ENV II HAT

SKU:U053-B

Description

ENV II HAT is an environment sensor which can sense temperature, humidity and atmospheric pressure. It is built with SHT30, BMP280 and BMM150 sensors, it is programmed over I2C. SHT30 is a digital temperature and humidity sensor with high precision and low power consumption. BMP280 is an absolute barometric pressure sensor which is especially designed for mobile applications. BMM150 is a magnetometer, which can be used to monitor the change of magnetic field and the direction of magnetic field.It offers the highest flexibility to optimize the device regarding power consumption, resolution and filter performance.

Product Features

- Measurement of temperature, humidity, air pressure and magnetic field
- High-precision
- Support I2C
- GROVE interface, support UIFlow and Arduino
- Two Lego installation holes

Include

- 1x ENV II HAT
- 1x Double faced adhesive tape

Specification

Specification	Parameter
Max temperature measuring range	-40 ~ 120 ℃
Typical temperature tolerance	0 ~ 60 ℃/±0.2℃
Humidity measuring range	10 ~ 90 %RH / ±2%
Air pressure measuring range	300 ~ 1100hPa / ±1hPa
Communication protocol	I2C：SHT30(0x44),BMP280(0x76),BMM150(0x10)
Operating temperature range	32°F to 104°F (0°C to 40°C)
Magnetic field range typical	±1300μT (x, y-axis), ±2500μT (z-axis), resolution 0.3μT
Net weight	4g
Gross weight	8g
Product Size	15*24*14mm
Package Size	35*36*18mm
Case material	Plastic (PC)

Comparison between SHT30 and DHT12

/	SHT30	DHT12
Max temperature measuring range	-40 ~ 120 ℃	-20 ~ 60 ℃
Typical temperature resolution	0 ~ 60 ℃/±0.2℃	±0.2℃
Humidity measuring range/resolution	10 ~ 90 %RH / ±2%	20 ~ 95 %RH/0.1%

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)

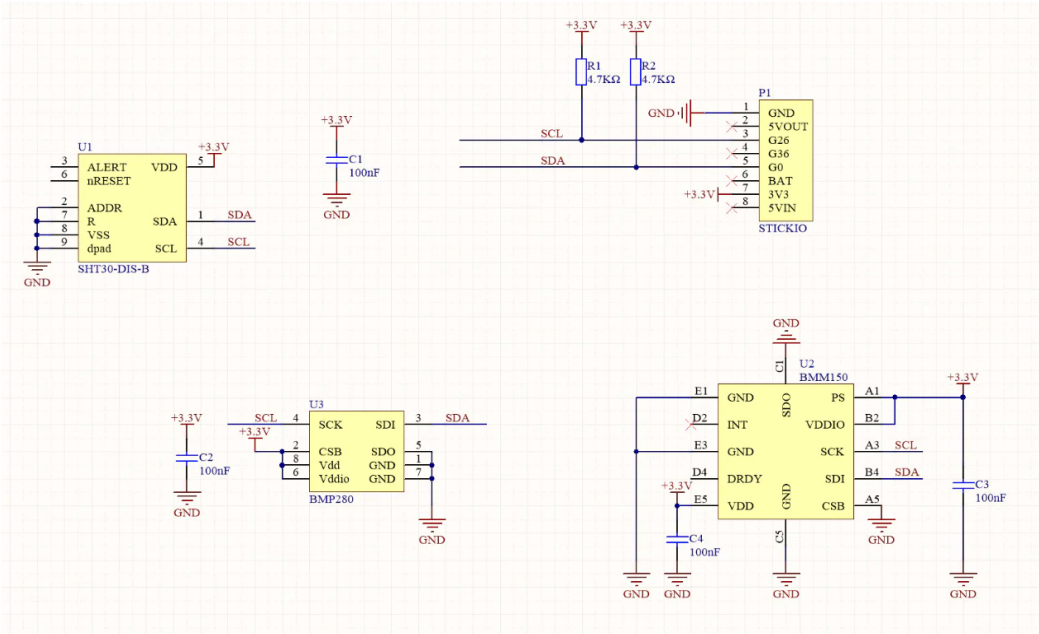
PinMap

M5StickC	GPIO26	GPIO0	5V	GND
ENV II HAT	SCL	SDA	5V	GND

Related Link

- BMP280 Datasheet
- SHT30 Datasheet
- bmm150 Datasheet

Schematic



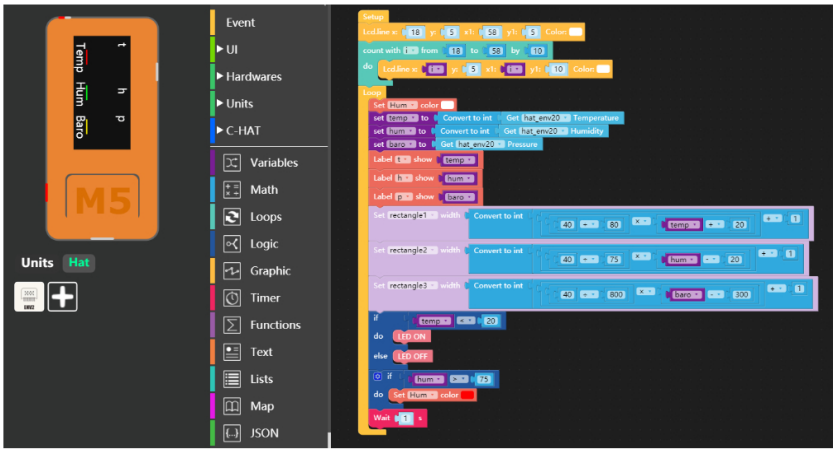
Example

1. Arduino

Click here to download the Arduino example

2. UIFlow

Click here to download the UIFlow example



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