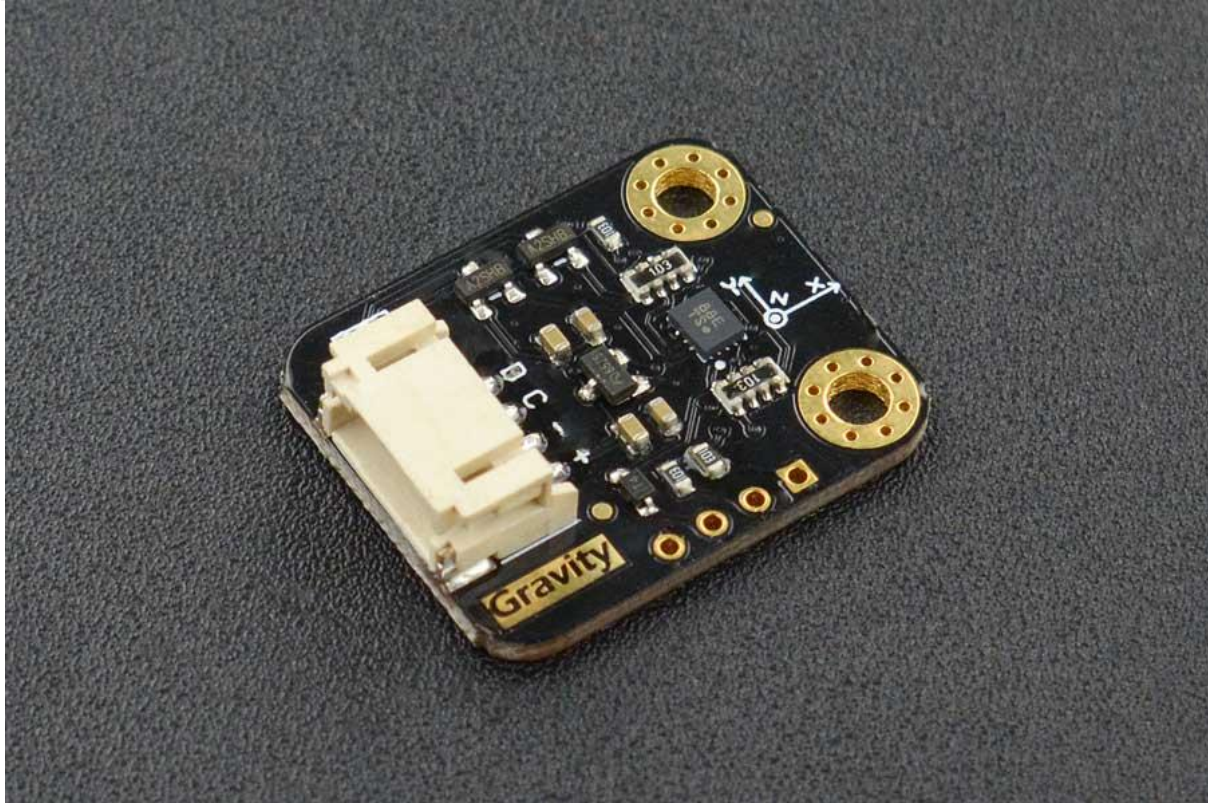# Gravity: I2C BMI160 6-Axis Inertial Motion Sensor

SKU:SEN0250

INTRODUCTION

The BMI160 6-axis inertial motion sensor is a new product from DFRobot. It is based on Bosch BMI160 6-axis MEMS sensor which integrates 16-bit 3-axis accelerometer with ultra-low-power 3-axis gyroscope. Bosch BMI160 is designed for smartphones, tablets, wearable devices. It has built-in intelligent step-counting algorithms that can be read directly through registers. Built-in 3-axis acceleration and 3-axis gyroscope can detect running, fitness and other motion. Built-in LDO power management chip, supports 3.2~6V wide voltage power supply, and also has I2C level conversion circuit, compatible with Arduino 3.3V and 5V micro controller.

FEATURES

- Step Count

- Acceleration Detection

- Inclination Measurement

- Display Toggle Horizontal / Vertical Mode

SPECIFICATION

- Operating Voltage: 3.2V~6V

- Current Consumption: <1mA

- Interface: Gravity-I2C

- Acceleration Range: ±2g/±4g/±8g/±16g

- Gyroscopes Range: ±125°/s,±250°/s,±500°/s,±1000°/s,±2000°/s

- Acceleration Zero-g Offset: ±40mg

- Gyroscopes Zero-g Offset: ±10°/s

- Programmable Frequency: 25/32Hz~1600Hz

- 6D Detection and Location

- 16-bit Data Output

- Shock Resistance: 1000gx 200us

- 2 Independent Programmable Interrupt Generators

- In-built 1024 Byte FIFO

- Working Temperature:-40℃~+85℃

- Dimension: 22X27mm/0.87x1.06 in