sdmay19-30: EE 448 Stroboscope

Week 5 Report

February 18 - February 24

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

The hardware team (Katrina and Kyle) continued taking measurements for the height of the sensor mount. They also brainstormed ideas for mounting the Arduino. They also modified the 3D model to adjust the height of the sensor and added some styling. The software team (Jessica, Meghna, and Seth) fixed the formatting of the GUI to make it more user friendly. They also implemented code to close the serial port when exiting out of the GUI.

Pending Issues

We need a 3D printer which is big enough to print the model without warping. We also need to decide where to place the Arduino. Furthermore, our software team started running into issues with the different operating systems and versions of Python on our computers. We also realized that both teams need to use the motor at the same time, so we need to find a way to share the motor. The software team still needs to test the accuracy of the Arduino calculations.

Plans for Upcoming Reporting Period

The hardware team (Katrina and Kyle) are planning to mount the stroboscope and integrate the design with the other components. They are also going to calibrate the printer to print a model and test it for stability. The software team (Meghna, Seth, and Jessica) are going to test the accuracy of the RPM of our project as compared to the stroboscope. We are also going to implement the rest of the exit changes.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Katrina Choong	Continued to take measurements and make adjustment of the height of the sensor mount. I brainstormed placement of mounting the Arduino.	6	30
Meghna Chandrasekaran	Worked with Jessie and Seth to fix the formatting of the GUI and make it more user friendly. We also plan to remove the button which closes the serial port, but in order to do that, we would have to make changes to our our Python code to make sure the serial port is closed when the GUI is closed, so we have to look into that.	6	30
Seth Noel	Worked with Meghna and Jessica to make fixes to	7	31

	the GUI. We looked up how to reset the window exit function to first close the serial port. We also added color and size to the GUI.		
Kyle Zelnio	Modified the 3D Model some more and adjusted for the height of the sensor. Added some styling to make it not look like a brick	6	31
Jessica Bader	Worked with Meghna and Seth to make fixes to the GUI. We researched and worked on implementation of fixing the exit method so it would close the serial port when it the user exits. We also worked on formatting the GUI to look nicer.	6	30

Gitlab Activity Summary

2 pushes to branch Software from Meghna, Seth, and Jessica

- Updating the GUI
- Fixes to the exit method