sdmay19-30: EE 448 Stroboscope
Week 2 Report
January 28 - February 3

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
This week, we met as a large group with our client/advisor to update him as well as learn how to use the motor which was set up for us in the Senior Design lab so we can test on the motor and start figuring out how to mount it. Our hardware team (Kyle and Katrina) met with Lee Harker to do the maintenance shop training so they can start working on the mounting. Our software team (Meghna, Seth, and Jessica) worked on writing the code for the Arduino so it could read from the Hall Effect sensor and calculate RPM. Kyle also did some testing to ensure the sensor ordered will work for our needs.

Pending Issues
We still need to verify that the sensor will work for our needs. If it does not, this may require rework by the software team. To officially determine whether or not it will work will require the hardware team to make a good mounting system with which to test. The software team also realized we need to connect between the Arduino and GUI before we can test our Arduino software, as well as have the system mounted. This means we will need to wait until later to debug the code, which could result in more code being 'piled up' to debug than is ideal.

Plans for Upcoming Reporting Period
During the upcoming period, the hardware team (Katrina and Kyle) is going to design casing and mounting for the stroboscope and sensor. The software team (Jessica, Meghna, and Seth) is going to figure out how to interface between the Arduino and GUI in Python.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Katrina Choong	Scheduled and met with Le Harker to take maintenence shop training.	6	12
Meghna Chandrasekaran	Worked with Jessica and Seth to get some Arduino code written and compiled. We also figured out what we need to do next and how we plan to approach it.	6	12
Seth Noel	I worked with Meghna and Jessica to write the code for the Arduino to work with the hall effect sensor. Made plans for interfacing with the	6	12

	systems.		
Kyle Zelnio	Finished safety training for machine shop and started initial testing with arduino nano and new hall effect sensor. Created mock fan to test RPM	6	12
Jessica Bader	I worked with Meghna and Seth to write the code for the Arduino to take input (which will come from the Hall Effect sensor) and determine the time change between pulses. We will use this to calculate RPM, which will be output in the GUI	6	12

Gitlab Activity Summary

8 pushes to branch Software from Meghna and Jessica

- Creation of Arduino code
- Implementation of RPM calculation in Arduino
- Setup of input and output pins for the Arduino