

EE CprE 492 – May 21 - 27

MicroCART Senior Design Team

Week 9 Report

March 15 - March 28

Faculty Advisors: Phillip Jones

Team Members:

Alex Bjerke — *Project Manager*

Amith Kopparapu Venkata Boja — *Embedded Software Lead*

Theodore Davis — *Embedded Hardware Lead | System integration*

Grayson Goss — *Technical Lead | CAD Design Lead*

Hannah Mohamad — *Team Webmaster*

Russ Paulsen — *Test Station Lead*

Alfonso Raymundo — *PCB Design Lead*

Trent Woodhouse — *High-Level Software Lead*

Past Week Accomplishments

- Fixed/made Pin Layout Image v6.0 & Soldering for Prototype 1
- Double checked pwm for reasonable period timing. Also testing of ESP for reasonable output
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Pending Issues

- I lost the backup Mosfets & will be MIA on 3-30-21 because getting back surgery & will be laying in bed till Friday (4-2-21).

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Alex	Other than the meetings, I did not make contributions toward the project this week.	1	102
Alfonso	1) Soldered ESP, Long male pins & most of the wiring on Photo Wing. 2) I lost all the Mosfets. 3) Made Pin Layout Image v6.0	15.163	132.913

Amith	Read through the previous year's MICROCart sensor filter algorithm. Tried to partially implement the algorithm.	5	129.5
Grayson	Printed base station Fully modelled the rest of the platforms Prints for platforms failed (resin recommended)	8	124
Hannah	Working on the PCB layout on KiCAD	5	80
Russ	Assisted with needed test station information	4	82
Theodore Davis	Double check pwd period, Testing ESP8266, worked on uart again	4	114
Trent	Added in electron support, began integration work	5	73

Plans for Coming Week

- Alfonso - Keep working on Prototype 1 from bed & help out Hannah with kicad if needed. Todo List Soldering NRF on M4, Solder all Parts together for Prototype 1.
- Theo - Work on PID Algo and make sure all different components are working together in our code.
- Keep working on PCB and help out Fonzy with the prototype 1 if needed.
- Grayson - Request resin prints of the test platforms from on or off campus printers. Will also need another set of magnetic bushings for the second platform.
- Trent - continue integration of C server with GUI
- Amith - Finish up the sensor filtering. Combine it with UART/WIFI. Work on PID.