

# **RF COMMUNICATIONS DIVISION**

# PROJECT NAME: Vitals Monitoring System,

### HARRIS CONTACTS:

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**REMOTELY.** 

ENGINEERING DISCIPLINES: EE, CE, CS, ME

# DOCTORS CAN MONITOR YOUR

#### SENIOR PROJECT DESCRIPTION

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Implement a vitals monitoring system that will provide important health information to both individuals using it, as well as to health care professionals remotely located. The devices should we fairly lightweight and wearable, and also have capability to transfer critical information to a server when an approved wireless network is detected. This system should have functionality to "push" notifications to remote devices, in the event of an emergency. The remote interface could be another computer, or a device application, such as an Android app. Also, there should be a local alarm mode to alert people in the area that there may be an emergency.

# DOCTORS CAN MONITOR YOUR VITAL SIGNS REMOTELY.

#### **PROJECT OVERVIEW**

The medical industry would like a solution towards monitoring certain vital signs of people with serious health conditions. For instance, individuals who are at risk of having strokes could use such a solution to monitor their blood pressure. In addition, the solution would have the functionality to allow data transfer over a wireless or Bluetooth network to a server or device. This would allow doctors and hospitals to "pull" patients' vital behavior over a certain period of time. Last of all, an interface must be developed to allow notifications to be "pushed" to hospitals and/or doctors in the event of emergencies.

#### DELIVERABLES

The project deliverables include:

- 1. A description of how the device communicates important information to the user, as well to remote individuals, as well as details on both interfaces.
- 2. Detailed design documentation including a diagram of the hardware setup and functional components, as well as modeling of the design as a wearable device.
- **3.** Software code developed.
- 4. A prototype of the system and demonstration of its functionality.





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