SENIOR DESIGN WEEKLY REPORT 10/3 – 10/9

Group number: DEC1620
Project title: Miniature Tracking FOB
Client & Advisor: Flagger Pros USA, Advisor Nathan Neihart
Team Members/Role: Tristan Walters – Team Leader
David (DC) Carlson – Team Communication Leader
Brandon Trent – Secondary Team Lead
David Dalo – Key Concept Holder
Alex (Sunny) Sundholm – Secondary Communication Lead
Tyler Dahle – Team Webmaster

Weekly Summary

As a group, we met on Thursday for our regular advisor meeting with Dr. Neihart. After the semi-chewing out we got, he was pleased with the progress we had made and gave us a few more pointer. Tristan has met with an Industrial Design student to go through the design and format of the website and web app. A fair amount of work was done individually on the database, server, and the website.

Past week accomplishments

- Spreadsheet containing current and power draw calculations (updated)
- Database communication verified
- Website updated
- GPS data obtained through microcontroller

Pending issues

- Managing component power consumption
  - Theoretical power consumption calculated, need prototype to measure actual output
- Waking a microcontroller from a low power sleep mode
- Keeping microcontroller clock running
  - Only want to update location once or twice a week
- Web Application and Design
- Saving GPS Data to a usable char array
- Cutting power to GPS and turning on cellular chip

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Individual contributions

Name	Individual Contributions	Hours this week	Cumulative hours
Tristan Walters	Attended advisor meeting, , developed website.	3	53
David Carlson	Attended advisor meeting, attended hardware meeting, worked on GPS data acquisition.	7	51
Alex Sundholm	Attended advisor meeting, worked on database.	3	43
Brandon Trent	Attended advisor meeting, attended hardware meeting, assisted DC in acquiring GPS data, prepared deliverables for Neihart.	6	64
Tyler Dahle	Attended advisor meeting, researched web application development, developed website.	5	55
David Dalo	Attended advisor meeting, developed MCU code	4	38

Comments and extended discussion

A lot of progress has been made and a foundation has been laid for the rest of the semester. Handling the GPS data is a step away, and once that is done we can repurpose the code for the cellular chip. We have made it standard to make plans to meet during the coming week after we finish our advisor meeting.

Plan for coming week

- Hardware Group:
    - Hardware group meeting Sunday afternoon
    - Brandon, DC, and David meeting Tuesday afternoon
    - DC: Parse GPS data and store to char arrays to be sent
    - Brandon: take data from GPS and send to database
- Software Group:
    - Tyler and Tristan meet to develop website
- Continue development of MCU Code