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**Final Reflection**

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The object I chose was DRAK timed relay switch. All it really does is short the wires connected to it after a programmable timed mode triggers. I was originally going to use this as a way to routinely turn on the server I have by shorting the power switch wires with piggyback ones connected to the DRAK, but I found that my IPMI was much better at that. The server lacks an RTC alarm, and that’s very disappointing. I plan on using pings to wake it when needed.

Aside from the function of the DRAK, I chose it because it has a lot of shapes that fit primitives very well! The stands were cones and cylinders in a stack. The board is just a plane, the IO is just boxes along with the power supply. I think the capacitors were the most fun to work with. Looking at the label of the capacitors on the DRAK, I could see a simple pattern that I could remake in paint.net easily. I also added cylinders at the top to cover up the fact that I couldn’t texture individually per face.

I attempted to see if I could apply textures by face, but I realized that it would probably be too complicated. I would need to split the primitives by face. Organizing that would be a nightmare. It was much simpler to add the extra cylinder. I enjoyed learning about texture scaling too.

Speaking of organization, I heavily used regions to group components by primitives. For instance, capacitors came in twos, so I put them in a region, then I put each in their own region. Buttons were a nightmare like this, but a fun one. One category for buttons, and eight primitives meant nine regions that could be minimized into one. This made the workflow of adding or modifying objects so much easier.

Users can navigate the scene by using wasd keys to walk the camera. Q and E keys are used to move the camera up and down relative to the camera itself, not the 3D space. 1 and 2 keys turns on and off lights and fullbright mode. O and P keys toggles between orthographic and perspective views. There are no other input devices supported besides keyboard and mouse.

There were a few objects that didn’t go into the final scene because the DRAK was way too complex. It was already a plane with lots of primitives on top. It is its own scene. The items I didn’t include were a black label copy of Crash Bandicoot, a SNES mouse and Kirby Super Star. The picture was taken on top of a rail mounted server monitor that was folded down. This was also something I planned to add detail to, but never got the chance to add. The background was also intended to have rail mounts with SU measurements in the background.

I was also incredibly tempted to make my own primitive by modeling it out in blender first, gathering all the needed data to import, then add it to the scene. Life got in the way, and I was never able to create a model exporter for the project. I may return to this when I’m not busy. Thank you again for such a fun class!