Status Report #4
Wheelchair Lift Remote

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Improvements to existing wheelchair lift remote
Overall Need

• The current signal integrity is weak, and improvements need to be made in the flow of the lift

• Milestones:
  • Access to lift from ADI
  • Order transceiver and sensors
  • Implement sensors and transceiver with lift
  • Improve lift motion
  • Implement in van
Recent Tasks

- Arrival of components
  - Dragon12-plus demo board
  - Maxstream’s Xbee Pro Tranciever package
  - Encoder/Decoder IC’s
- Code for microcontroller
- Researched various options for the sensor array
- Met with Todd Hargroder
  - Discussed the status of the microcontroller
  - Discussed the status of the wheelchair lift
    - Potentially: February 20, 2008
Ongoing Tasks

- Obtaining wheelchair lift
  - February 20, 2008
- Determining the best options for sensors
  - March 1, 2008
- Fine tuning microcontroller for lift arrival
  - February 20, 2008
- Range testing remote control
  - February 25, 2008
Upcoming Tasks

- Test the signal integrity and range of remote in vehicle environment
- Integrate lift with microcontroller
- Integrate remote with microcontroller
- Design hardware interface for sensor array
Block Diagram

- ADC
- DAC
- Sensors
- Microcontroller
- Receiver
- Remote Control / Transmitter
- Power Supply / Battery
- Lift Motors
- Vehicle Doors
- Power Supply / Alternative Power Supply

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45%
50%
50%
100%
100%
Questions?