ET NavSwarm Weekly Progress Report

Goals for last Week:

- Have first iteration designs for bots, multiple designs for comparison is preferable.
- Fix Sponsorship Package document.
- Apply for Parent's Association grant, due November 15th.
- Continue to learn about, test and calibrate sensors and communications.
- Cost estimates on new bot designs.

What got done:

- Rocker Bogie model has been mostly completed, needs adjustment with motor housing design. It has major interferences, may need new motor selection. (Brian M and Shaun)
- Drivetrain team has suspension models for their first iteration. (Alex C and Brian B)
- IMU code completed, but has errors due to bad wiring connections. Currently troubleshooting current bots.
- Arduino and Pi are communicating. Arduino to Pi is working perfectly, but Pi to Arduino can currently only send 1 byte at a time.
- GPS signal can be read and is accurate, but take time to read location accurately.
- Barometer has been tested and is produced accurate data, pressure sensor lead is assisting GPS team.
- Sponsorship package has been updated.
- Parent's Association grant has been filled out.

Goals for this week:

- Finalize chassis and suspension design, start making manufacturing plan.
- Take inventory.
- Create in depth financial spreadsheet (for sponsorship package and grant applications).
- GPS team working on increasing the speed of the GPS.
- Arduino to Pi working on speed of communication.
- IMU to continue troubleshooting. Once problem is identified and fixed, they will meet with Sital for more help.

Issues:

- Rocker Bogie could have been finished, but Shaun forgot to check motor housing lengths and wheel mounting method. Interference can be remedied by decreasing motor length, or increasing differential bar length. Wheels can be attached through printed or machine coupling.