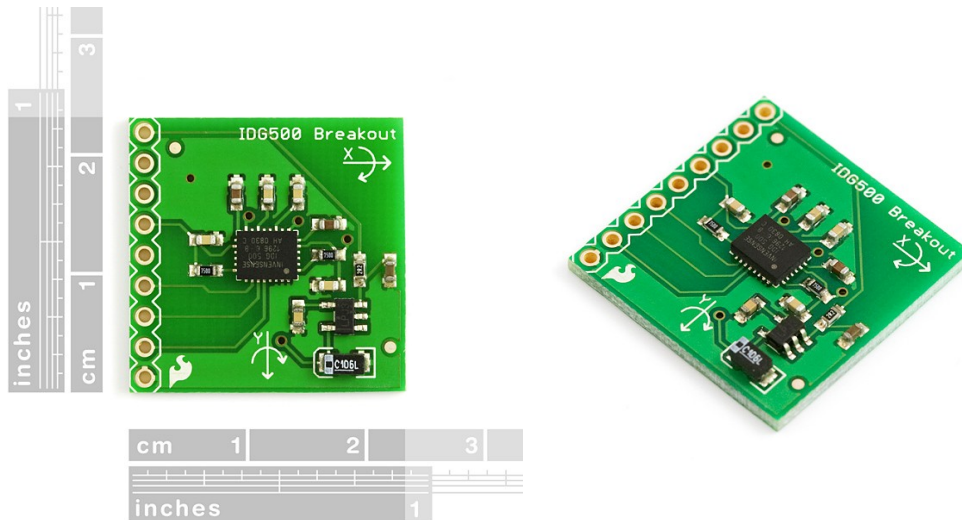# SparkFun
Gyro Breakout Board - IDG500 Dual 500?/s
sku: SEN-09094

Description: This is the breakout board for the IDG500, which includes an on-board 2.8V regulator and all pins broken out to 0.1" pin holes. The IDG-500 is a very small, dual-axis angular rate sensor (gyroscope). It uses InvenSense's proprietary and patented MEMS technology with vertically driven, vibrating masses to make a functionally complete, low-cost, dual-axis angular rate sensor. All required electronics are integrated onto a single chip with the sensor.

The IDG-500 gyro uses two sensor elements with novel vibrating dual-mass bulk silicon configurations that sense the rate of rotation about the X- and Y-axis (in-plane sensing). This results in a unique, integrated dual-axis gyro with guaranteed-by-design vibration rejection and high cross-axis isolation. It is specifically designed for demanding consumer applications requiring low cost, small size and high performance.

The IDG-500 gyro includes the integrated electronics necessary for application-ready functionality. It incorporates X- and Y-axis low-pass filters and an EEPROM for on-chip factory calibration of the sensor. Factory trimmed scale factors eliminate the need for external active components and end-user calibration. This product is lead-free and Green Compliant.

Not sure which gyro is right for you? Our Accelerometer and Gyro Buying Guide might help!

Features:

- 3-7V single-supply operation
- Integrated X- and Y-axis gyros on a single chip
- Two separate outputs per axis for standard and high sensitivity:
  X-/Y-Out Pins: 500°/s full scale range 2.0mV/°/s sensitivity
  X/Y4.5Out Pins: 110°/s full scale range 9.1mV/°/s sensitivity
- Integrated amplifiers and low-pass filters
- Auto-Zero function
- On-chip temperature sensor
- High vibration rejection over a wide frequency range
- High cross-axis isolation by proprietary MEMS design
- Hermetically sealed for temp and humidity resistance

- 10,000 g shock tolerant

Documents:

- [Schematic](#)
- [IDG500 Datasheet](#)
- [Wiring Example](#)

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