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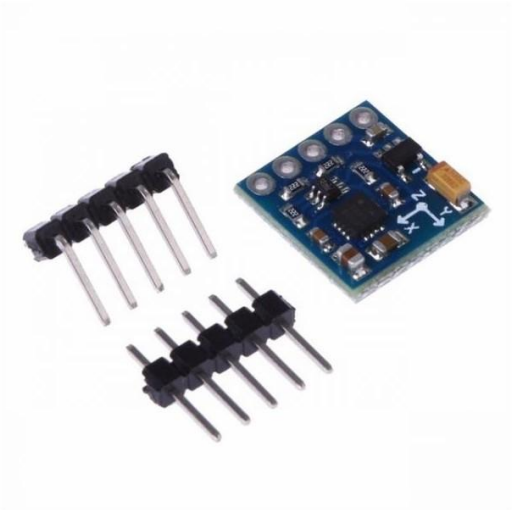
REF: **B21-AGY271**

ARDUINO GY-271 QMC5883 3-AXIS ELECTRONIC COMPASS MODULE



Description

The QMC5883 is a high-precision, three-axis digital compass featuring a magneto-resistive sensor with a 16-bit ADC for excellent resolution and accuracy, providing compass direction precision of 1° to 2°. With an I2C interface for easy integration into microcontroller-based projects, it includes advanced signal conditioning features like amplification, automated degaussing strap drivers, and offset cancellation to enhance measurement reliability. Operating on a 3.3V to 5V DC power supply, it is energy-efficient and suitable for portable, low-power applications. The sensor also offers temperature compensation, selectable output data rates, and is ideal for uses in navigation, robotics, augmented reality, and geophysical measurements, with easy integration into systems like Arduino and Raspberry Pi.

Specifications

- I2C interface
- Compatible with 3.3V-5.0V voltage level
- Max 200Hz output rate
- High heading accuracy

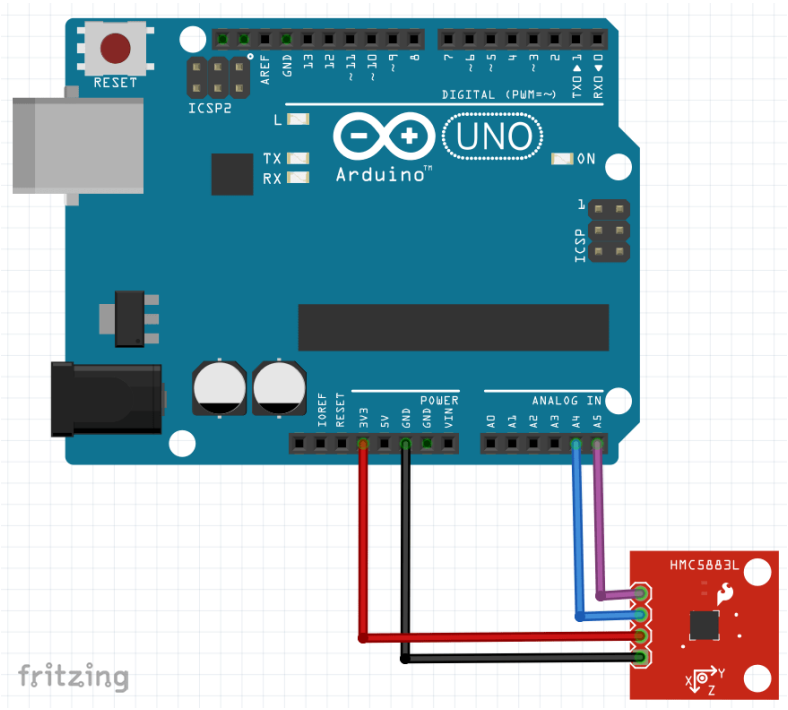
Pin connection

The connections are straightforward. Begin by connecting VCC to the Arduino's 3.3V pin and GND to ground. Connect the signal pin SCL to Arduino's A4. Next, connect the signal pin SDA to Arduino's A5

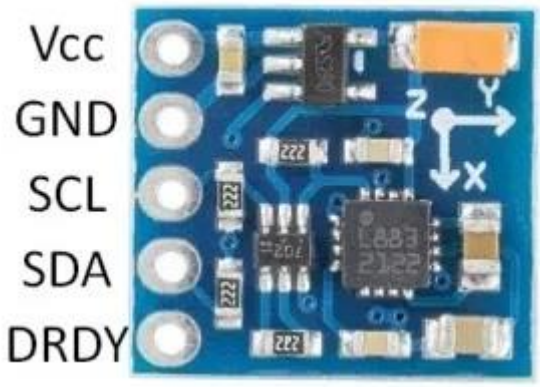
Arduino UNO (PIN)	QMC5883 (PIN)
3.3V	VCC
GND	GND
SCL	A4
SDA	A5

Circuit diagram

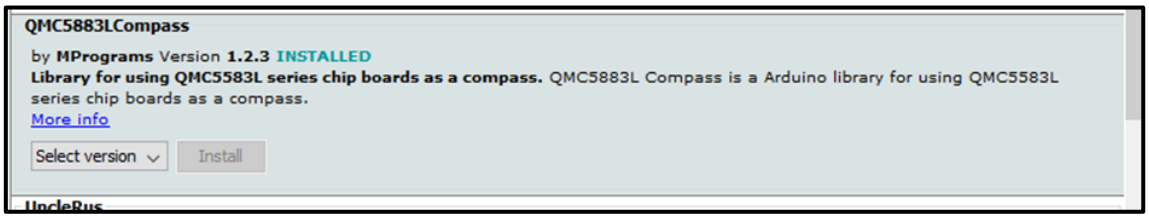
to not be confused I let the HMC5883L module in the wiring because the "fake" one is marked like the real one

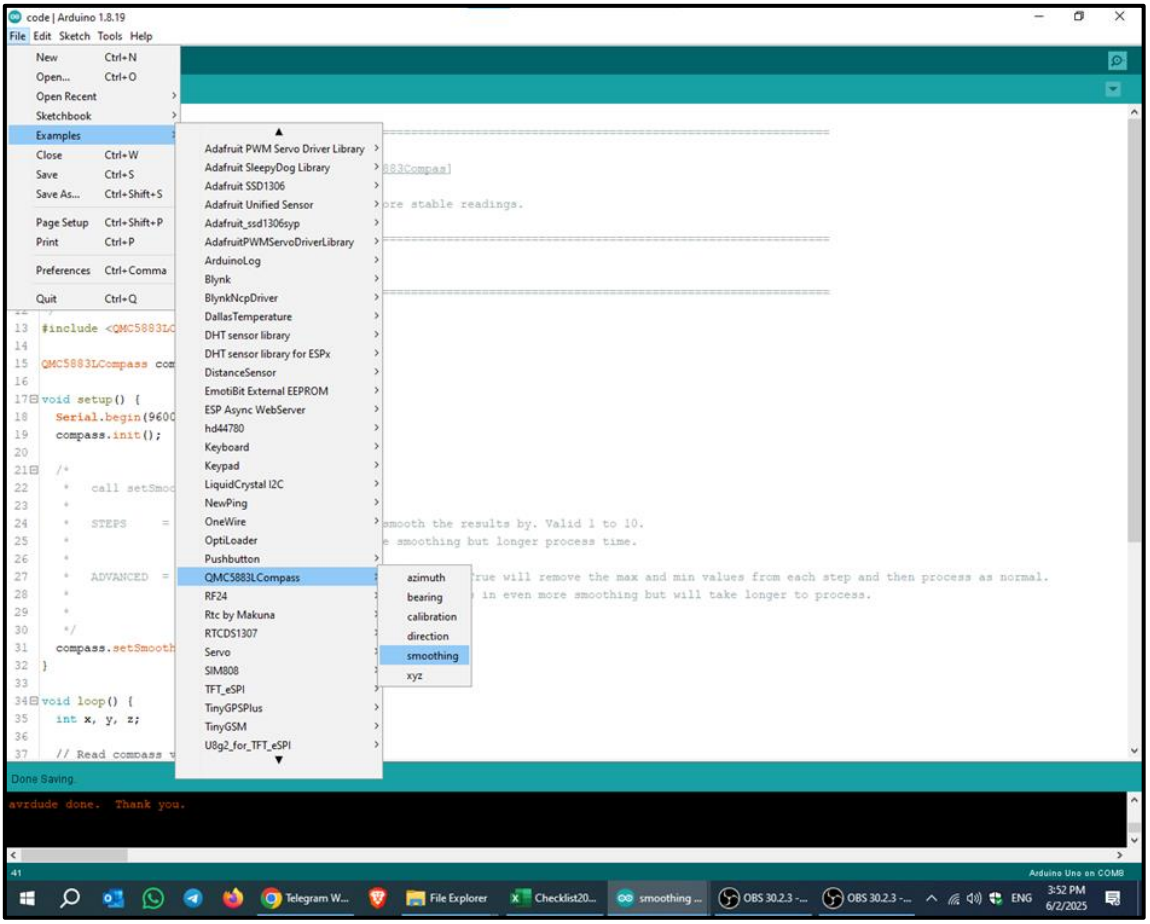


Pin diagram



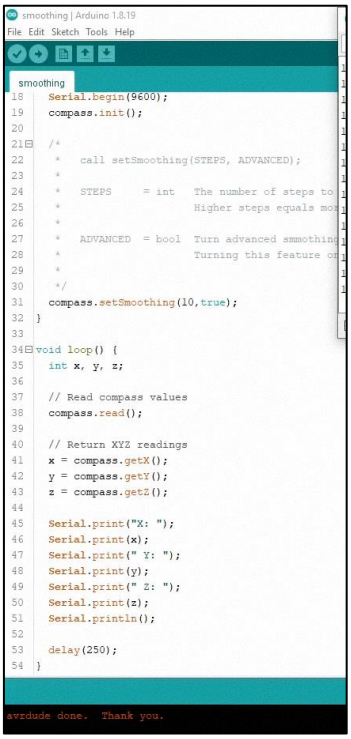
Library





CODING

The sketch below will provide you with a thorough understanding of how to read compass readings from a QMC5883 Sensor and can serve as the foundation for more practical experiments and projects.



Result

Here's what the output looks like on the serial monitor