

EE / CprE / SE 492 - sdddec18 - 21
Multi-Effect Sequencing Board
Biweekly Status Report 4

10/8/2018-10/22/2018

Client: Randall Geiger

Team Members:

Calyn Gimse

Charles Rigsby

Derrick Lawrence

Karla Beas-Gutierrez

Tyler McAnally

Summary:

- UI/UX research has been done to help make the App more user-friendly.
- Research on the ADC and DAC have been done to find solutions to reduce the latency of read/write actions.
- Functionality of the App regarding editing presets and having them saved/ready to be uploaded has been implemented
- Summing on the software has been fixed, Loopers have also been fixed to work properly
- Pushbutton added with code to record an audio buffer to use with the loopers

Past Accomplishments of Last Two Weeks:

- Calyn Gimse:
 - Fixed/reimplemented Looper/Reverse Looper effects
 - Added much more functionality to the app, effects can now be properly stored and uploaded and edited then saved
 - Incorporated a pushbutton with code to use with Looper effects
 - Fixed weighted summing on overall effectMux, as well as with Loopers
- Charles Rigsby:
 - UI/UX research
 - ADC and DAC clock research
 - Power Implementation
- Derrick Lawrence:
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- Karla Beas-Gutierrez:
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- Tyler McAnally:
 - Styling of EditEffect activity
 - Made use EditEffect activity more clear to use

Pending Issues:

- 40us shift/delay
- Latching switch

Individual Contributions:

<u>Name</u>	<u>Individual Contributions</u>	<u>Hours worked</u>	<u>Hours cumulative (this semester)</u>
Calyn Gimse	Major App functionality implementations, Fixed weighted summing, resolved Looper issues, added pushbutton for recording using a Looper	14	50
Charles Rigsby	UI/UX research ADC and DAC clock research Power Implementation	8	27
Derrick Lawrence			26
Karla Beas-Gutierrez			3
Tyler McAnally	Styling of EditEffect activity, made EditEffect activity more clear to use	5	13

Plans for upcoming two weeks:

- Calyn Gimse:
 - Find other samples to properly test Loopers and other effects
 - Get a working list of decent sounding presets to utilize
 - Test downloading to app from pi, more proper uploading from app to pi testing as well
 - Modify Loopers to get buffers from elsewhere (to support up to 3 loopers at once)
 - Make some QOL changes to app
- Charles Rigsby:
 - Find a solution for the system delay issue
 - Gather more UI/UX articles
 - Create the power supply

- Start designing housing
 - Implement switches for effects
- Derrick Lawrence:
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- Karla Beas-Gutierrez:
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- Tyler McAnally:
 - Begin construction of an interactive way to use the EditEffect activity.
 - Continue with styling additions and modifications

Summary of Advisor Meetings:

- Latency issue very significant
 - Potential use of threads to resolve the issue?
- Have a maximum of 3 loopers being used at once (one for each level), will require 3 pushbuttons for recording
- Early discussions of final physical product, using an LCD to display the current preset within the container