

For the practical portion of my final I had to recreate pac-man and make it visually appealing using shaders from the course. I started by blocking out the map from the original game. For this example I had to use a hologram shader and a scrolling texture shader. I decided to use the hologram shader for the ghosts. In the original game each one has a different "personality" and manner of attacking the player. I wanted these different personalities to be reflected in the shaders so I started by making separate materials for each ghost, applying the hologram shader to each then recolouring them to match the colours of each respective ghost. I then changed the line speed, and intensity so each ghost had a different hologram pattern. Lastly to make them pop more against the background I raised the rim intensity. Next I decided to use the scrolling texture for the background, the original game's background is a plain black texture which is great for visibility but isn't super visually interesting. I started by making my two different textures. I wanted to keep the feel of the original map which uses blue to outline the walls, so for my background pattern I used dark blues and purples in a square pattern to maintain the feel of the original maze. The different textures scrolling at different speeds makes the background feel very unique and visually interesting.

Implementation Diagram

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Initial Idea conceiving	Asset creation	Texture implementation	Applying textures to shader	Implementing shader
Coming up with a desired effect then planning how to achieve said effect with two scrolling textures	I used a pixel art creation software (Aseprite) to create my two textures, making sure the top one is transparent outside of where my pattern is	I exported both textures as PNGs of the same size and imported them into my project.	I add the textures to the shader making sure to put them in the correct orientation and ensuring transparency for the top texture is working correctly	I then add the shader to a material then add the material to my background plane.

Next I had to implement two different shaders from the course. For this I added transparency so I could give the illusion of floating cherries and extra life sprites. Then I added a rim light to the player to make them pop against the background more. Lastly I implemented the outline shader used in my final project, I changed the colour from black to blue and applied it to the walls to mimic the blue outlines of the walls in the original game.