

Physiological Monitoring Systems
Adam Silva Biomedical Engineering URI

A physiological monitoring system (PSM) is a device used to measure a person's vital signs. They allow a person to keep track of their vital signs while engaging in strenuous activities. This would allow them to know if they were causing harm to themselves during what they were doing.

LifeGuard is a PSM. It was designed in order to keep track of a person's vital signs while they were actually partaking in the physical activity. In order to do this it had to be made portable. The LifeGuard consists of six parts.

The first part of LifeGuard is the CPOD. The CPOD is a microcontroller. It receives data from the various devices to measure the vital signs and processes it. It is stored there and then wirelessly transmitted into the base computer.

The base computer is the second part of the LifeGuard. It receives the data from the CPOD, processes it, and displays the person's vital signs.

The other four parts are the devices to measure the vital signs. They include a blood pressure cuff and monitor, ECG/respiratory electrodes, something to take ambient and skin temperature, and a pulse oximeter.

Works Cited:

http://lifeguard.stanford.edu/lifeguard_writeup_medium.pdf
<http://www.firerescue1.com/fire-products/Personal-protective-equipment-ppe/articles/405558-Physiological-stats-monitoring-for-firefighters-Watching-out-for-overexertion-before-its-too-late/>