

# Gravity: Heart Rate Monitor Sensor for Arduino

## INTRODUCTION

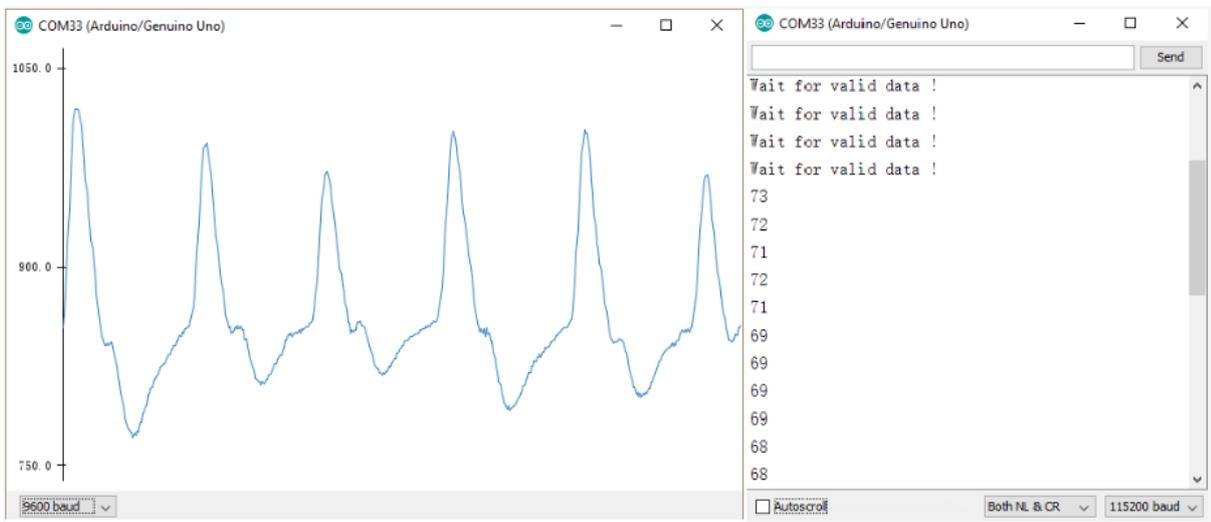
The DFRobot heart rate sensor is a thumb-sized heart rate monitor designed for Arduino microcontrollers.

This heart rate monitor sensor is a pulse sensor which is developed based on PPG techniques. This is a simple and low-cost optical technique that can be used to detect blood volume changing in the microvascular bed of tissues. It is relatively easy to detect the pulsatile component of the cardiac cycle according to this theory.

The sensor has two holes that you can use to attach to your belt. You can wrap on your finger, wrist, earlobe or other areas where it has contact with your skin.

A Gravity Interface is adapted to allow plug&play to ease the barrier of usage. The IO sensor shield is the best option to connect this heart rate sensor with your Arduino or other microcontrollers. Besides, this sensor can also be compatible with Raspberry Pi, intel edison, joule and curie by means of 3.3V Input Voltage.





IoT Based Heart Rate Monitoring System is a very basic project on sending the pulse rate to Blynk Application and monitoring it from anywhere.

NOTE:

1. This product is NOT a professional medical device and should not be used to diagnose or treat medical conditions.
2. This sensor is designed to work when the user is not moving. If used while moving it will give inaccurate results.

## Gravity Heart Rate Sensor Selection Guide

		
<b>Name</b>	Gravity : Analog ECG Heart Rate Sensor	Gravity : Analog/Digital PPG Heart Rate Sensor
SKU	<a href="#">SEN0213</a>	<a href="#">SEN0203</a>
IC/Module	AD8232	SON1303
Operation Voltage(VCC)	3.3~6V	3.3~6V
Output	Gravity: Analog (Digital 0~3.3V)	Gravity: Analog/Digital (Analog 0~VCC) (Digital 0~VCC)
Measurement Principle	ECG (Electrocardiogram)	PPG (Photo Plethysmo Graphy)
Average Power	<10mA	<10mA
Dimension (PCB)	35*22 mm	28*24 mm
Features	1.ECG method, accurate and stable 2.Three electrodes 3.3.3V/5V compatible	1.PPG method, convenient and fast 2.Analog (pulse wave) & Digital(heart rate), configurable output 3.3.3V/5V compatible

### SPECIFICATION

**Input Voltage (Vin):** 3.3 - 6V (5V recommended)

**Output Voltage:** 0 - Vin (Analog), 0/ Vin (Digital)

**Operating current:** <10mA

**Dimension:** 28 x 24(mm), 1.102" x 0.945"(in)

**Interface Type:** PH2.0-3P

### SHIPPING LIST

Heart Rate Monitor Sensor For Arduino x1

Wrist belt x1

PH2.0-3P cable x1

