

# Portable Single-Arm Heart Rate Monitor

Team 5

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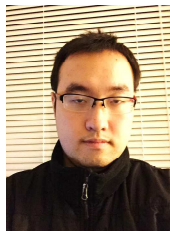
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Image source:  
<http://www.lazada.com.my/white-universal-sport-armband-gym-running-protector-band-704165.html>



# Portable Single-Arm Heart Rate Monitor

## Purpose of Product:

- Portable heart rate monitoring and electrocardiogram

## Features:

- Portable
- ECG data storage
- Single-arm monitoring
- Affordable
- Rechargeable– 500 typical charging cycles
- Phone app – displays and analyzes ECG data
- Long-lasting battery – 12 hours continuously
- 1 GB SD card included

## Market:

- Worldwide

# Key Requirements

## Cost

- Sales Price: \$199, Component Cost: \$70, Assembly & Test Costs: \$40

## Environment

- Indoor, Outdoor, Mobile, Wearable
- Operating Temp Range: -20 to 40 C
- Operating Humidity Range: non-condensing

## Power Input(s)

- Battery Power: Qty 1 of Li-ion, 4.2 VDC, 1000 mAh
- USB (for charging): 5 V, 0.9 A
- Power Efficiency: 90%, Operational Hours: 12 hours continuous

## Major Functions, Quantities Measured, Displayed

- Measuring heart rate and displaying it on a cell phone via application

## Bluetooth (Data Transfer)

- Rate: 3 MBps, Range: 20 m

## Heart Rate Accuracy

- HR: +/- 2 BPM, Range: 60 to 120 BPM

# Block Diagram

