

ET NavSwarm Weekly Progress Report

Goals for Last 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.

What got done:

- Rocker Bogie suspension prototype created.
- Rock Crawler prototype created.
- Initial pricing for both prototypes created.
- Can read raw data from IMU.
- Arduino to Pi communications are almost done. Now transmits data in a readable script. Pi to Arduino has current bug of truncating final variable by 1 digit.
- Error in pressure sensor reduced to +- 1 ft.
- GPS is accurate to ~6m at maximum. Not likely to increase without upgrade to sensor. GPS still take almost 1 minute to accurately find its position.
- XBee's are communicating with each other.

Goals for next week:

- Last week's goal of manufacturing plan was a little too ambitious, first we need to settle on design to pursue, and create a fully functioning prototype. This means next week more prototype refinements should be made after a choice of design is made.
- Work out bugs with Arduino to Pi. Possibly finish if everything goes according to plan?
- Continue to refine barometer outputs.
- GPS to start working with Arduino to Pi on transmitting sensor data.