

Healthnet

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Project

- Concept
 - Give consumers access to their personal physiological data.
 - Wireless network of sensors on the body to process and record EKG, temperature, and location data.
- Motivation
 - Current consumer fitness products only report heart rate and blood pressure data.
 - Devices in the medical industry capable of more detailed reporting are not very portable and often expensive.
 - Our product will allow consumers to record detailed physiological information at their convenience.

Competition



Requirements

- Wireless sensor network of EKG pads, pulse oximeters, and other types of sensors.
- Wirelessly transmit data to a personal computer for analysis and visualization.
- Display heart rate and energy expenditure data.
- Make hardware system convenient and portable.

Technology

- **Sensor modules**
 - Physical sensor (EKG pad, pulse oximeter), AVR processor, flash memory, XBee transmitter, and battery.
 - Send data wirelessly to sensor server.
 - Developed and provided by members of last year's HeartSavers project.
- **Sensor server**
 - Wearable Gumstix ARM board equipped with XBee transmitter, and Bluetooth transmitter.
 - Embedded software manages data from the sensors and interfaces with a personal computer.
- **User interface**
 - Desktop application for uploading data from the sensor server via Bluetooth.
 - Web interface for viewing and sharing data.