

HEART

SKU:U029



Description

HEART is built using the **MAX30100** chipset.

MAX30100 is a complete pulse oximetry and heart-rate sensor system solution designed for the demanding requirements of wearable devices.

The MAX30100 provides very small total solution size without sacrificing optical or electrical performance. Minimal external hardware components are needed for integration into a wearable device.

- How do we use this Unit to test the heart rate ?

Put your finger on the detection area.

- What is the communication protocol between M5 core and this unit?

I2C(0x57).

Product Features

- Programmable Sample Rate and LED Current for Power Savings
- Ultra-Low Shutdown Current (0.7 μ A, typ)
- Advanced Functionality Improves Measurement Performance
- High Sample Rate Capability
- Fast Data Output Capability
- GROVE interface
- Software Develop platform: Arduino
- Two Lego-compatible holes

Include

- 1x HEART Unit
- 1x Grove Cable

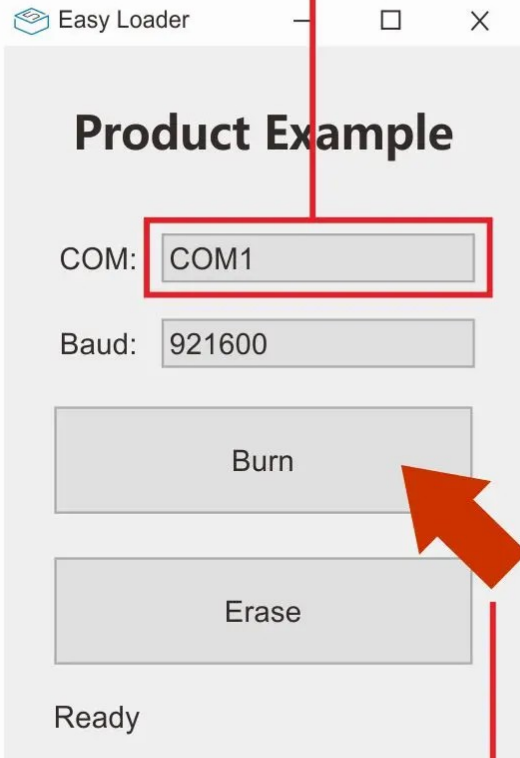
Specification

Resources	Parameter
Communication protocol	I2C: 0x57
Operating Voltage	1.8V-3.3V
Net weight	5g
Gross weight	18g
Product Size	32*24*8mm
Package Size	67*53*12mm

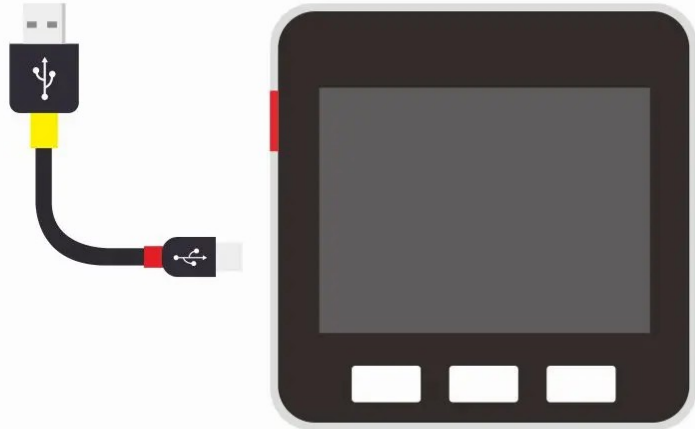
EasyLoader

EasyLoader is a concise and fast program writer, which has a built-in case program related to the product. It can be burned to the main control by simple steps to perform a series of function verification. Please install the corresponding driver according to the device type. M5Core host [Please click here to view the CP210X driver installation tutorial](#), M5StickC/V/T/ATOM series can be used without driver)

2, Select COM



1, Downloads



Core \ M5StickC \ M5StickV...

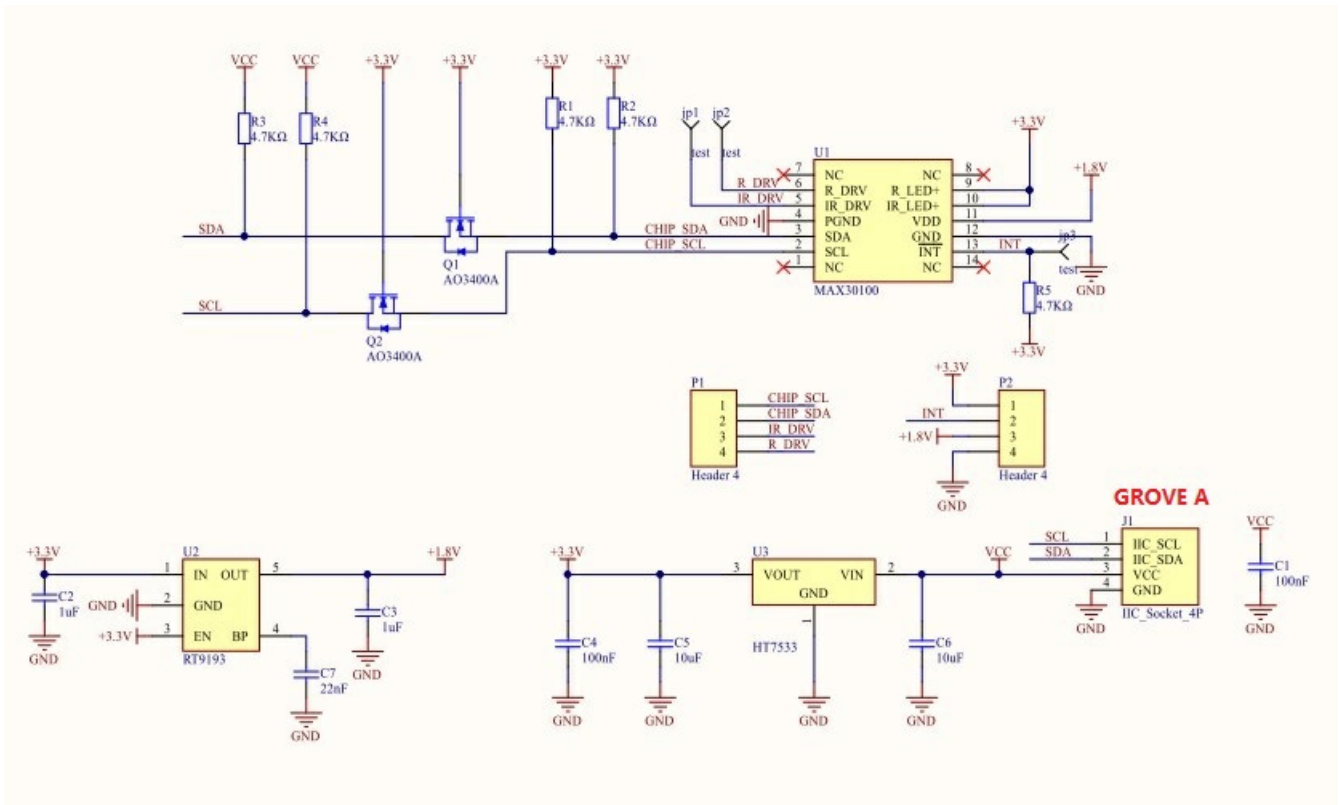
3, Burn Firmware

Windows MacOS

| Related Link

- Datasheet
 - [MAX30100](#)
 - [MAX30100lib](#)

| Schematic



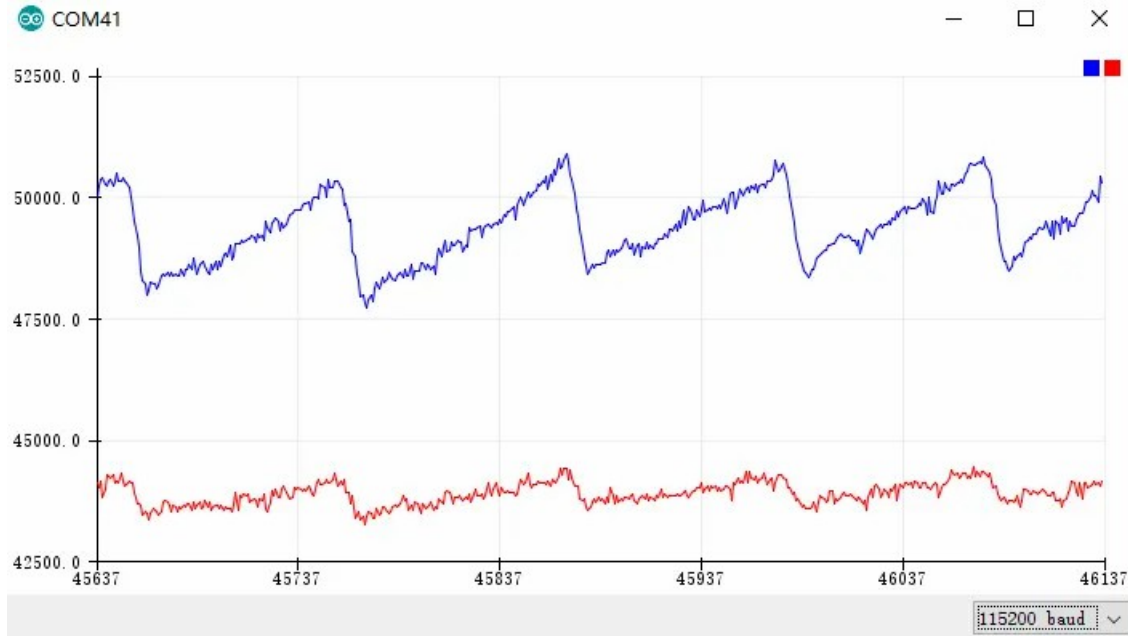
PinMap

M5Core(GROVE A)	GPIO22	GPIO21	5V	GND
HEART Unit	SCL	SDA	5V	GND

Example

1. Arduino

To get the code, please click [here](#)



2. UIFlow

- [Click here to download the UIFlow example](#)

The image shows a software development environment for a microcontroller. On the left, a preview window titled "HEART Example" displays a UI with two labels: "Heart Rate : label3" and "SpO2 : label4". Below the preview, there is a "Units" section with a plus sign icon. The central pane shows a project tree with categories like Event, UI, Hardwares, Units, Heart, Modules, and FACES. The right pane shows the code blocks:

```
Setup
Set heart2 led current 14.2ma 4.4ma
Set heart2 mode Heart Rate with SpO2

Loop
Label label3 show Get heart2 heart rate
Label label4 show Get heart2 SpO2
Wait 0.3 s
```

Last updated: 2020-12-11