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CMPS-4213

Estimated time: 7 hours

I found the third graphics assignment interesting because it built upon the other assignments, but in 3D. I referenced the rotating cube code provided in class to start my assignment. The first thing I did was create a drawCube() function that utilizes the code from the rotating cube code in class, all within a single function call. After doing this, I have completed part 1 of the assignment. The next thing I did was use online documentation on how to adapt and make drawTetrahedron, drawCube, drawOctahedron, drawDodecahedron, drawIcosahedron, and drawSphere functions. After many hours of trial and error, I completed all of these functions, finishing part 2 of the assignment. For part 3, I decided to make a scene with a swinging mace. I used several different cubes that I rendered using a function to generate a set number of cubes based on the parameter, and offsetting the cubes to make a handle for the mace. The head of the mace would be a icosahedron. For the rotation of the mace, the code would be similar to the rotating cube assignment; however, I implemented a stop button to stop the rotation of objects.

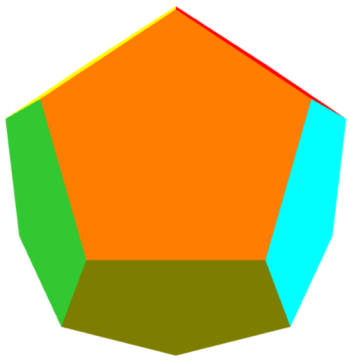
Sources: Rotating Cube Class Code, WebGL Documentation

https://developer.mozilla.org/en-US/docs/Web/API/WebGL_API/Tutorial/Creating_3D_objects_using_WebGL

Part 1

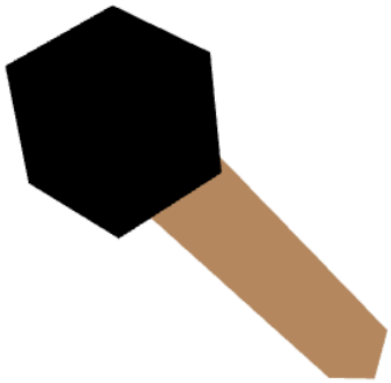
Stop Rotate X Rotate Y Rotate Z

Part 2



Stop Rotate X Rotate Y Rotate Z

Part 3



Stop Rotate X Rotate Y Rotate Z