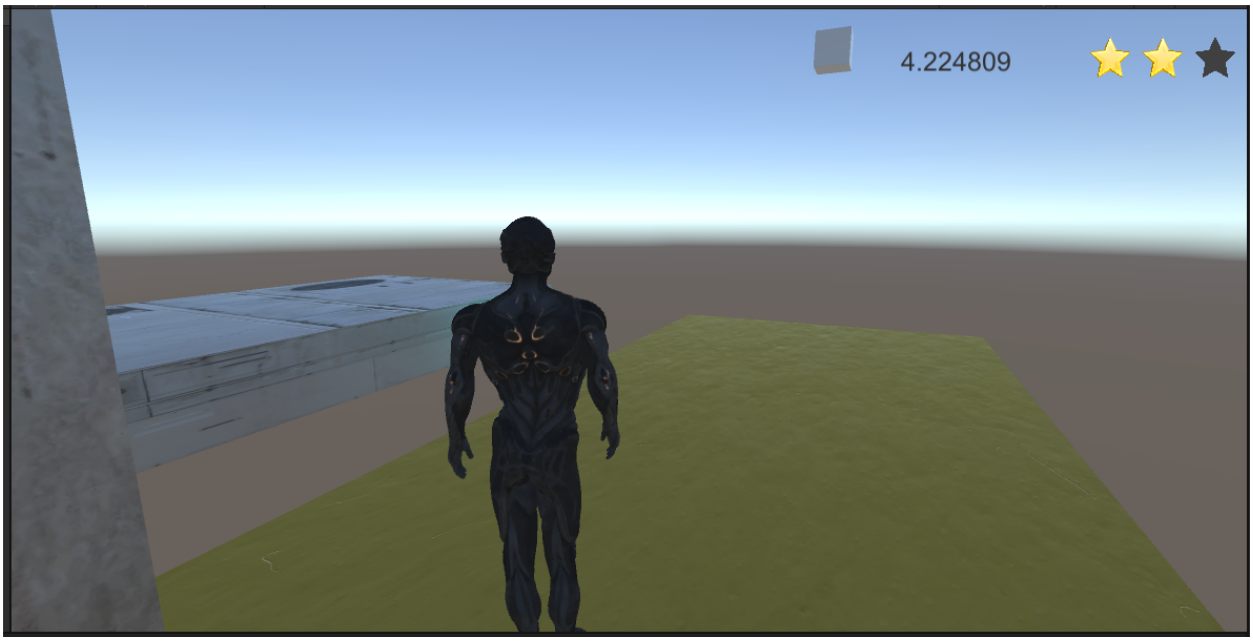
Artificial Intelligence:



The object will patrol the same set of points until the play hooks on to it. It will then move further along its path and patrol a different set of points.

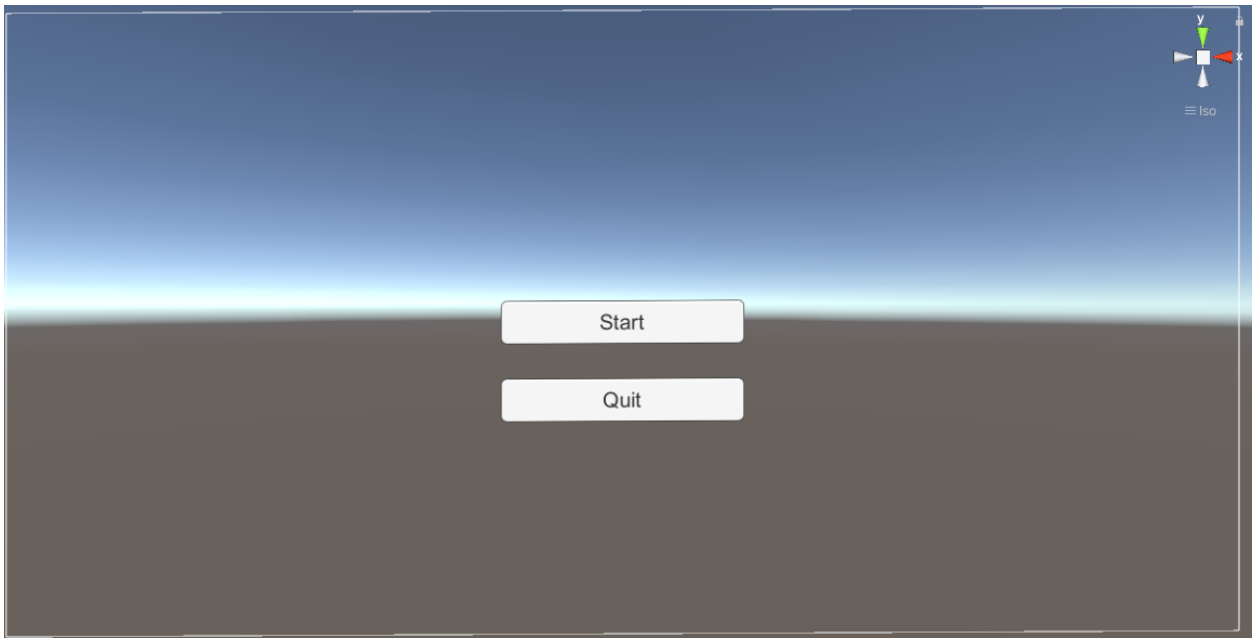
UI:

Timer:



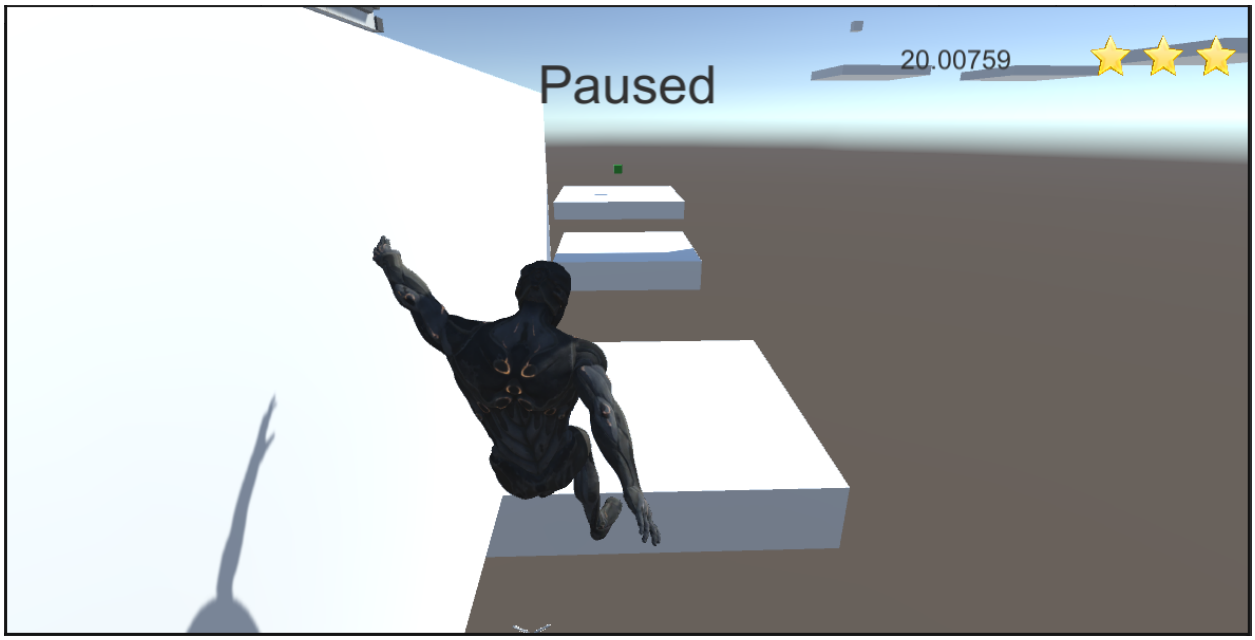
Timer and star rating in top right corner. This runs in real time while the player is in the level.

Start screen:



Start button launches into first map scene, quit exits app. Will work for build, but not for editor.

Pause screen:



Text says paused at the top. Player's view is otherwise not obstructed.

Audio & Sound Effects:

Music plays on entering scene from title menu

Milestone 2 Progress

Convince me that you are making progress

Why should this be considered ~70% complete?

Our general player movement functions have been completed, including the grappling hook. After a player collects the hook, a prompt tells them how to use it with 'Z'. On press, the camera zooms in and draws a reticle in the center of the screen. On release, the game checks if the player was aiming at a valid target, and moves them smoothly over.

We also implemented a scalable checkpoint system for when the player falls off the level. Once they have reached set points, they will no longer respawn in the prior section.

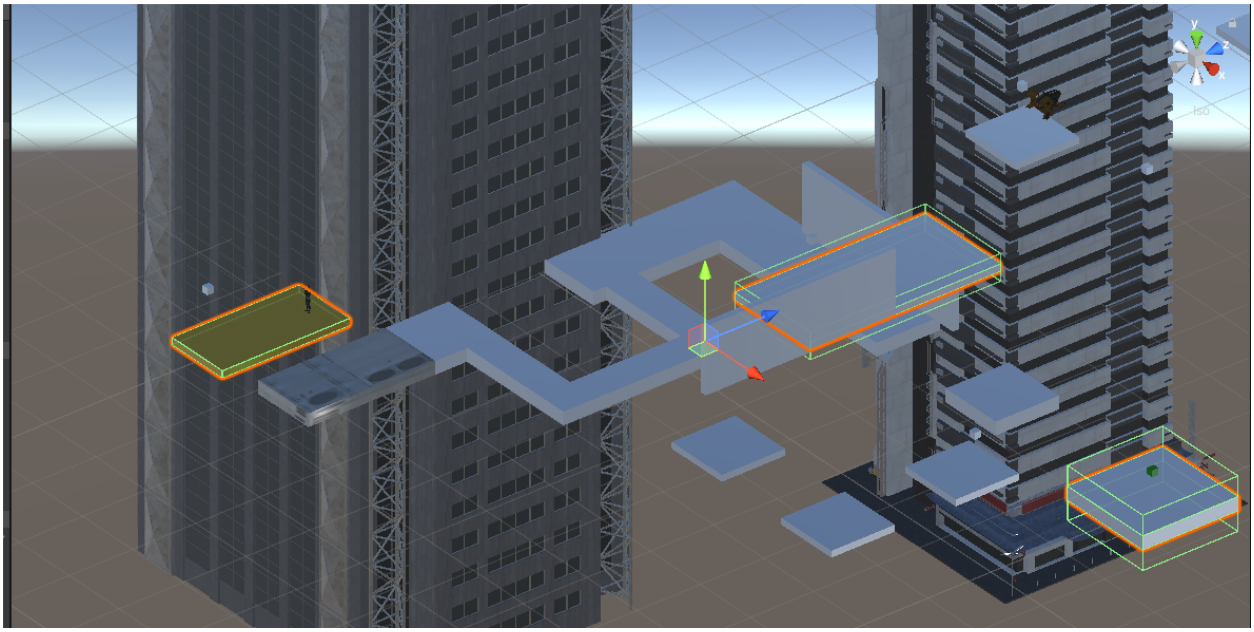
The player now has all the tools to run a complete level, and strive to improve their score on the course.

Two of the levels are fully set dressed

Give some screenshots (plural) of your current implementation that support this

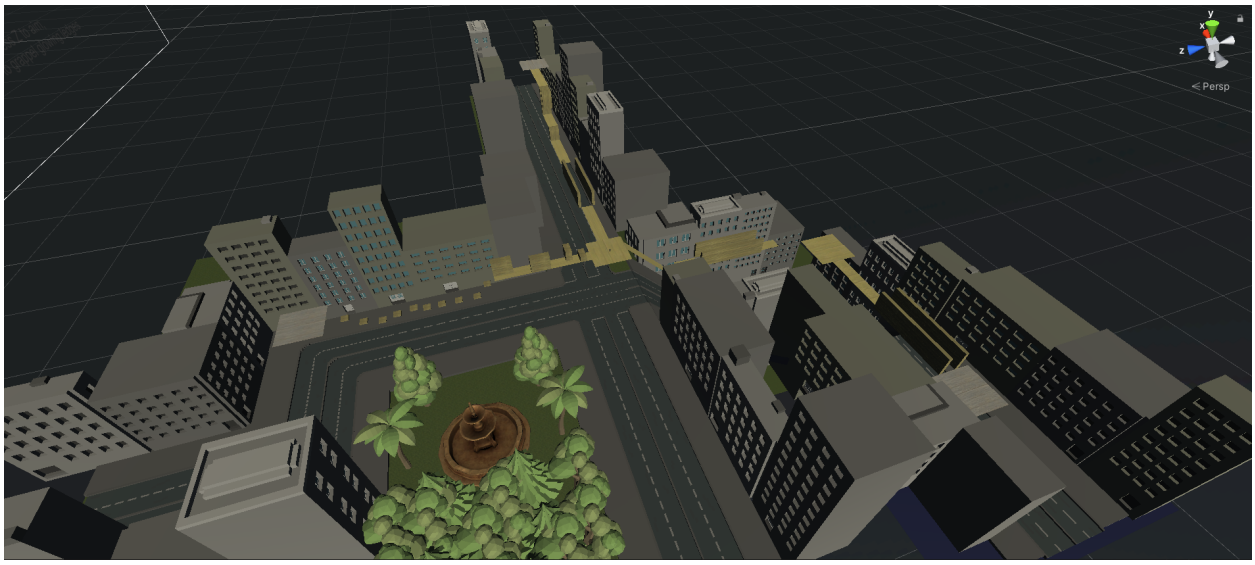
Beyond what is already shown in your GDD

Player aiming grappling hook at drone ai



Early implementation of checkpoints

Set Dressing for level 2, lighting and art assets



Set Dressing for level 3, a large amount of prefabs

What did each group member contribute to this milestone?

Ronin: Timer system and relevant ui. Grappling hook implementation. Checkpoint system, Pause UI, Main Menu UI functionality, Enemy patrolling AI. Remade git repository

Elliot: Set dressing level 2, refined player movement, adjustments to level design to make movement more fluid.

Steven Le: Set dressing level 3, Main menu scripting and dressing, Music for main menu, level 2, level 3

What were each group member's responsibilities?

Ronin: All functionality for level 2, assets can be used for other levels' basic implementation.

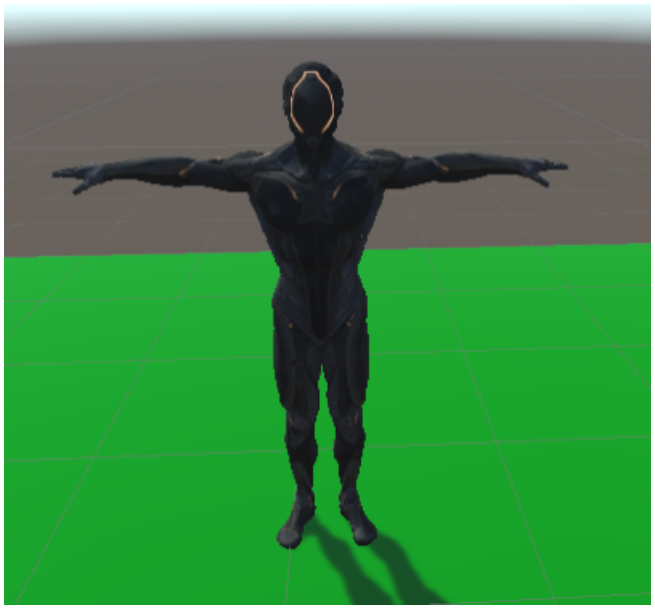
Elliot: Set Dressing for level 2 and making player movement more intuitive

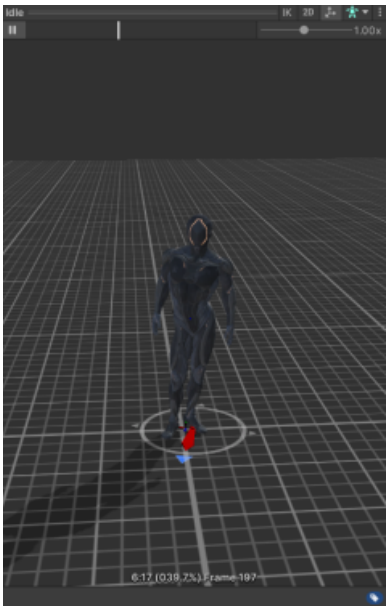
Steven Le: Set Dressing for level 3, Main Menu aesthetics and functionality

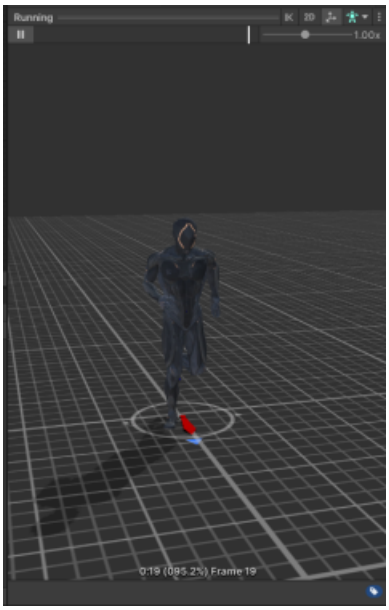
Milestone 3:

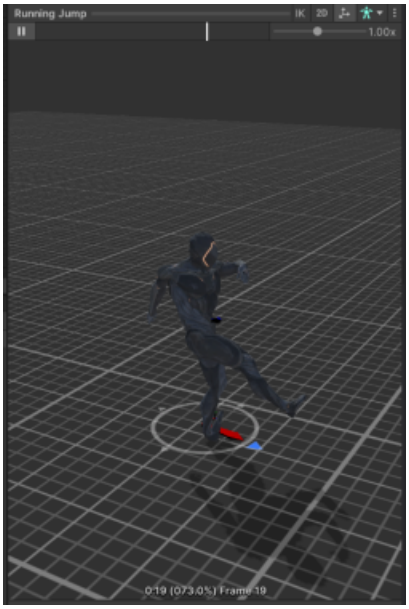
Main Character

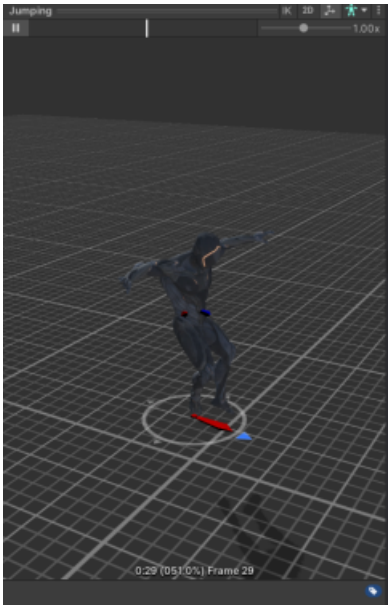
The main character's animation set is mostly the same. We did add inverse kinematics to the player model while aiming the grappling hook so the arm points towards where you aim. The model is also the same as before.

3d Model: 

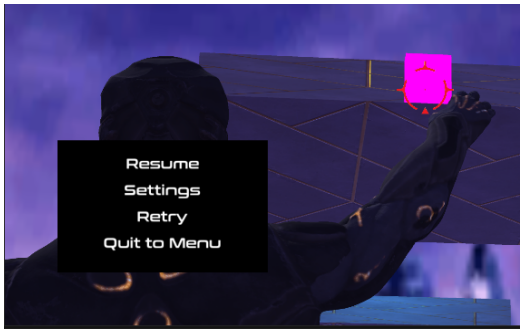
Idle: 

Running: 

Running Jump: 

Jump: 

Inverse kinematics:



Control Scheme

Movement is controlled using the WASD keys for moving in the forward, left, right, and backward directions. Space is used to jump. The Z key is used to employ the grappling hook (Hold to aim, release to grapple) on marked grapple points (pink boxes, pictured below). The Escape key is used to bring up the pause menu (which will pause the timer and effectively pause the game) and can also be used to resume the game while in the pause menu.

UI

Main menu UI - The main menu features an animated video looping in the background and a few buttons to choose from.

1) Start: Brings up four more buttons to choose a level to play from three levels and a back button to return to the main menu buttons.

2) Settings: Brings up a volume slider to adjust music and a back button to return to main menu buttons

3) About: Brings up a info page with accreditations to all music used and a back button to return to main menu

4) Quit: Exits the game

During levels, the UI contains

1) A timer and star representation at the top right

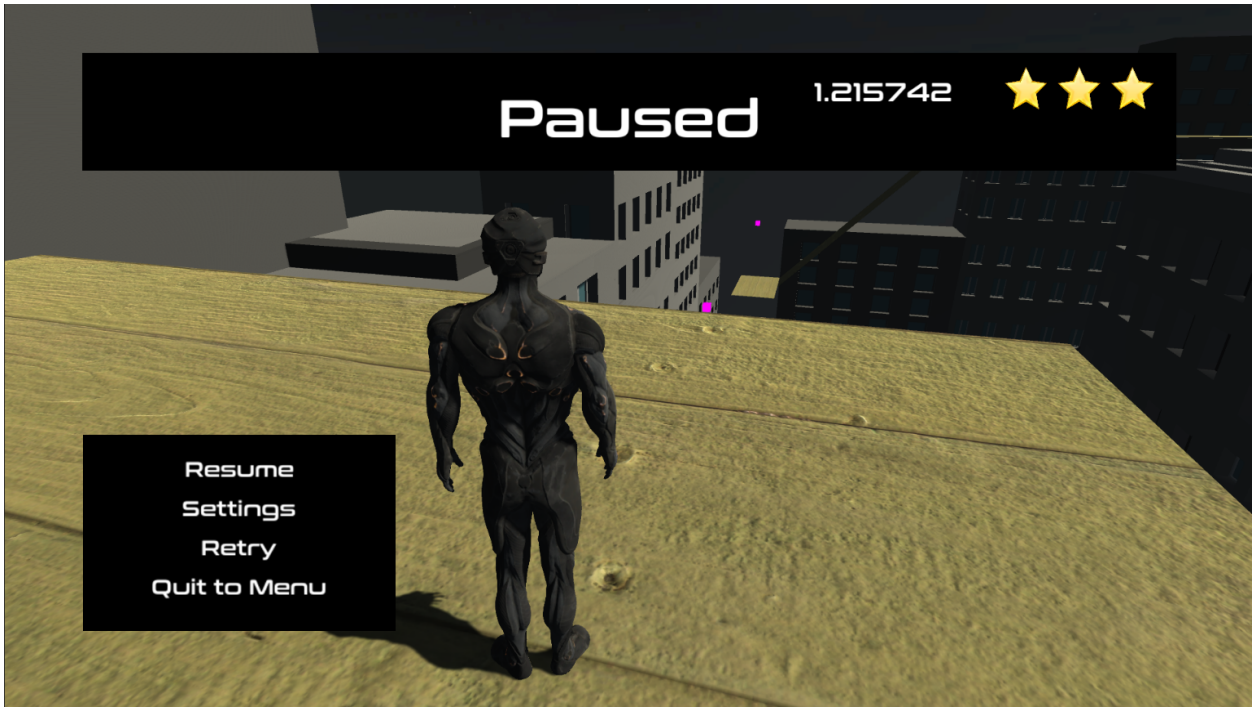
2) A key icon at the top right after picking one up at level 3

3) Message when picking up the grappling hook power up on levels 2 and 3

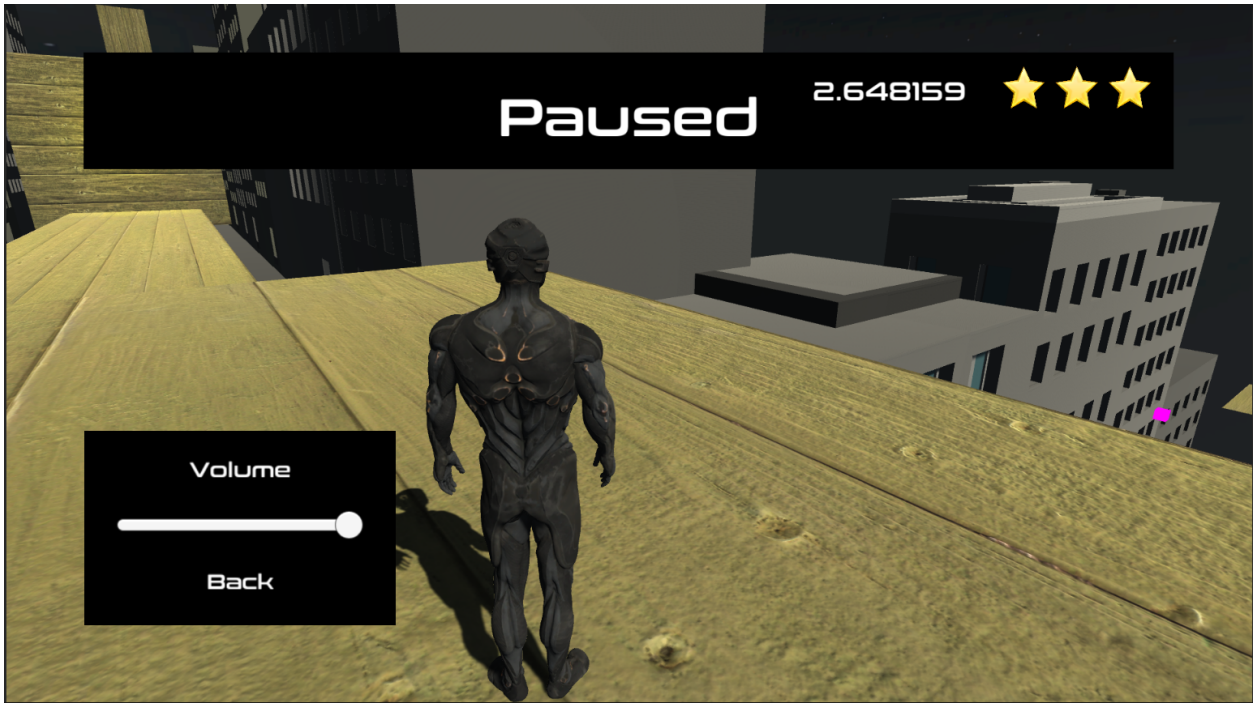
4) Messages when interacting with the door on level 3

Also during levels, clicking the escape key brings up a pause

menu with the following UI elements:



1) A resume button to resume the game and make the pause menu disappear
2) A settings button to bring up the volume slider similar to main menu



3) A retry level to reset the timer and bring the level back to its starting state

4) A quit to menu button to return the scene back to the menu scene

All levels will also show a finish screen once levels are finished with the final time and stars on the top right and three extra buttons on the bottom left. The next level button loads the next scene level (Only appears on level 1 and 2), the retry button restarts the level, and the quit to menu button returns the scene to menu.

Antagonistic Elements:

We had 2 different AI that antagonize the player. One scouts the player as they traverse the level, and rushes them when they are in range. The other is a drone that patrols certain areas depending on player, which has to be used to cross otherwise impossible gaps.

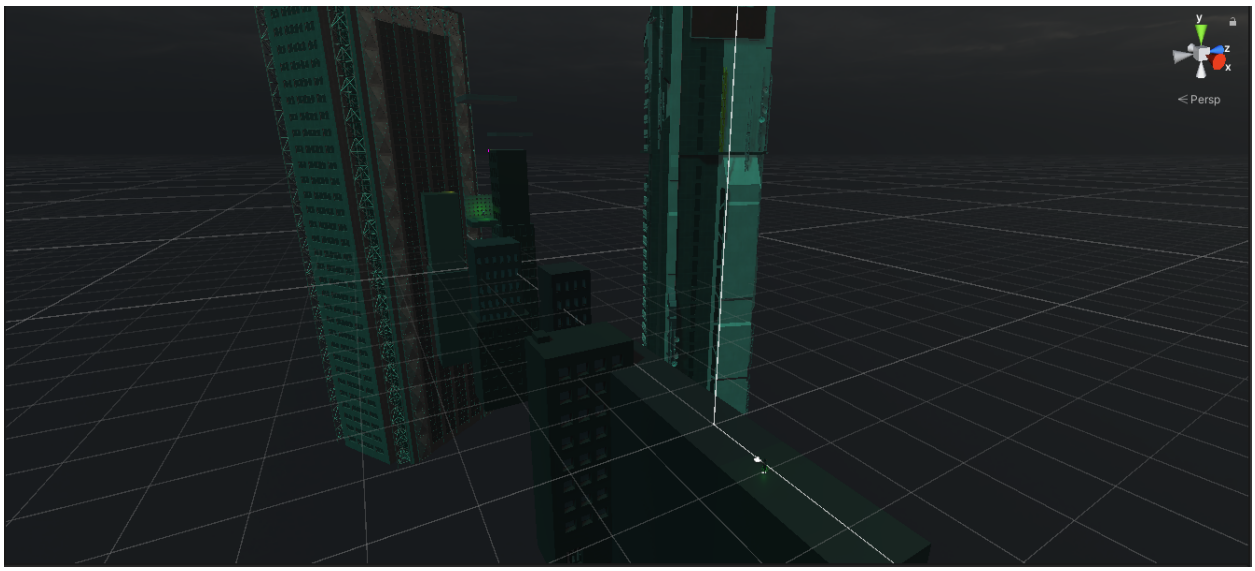
Other than these, the main element is falling. The player has to constantly maintain their velocity in order to cross gaps in the floor, making the main cause of failure slipping off a platform.

We were able to reuse the player running animations for the rushing bot.

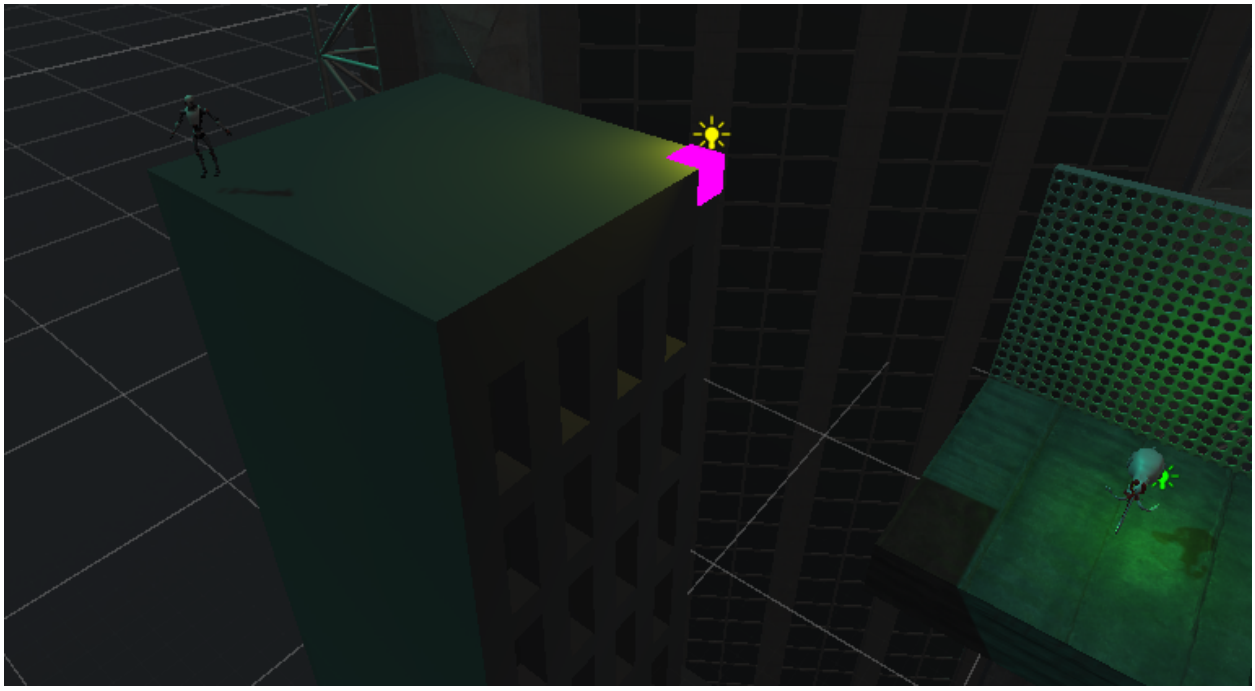
Pictured below, AI Using IK to track the player as they progress the first few jumps:

Level Layouts:

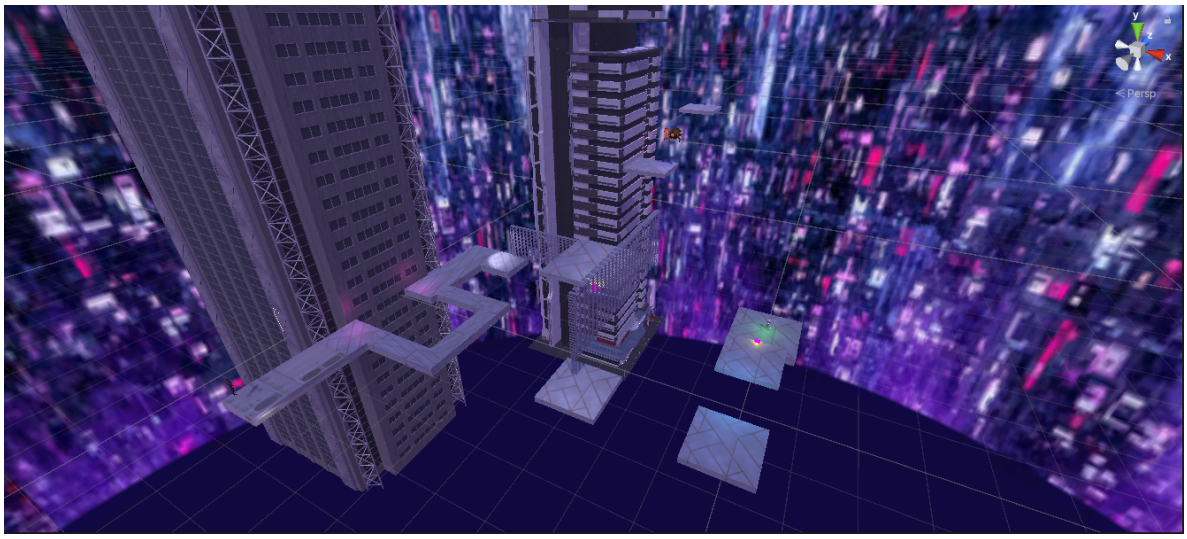
Final Lvl 1 Layout Below:



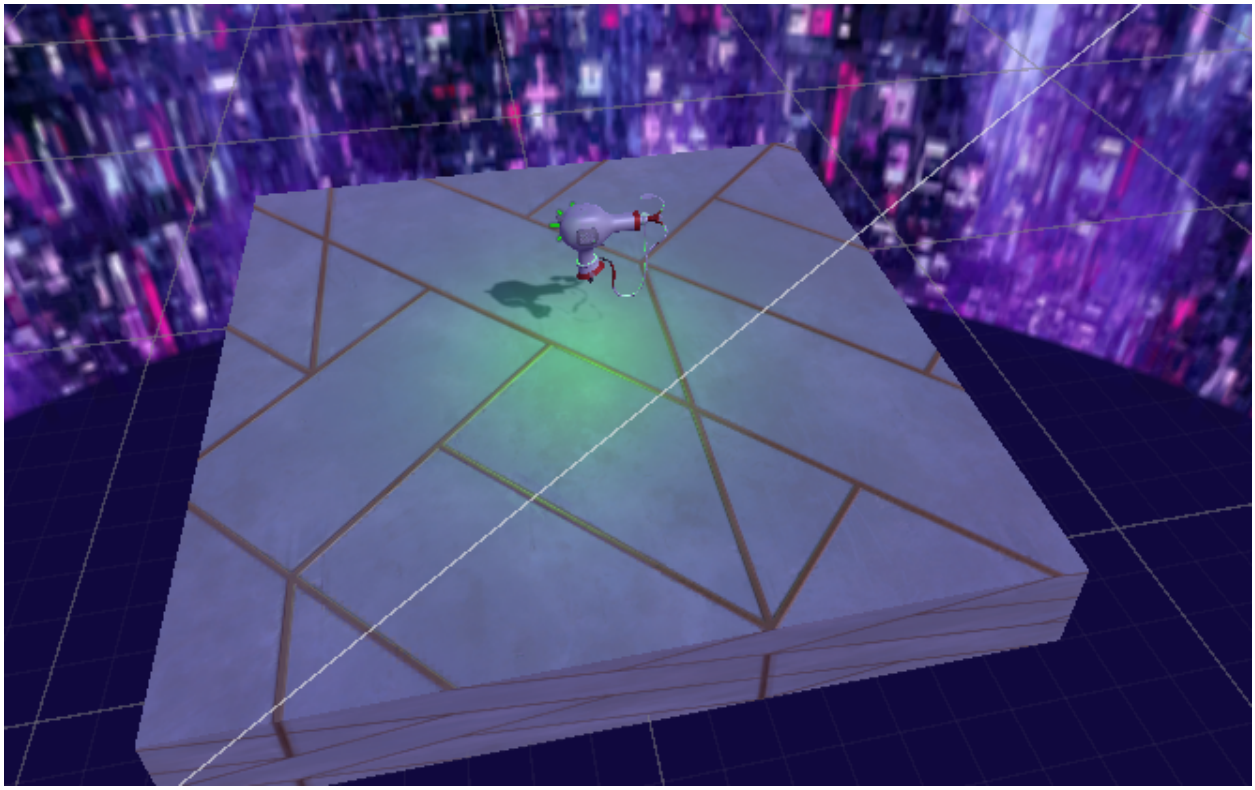
Lvl ! interaction and pickup:



Final Lvl 2 layout below:

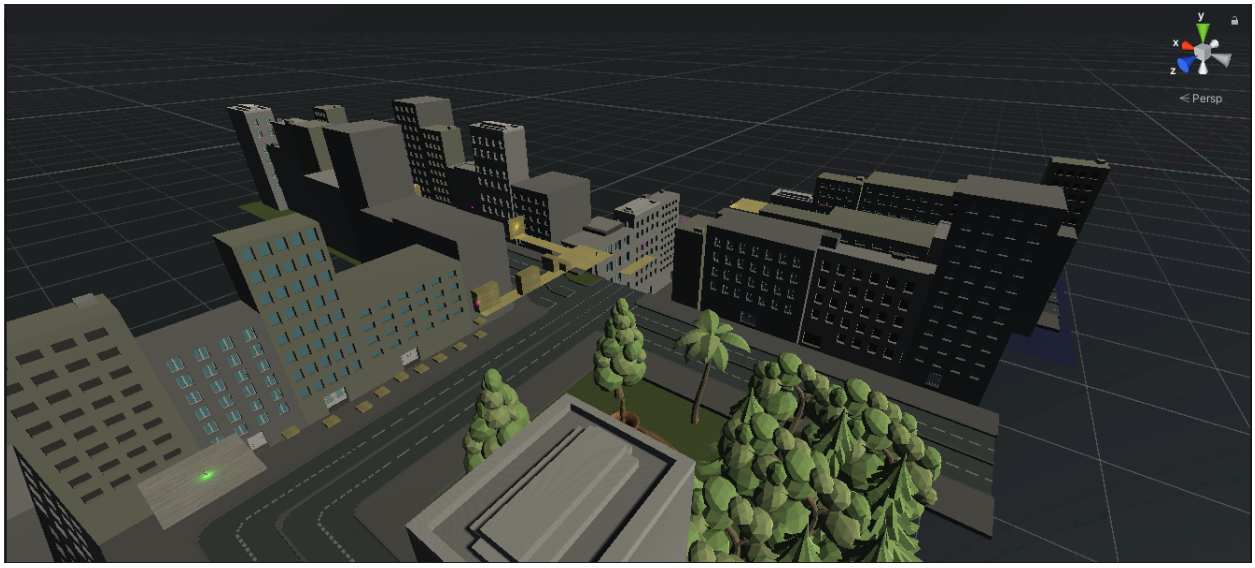


Level 2 pickup below:

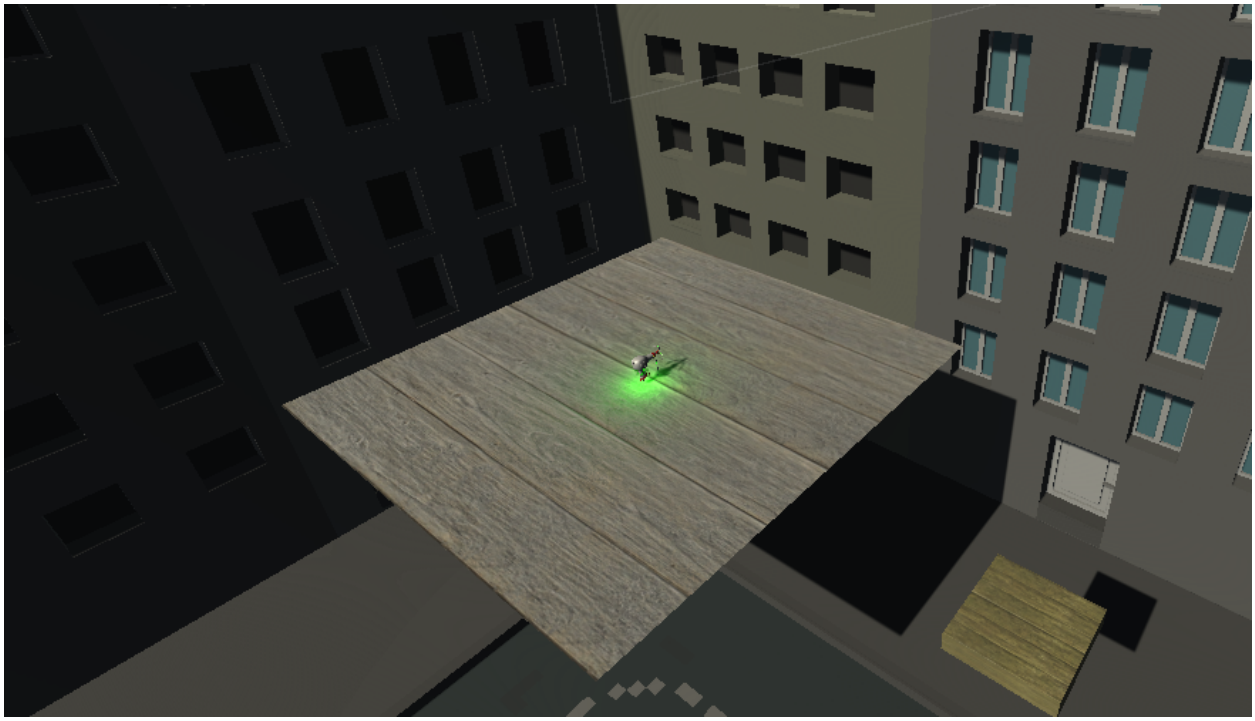


Level 2 interaction location:

Final Lvl 3 layout below:



Pickup location for lvl 3 below:



Pickup Location for lvl 3 below: