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Lightsaber

Final Project

Video Link:

<https://youtu.be/C7DfOXM6PN0>

Accepted Proposal:

For the final project, I want to create a lightsaber from Star Wars. I will use an obj file for the hilt of the lightsaber, and then use a texture, if possible, for the color of the hilt. Then for the actual lightsaber portion, I will try to create the lighting effect from scratch. I can potentially have an option to change the color of the lightsaber blade. Right now, I am imagining that I would use the fragment shader primarily to create the effect of the lightsaber, but I am not sure about the exact implementation quite yet.

What I did:

I started out with finding a good obj file and getting that working. I then created the lighting and changed the color and lighting for the top part of the lightsaber. I then tried to do a 2-pass rendering with a blur algorithm, however I was unable to get that working, and it only produced a cool 3d lightsaber with a boring blade. I also tried to use cube mapping, creating a bright purple cube and having the lightsaber inside it, but that created a flat looking lightsaber with a cool blade. I ran into a lot of issues, so I was unable to get exactly the result that I wanted but I learned a lot in the process.

Screenshots:





