

**sdmay19-30: EE 448 Stroboscope**

Week 8 Report

March 11 - March 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) printed the new sensor and arduino. They also redesigned the mount to provide more stability to the sensor. They also (along with Seth) discussed improvements including adding a gear to the motor so the sensor can be used as best designed. The software team (Meghna, Jessica, and Seth) figured out how to isolate the system so individual parts can be tested. They then tested entirely the software and tested the system to find where it breaks down.

**Pending Issues**

We are still working on designing the new mount, which will be critical in improving the system. We also need to pick and order a gear so the system can be upgraded. We also need to be able to modify the com port on the system.

**Plans for Upcoming Reporting Period**

The hardware team (Katrina and Kyle) is going to order a gear so it can be tested with the motor. They are also going to start ordering parts for the stations for in-lab testing. The software team (Meghna, Jessica, and Seth) are going to make the com port modifiable.

**Individual Contributions**

Team Member	Contribution	Weekly Hours	Total Hours
Katrina Choong	The current version of the tachometer mount is currently unstable and we are making adjustments accordingly. We have to wait for each version to be printed before testing with the system.	9.5	51.5
Meghna Chandrasekaran	Worked with Jessie and Seth to do some individual software testing. Instead of testing the code with the tachometer, we decided to test the software alone with the Arduino and found that our new code is pretty accurate. Lower RPMs are slightly less accurate than the higher RPMs but not by very much.	9	52
Seth Noel	Figured out how to isolate the system so individual parts can be tested. Worked on testing the	10	53

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	software on its own. Also tested the system as a whole to determine where it breaks down in accuracy.		
Kyle Zelnio	Designed v6 of tach mount and v2 of arduino mount. Got new hardware for the mounts and discussed with seth on getting a gear for more consistant readings on the tachometer.	12	55
Jessica Bader	First, we tested the system as a whole to find where it breaks down in accuracy. Also fixed/rewrote software as needed. Then we isolated the software and tested software on its own to ensure software accuracy	10	53

### Gitlab Activity Summary

10 push to branch Software from Meghna, Seth, and Jessica

- Fixes to allow the interrupt code to compile
  - Fixes to make the interrupt code work correctly
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