Technical Specification / Schedule
Ford Sensor Showroom

Team 3: Team Ford
CSE 498, Collaborative Design

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Project Overview

• Deploy a wireless sensor network to gather information about cars in a showroom
• Filter useful information into a database
• Graphically display, via the Internet, the gathered information
• Allow comparisons between cars, regions, seasons, etc.
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Functional Specifications

- Use a wireless network to document shoppers’ interest in a vehicle
- Identify vehicle “hot-spots” (areas of increased interest)
- Present the above information graphically
- Provide a method of comparing different vehicles
System Components

• Hardware Platforms
  – iMote2 wireless sensors / receiver
  – Web/Database server

• Software Platforms / Technologies
  – .Net Micro / C#
  – MySQL database
  – Apache web server
Architecture Illustrated
Risks

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- Scalability
  - The system must allow for a various number of sensors of several different types
  - Keep design as general and modular as possible

- Hardware familiarity
  - We must learn the Crossbow libraries
  - Dedicate a team member to learn them

- Hardware limitations
  - We have access to limited amounts / types of sensors
  - Simulate extra sensor functions with other methods (E.G. switches)
Project Schedule

1. Architecture
   a) Goal: Finalize and deploy systems to be utilized
   b) Date: 1/29/2008

2. Sensor Communication
   a) Goal: Allow sensors to communicate with one another
   b) Date: 2/1/2008

3. Data Transmission
   a) Goal: Have sensors transmit sensed data through network
   b) Date: 2/8/2008

4. Database Configuration
   a) Goal: Implement database to store valuable information
   b) Date: 2/8/2008
Project Schedule

5. Interpret Data
   a) Goal: Infer meaningful information from sensor data
   b) Date: 2/15/08

6. Store Data
   a) Goal: Propagate sensor information into the database
   b) Date: 2/15/08

7. Display Data
   a) Goal: Graphically display information from the database
   b) Date: 2/22/08

8. Prototype
   a) Goal: Have a functioning prototype for demonstration
   b) Date: 3/10/08
Project Schedule

9. Code Complete
   a) Goal: Finalize the display of content, finish coding
   b) Date: 3/25/08

10. Testing
    a) Goal: Complete all testing and documentation
    b) Date: 4/15/08

11. Video
    a) Goal: Complete a video demonstration of the project
    b) Date: 4/21/08