

EE/ CprE / SE 492 - sddec20-25

Automated Battery Characterizer

Week 4 Report

9/14/20 - 9/27/20

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

In the last 2 weeks we received the microcontroller test board, started the pcb, and made minor design changes to the schematic. Our goal is to have a design review on Wednesday this week with our advisor.

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	Soldered the micro test board and finished up creating a document for the I2C	10	30
Kyle Czubak	CAN code for micro is finished. Working on finishing up I2C code for micro.	10	30
Ben Kenkel	Created the pack selection screen, and started setting up html templates	10	30
Ryan Willman	Added missing footprints and DAC research	10	35

Joe DeFrancisco	PCB component placement and routing started. Design rules and net classes setup in the project with reasonable rules for each net class.	30	65
Connor Luedtke	Finished battery right and selected 12v switch	10	10

Upcoming Plans

Joe DeFrancisco

- Finish PCB layout
- Hold design review with Dr. Neihart
- Address DR concerns

Connor Luedtke

- Bom update

Ryan Willman

- Replace original reference setup to use DAC instead
- Continue looking for cases or begin to design one

Ben Kenkel

- Create the pack creation and module assignment screens.

Bryan Kalkhoff

- Help where needed for routing PCB
- Find a good fan for us to use that is smaller than the one currently specced out
- Change the schematic to account for new fan

Kyle Czubak

- Finishing code for I2C.
- Testing CAN and I2C

Summary of Weekly Advisor Meeting

Will be meeting with our advisor Wednesday to review our PCB layout. Then we will make the changes by Friday so the board can be ordered. Will meet with the advisor when needed.