

EE/CprE/SE 491 WEEKLY REPORT 03

9/27/24 – 10/3/24

Group number: sdmay25-31

Project title: i281

Client & Advisor: Prof. Alexander Stoytchev

Team Members:

Ethan Uhrich - Team Lead & Treasurer

Ariana Dirksen - Editor & Note Taker

Tessa Morgan - Task Manager & Webmaster

Gigi Harrabi - Client Interaction & Outreach Coordinator

Weekly Summary

This week we focused on mapping out the beginnings of the hardware labs, specifically the MUX lab which is currently planned for the second lab. In order to accomplish this we started mapping out the circuit and began breadboard mockups for the MUX lab.

Past Week Accomplishments

Ethan Uhrich: Worked on MUX breadboard implementation diagrams and actual

Ariana Dirksen: Watched and followed KiCAD tutorials to familiarize myself with the software.

Mapped out a basic topic timeline for the labs. Begun work on the breadboard MUX circuit for one of the hardware labs.

Tessa Morgan: Walked through MUX breadboard implementation and started modeling the MUX using a couple different breadboard simulators.

Gigi Harrabi: Looked into what we actually need to run the outreach events

Individual Contributions

NAME	Individual Contributions (Quick list of contributions. This should be short.)	Hours this week	HOURS cumulative
Ethan Uhrich	Created mock up of mux design on paper, Implemented 2-1 bus mux on breadboard	6	16
Ariana Dirksen	Made Lab topic timeline, noted topic holes and followed along with KiCAD tutorials.	6	17
Tessa Morgan	Researched breadboard simulators and modeled the MUX step-by-step.	6	16
Gigi Harrabi	Circled back with outreach organizer with some clarification of what we need from them	6	16

Plans for the Upcoming Week

Ethan Uhrich: Start Modeling ALU design, Finishing touches on mux prototype

Ariana Dirksen: Finish MUX prototype, begin lab document mockup.

Tessa Morgan: Reconfigure the breadboard simulator to line up correctly based on the issues found in this weeks mock up

Gigi Harrabi: Start designing program counter and think about to prototype it

Summary of Weekly Advisor Meeting

- Double Checking Parts Order
- Snap Circuits - Flying Circuit
- Snap Circuits - AND Gate
- Snap Circuits - OR Gate
- Snap Circuits - NOT Gate
- Talking About Project Standardization
- Next Steps
 - Within the next steps it was talked about that we need to start work on making breadboard implementations for hardware segments for use as lab topics. With the end goal of documenting the creation process and expanding upon the process in the lab write-up.