

sddec18-22 Automower (Autonomous Lawn Mower)

Biweekly Report #6

Reporting Period: 11/19/18 - 12/3/18

Client: Micron Technologies/Ryan Marion

Advisor: Dr. Jones

Team Members

Sam Tinklenberg - Team Leader

Andi Li - Meeting Facilitator/Software Dev

Bryton Hayes - Test Engineer

Grant Duncan - Software Lead

Joel Seaser - Hardware Lead

Summary of Report

For the last leg of the semester, we rushed to get everything ready for our final presentation. We finished testing of all of the components, but ran into issues getting parts ordered to finish assembling the final device. Though we are disappointed we did not get further on this project, we believe we have put together a very solid design. This project would be a great candidate for a group to build on next semester

Tasks Completed:

General Tasks:

- Completed Poster
- Completed Final Report

Specific Tasks:

- Mobile
 - Worked on bluetooth connection
 - Added accelerometer mode to Manual Control
 - Cleaned up unused code
 - Removed Settings
 - Added refresh button and implementation
- Embedded
 - Tested motor encoders
 - Verified functionality of perimeter emitter and detector circuits
 - Processing Simulated GPS data
- Raspberry Pi
 - HTTP Server
 - Handle HTTP post and get requests better.
 - Get python scripts to work to add stuff to database correctly.

Tasks In Progress:

General Tasks:

- Preparing Final Presentation
- Preparing Demo Powerpoint

Name	Individual Contributions	Hours this report	Cumulative hours
Sam Tinklenberg	Added more functionality to rest api. Debugged communication issues.	36	124
Andi Li	Poster, final report and testing perimeter wire	14	79
Bryton Hayes	Add functionality to Arduino libraries, process simulated GPS data, testing perimeter wire, poster, final report, demo powerpoint	40	142
Grant Duncan	Worked on the mobile app	20	96
Joel Seaser	Perimeter wire testing and assembly	16	98