

NCIR HAT

SKU:U061



Description

NCIR HAT is an M5StickC compatible infrared sensor. Same as M5Unit NCIR, this stickc HAT module Integrates MLX90614 which can be used to measure the surface temperature of a human body or other object. Now that it has a cover of a case of stickc HAT, you can pretty much move all the implementations to stickc-based controller, featured with tiny, low-cost and highly-productization.

Unlike most temperature sensors, this sensor measures infrared light bouncing off of remote objects so it can sense temperature without having to touch them physically. Simply point the sensor towards what you want to measure and it will detect the temperature by absorbing IR waves emitted. Because it doesn't have to touch the object it's measuring, it can sense a wider range of temperatures than most digital sensors! It takes the measurement over a 90-degree field of view so it can be handy for determining the average temperature of an area.

The MLX90614 is factory calibrated in wide temperature ranges: -40 to 125 °C for the ambient temperature and -70 to 380 °C for the object temperature.

Connect with M5StickC via GOIO 0/26 (I2C add: 0x5A).

Product Features

- Operating voltage: 4.5 to 5.5V
- Measuring object temperature range: -70°C ~ 380°C
- Measuring ambient temperature range: -40 to 125 °C
- Measurement accuracy at room temperature: $\pm 0.5^{\circ}\text{C}$
- Field of view: 90°
- Software Development Platform: Arduino, UIFlow(Blockly, Python)

Include

- 1x NCIR HAT

Applications

- Body Temperature Measurement

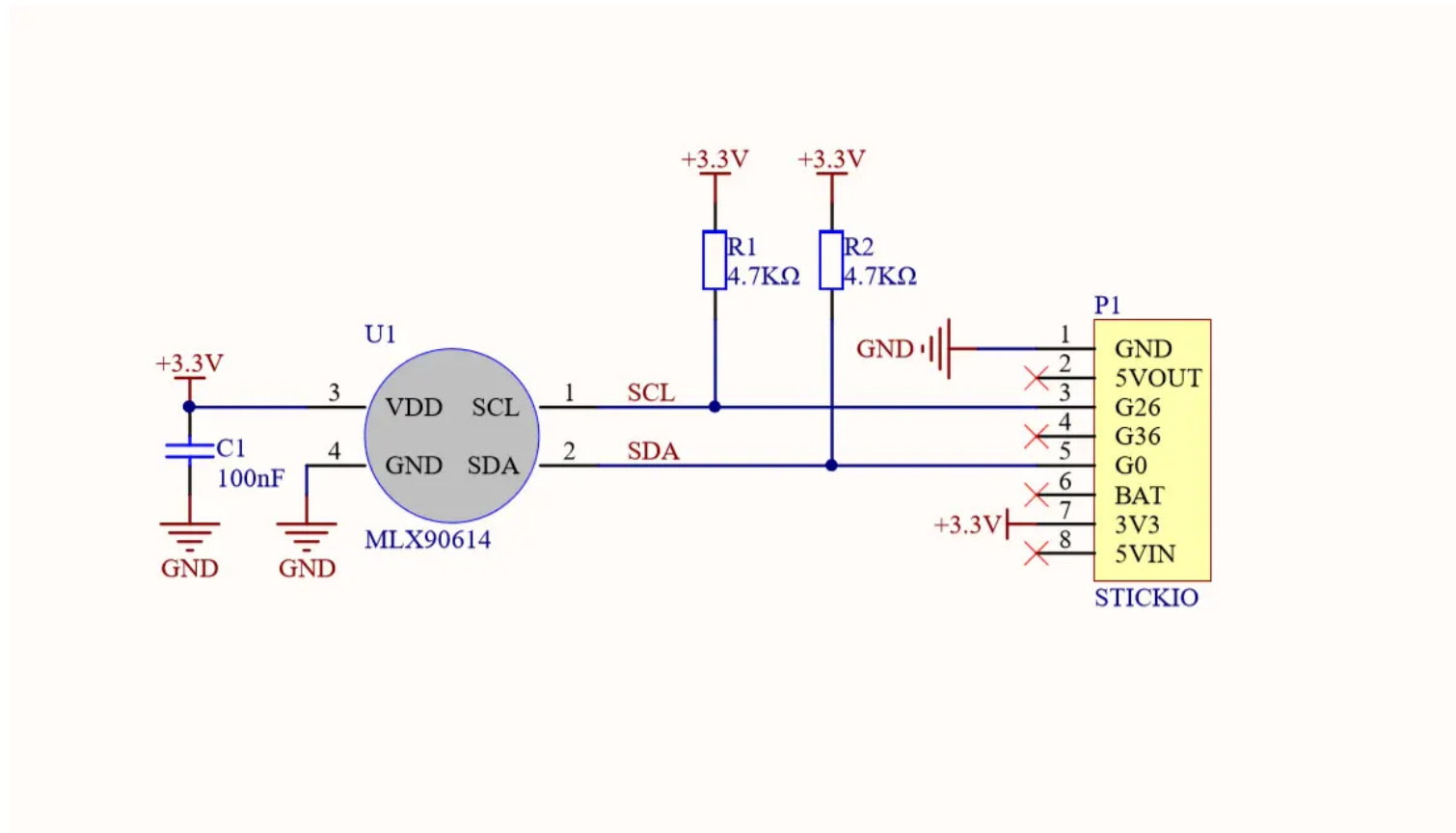
Specification

Resources	Parameter
Communication protocol	I2C: 0x5A
Net weight	5g
Gross weight	13g
Product Size	24*25*14mm
Package Size	40*42*30mm

Pin Map

M5StickC	GPIO0	GPIO26	3.3V	GND
HAT NCIR	SDA	SCL	3.3V	GND

Schematic



Related Link

- [MLX90614 Datasheet](#)

EasyLoader





[download EasyLoader](#)

1.EasyLoader is a simple and fast program burner. Every product page in EasyLoader provides a product-related case program. It can be burned to the master through simple steps, and a series of function verification can be performed.

- After downloading the software, double-click to run the application, connect the M5 device to the computer through the data cable, select the port parameters, click "**Burn**" to start burning. (For M5StickC burning, please Set the baud rate to 750000 or 115200)

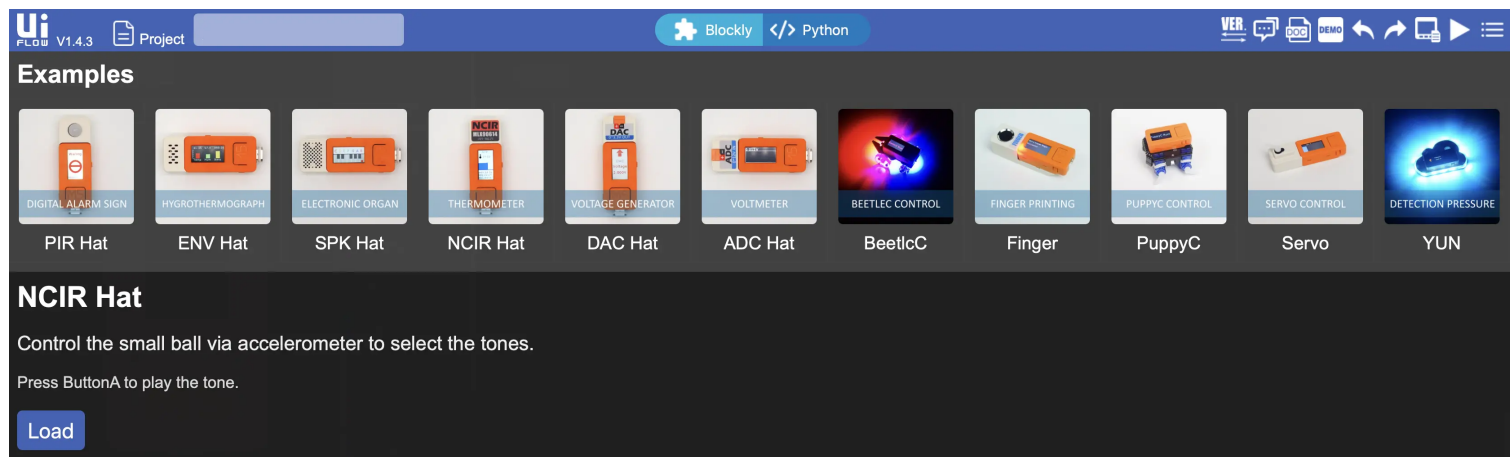
Example

1. Arduino

[Click here to download Arduino code](#)

2. UIFlow

Open <http://flow.m5stack.com> and Load Demo



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