

**GY-Sensor GY-88**

**Quick Start Guide**

**Beta**

Thai version

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## **Document version (Revision)**

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## **Compressor and Pressure Module GY-88**

### **basic information (Introduction / Overview)**

The GY-88 modules are Accelerometers, Gyroscopes, Compass, Pressure modules on the same module.

Composed of MPU6050, HMC5883L, BMP085 data bus. I2C bus used to determine the value of the movement.

The three axes and the direction of motion, as well as the measurement of the air pressure.

### **Features (Features)**

- Power supply +3.3 to +5 V
- Connection via I2C bus
- HMC5883L BMP085 chip
- Pressure gauge of + 9000m to - 500m from sea level.

### **Application Ideas**

Check the movement direction of the object. Find the air pressure.

### **Caution / Warning**

- The circuit should be short circuited.
- The document should be read before the actual circuit.
- Do not use excess power as specified by the document.

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### **Features (Specification)**

- Connect via I2C bus
- Use +3.3 to 5 VDC power supply.
- Pressure gauge of + 9000m to - 500m from sea level.
- Percentage tolerance  $\pm 2.5$  hPa
- Size: 17mm \* 21mm

### **Structure (Dimension)**

17 mm

21 mm

Pin 1

Pin 8

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Legs

name

Explain

1

VCC\_IN

+ 5 volt power supply to 3.3 V regulate

2

3.3V

3.3-volt power supply

3

GND

Ground

4

SDA

I2C data bus

5

SCL

I2C signal on I2C bus

6

M\_DRDY

Interrupt of HMC5883L

7

G\_AD0

I2C ADDRESS MPU6050: AD0 = 0 (1101000), AD0 = 1 (1101001)

8

G\_INT

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**Connection**

**GY-651**

**Arduino UNO R3**

3.3V

3.3V

GND

GND

SCL

A5

SDA

A4

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**Usage (Usage)**

1. Load the GYSensor Example Code file into the C: \ Program Files \ Arduino \ libraries or drive.

Down the Arduino

2. Open Arduino.

3. Choose File> Examples> GYSensor> GY88.

4. Compile and run the program.

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**References (Others / Appendix)**

The X, Y, Z direction

Check the basics of the work. Demonstrates device configuration in 6 different directional modes.

These rotations are defined as follows: PU = Portrait Up, LR = Landscape Right,

PD = Portrait Down, LL = Landscape Left, BACK and FRONT side views

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\*\*\* Note More information can be found in the Datasheet.