

Animation, Visual and Sound Document

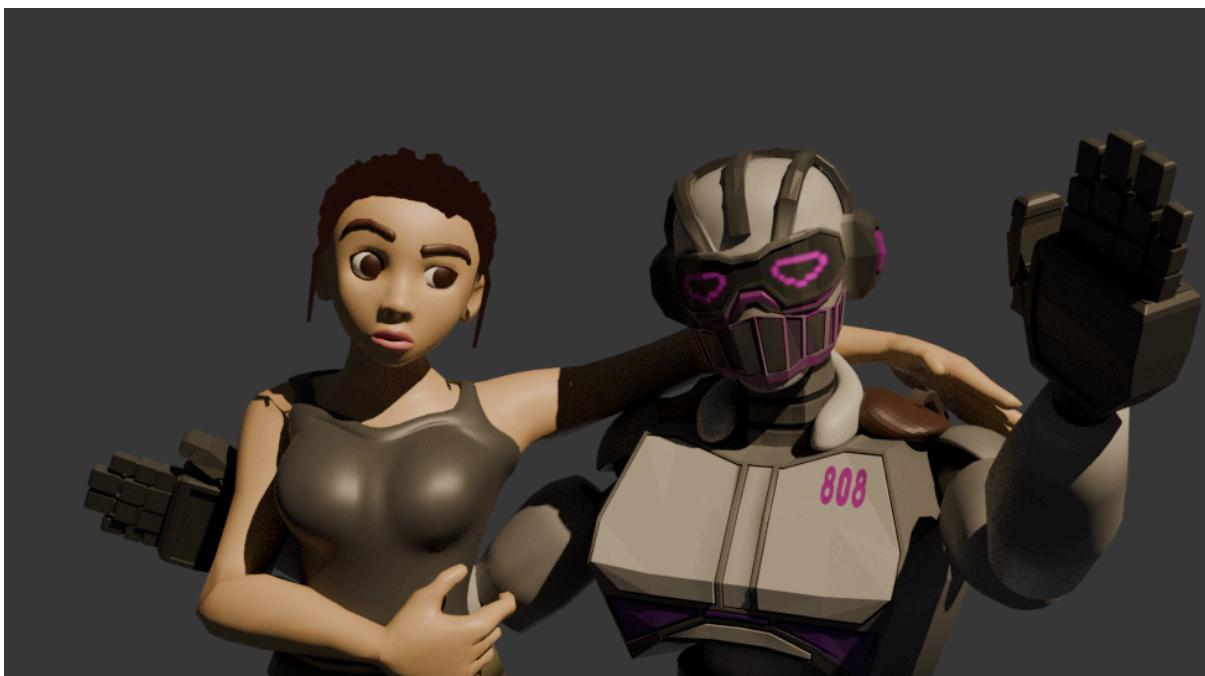
“Music Agency in Video Games”

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1. Introduction

This document aims to detail aspects to do with the music composing, general sound design, the visual design, and the animation within the game. This includes early versions and prototypes of various assets, as well as the final versions you will see in-game. For more information on the general game design process, please refer to the *Game Design Document*[\[1\]](#).

2. Music & Sound Design

2.1. Early Prototypes

Music Composition

We have used temporary music, all of their respective genres, found online in order to slot them into the customization system in Unity. This was done as a test to see the transitions between music states as well as to the effect that the different genres have on the gameplay.

We have created the entire Default music pack which includes; Exploration tracks (walk, run, fly and combat) as well as the walk track for the Classical music pack in order to demonstrate the transition between tracks and genres. If we use the default tracks as an example for what is expected and demonstrated in the game, one can recognise that the melody and bass patterns are constant throughout the tracks. The chord progression (in E-minor) remains the same throughout tracks and genres too, while we hope to add more intricacies in the genres themselves in order for the player to have a variety of atmospheres to choose from.

Sound Design (Unity)

To prototype the music customization system, we first needed to source some temporary tracks to test if the music does in fact change in accordance with the player's choices and the state machine. To our surprise, the underlying code worked the first time we tested it.

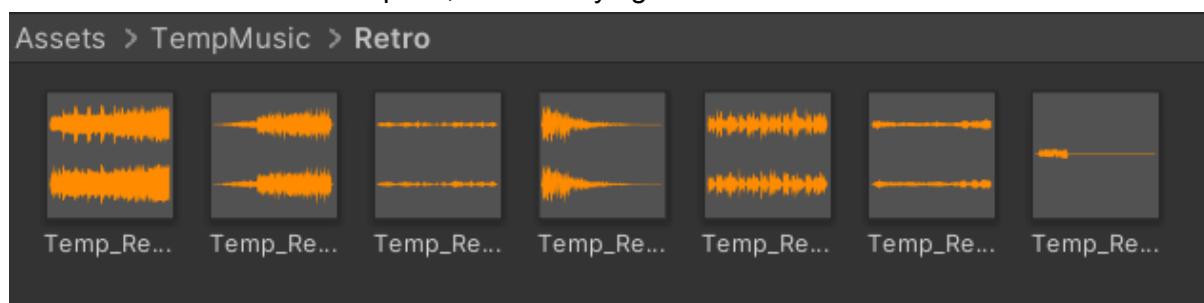


Figure 1: Temporary music folder (all temp tracks will not appear in the final product)

Each track is slotted into a aptly named audio source and once a relevant track is composed, it will be slotted into its respective audio source and the temporary track will be removed from the project.

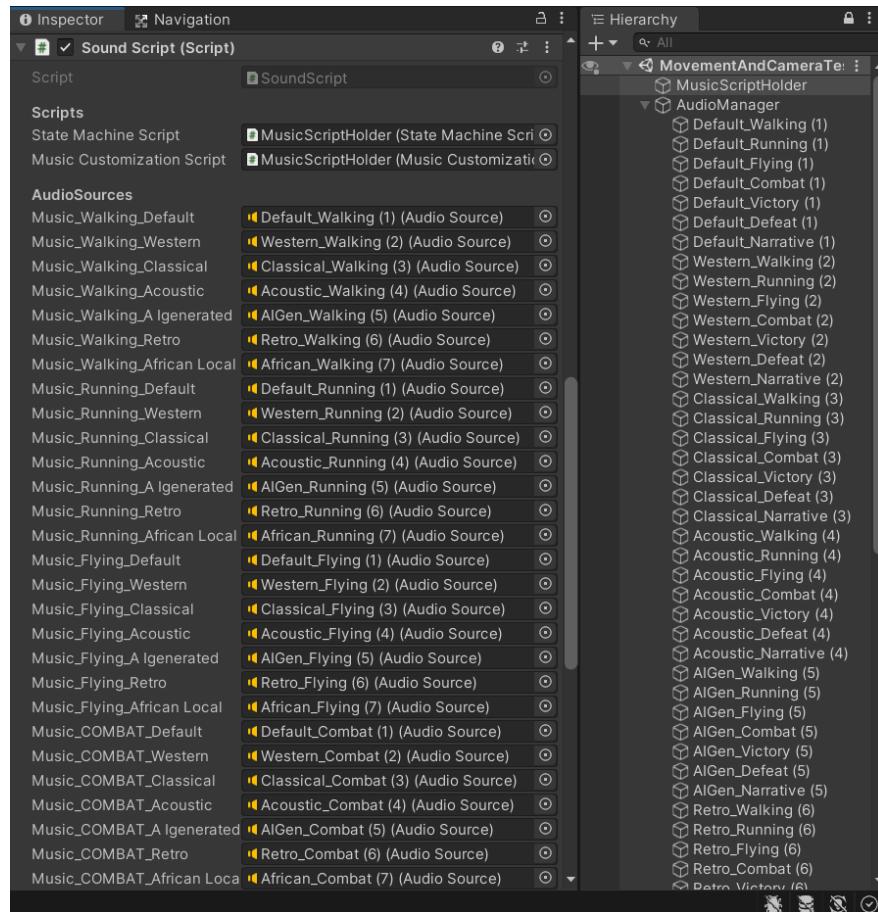


Figure 2: Sound script in inspector view and audio sources in hierarchy view

Sound Design (BandLabs)

The switch from using Ableton software to Bandlabs was decided due to the differing cost and trial features of the two platforms. As Ableton is a paid software, it requires local installation and consumes more storage space. BandLab offered a free, cloud-based option that also provided us with a built-in, in depth tutorial which made the software easier to understand and use in order for us to have a more streamlined workflow. The fact that BandLab is web-based also allowed for greater flexibility and access across devices.



Figure 3: Screenshot of tracks in Bandlabs

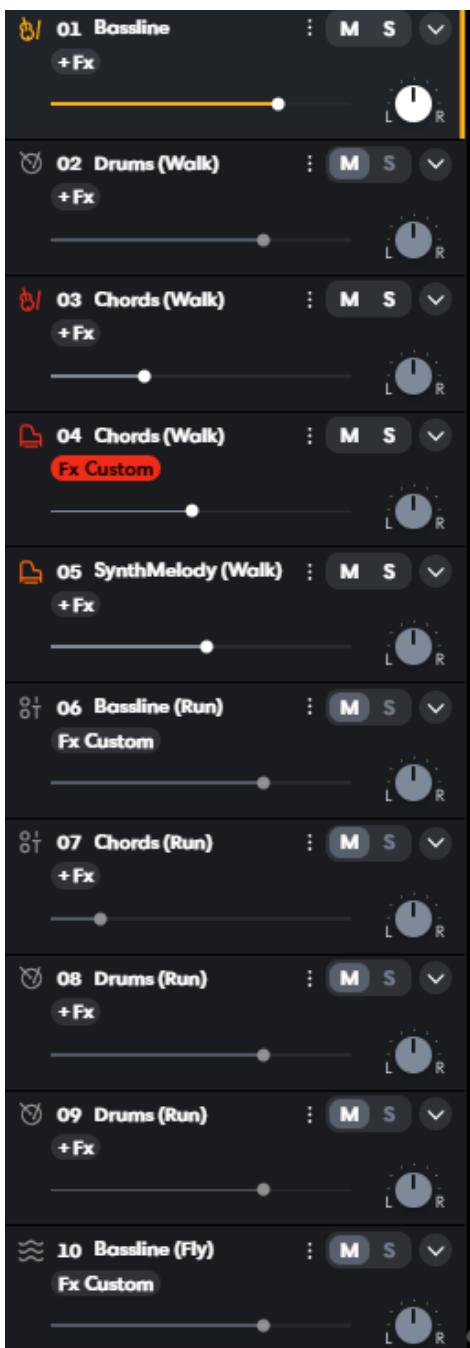


Figure 4: Track names in Bandlabs

2.2. Final Game

All of the music in the final game is original and made by Malakai Braam. All the temporary test music was removed from the project files.

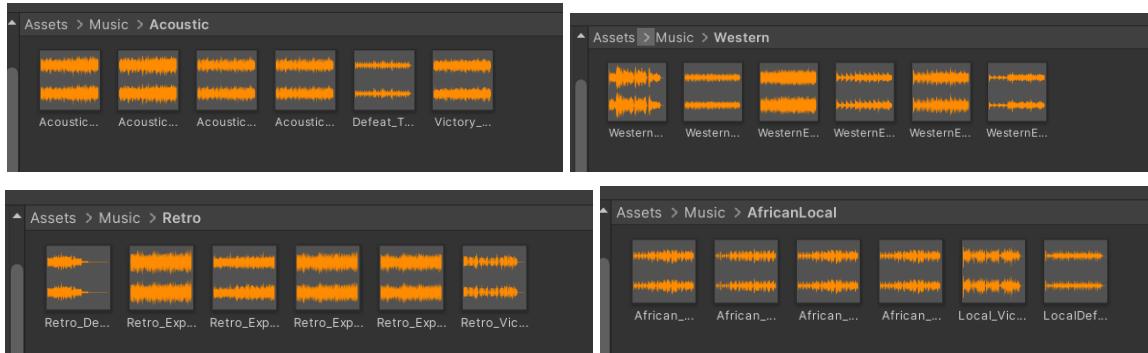


Figure 5, 6, 7 & 8: Final Music Folders

- The “AI Generated” genre was still composed by Malakai Braam, however, the lyrics were generated by ChatGPT.
- The western music was inspired by Red Dead Redemption.
- The retro music was inspired by retro games such as Pac-Man.
- The classical music was inspired by old fantasy RPGs and their music.

3. Visual Design

3.1. Early Prototypes

Player Character: 808

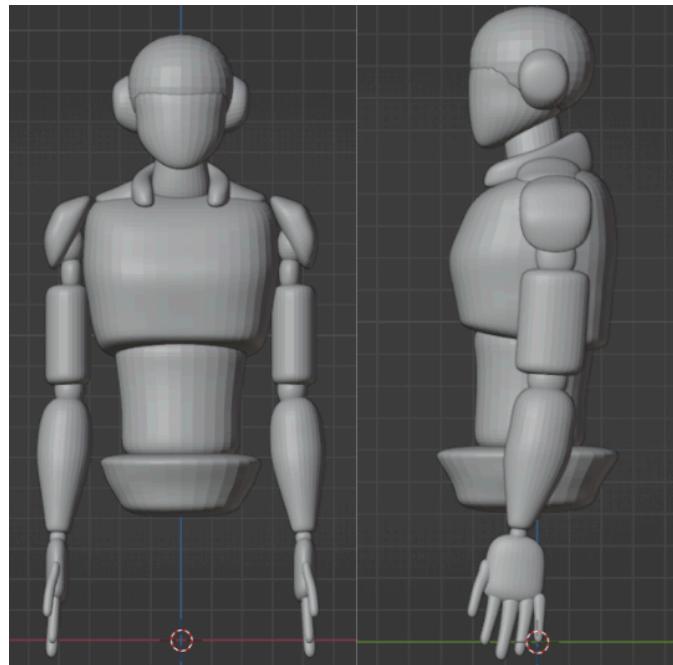


Figure 9: Early Block out of 808

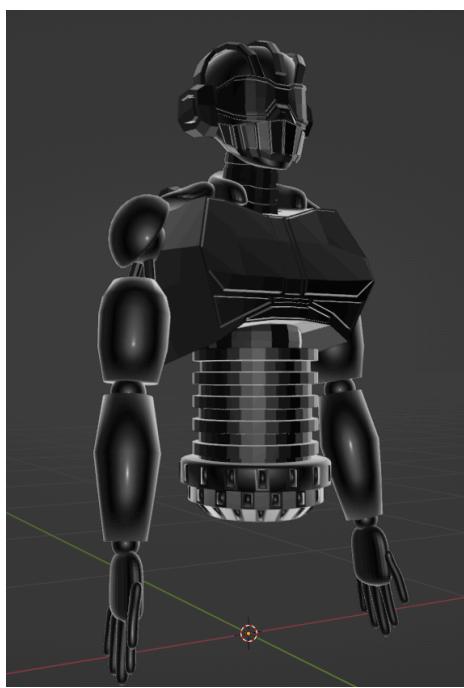


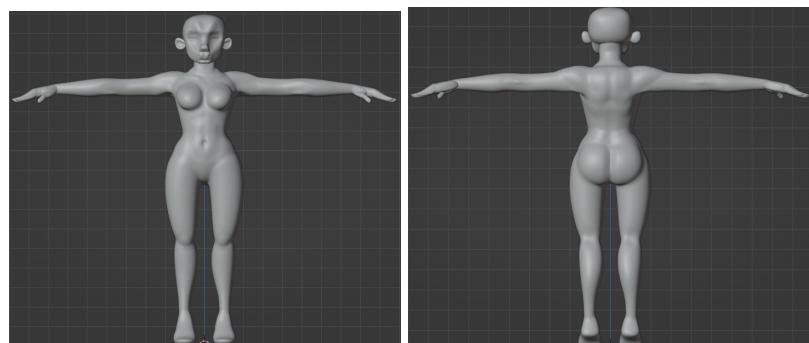
Figure 10: Final Version of 808 (MatCap - Not Textured)



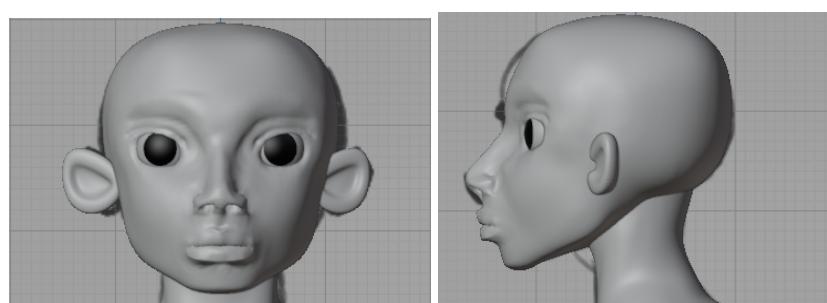
Character: Kate



Figure 11: Kate Character pre sculpt

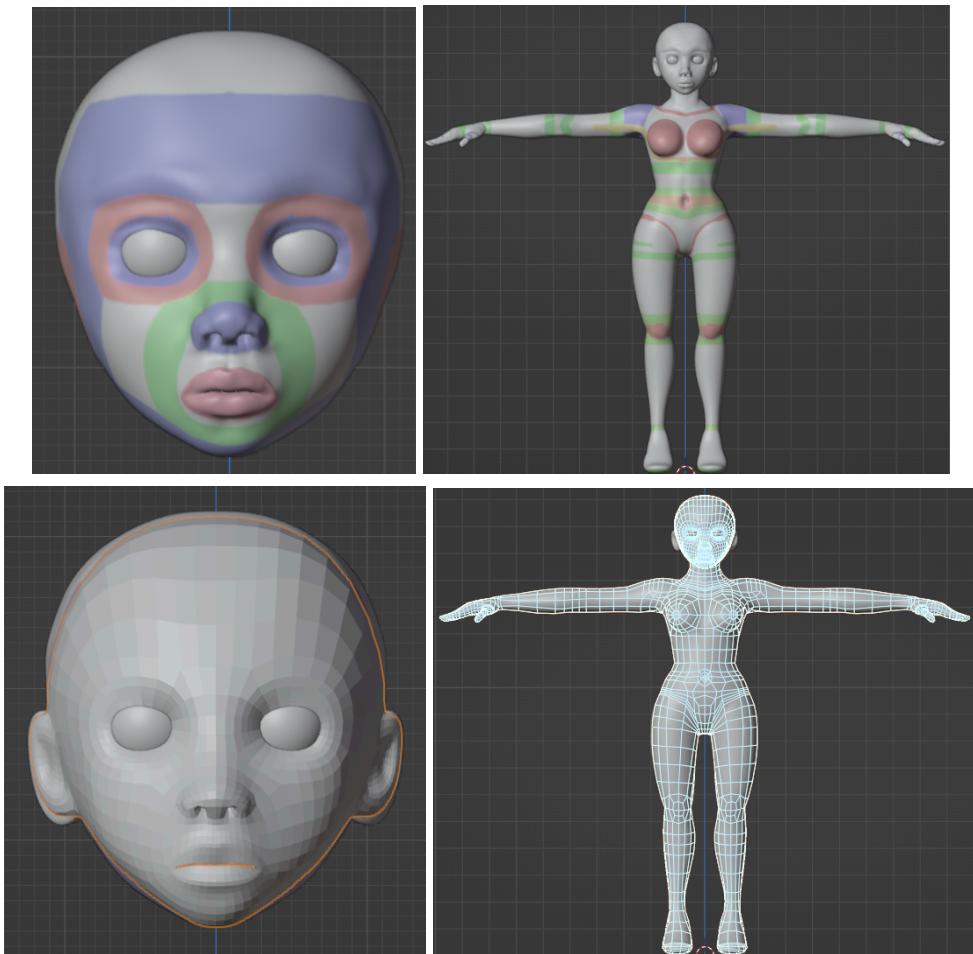


Figures 12 & 13: Kate old (pre crit 3) version: Complete Body Sculpt, Head Sculpt In Progress



Figures 14& 15: More Detailed sculpt (CRIT 3)

You will see in the next section, how different the final, textured versions of the models look.



Figures 16, 17, 18 & 19: Images showcasing directions of the topology of the retopologized body and face of Kate

3.2. Final Game

Player Character: 808



Figure 20: Textured 808

808, the main playable character, is a very shiny robot. Look at him!

He is metallic with **purple** highlights.

Character: Kate



Figure 21: Textured Kate in-game (Low-Poly)

Kate has 2 models and 2 textures. One for use in Unity (during gameplay) and another for use in **Blender** (during animation of Cutscenes)



Figure 22: Textured Kate in Blender (High-Poly)



Characters: Enemies, NPCs, 001 and 427



Figure 23: Textured Enemies

Enemies have a darker metal with **blue** highlights.

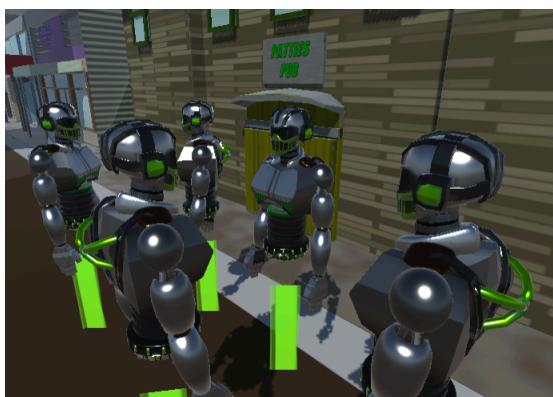


Figure 24: Textured NPCs

NPCs have the same metal shine as 808, but have **green** highlights instead.



Figures 25 & 26: Textured 001 & 427

001 and 427 have unique textures. 001 has the same dark metal shine as the enemies, however his highlights are **red**. 427, being a butler, has a prim and proper chrome sheen, with **orange** highlights.

Buildings:

The general house assets will be repeated all around the suburb areas.



Figure 27: White and Yellow House assets

This is an alternative version for farmland areas

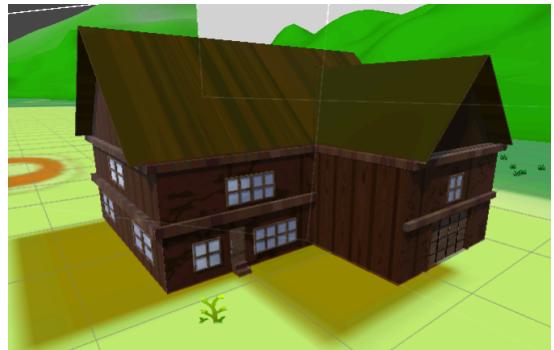


Figure 28: Wooden House asset

To populate the farms, barns and silos were added. A few quests take place near some of these barns.

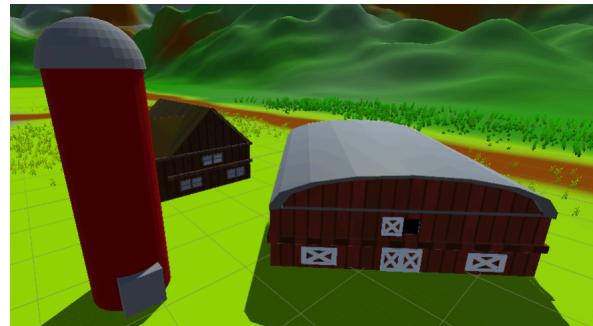


Figure 29: Barn and Silo assets

To fill out the main town area, buildings such as warehouses, hotels, municipal buildings, schools, etc. were important to add.



Figure 30: Warehouse asset



Figure 31: Hotel



Figure 32: Patties Pub



Figure 33: School

The “Pincer” Cafe/Theatre was directly inspired by a similar location in the TV show: Smallville. Namely a theatre turned into a cafe, called the “Talon.”

You can also see some collectables put near/on top of buildings in the main town area.



Figure 34: Pincer Cafe/Theatre



Figure 35: Municipal Building

The mechanic was renamed to “Otto’s Autos” as a reference to Dylan Cairns’ Animation for this course.

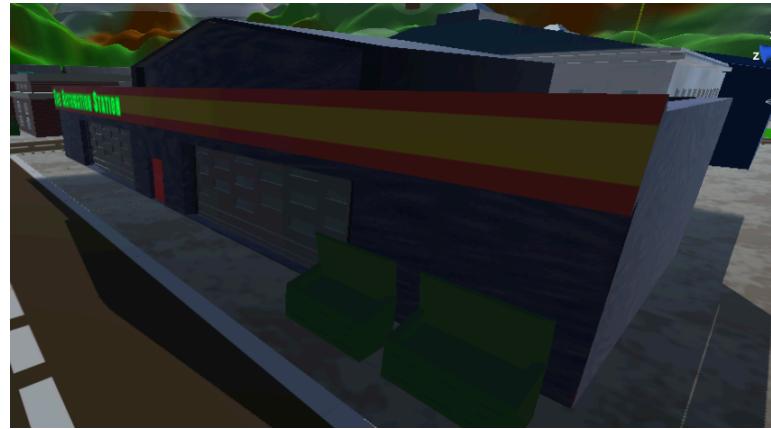


Figure 36: Mechanic

Buildings such as the Mall and the town hall just make it feel more like a town where there was once a community.



Figure 37: Mall



Figure 38: Town Hall

The Mansion is where the final main quest takes place, and where the antagonist lives.

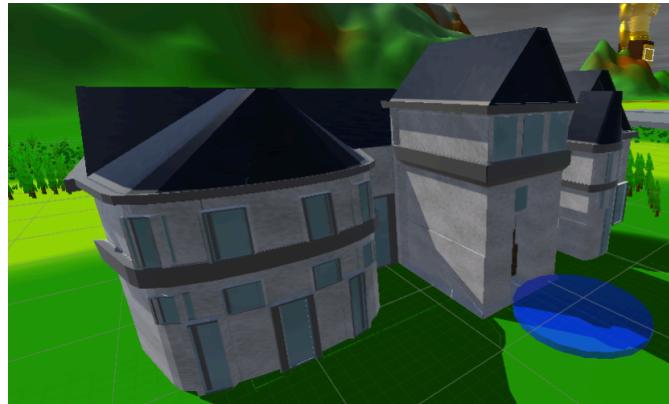
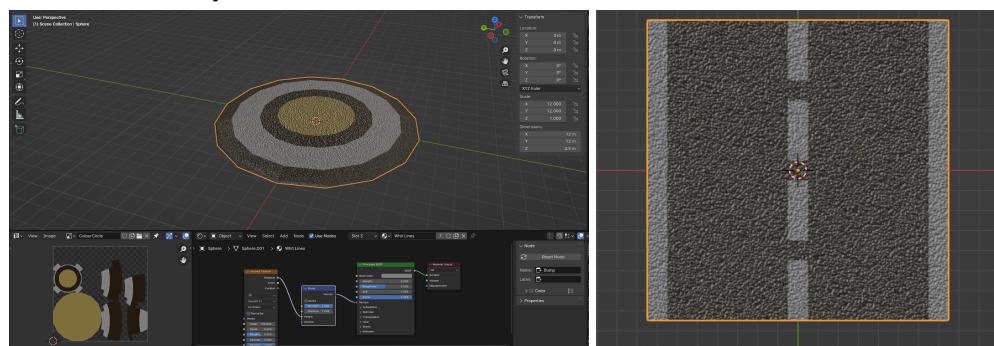


Figure 39: Mansion

The road assets are tileable pieces that were made to be able to “slot” together in the Unity scene. This made it easy to create the road network in the town.



Figures 40 & 41: Road assets in Blender (roughness did not port over to Unity)

4. Animation

4.1. 808 and Robots In-Game Animations

From Crit 2, 808 had been rigged and weight painted. Although we initially struggled to weight-paint the character in a manner that would assist us in creating robotic movements for him, we managed to fix certain body object weightings or work around them. In game, 808 has 5 animations that were created and split up in Blender: Idle, Run, Fly, Lazer Attack and Melee Attack.

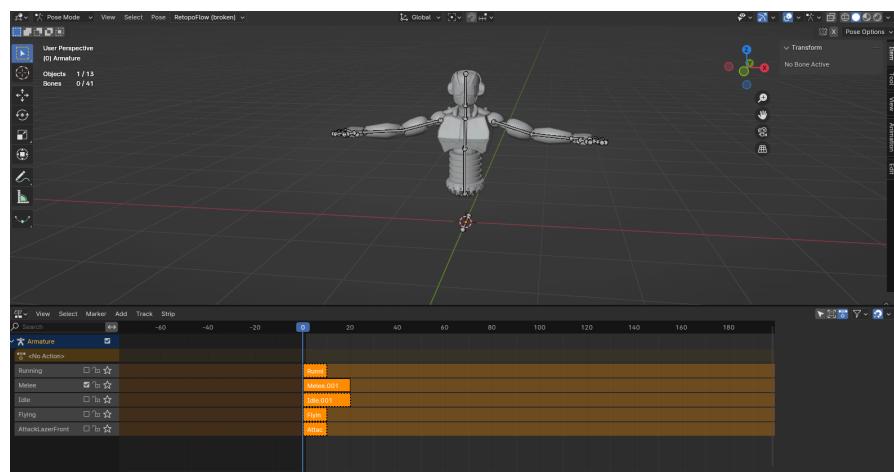


Figure 42: Animations stored in 808's fbx file

4.2. Kate's In-Game Animations

From Crit 3, Kate had been rigged and weight painted. Then the next step was to make idle, walk and running animations for the low-poly Kate and port the fbx into Unity.

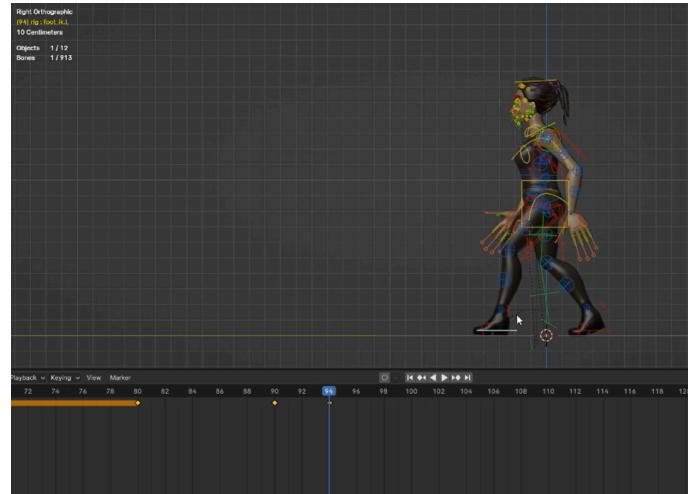


Figure 43: Screenshot taken mid-animation process

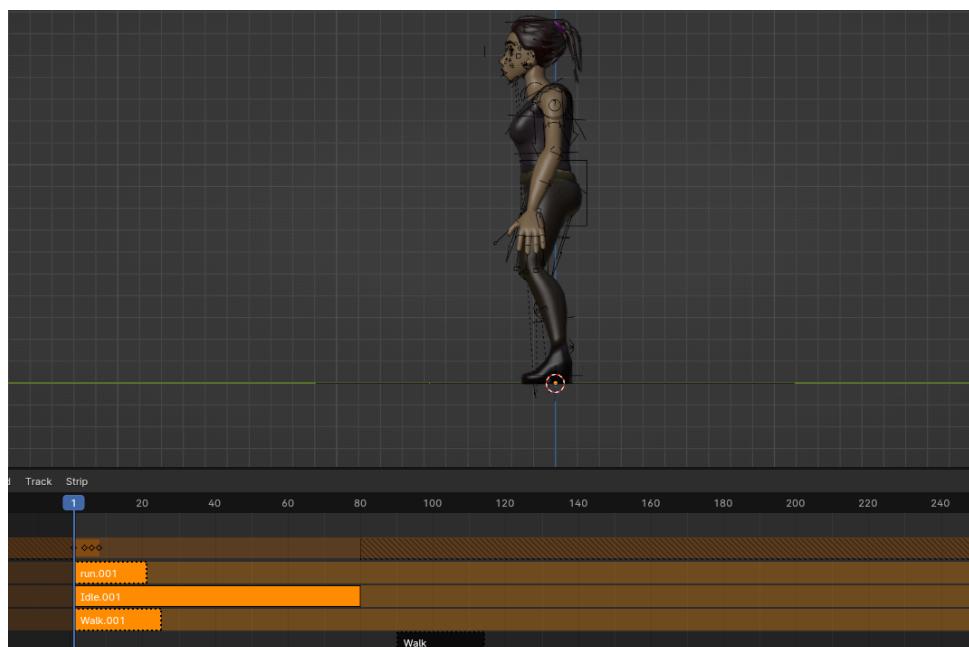


Figure 44: Animations stored in Kate's fbx file

4.3. Cutscene Animation

Most of the cutscenes are made up of simple pre-posed images that include a static character and background images/geometry.



Figures 45 & 46: Images of 808 and Kate, respectively, both used in cutscenes

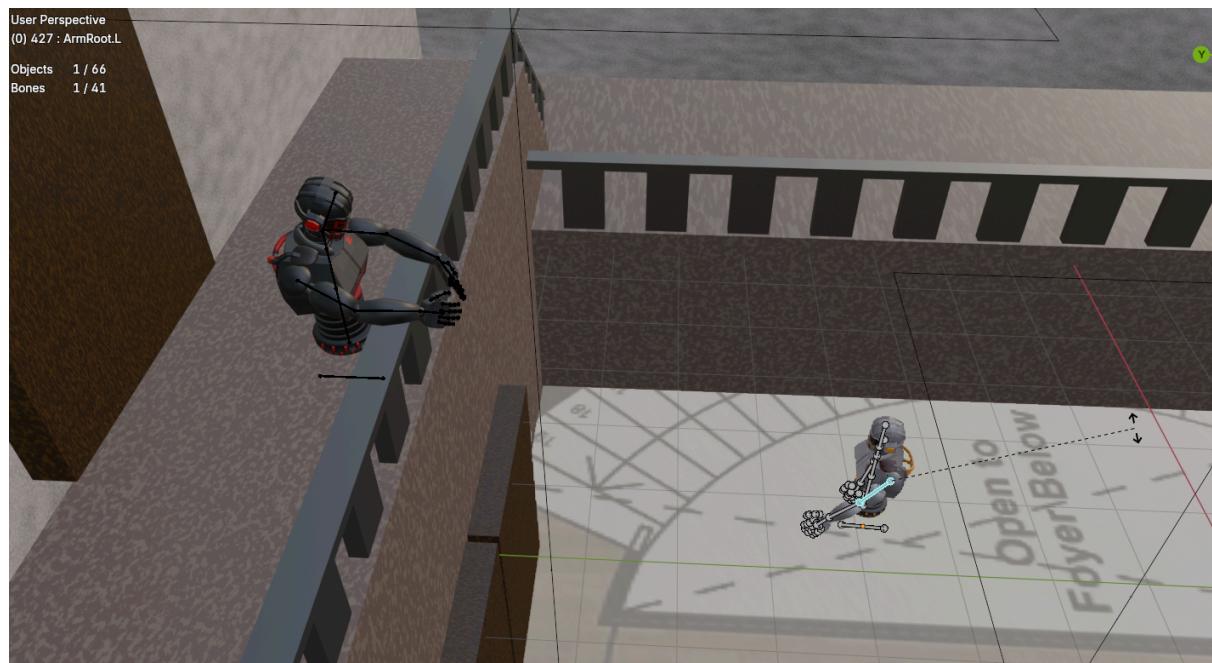


Figure 47: Posing characters

The images are placed on a CANVA slideshow, and the other elements (such as frames and dialogue) are animated as transitions within a presentation and then the slideshow is exported, with audio, as a mp4 file.

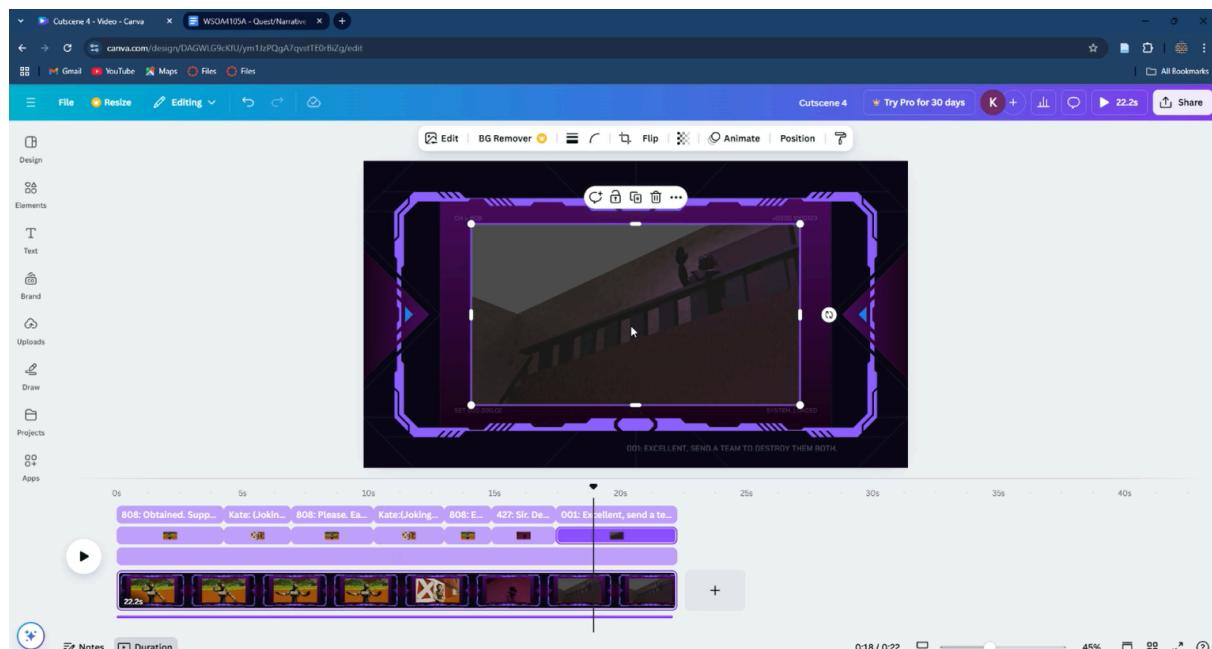


Figure 48: Placing Images for “comic book” style cutscenes

We originally tried this in Blender, instead of Canva, but we found Canva more appropriate and efficient for our purposes.

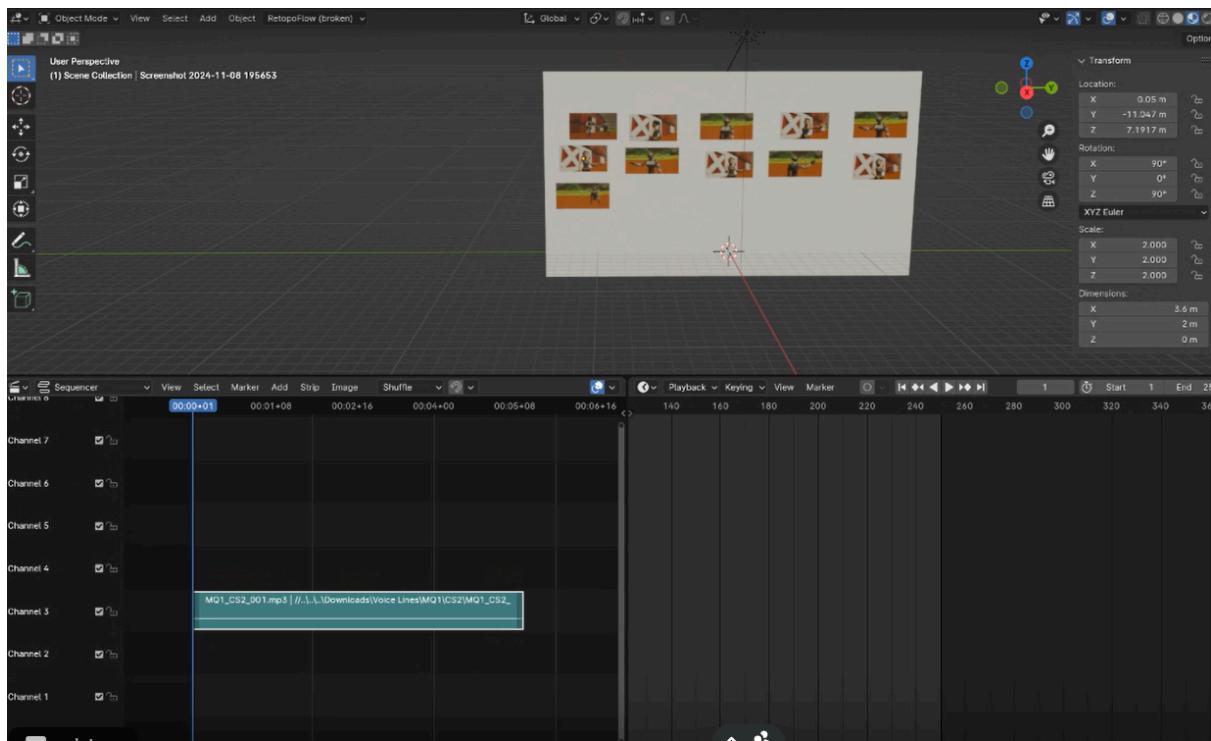


Figure 49: Adding dialogue

The first cutscene features actual keyframed Blender animation. Where Malakai experimented with Blender's particle effects such as the "Meteor" and rain as well as the physics system with cell fracture for the explosion.



Figure 50: Meteor Falling in Cutscene 1

We added images as planes as a backdrop in blender and essentially placed the characters on top of the backdrop. This allowed us to create seamless transitions between the game world and the cutscene environments.

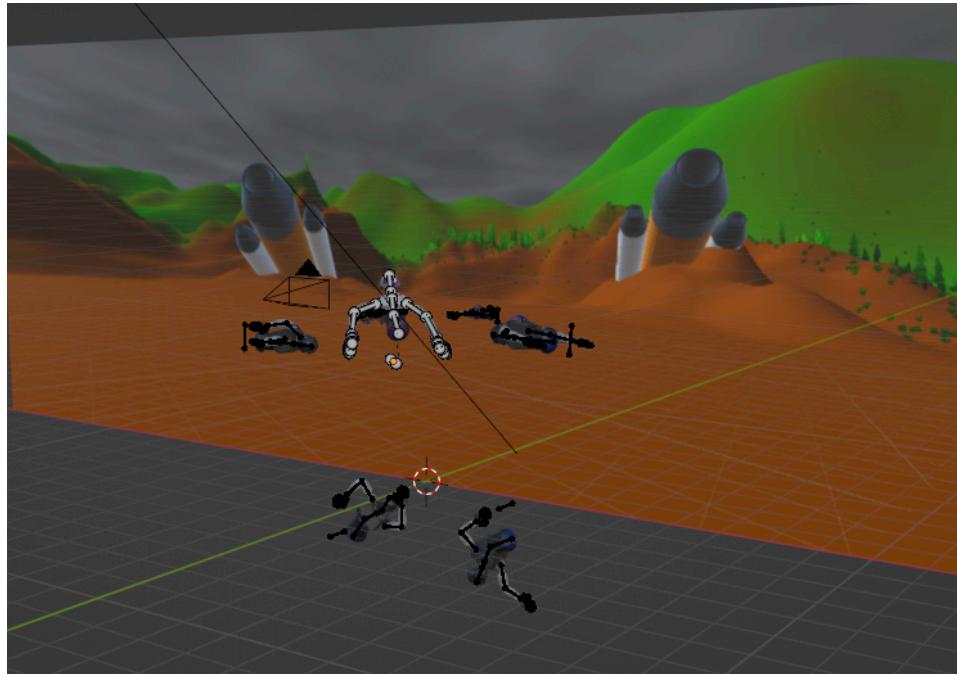


Figure 51: Animating the first cutscene's characters

In cutscene one, Malakai found a way through using shape-keys and Transparent and Emission Shaders, to recreate the aesthetic of more robotic eyes. The shape-keys on the right stored the eye emotion and made animating facial expressions for 808 a lot easier.

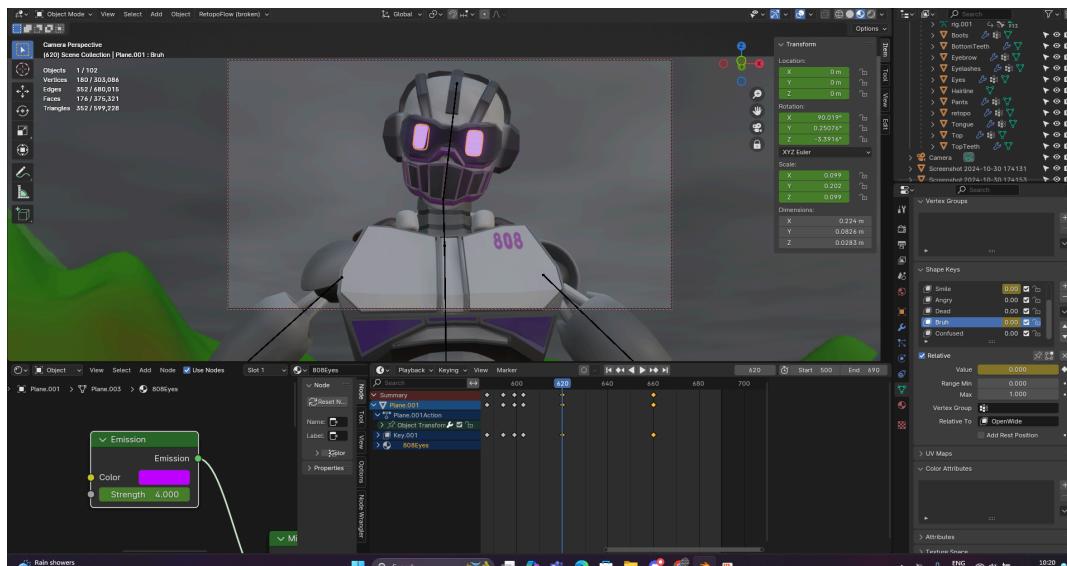


Figure 52: 808's Eyes for Cutscene one

References

- [1] J-F. Retief, M. Braam, (2024), ‘Game Design Document “Music Agency in Video Games”’, Unpublished Internal Development Document