### sddec18-21: Multi-Effect Sound Pedal Sequencer for Performing Musicians

Week 3 Report February 14 - February 20

### **Team Members**

Tyler McAnally — Digital Lead / Outreach
Karla Beas — Facilitator / Scribe
Charles Rigsby — Hardware Assembly
Calyn Gimse — Test Engineer
Derrick Lawrence — Report Manager

## **Summary of Progress this Report**

Calyn found 'Pedal Pi', which has a library of effects to begin testing with. We decided most of the design aspects including how the user will reconfigure the board and what the physical board layout will look like. We will design an app to interface with the physical pedal board. The board will contain buttons for 8-12 preset combinations of digital effects and settings, that can be switched on and off with the press of a button with a musician's foot. The app will allow an entire new library of 8-12 presets to be uploaded to the board immediately. We also decided with the wireless communication, security may be an issue. However, we have pushed it to be very last on the priority list, as most concert attendees would not want to disrupt a show they paid money to see.

## **Pending Issues**

Human factors in dealing with UIs will be something we need to look at. Musicians will all have different preferences, meaning we need to research which attributes are most important when designing the UI. We still need more digital effects than we currently have. There will be a 'pop' sound from the transient response of switching between effects immediately.

# **Plans for Upcoming Reporting Period**

Our plan to approach the pending issues is to first meet with the College of Design in hopes they have public research about human interactions with UIs. In addition to that, we can meet with Genre (a student ran club on campus) to get feedback, as well. We will continue research into digital effect libraries in order to save time that would otherwise be used programming the effects manually. We also plan to purchase a few Raspberry Pi controllers to begin testing our design.

#### **Individual Contributions**

Team Member	Contribution	Weekly Hours	Total Hours
Tyler McAnally	Researched app design for Andriod and iOS devices.	2	6
Karla Beas	Began Project Timeline and Project Plan documents	2	6
Charles Rigsby	Compiled list of College of Design faculty that	2	6

	work in graphic/web design		
Calyn Gimse	Found the Pedal Pi project description and the effect libraries that that project used. Researched specs of Raspberry Pi and compared to our project requirements. Researched ADCs.	3	8
Derrick Lawrence	Researched microcontroller power output and whether or not that will be an issue	2	6