### sdmay19-30: EE 448 Stroboscope

Week 6 Report October 4 - October 10

#### **Team Members**

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

#### **Summary of Progress this Report**

This week we spent a lot of time working on our Design Document. The hardware team worked in MultiSim to design our first draft of the PCB board. By using MultiSim software, we can test our hardware design before actually implementing it in hardware. The software team worked on implementing the waveform by putting adding an .h file for the ports of the TIVA board. We also made some progress on the GUI.

#### **Pending Issues**

MultiSim is a program which is paid for by the university, and we were only able to get a one week free trial. Therefore, we need to check out a laptop from ETG which has MultiSim installed on it on the university's license. We were unable to pick up the laptop yet due to misunderstandings about the ETGs hours, but hope to get it soon. We also had some issues with GIT; we mistyped our password in on the university computer on Meghna's account and do not have admin access required to change this setting. We are hoping this will reset after some time, or else may need to request admin assistance to reset the username and password of the user.

## Plans for Upcoming Reporting Period

First, we will finish our Design Document as a team. The hardware team is going to rent a laptop that can download a permanent package for MultiSim to build a proper PCB. We also emailed Lee Harker to help us get familiar with PCB design on MultiSim. Also will get the LEDs from Matt in ETG. The software team will get a rough version of the GUI set up. We will also research more into how to set up PWM mode and start implementing the instructions to put the TIVA board in PWM mode in the code.

| Team Member              | Contribution                                                                                                                                                                                                                        | Weekly Hours | Total Hours |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|
| Katrina Choong           | I worked on section for the Design Document.<br>I looked up a few documentations how to use<br>MultiSim for PCB design.                                                                                                             | 7            | 32.5        |
| Meghna<br>Chandrasekaran | I worked on my sections for the Design<br>Document. I also messed around with the<br>Python GUI more this week. I a better idea on<br>how to set it up, but now I have to implement<br>it. During my software meeting, Jessie and I | 8            | 33          |

## **Individual Contributions**

|               | added some files to our code for the Tiva<br>board. I also looked more into the PWM<br>mode and UART information necessary for<br>the Tiva board.                                                                                                                |   |    |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----|
| Seth Noel     | I worked on the Design Document, and tried to use and understand MultiSim.                                                                                                                                                                                       | 7 | 35 |
| Kyle Zelnio   | Working on the Design Document. Checked<br>out laptop from ETG with ModelSim installed<br>so that we can use that for PCB prototyping                                                                                                                            | 7 | 34 |
| Jessica Bader | I worked on implementing the Design<br>Document. I also did more work into how to<br>put the TIVA board into PWM mode. I found<br>a document which defined the ports for the<br>TIVA board and put that into our software<br>repository to be used for PWM mode. | 9 | 34 |

# **Gitlab Activity Summary** Nothing to report.