

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

We met with our client on the Wednesday before break to touch base with him on our progress and the status of paperwork we have yet to get back from them. We also had our regularly scheduled meeting with Dr. Neihart on Friday. Things are going as planned, and we got our parts ordered!

Past week accomplishments

- Ordered Parts!
 - Microcontroller
 - Microcontroller Launchpad
 - GPS Breakout
 - Cellular chip
- Clarified requirements from client
 - Picked cheaper option for cellular rather than going through Verizon

Pending issues

- Managing component power consumption
- Waking a microcontroller from a low power sleep mode
- Keeping microcontroller clock running
 - Only want to update location once or twice a week

Individual contributions

Name	Individual Contributions	Hours this week	Cumulative hours
Tristan Walters	Attended group and client meetings,	2	24
David Carlson	Attended group and client meetings	2	20
Alex Sundholm	Attended group and client meetings	2	23
Brandon Trent	Attended group and client meetings	2	35
Tyler Dahle	Attended group and client meetings	2	27
David Dalo	Attended group meeting	1	14

Comments and extended discussion

We got parts ordered! Seeing as how it was the week before spring break, we really just wanted to get that done and move on. Once parts come in, we will be able to begin prototyping. Building a working prototype is something we expect to take the rest of the semester between learning the IDE for the microcontroller development and integrating all components.

Plan for coming week

- Wait for parts to get in
- Prototype
- Start working on overall circuit design

Summary of weekly advisor meeting

We started from scratch and went through all the things we need to revisit and make sure we are working on a solution to a given problem, rather than just pushing it off. Things we were concerned about have been largely forgotten and this was a good refresher.

Talk to the customer about setting up the account for the cellular device. Tell him that we don't know how much it will cost for testing, but give him an estimate of how much that will cost. Look at device layer and then double it.

Link to setup account: https://dashboard.konekt.io/activate-devices?_ga=1.16327728.72629214.1454105188

Make sure the pricing is what it says it is.

Hold off on the battery till next semester.

Build a detailed schematic for how to build a single board.

Talk to CSG about a webspace.

Try to shoot for 9 months of battery.

Each unit should update at least twice of week.

End of semester - access GPS location and then be able to send that information.

How long can we run the real-time clock on the microcontroller?

How do we wake up the microcontroller?

Try to get the database and web server up and running by this semester. So we can do a mobile interface for next semester.