Personal Locator and Communication Device

Overview
The objective of this project is to produce a wearable prototype for users such as a child or an adult in need. The device can be activated by either the wearer or the user tracking the wearer. Our device should enable communication, pick up surrounding noise data, and send GPS data back to the Control PC used by the user concerned about the location of the wear. The control PC in our scenario will be a laptop running Windows.

Objectives
The device uses GSM network to communicate with Control PC. Once the device is activated, it will establish communication with the Control PC. It will then send its GPS coordinates to the Control PC once every 20 minutes.

Approach
- Research similar application of Android or iPhone and its market and get some feedback from existing application from online review
- Talk to the sponsor about the requirements
- Specify the concept of operations
- Research different kinds of network that could be useful other than GPS
- Design our own schematics and layout with Eagle software to optimize the size of the product
- Design and fabricate customized PCB board and solder.
- Research ways of accessing Google Voice within an application

Outcomes
- Locate missing loved ones within minutes.
- With the press of a button, can communicate with the Control PC or the PLCD
- New use for Google Voice
- Automatically points new coordinates on a map embedded in our application
- Uses text messages to send GPS coordinates