

EE / CprE / SE 492 - sdddec18 - 21
Multi-Effect Sequencing Board
Biweekly Status Report 6

11/5/2018-11/19/2018

Client: Randall Geiger

Team Members:

Calyn Gimse

Charles Rigsby

Derrick Lawrence

Karla Beas-Gutierrez

Tyler McAnally

Summary:

- PCB schematic finalized and ordered
- Housing Construction begun
- Final effects added, optimizations to software made
- Improved display on Pi
- Bugfixes and modifications on App to account for software changes

Past Accomplishments of Last Two Weeks:

- Calyn Gimse:
 - Testing and tweaking of various effects
 - Good ranges for each effect found
 - Octaver Looper added
 - Threading of ADC/DAC code added, fully implemented with effectMux.
 - Display on pi added, polished to some extent
 - App bugfixes
 - Certain options were overwritten due to a method being called at an unintended time, checks added to prevent such
 - Certain options were not rendering properly due to a logic error, causing the options to be rewritten if opened again and closed/saved.
 - App modified to implement changes to various effects/Octaver Looper
- Charles Rigsby:
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- Derrick Lawrence:
 - Final test validation, filter cutoff frequencies finalized
 - Hardware and software integration tested and verified
 - PCB schematic and layout completed and ordered
 - BOM generated and waiting advisor approval for order
 - Housing construction plans drawn
 - Materials purchased and construction started

- Karla Beas-Gutierrez:
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- Tyler McAnally:
 - Progressed on drag and drop functionality
 - Implemented scrollable pedal list on temporary edit effect activity.

Pending Issues:

- Finish construction and solder PCB as soon as possible when it arrives

Individual Contributions:

<u>Name</u>	<u>Individual Contributions</u>	<u>Hours worked</u>	<u>Hours cumulative (this semester)</u>
Calyn Gimse	Threading of ADC/DAC code, tweaking of effects, adding of Octaver Looper, bugfixes to app, modification of app to implement software changes.	15	80
Charles Rigsby			33
Derrick Lawrence	PCB layout, including custom footprints generated. Created parts list, including display monitor, power supply, circuit components, and cost analysis. Rough draft of housing blueprint drawn. Final testing completed. Purchased construction materials for housing	25	65
Karla Beas-Gutierrez			5
Tyler McAnally	Progress on UI for edit effect	12	31

Plans for upcoming two weeks:

- Calyn Gimse:
 - Make display on Pi easier to read at a glance (using shapes instead of ASCII)
 - Make major UX changes on app

- Diagram of effectMux to display while editing effects
 - Modify effect submenu to only show relevant fields
 - Make Bluetooth on app-end more professional
 - Checks for bluetooth being enabled/having a paired device
 - Reconnect button on main menu
 - Checks for sending/receiving failed
- Charles Rigsby:
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- Derrick Lawrence:
 - Finish construction of housing and solder PCB
 - Finalize switch control software and GPIO assignments
 - Time permitting, paint housing
- Karla Beas-Gutierrez:
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- Tyler McAnally:
 - Implement a grid for pedals to be drag and dropped into.

Summary of Advisor Meetings:

- Final design plans verified with advisor
- Intellectual property rights proposed and briefly discussed for future of product