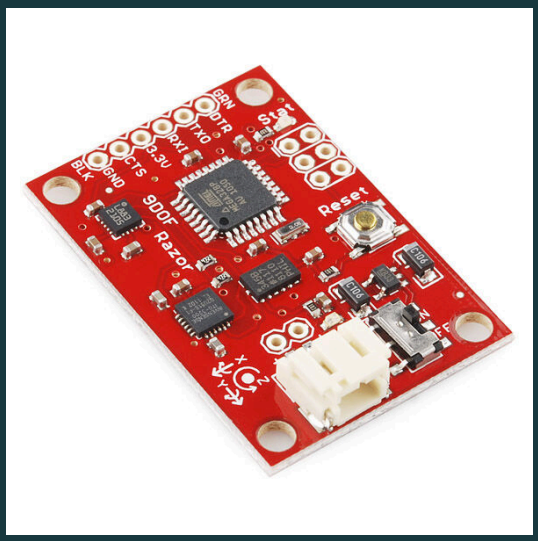
seeed studio

INDUSTRIAL PRODUCT DATASHEET

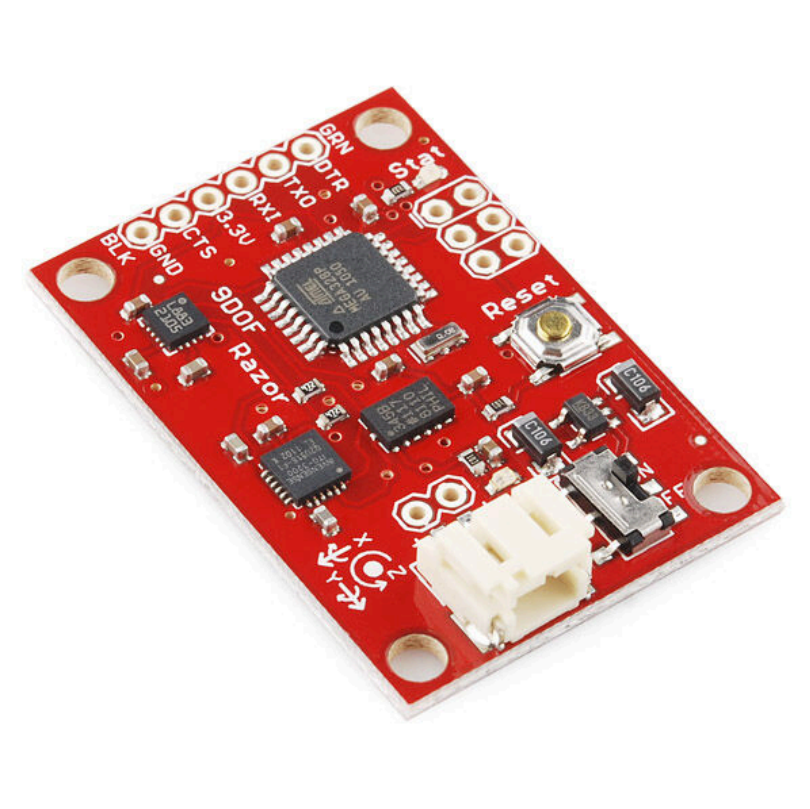
9 Degrees of Freedom - Razor IMU

Compact 9DOF inertial measurement unit with onboard processing and serial output for advanced control applications.

SKU	UPDATED	PRICE
101990031	2024-08-09 02:15:16	$123.95(Excl. VAT)



Overview



The 9DOF Razor IMU integrates ITG-3200 gyroscope, ADXL345 accelerometer, and HMC5883L magnetometer for nine degrees of inertial measurement. Onboard ATmega328 processes sensor outputs and sends them via a serial interface, enabling use in UAVs, autonomous vehicles, and image stabilization.

Key Features

The 9DOF Razor IMU incorporates three sensors - an ITG-3200 (triple-axis gyro), ADXL345 (triple-axis accelerometer), and HMC5883L (triple-axis magnetometer) - to give you nine degrees of inertial measurement. The outputs of all sensors are processed by an on-board ATmega328 and output over a serial interface. This enables the 9DOF Razor to be used as a very powerful control mechanism for UAVs, autonomous vehicles and image stabilization systems.

Note: This product is a collaboration with Jordi Munoz of 3d Robotics. A portion of each sales goes back to them for product support and continued development.

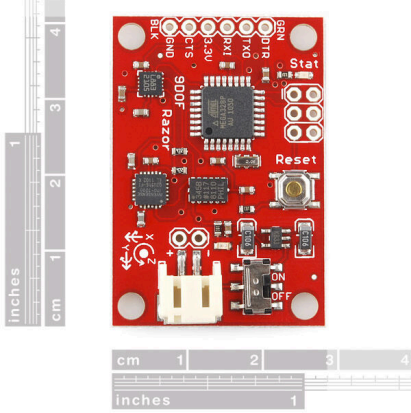
Features:

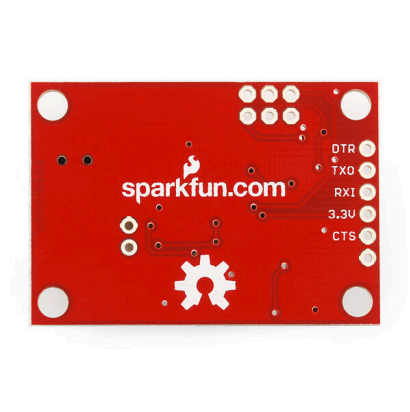
- 9 Degrees of Freedom on a single, flat board:
- ITG-3200 - triple-axis digital-output gyroscope
- ADXL345 - 13-bit resolution, ±16g, triple-axis accelerometer
- HMC5883L - triple-axis, digital magnetometer
- Outputs of all sensors processed by on-board ATmega328 and sent out via a serial stream
- Autorun feature and help menu integrated into the example firmware
- Output pins match up with FTDI Basic Breakout, Bluetooth Mate, XBee Explorer
- 3.5-16VDC input
- ON-OFF control switch and reset switch
- Dimensions: 1.1" x 1.6" (28 x 41mm)

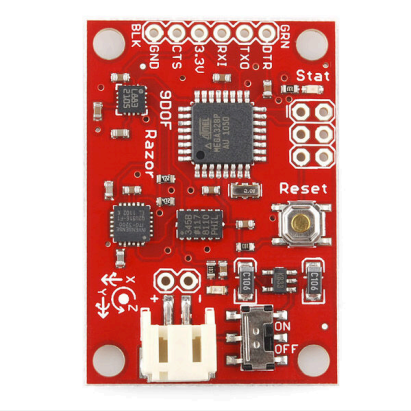
Documents:

- **Schematic**
- **Eagle Files**
- **Test Firmware**
- **Datasheet** (ITG-3200)
- **Datasheet** (ADXL345)
- **Datasheet** (HMC5883L)
- **Python Graphic interface**
- **AHRS Code**

Product Gallery







Resource Links

- https://www.seeedstudio.com/9-Degrees-of-Freedom-Razor-IMU-p-1025.html

Seeed Technology Co.,Ltd.
9F, Building G3, International E City,
Zhongshanyuan Road, Nanshan, Shenzhen, China

Tel: +86 0755-80695676
Web: www.seeed.cc
Shop: www.seeedstudio.com