Final Project - Reflection

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Building the game box and upside-down cup were easy, single mesh, objects. Once I had an understanding of OpenGL, it was as simple as making the mesh and setting up lighting. I created both a “plastic” material and a “game box” material. I didn’t want to call it cardboard, because the box is more reflective than cardboard and figured if the scene was go to be extended using cardboard, I didn’t want the wrong material used.

The calipers and carrot car were the complex shapes that were going to push my creativity. The shapes used were fairly easy to figure out, the biggest problem was that the objects were placed on an angle. Knowing what I know now, I would have tried to developed a more OOP approach, where I build the entire object, then move and rotate all the pieces together. Not sure if it would work correctly, but it would definitely be worth attempting.

One of my biggest challenges, that caused a lot of future problems for me, was the dial indicator texture on the calipers. I wanted the dial indicator texture to only be on the top, but struggled to make it work. I ended up changing some of the code in the fragmentShader.glsl file to make it work. Once I had that fixed, I tried applying textures to other objects and they weren’t working correctly. As I was trouble shooting those, my dial indicator texture starting breaking. I ended up resetting the fragmentShader file and changing my approach for the dial indicator, but the other broken textures still had issues. Sometimes, the simplest solution is the best solution; I tried using different jpg files for those objects and the textures worked fine.

Navigating the scene can only be navigated with a mouse and keyboard. WASD to move, mouse to look around, QE to move up/down. Other functions include changing the move speed or perspective.