Week 5

This week I worked a lot on writing code, and wiring up the buttons to complete the functionality element of my sampler/looper pedal(I need a better name). As of now, it plays samples through four different channels, and each channel has a stomp switch to trigger the sample playback. Additionally, each channel also has a toggle switch to determine whether the sample will be looped or played one time. There are two potentiometers in each channel. One of them sets the volume, and the other selects the sample to play from a bank of a channel’s eleven possible samples(44 overall). There will be five LED lights. One of them will be on whenever the device is turned on, and the other four will be turned on depending on which channels have sounds currently playing.

The next thing I want to implement is a convenient way to change out all the samples. I want there to be a method that looks for a plugged-in flash drive, and then parses through it, replacing the samples in the current sample directory with new ones on the flash drive. This way, someone that does not know how to interface with a Raspberry Pi could still change the sound banks.

The other next major step is starting to 3d design. I have access to a 3d printer, so I will need to learn how to use CAD software to create the enclosure for the Pi. There will, without a doubt, be trial and error in this process, and I am expecting my first couple designs to be pretty unsatisfactory. Another idea I had is to build a wood case for the Pi. If I choose to do this, I would first create a working case from 3D printing and then replicate it with the same dimensions with wood. I have a solid amount of experience working with wood, and it would be really gratifying to utilize those skills on this project. A wood stain would also create an awesome aesthetic.

Another task for next week will be to run the code from the /boot directory so that, as soon as the Raspberry Pi is turned on, it starts the program. I don’t think this will be too complicated, but I should start testing it soon.

I worked on some Max and Jitter tutorials this week. I am particularly interested in triggering videos to play and overlaying multiple videos in multiple ways. I want to find ways to add creative video effects that are not possible in iMovie.