Wireless Personal Locator and Communication Device (PLCD)

Overview
The typical scenario involved with this project is a mother enjoying a day at the park with her child. The mother then loses sight of the child. Once this visual contact is lost, she should be able to activate a personal locator that the child will be wearing. This device will allow her to not only locate her child via GPS, but also communicate to ensure the safety of the child.

Objectives
- Create a wearable Personal Locator and Communication Device prototype for users such as a small child or adult in need.
- The device should allow dual activation in which either the wearer or the user tracking the wearer should be able to activate the device.
- Once activated it should enable emergency mode that allows audio communication, picks up surrounding noise data, as well as sends constant GPS data back to the control center.
- The control center may be any portable electronic device such as a laptop or mobile phone.
- Both devices should communicate audio.

Approach
- Determined customer needs and evaluated requirements
- Existing products were researched
- Possible concepts were generated and assessed through a screening process
- Once concept was selected, parts were identified based on cost and functionality
- Locator and iPhone were programmed while circuitry was built
- Components were assembled and tested for basic functionality requirements

Outcomes
- PLCD combines both location and voice, which no existing product does
- Operating cost attributed to monthly service is reduced by using prepaid cellular phone service