

SEN-14686 VR IMU Breakout Board

SEN-14686

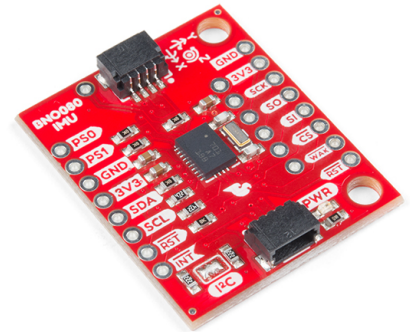
Product Overview

05-16-2022

For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

SparkFun SEN-14686 VR IMU Breakout Board is a Virtual Reality (VR) board that provides Inertial Measurement Unit (IMU) information by combining and drift-correcting all the sensor data. This board includes a Bosch's BNO080, a combination triple-axis accelerometer/gyro/magnetometer SiP. The BNO080 IMU which is packaged with a 32-bit ARM Cortex M0+ produces accurate rotation vector headings suited for VR and other heading applications, with a static rotation error of two degrees or less.

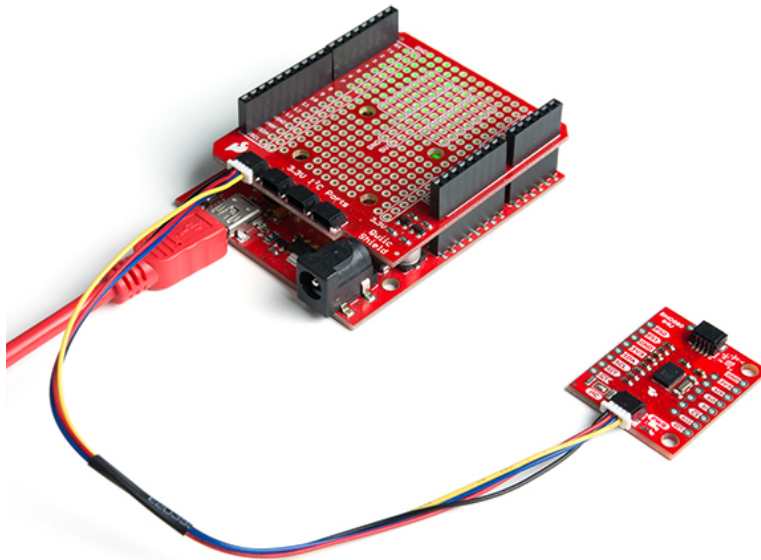
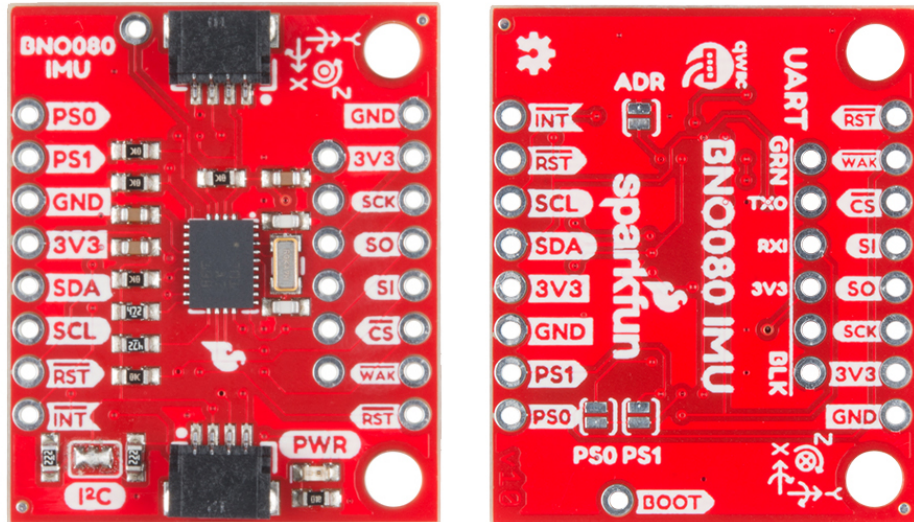


The SEN-14686 VR IMU breakout board is also equipped with two I²C Qwiic connectors to make interfacing with the tiny, QFN package a little easier. This board operates at a 1.65V to 3.6V voltage range and features 3Mbps UART, rotation vector, gaming rotation vector, geomagnetic rotation vector, and 1.5° gravity angle error.

Features

- 1.65V to 3.6V operating voltage range
- Up to 400KHz I²C
- Up to 3MHz SPI
- 3Mbps UART
- **Rotation vector:**
 - 3.5° dynamic error
 - 2° static error
- **Gaming rotation vector:**
 - 2.5° dynamic error
 - 1.5° static error
 - 0.5°/min heading drift
- **Geomagnetic rotation vector:**
 - 4.5° dynamic rotation error
 - 3° static rotation error
- 1.5° gravity angle error
- 0.35m/s² linear acceleration accuracy
- 0.3m/s² accelerometer accuracy
- 3.1°/sec gyroscope accuracy
- 1.4μT magnetometer accuracy
- 2x Qwiic connection ports

Overview



Mouser Part Number

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To learn more, visit <https://www.mouser.com/new/sparkfun/sparkfun-sen-14686-breakout-board/>