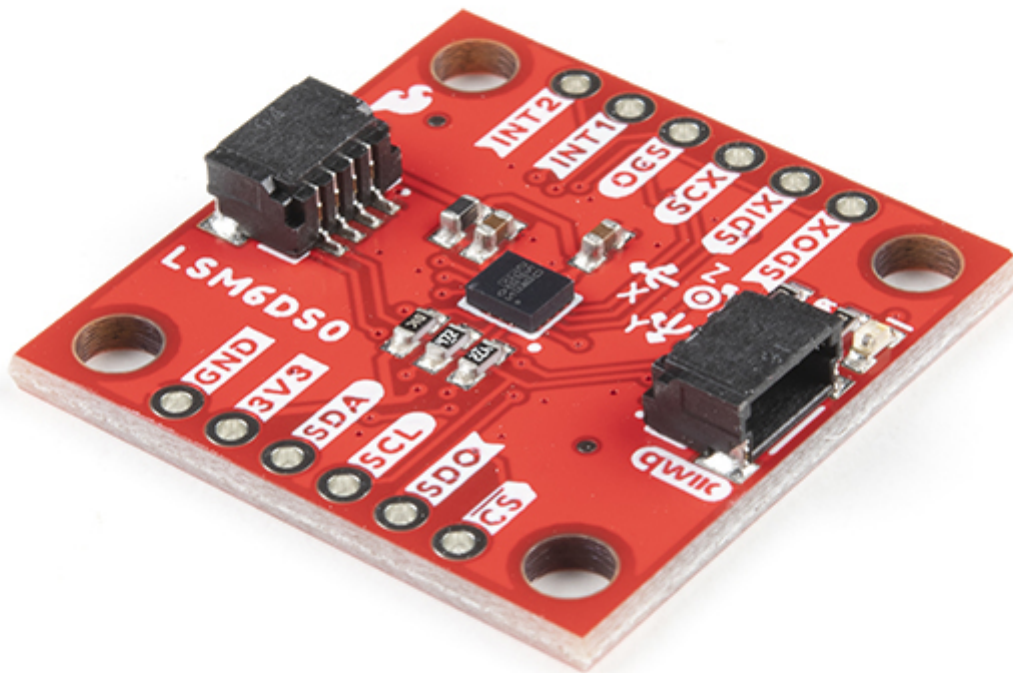


# SparkFun 6 Degrees of Freedom Breakout - LSM6DSO (Qwiic)

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The SparkFun LSM6DSO 6 Degrees of Freedom Breakout is an accelerometer and gyroscope sensor with a giant 9kB FIFO buffer and embedded processing interrupt functions. Due to the capabilities and low cost of the LSM6DSO we've created this small breakout board just for you! Each LSM6DSO breakout has been designed to be super-flexible and can be configured specifically for many applications. With the LSM6DSO breakout you will be able to detect shocks, tilt, motion, taps, count steps, and even read the temperature!

The LSM6DSO from STMicroelectronics is capable of reading accelerometer and gyroscope data up to 6.66kHz for more accurate movement sensing. As stated before this breakout also has the ability to buffer up to 9kB of data between reads, host other sensors, and drive interrupt pins all thanks to the LSM6DSO's built-in FIFO.

Utilizing our handy Qwiic system, no soldering is required to connect it to the rest of your system. However, we still have broken out 0.1"-spaced pins in case you prefer to use a breadboard. Each pin has been broken out on the LSM6DSO, with one side of the board featuring power, I<sup>2</sup>C, and SPI functionality while the other side sporting pins that control auxiliary functionality and interrupt outputs. Please keep in mind that the LSM6DSO is a 3.3V device so supplying voltages greater than ~3.6V can permanently damage the IC. A logic level shifter is required for any development platform operating at 5V.

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*The SparkFun Qwiic Connect System is an ecosystem of I<sup>2</sup>C sensors, actuators, shields and cables that make prototyping faster and less prone to error. All Qwiic-enabled boards use a common 1mm pitch, 4-pin JST connector. This reduces the amount of required PCB space, and polarized connections mean you can't hook it up wrong.*

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