sdmay19-30: EE 448 Stroboscope

Week 3 Report
September 13 - September 20

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

As a group, we worked on dividing the work for the Project Plan. The software team worked on setting up the GIT repository to be able to push and pull our software projects from GIT. We also worked on the TIVA software to create a template for the project to start writing code. The hardware team researched LEDs and how many will be needed and how much current they can take. We also researched BJTs and MOSFET circuits to use in the circuit design and transistors meant for switching circuits and high current. This background research will be very important for designing the circuits.

Pending Issues

Our hardware team needs to create a list of parts which will be needed for the circuit so we can compare these with the parts in The Shop and write a BOM for the components we do not have. Our team as a whole needs to define an original deadline for our first prototype and decide what the hardware and software teams will accomplish by this deadline.

Plans for Upcoming Reporting Period

The hardware team (Kyle, Seth, Katrina) is going to integrate a MOSFET circuit into the original design. We plan to use the MOSFET that is used in our EE230 kits. We also plan to continue testing a simple beta circuit using an Arduino and a 3x3 LED board for brightness, voltage, and frequency adjustment. The software team (Jessie and Meghna) will start work on the GUI and start work on learning how to use PWM mode to output a waveform. Our team will also create our Project Plan which includes our problem statement, approach, testing, and a general timeline describing our future milestones.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Katrina Choong	Looked into how many LEDs we need. Researched MOSFETs and BJTs for use in our hardware circuit. Divided the work for the Project Plan as a team.	3	9
Meghna Chandrasekaran	Started setting up the GIT repository with our	3	10

	new project. Figured out how to create a template for the project, how to push and pull from the GIT repository, and added the template. Divided the work for the Project Plan		
Seth Noel	Researched transistors meant for fast switching circuits and high current.	3	13
Kyle Zelnio	Created a prototype for the LED array. Looked at the documentation to determine voltage requirements. Tested the LED with the function generator to see how the LEDs will work with the circuit. Divided the work for the Project Plan.	5	11
Jessica Bader	Figured out how to pull and push from the GIT repository. Created a template for our project and pushed it to the repository. Divided the work for the Project Plan.	3	10

Gitlab Activity Summary

Action: pushed new branch software, Thurs Sep 20 2018
Author: jabader

Action: pushed to branch master, Thurs Sep 20 2018
Author: jabader
