Health-Monitoring System

Team 01
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Project Deliverables
The project will consist of the following:
• A wearable biosensor interface
• A microcontroller system that processes the biosensor data
• A wireless communication system that sends the data to the phone app
• An Android phone app that interprets and displays the data
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Biosensor-Body Interface
Collects data from the user’s body using biosensors. Sampled data includes heart rate, hydration, and angular acceleration monitoring.

Microcontroller Processing Network
Sample data from biosensors and format the data to be sent to the phone app.

Filter Circuit
Decreases noise and amplifies the signal from EMG sensor for interpretation by the Stellaris.

Rechargeable Battery Power Source
Provides MCUs, filter circuit components, and biosensors with power.

Bluetooth Communications
Sends information from Stellaris to phone app using the Kootek BT25.

Control Board
Serves as common mounting location for Stellaris, filter circuit, and power source and connects each of these together.

Android App
Receives data from Bluetooth device and uses algorithms to produce meaningful results that can be represented visually.