Nicolas Chu

100922677

Odd Number: Super Mario World recreation

## **Hologram Shader**

A hologram shader was used on to add a transparent outline effect to the boos that surround the games haunted house levels. The shader is using the view direction of the camera to create an outline effect as basing it around the view direction will always create an outline no matter the angle. By making sure we have tags such as transparent we can make the center portions of the model transparent to match the ghost effect. By doing this we are more able to focus the color and emission of the object to the outer edges helping create the hologram effect. I added another layer of rim power called rim intensity to the properties and to the emission. I did this so I would be able to have stronger or weaker effects then if it was just rim power and it gives me more flexibility in how I want it to look. The reason I chose to implement this effect is just due to the transparent nature that ghosts usually have I thought this would fit to make Mario's signature ghost enemy the same. Holograms offer a level of transparency to fit a ghost aesthetic while also remaining visible to the player.

## **Wave Shader**

On the overworld map in the final world for Super Mario World there are some pits full of water that can be seen on the overworld map. To improve on this aspect, I have decided to add a wave shader to the scene and to those portions of water. The wave is done through displacing the vertices on the y axis using a variable that follows the pattern of a sign wave for nice and proper waves. I combined this shader effect with a scrolling texture effect to create a nice water effect. I chose to do this as I would be able to increase the waves amplitude and the speed as in the last area is meant to be more dangerous and being able to control these aspects of the water would improve the effect.

## **Scrolling Texture**

I added a scrolling texture effect to the water that I added. I combined the scrolling texture effect with the wave effect to create one water texture that contains waves and a scrolling texture. The shader just makes the water texture scroll on an infinite loop, creating a more

realistic and better-looking water effect. It would look strange if the water texture never moved so I added this effect to create a more appealing look.