Week 7 and 8

The past two weeks were spent prototyping the physical design for the pedal enclosure. I went through several different ideas, and I ended up steeling on a boxed design that is angled slightly off the ground towards the person using it. Here is one of the original 3d designs that I made. I didn’t like this one though because the stomp switches were above the knobs, making it difficult to hit the buttons with your foot. I also had to figure out the perfect radius for the holes so that they could hold the different pieces firmly in place.

A close up of a device

Description automatically generated

The final 3d CAD prototype looked like this:

A picture containing computer

Description automatically generated

Then I also had to drill additional holes in each of the four channel columns for the LEDs. I underestimated how much room I was going to need to fit all the wires, PCB boards with soldering on them, microchips, and the raspberry pi. If I were to start over, I would have spent more time optimizing space and efficiency with the original circuitry. After printing the enclosure and assembling all the pieces, the pedal looks like thisA picture containing indoor, electronics, table, desk

Description automatically generated

Now I just need to finish putting my printed sticky paper on all of the sides, and then II am going to add a layer of modge podge on top of that to give it a polished look, and I am also going to add some Purple Rain loops so that I can film a demo using it while I play lead guitar. The loops will be drums, bass, and piano/rhythm guitar, and then I will use the last channel for random other sounds that I want to add.