

Data Acquisition Design

Project Summary

Data Acquisition has proven to be more and more important to our team. The team tends to lose information of the boat's performance every year when the seniors graduate. This system will allow members to collect data and analyze data for possible areas of improvement and pinpoint flaw in design. The main goal of this project to design and manufacture a stand-alone data acquisition system that collect multiple data variables for analysis.

Requirements

- System must be able to gather information until the end of competition
- Variables to collect:
 - GPS
 - Speed of boat
 - Rpm of out-drive propeller
 - Drag force on overall of the boat
 - Battery display
- All variables must be time stamped

Learning Capabilities

- CAD modeling with SolidWorks
- Sensors and Acquisition
- Error Analysis
- Electrical Circuitry
- Programming

