Math 155A Project 7

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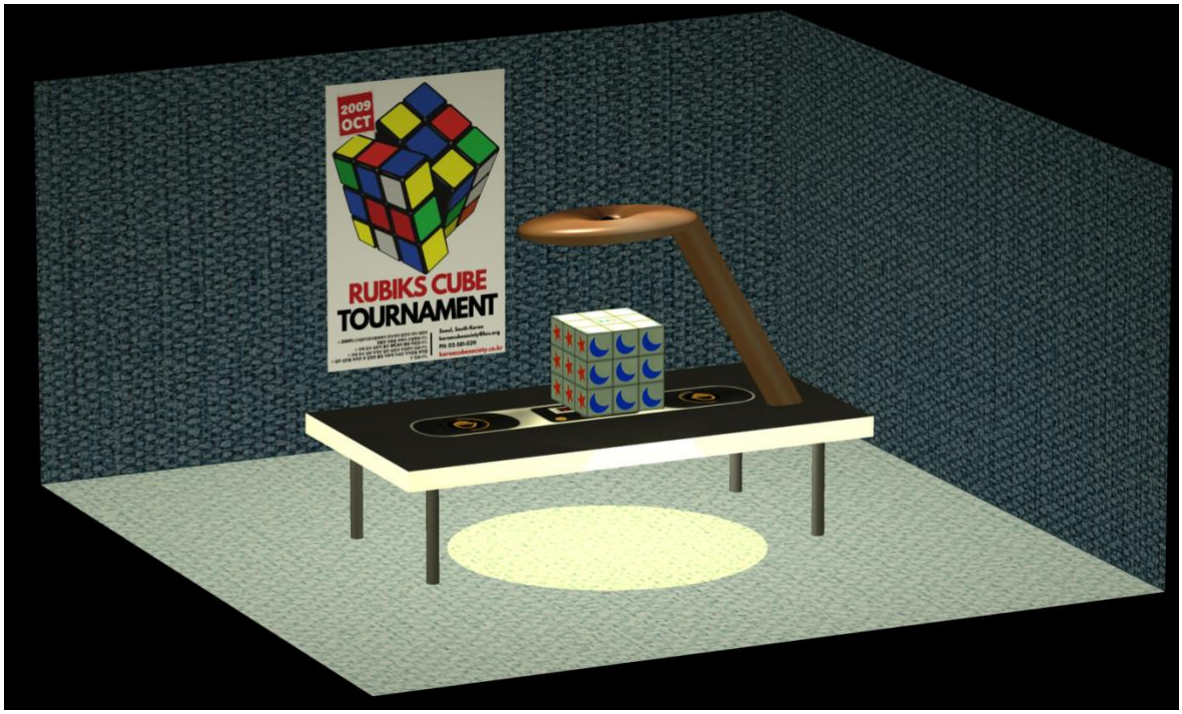

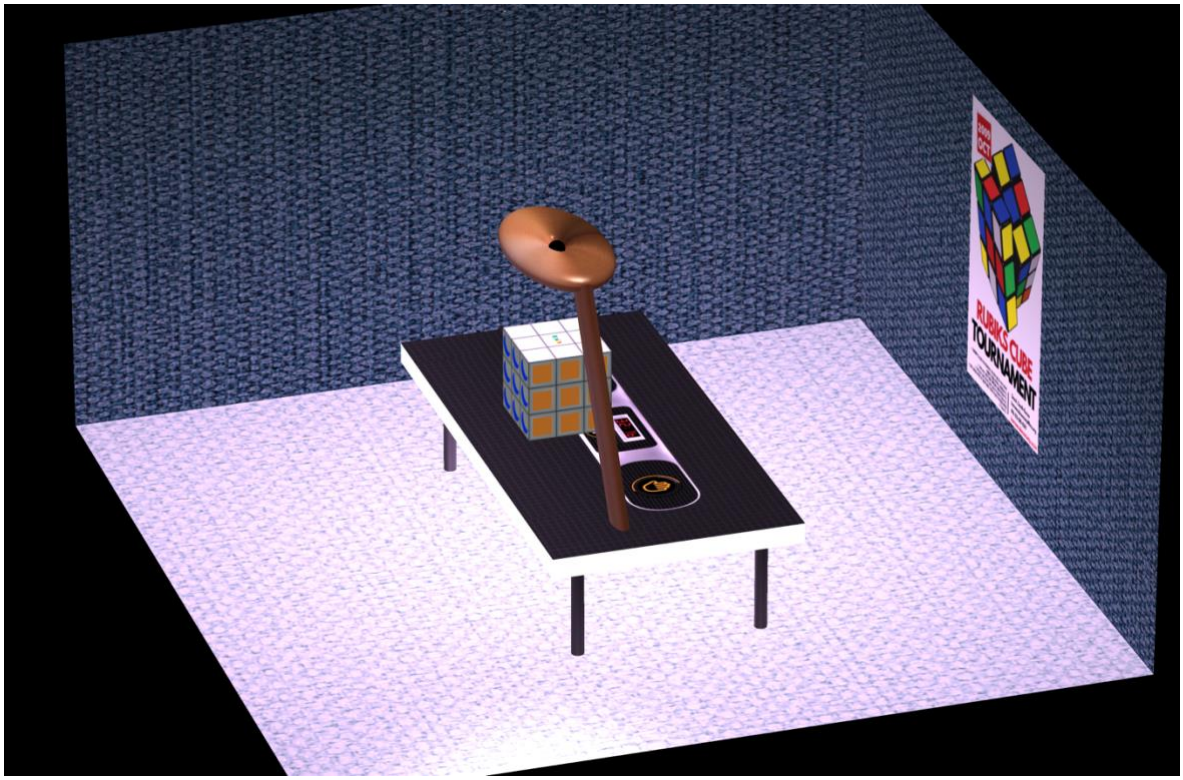

Ever since I was 9 years old, I fell in love with solving the Rubik's Cube. In 2009, when I was 12 years old, I participated in a "Rubik's Cube Competition Seoul 2009" in South Korea. My official record was 32.16 seconds. That day was one of the most memorable days in my life, and the event inspired me into designing Project 7. First, I will explain the objects and textures that I used for this project. Then, I will explain the lights and animation I used for this scene.

First, I made the table with a "Hinoki wood" texture using 6 rectangles (12 triangles), and 4 cylinders for the legs. I used a silver texture for the legs. On top of the table, I designed a mat with a Speedcube timer in the middle. I photoshopped the result of the timer to "32:16" which was my official record. Also, I made a table lamp by scaling and rotating a cylinder and used a torus for the head of the lamp. I used a brass texture for the lamp. And I located 2 lights in the center in the middle of the torus.

Out of all of the many Rubik's cubes that I had bought, my favorite cube is the "Glow in the Dark Cube". I could solve the cube by looking at color in the light, but in the dark, I would have to solve the cube by only looking at the different shapes since I cannot see color in the dark. Similar to making the table, I used 6 squares (12 triangles) to make the cube. For the

texture, I used Photoshop to perfectly resemble the cube by using the same shapes and colors. I even added a Rubik's logo in the center of the White face. I made 3 walls, 1 floor, 1 poster with 2 triangles for each rectangle, and used a carpet texture for the walls and floor. For the poster, I used the official poster image file that was used for the competition in Seoul in 2009.
For the lights, I first made an ordinary white light in the top center of the scene. Then, I located a spotlight in the center of the lamp with a warm light. Lastly, I made a light that continuously changes color. The lights are activated by pressing 1,2,3 respectively.

I tried to animate the scene by allowing the user to rotate the cube using keyboard controls. However, although I spent hours making the rotating animation work, it was far too complicated and time-consuming since it involves complex array methods. Although I failed to implement the function, I will continue to try to finish the function after the quarter ends.