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Title: Project B: Navigating the Rubik's Cube Solar System

User's Guide:

Goal

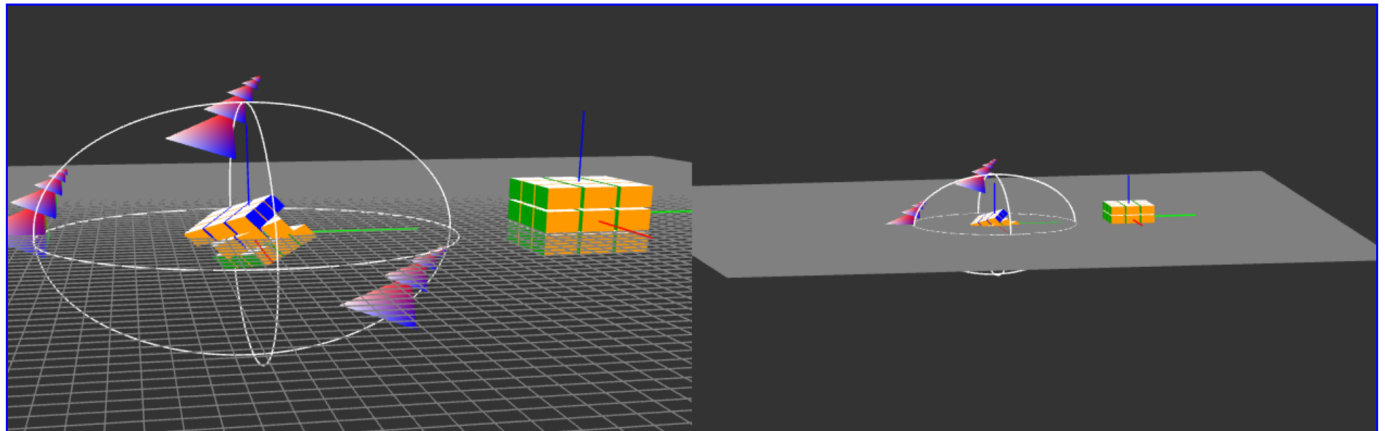
My goal for Project B was to take my existing work from Project A, add a few additional assemblies to make the world more interesting, allow the user to smoothly traverse through the world using the keyboard, and implement quaternion based mouse drag rotation for one of the assemblies. Furthermore, the user should have both a perspective and orthographic view which seamlessly change sizes as the user adjusts their page size.

Instructions

- Use the arrow keys to change the direction that you are looking
- Use w/a/s/d to move forwards, left, backwards, and right with respect to the direction you are facing
- Click and drag the mouse to move the Rubik's cube that does not have things orbiting it (the central Rubik's cube rotates on its own)

Results:

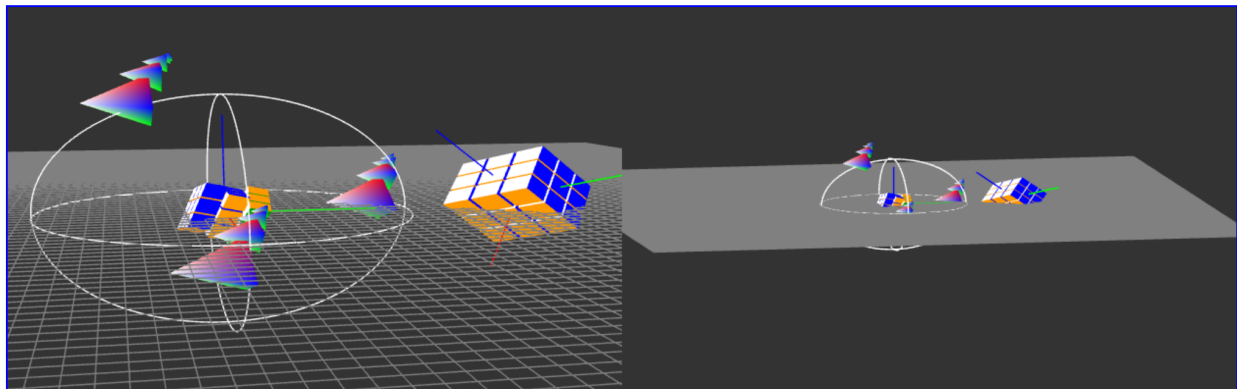
This is what the webpage looks like when it is first opened:



---> Use the arrow keys to change the direction you are facing
---> Use the w/a/s/d keys to move forward, left, backwards, and right with respect to the direction you are facing
---> Click and drag your mouse to rotate the Rubik's Cube that does NOT have things orbiting around it

Figure 1: Initial views

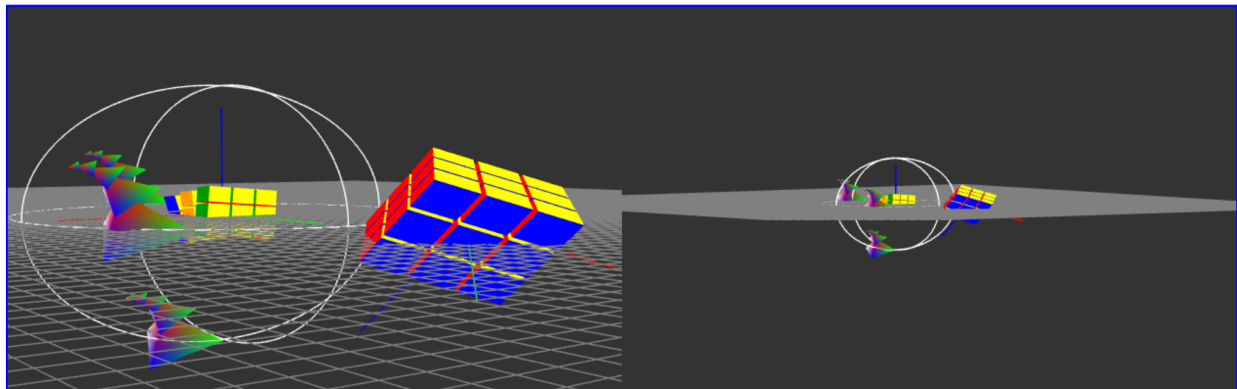
This is an example of the cube having been rotated by mouse drag:



--> Use the arrow keys to change the direction you are facing
--> Use the w/a/s/d keys to move forward, left, backwards, and right with respect to the direction you are facing
--> Click and drag your mouse to rotate the Rubik's Cube that does NOT have things orbiting around it

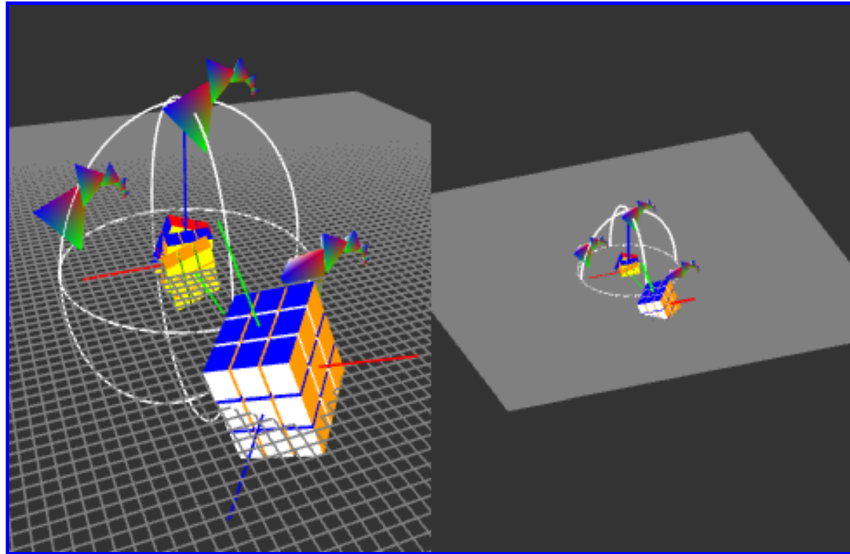
Figure 2: Rotated cube with axes

This is an example of a view after the camera is moved using the arrow keys and w/a/s/d:



--> Use the arrow keys to change the direction you are facing
--> Use the w/a/s/d keys to move forward, left, backwards, and right with respect to the direction you are facing
--> Click and drag your mouse to rotate the Rubik's Cube that does NOT have things orbiting around it

And lastly this is an example of the webpage having been resized:



---> Use the arrow keys to change the direction you are facing
---> Use the w/a/s/d keys to move forward, left, backwards, and right with respect to the direction you are facing
---> Click and drag your mouse to rotate the Rubik's Cube that does NOT have things orbiting around it
