

# Accelerometer Phidget



Accelerometers are the quintessential motion sensor, from robotics to motion capture. The Accelerometer Phidget measures up to  $\pm 8g$  (or  $78.5 \text{ m/s}^2$ ) in each axis, which is more than you'll ever produce in most ordinary applications. The MOT1100 connects to a port on a VINT Hub. See the Connection & Compatibility tab for a list of hubs.

The most common use for an accelerometer is to measure the movement of an object, such as a person or robotic vehicle. You can compare the acceleration values on each axis to determine the direction and strength of the acceleration, and in some situations, even estimate velocity and position. An accelerometer could also be used to detect vibration. For example, mounted to a walking surface, it could be used to record the footsteps of a person walking or running. Another common way to use an accelerometer is as a tilt sensor. When mounted on a stationary object, an accelerometer will measure  $\approx 1g$  downward (due to the earth's gravity). If the object is tilted, the angle of this  $1g$  acceleration will change and this change can be measured.

## Other Options

The Accelerometer Phidget works best in applications that care mostly about the direction and approximate strength of movement. If you need more precise measurements, have a look at the Other Accelerometers tab for more appropriate options.

## Product Specifications

### Board Properties

Controlled By VINT

### Accelerometer

Acceleration Measurement Max  $\pm 8 \text{ g}$

Acceleration Measurement Resolution  $1 \text{ mg}$

Accelerometer Noise  $\pm 5 \text{ mg}$

|                       |              |
|-----------------------|--------------|
| Sampling Interval Min | 20 ms/sample |
| Sampling Interval Max | 60 s/sample  |

#### **Electrical Properties**

|                         |             |
|-------------------------|-------------|
| Current Consumption Max | * 2.3 mA    |
| Current Consumption Min | 319 $\mu$ A |

#### **Physical Properties**

|                           |        |
|---------------------------|--------|
| Operating Temperature Min | -40 °C |
| Operating Temperature Max | 85 °C  |

\* – Current consumption varies depending on selected data interval. See the technical section of the User Guide for details.