sdmay19-30: EE 448 Stroboscope

Week 4 Report
September 21 - September 26

Team Members

Katrina Choong — *Chief Hardware Engineer/Timeline Manager*
Meghna Chandrasekaran — *Meeting Facilitator/Chief Software Engineer*
Seth Noel — *Chief Hardware Engineer*
Kyle Zelnio — *Project Manager*
Jessica Bader — *Scribe/Communication Manager/Chief Software Engineer*

Summary of Progress this Report

During this period, we worked together to divide and accomplish the first version of the Project Plan. We had multiple planning discussions to define our long-term plans for this project. On the software team, we defined and started research on our first two tasks: outputting a waveform and creating a GUI. The hardware team did background research on relays, MOSFETs, power supplies, and LEDs. We picked the LED we will start with using and started a circuit design.

Pending Issues

The TIVA board does not supply enough current. We will need to design, research, and test to determine a reasonable supply to add in addition to the controller. In addition, we were having problems running the GUI. When we were trying to set up a simple GUI to run from the terminal, we kept having issues with it saying the file we wanted to include was not there (even though it was). We spent a good amount of time trying to debug this. In the meantime, we will use the Python IDE until we can resolve this issue.

Plans for Upcoming Reporting Period

For the upcoming period, we will have all the components of the circuit figured out to determine the power supply. We will also design version 1 of the PCB schematic and integrate the external current supply into our high level design.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Katrina Choong	I did research on relays. We researched and deliberated and figured out we are using white LED 5050. Worked on project plan.	8	17
Meghna Chandrasekaran	I worked on my portions of the project plan, which were 5 headers in the project plan. I also started to read into the python files provided to us as an example for setting up our GUI. I started to test simple a simple GUI that would be run on my terminal.	8	18

Seth Noel	Wrote my equal portion of sections of the Project Plan. Researched LEDs and decided on 5050. Researched MOSFETs, decided to start with the ones from the lab kits.	8	21
Kyle Zelnio	Project Plan, Soldering rough design of LED array based on fixed arduino code, SMD LED research, Power supply research.	8	19
Jessica Bader	Wrote my equal portion of sections of the Project Plan, which was five sections. Also did research into the PWM mode and how it can be used to create a waveform which will go into the LEDs to force them to blink.	8	18

Gitlab Activity Summary

Nothing to report.