Abram Bradley:

My update for this section is pretty minimal. I am mostly working on the frontend and not building the actual libraries, so I’m kind of on standby until we get some of the functionality built. We have had several meetings coordinating our efforts and everything is on track where I will probably be incorporating their code into the ui soon and will have a bigger update for the next section. I have also helped my group members get their development environments set up, and done some housekeeping keeping the repo organized and clean.

Jonathan Shved:

My update is that I did some research on Music Theory to understand how musical chords can relate to each other logically. I first thought that an implementation of triads would be good but then realized that it wouldn’t be beneficial. Then I thought of using I II … VII chord progressions, but that would be a little too complicated to implement. I settled on using the Circle of Fifths to calculate the complimentary chords based on the chord positions. This implementation works pretty well for good sounding chords. Everything in general seems to be coming together relatively smoothly.

Robert Daniel Nutt:

My update is that I wrote a program to determine the temp of recorded taps and got a basic drum machine working. The next step for the tempo detector is to use the data to generate a drum machine pattern and set the tempo for the rest of the audio. The plan at the moment is for the recorded tapping given to the drum machine to be the first step in the process of making a tune. Beyond that the next possible update to the percussion aspect would be to make is so you can record the tapping for several components of the drum machine at once by tapping on different surfaces to make different sounds. It feels like the project is starting to come together and if things continue smoothly then we should have a nice result in the end.

Ethan Rickert:

My update includes researching chord/pitch detection and recognition in Javascript. There are a few libraries that already support this, but they’re quite old and don’t do *exactly* what we need. Although the pitch detection is up and running, it could potentially run into issues when considering varying tempos & note quantization. I’m hoping to work on real-time chord/pitch detection instead so as to streamline the process and remove the necessity for tempo/quantization consistency, although I could be misunderstanding this altogether. I hope to accomplish some form of real-time chord detection written in Rust in the next two weeks.