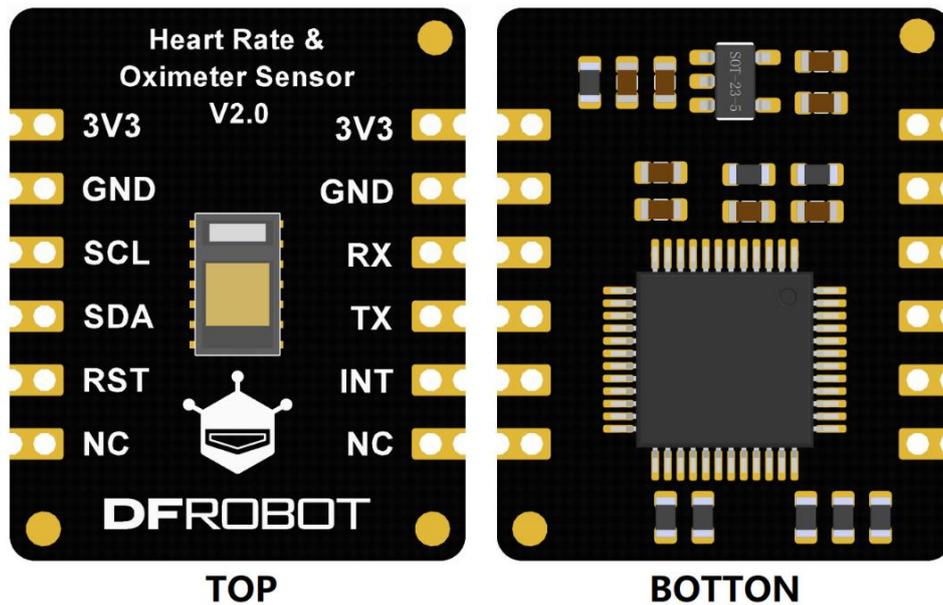


SEN0344



Introduction

The DFRobot heart rate and oximeter sensor integrates the Maxim MAX30102 chip and an MCU with heart rate and oximetry algorithm. The MAX30102 uses PPG(PhotoPlethysmoGraphy) to measure data, which will be converted into heart rate and oximetry values when processed by the MCU, then output through I2C or UART, making the sensor easy to use and greatly reducing resource occupation of main controller. Meanwhile, the corresponding upper computer is provided to allow you to conveniently read data by a PC.

Note:

1. The pressure may change when the finger is directly pressed down the sensor, which will affect the data output. So please try to fix the sensor on your finger.
2. Wear the sensor on your finger and there is no difference in the direction of wearing.
3. This product is not a professional medical instrument and should not be used as an auxiliary accessory in diagnosis and treatment.

Update: The sensor V2.0 is equipped with a microprocessor that integrates heart rate and oximetry algorithm, which can directly output the relevant data. And it supports I2C/UART communication.

Features

- Microcontroller with integrated algorithm
- Data can be read directly through the host computer

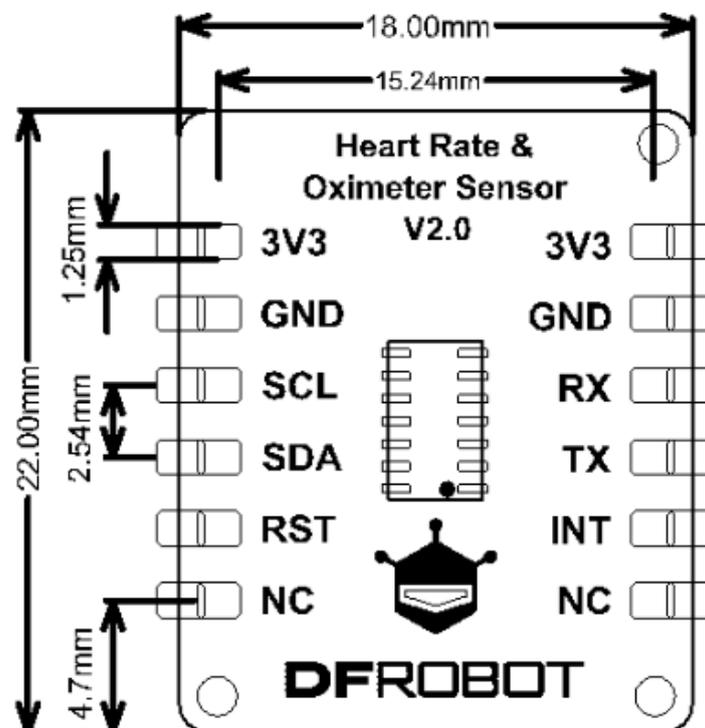
Applications

- Heart rate blood oxygen project
- Home heart rate oximeter
- Long-term heart rate and blood oxygen monitoring project

Specification

- Power Supply: 3.3V
- Working Current: <50mA
- Communication: I2C/UART
- I2C Address: 0x57
- Baud rate: 9600bps
- Operating Temperature Range: -40°C~85°C
- Dimension: 18×22mm/0.71×0.87"

Board Overview



NO.	Silkscreen	Description
1	3V3	+
2	GND	-
3	SCL	I2C Clock Line
4	SDA	I2C Data Line
5	RST	Reset Pin
6	NC	Empty Pin
7	3V3	+
8	GND	-
9	RX	Serial Port Received Pin
10	TX	Serial Port Transmitted Pin
11	INT	Interrupt Pin The pulse when heart rate and blood oxygen data is updated
12	NC	Empty Pin