Hunter Brown

Prof. Gordon

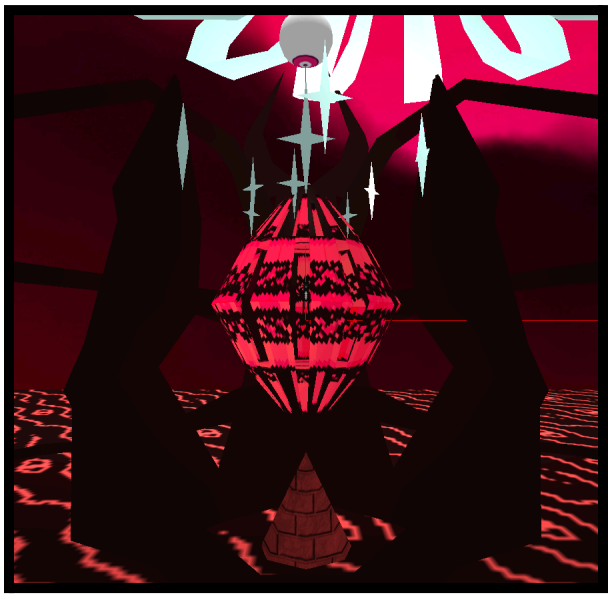
CSC 155

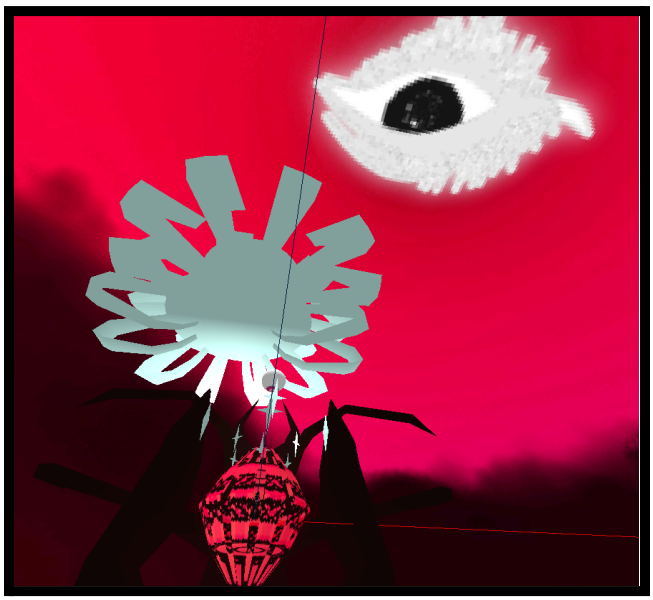
10 Apr. 2025

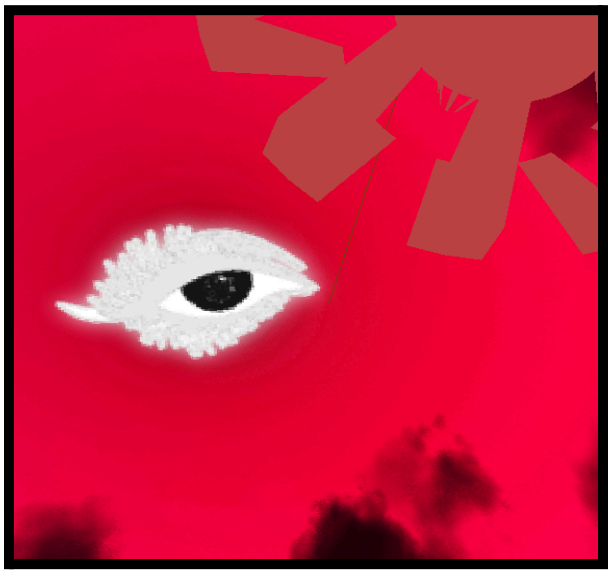
Lab #3 Documentation

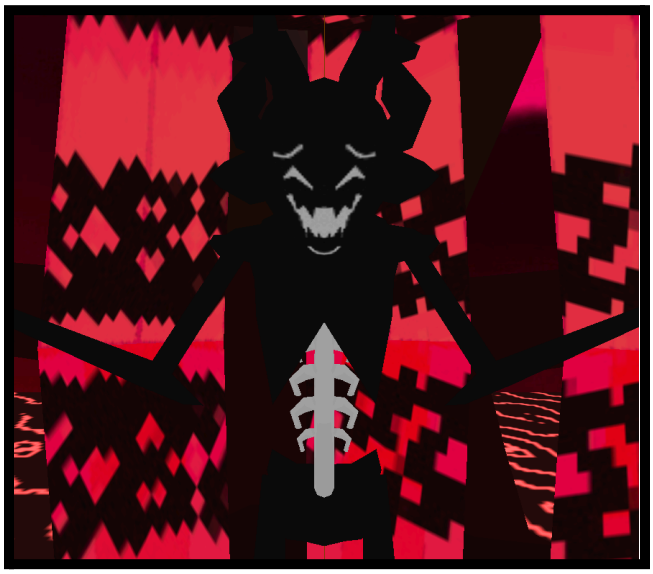
1.) Hunter Brown, Assignment 3, CSC-155, Section 02, Spring 2025

2.) Screenshots









3.) There is a global ambient light with a light gray color and a positional light with an initial location of (0, 2.6, 0). For the positional light, there is an eye object at its current position for every frame, making it easier to locate where the source is.

4.) Camera Controls:

    a.) WASD to move Forward, Left, Down, and Right (along X/Z plane)

    b.) Arrow keys: Up to pitch up, Down to pitch down, Left to yaw left, Right to yaw right

    c.) Space can be used to toggle on/off the axes lines in the middle of the world

5.) Light Controls:

    a.) You can simply use , (comma) and . (period) to move the camera left and right across the scene.

6.) My matrix stack was utilized for my center star and my upper chamber object (the one up in the sky that looks like a claw). The upper chamber is the child to the center star, and will move up and down with it alongside its own unique translation atop the base translation for the star.

7.) Requirements I couldn't get working:

    a.) Lighting: I believe the issue with my lighting has something to do with the normals and me not enabling the vertex attribute for normals, however, I kept getting errors when trying to fix it and it left me quite stumped even after referring plenty to the book / ancillary code; I will tackle this and fix it before A4.

8.) Sources for Objects/Textures:

    a.) Objects (all are customly made by me this time around):

i.) Ones I modeled myself using Blender 4.1:

(1) Chamber.obj

(2) Cone.obj

(3) FakeSkybox.obj

(4) GHOUL.obj

(5) Sanctum.obj

(6) Star.obj

(7) outerStars1.obj

(8) outerStars2.obj

(9) crazyeye.obj

b.) Textures:

i.) Ones I created myself using paint.net:

(1) Chamber.jpg

(2) FakeSkybox.jpg

(3) GHOUL.jpg

(4) Sanctum.jpg

(5) Star.jpg

(6) X.png

(7) Y.png

(8) Z.png

(9) sun.png

(10) crazyeye.png

(11) eyefloor.png

ii.) Ones I did NOT create myself:

(1) brick1.jpg - Source: From the book's ancillary files

c.) Skybox:

i.) All 6 textures in the cubeMap folder - Source: From the book's ancillary files, however, I customized them a bit myself (changed hue and added an eye for the sun).

9.) My code works on the "ECS-TEKKEN" computer in the RVR-5029 lab in which I tested my code on.