Payload Hauler Omni-Directional Device (PHOD)

Overview
Nearth is a company founded by Ross Garside, who developed patent pending technology that can be used in order to climb pole-like structures without damaging them. Our problem was to design an Android application to wirelessly control the PHOD to move up and down the structures. This includes design of the application itself, as well as design of the integration hardware to communicate to the PHOD.

Objectives
Our main objectives were to design an Android application to control the PHOD wirelessly and to create a controlling unit on the PHOD in order to receive wireless controls from the app. We attempted to do this by purchasing the most cost efficient and reliable parts.

Approach
- Analysis of the project to be able to determine what specifications we will need in terms of electronics and the app design
- Purchasing the parts was the next big component in an attempt to receive them early.
- We then took the parts that we received and put them all together.
- We then designed the Android Application and had it approved by the sponsor.
- After the designed the Application using Eclipse and the design that had been approved.
- After the Android Application had been completed we went into design for the Arduino.
- Then we took all of the Applications and combined them and put them into the Physical PHOD for testing

Outcomes
- This project gives the sponsor a great starting point for attempting to sell this in the general market.
- This also gives the next group a great jumping off point for the next project.
- This project gives a brand new way of navigating poles and will allow the sponsor to use this in many different ways.
- We have allowed the sponsor to grow as an owner and a team leader which will help him to move onto bigger and better teams and projects.