EE/ CprE / SE 492 - sddec20-25

Automated Battery Characterizer

Week 8 Report

9/28/20 - 10/11/20
Client: Solar Car
Faculty Advisor: Nathan Neihart

Team Member Roles

- **Kyle Czubak:** Scribe
- **Ben Kenkel:** Meeting Facilitator
- **Joe DeFrancisco:** Chief Engineer & Team Lead
- **Ryan Willman:** Safety Manager
- **Bryan Kalkhoff:** Report Manager
- **Connor Luedtke:** Test Engineer

Weekly Summary

The first revision of the pcb has been completed and ordered through ETG. Embedded code is making good progress. The enclosure design has started and the website is moving forward.

Past Week Team Accomplishments:

- PCB Layout started
- Several simplifications made to design to reduce BOM cost
- Microtest board soldered and tested

Pending Issues:

- Board Layout to reduce cost
- Potential time to received PCB

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Bryan Kalkhoff	Reviewed final PCB layout	10	40
Kyle Czubak	Started working on design flow of the C code for the microcontroller	10	40
Ben Kenkel	Added pages for pack listing and creation.	10	30
Ryan Willman	DAC research and BOM completion	10	40
Joe DeFrancisco	Laid out, routed, and verified quality of PCB. Verified BOM. Sent board and parts to ETG to order	30	90

Connor Luedtke		10	10

Upcoming Plans

Joe DeFrancisco

- Wait for hardware to get in
- Work on assembly and hardware testing when it does
- Meet with Kyle to verify high level embedded code implementation is correct.
- May start modifying design doc.

Connor Luedtke

- Design Doc review

Ryan Willman

- Work on 3D printed enclosure
- Design Doc rev

Ben Kenkel

- Work on the battery labeling page, and hopefully start the test information screen.

Bryan Kalkhoff

- Look into containers
- Help solder/test the board when it comes in

Kyle Czubak

- Finish C code by next week

Summary of Weekly Advisor Meeting

We held a design review with Dr. Neihart. He provided some helpful information with regards to the manufacturing of the board. Overall he was happy with the board design.