EE/CprE/SE 492 STATUS REPORT 02

1/31/25 – 2/13/25

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

Milestones Reached

During this period we finished the rough draft for Lab 6, otherwise known as the PC lab. We also began progress on Lab 2 and Lab 4 as well as planning out the Mini-Project.

Accomplishments Over the Period

Ethan Uhrich: Assisted in finishing rough draft for PC lab. Ordered parts for Lab 2, Began work on Lab 4 and setting aside data sheets for parts used in lab.

Ariana Dirksen: Finished the rough draft for the PC lab. Begun constructing Lab 4 activity and rough draft. Did additional research on KiCAD in order to understand what the best approach to creating the instructions for Lab 4 would be i.e. The best way to teach beginners KiCAD.

Tessa Morgan: Picked out parts for and began developing the first draft of Lab 2 which covers 7-segment displays, counters, and debouncing.

Gigi Harrabi: Picked out parts for the counters and BCD and discussed their potential with Tessa.

Individual Contributions

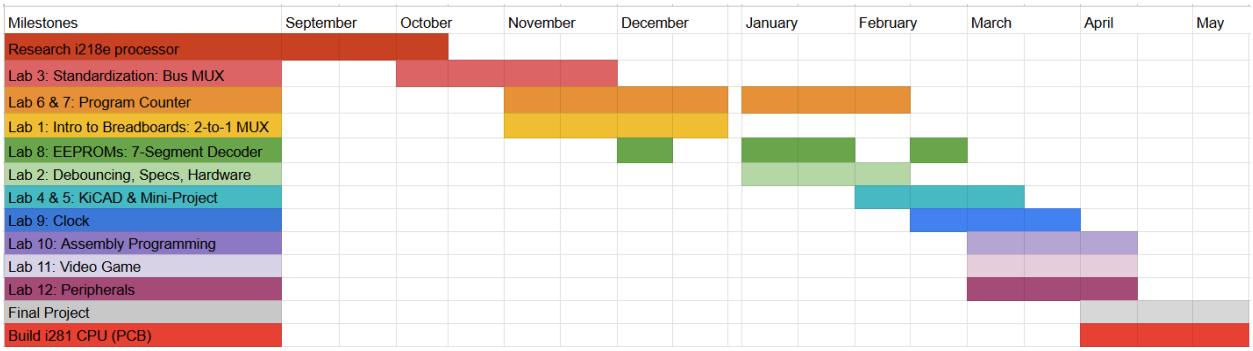
NAME	Individual Contributions	Hours this period	HOURS cumulative
Ethan Uhrich	Helped finish PC rough draft, researched and ordered parts, started work on lab 4.	14	79
Ariana Dirksen	Finished PC rough draft. Started Development on Lab 4	20	98
Tessa Morgan	Development of Lab 2.	12	87
Gigi Harrabi	Developing lab 2 with Tessa + Waiting back on outreach details	12	75

Plans for the Upcoming Period

Ethan Uhrich: Finish Rough Draft Lab 4, edits for PC lab.
Ariana Dirksen: Finish Lab 4 rough draft and edit the PC lab according to feedback received. Start working on Mini-Project documentation and the testing circuit. Record instruction video for Lab 4.
Tessa Morgan: Continue work on Lab 2, build the circuits and finish the first draft.
Gigi Harrabi: Continue work on Lab 2, start working on Lab 9.

Project Work

Updated Gantt Chart for adjusted priorities



Research

Looked into teaching students how to make a schematic in KiCAD utilizing various websites and youtube videos.

KiCAD How to's

https://www.build-electronic-circuits.com/kicad-tutorial/
https://www.youtube.com/watch?v=3FGNw28xBr0
https://www.youtube.com/watch?v=szu8dJoyikA
https://www.youtube.com/watch?v=3E5REDAQk_A
https://docs.kicad.org/8.0/en/getting_started_in_kicad/getting_started_in_kicad.html
https://learn.sparkfun.com/tutorials/beginners-guide-to-kicad

We also did some research to select parts needed for our lab 2 implementation.

BCD Decoder:

cd4511b.pdf
SN5447A
SN7447A
SN74LS47

4-bit counter:

https://www.ti.com/lit/ds/symlink/cd74hc390.pdf?HQS=dis-dk-null-digikeymode-dsf-pf-null-wwe&ts=1738704989756&ref_url=https%3A%2F%2Fwww.ti.com%2Fgeneral%2Fdocs%2Fsuppproductinfo.tsp%3FdistId%3D10%26gotoUrl%3Dhttps%3A%2F%2Fwww.ti.com%2Flit%2Fgpn%2Fcd74hc390
https://www.ti.com/lit/ds/symlink/sn74hc4060-q1.pdf?ts=1738704951491&ref_url=https%3A%2F%2Fwww.mouser.com%2F
CD74HC93