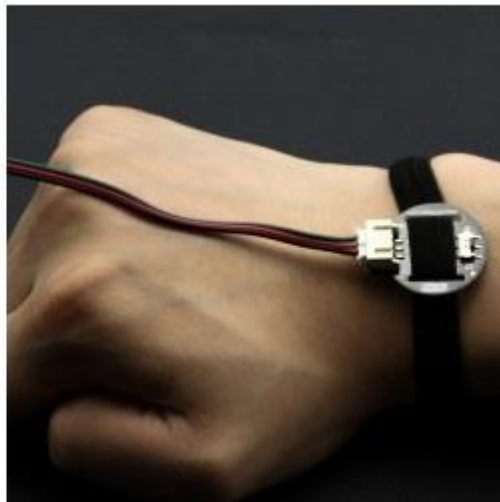
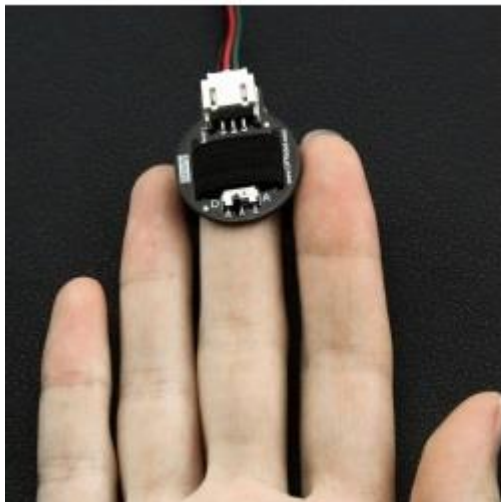




**DFROBOT**<sup>®</sup>  
DRIVE THE FUTURE

# Gravity: Heart Rate Monitor Sensor for Arduino

SKU:SEN0203



## *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.

### Gravity Heart Rate Sensor Selection Guide

		
<b>Name</b>	<b>Gravity : Analog ECG Heart Rate Sensor</b>	<b>Gravity : Analog/Digital PPG Heart Rate Sensor</b>
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