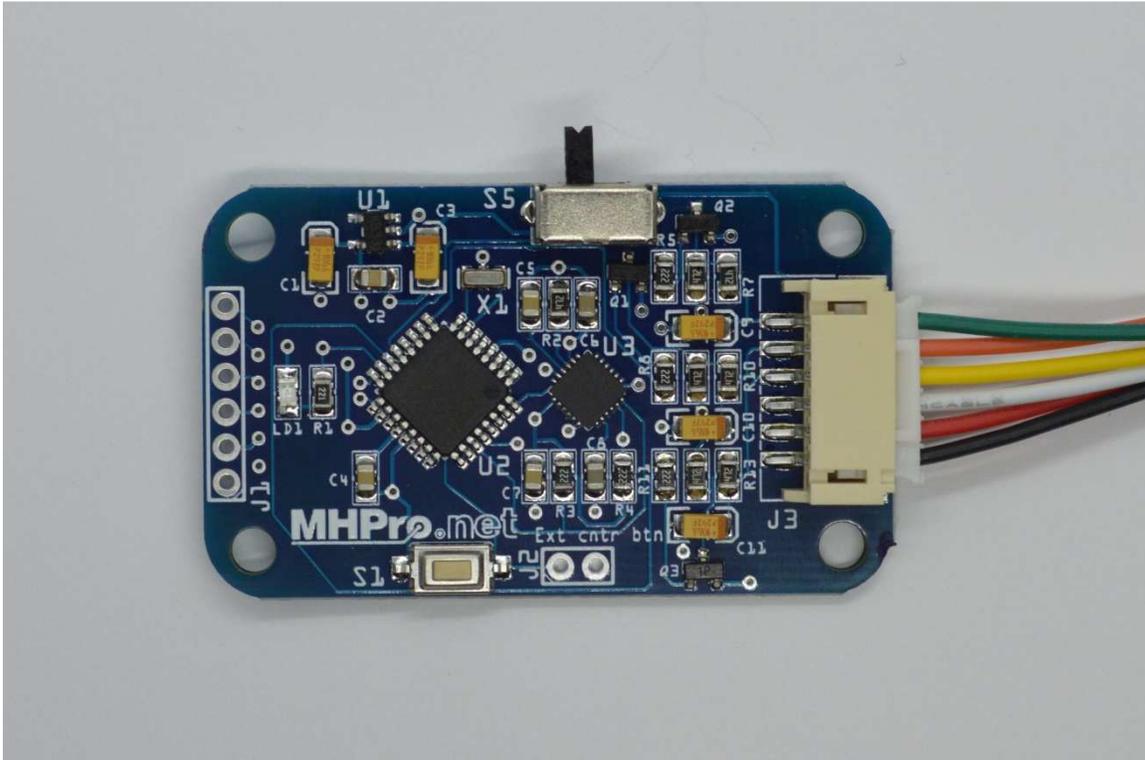


3 axis gyroscope that act as potentiometer!

Replace any potentiometer with this motion control device in your project!



This 3 axis motion sensor gyroscope allows you to track the movement of the head or arm and convert it in analog signals outputs, exactly like a potentiometer.

This system has been specially designed for Do It Yourself (DIY) in electronics or robotics for students who want to explore electronics or who want their own system, but are less comfortable with advanced programming of accelerometers. You can use one or more axis (X, Y, and Z) independently. According to your needs.

More technical

The gyroscope outputs analog signals: 0 to input power voltage (5-12 volts) or 0 - 3.3 volts. Your choice. And independently for each axis. When turning on, the X and Y axis will output 2.5 volts (in case of 5 volts input) and will tend to 0 volt if you rotate the gyroscope one way (-90 degree) and tend to 5 volts the other way (90 degrees). The Z axis will do the same but with +- 180 degrees of rotation.

Configurable outputs

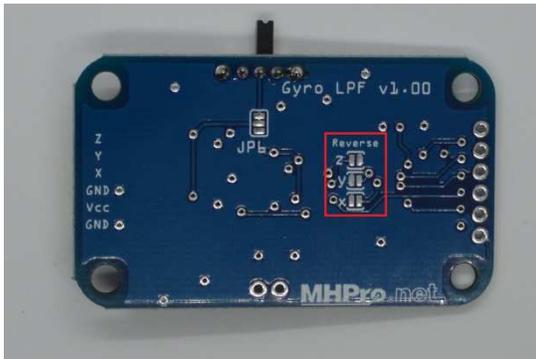


Image 4

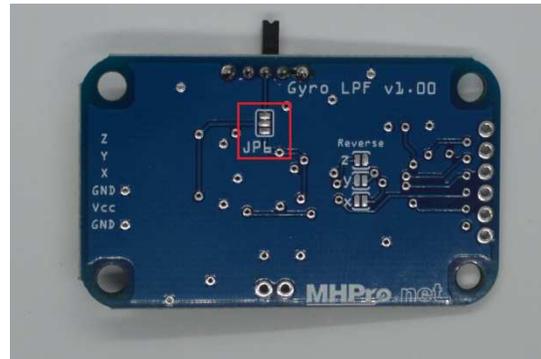


Image 5

Direction of increment

If you need to revert the signals, simply shortcut these little jumpers independently of each axis (see image 4).

Output level

By default, the signals output level is 0 volt to supply voltage. If you need, the output can be 0 to 3.3 volts, even if supply is between 5 to 12 volts. You can configure it with the JP6 jumper (see image 5).

First cut the little trace between the two first pads (see image 6) and then solder the two lower pads together (see image 7).

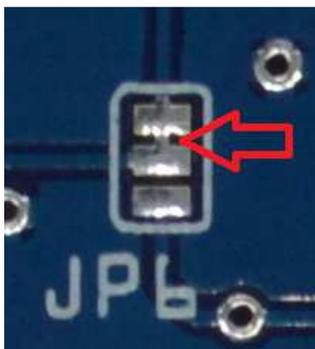


Image 6

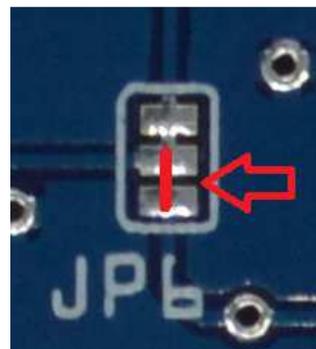
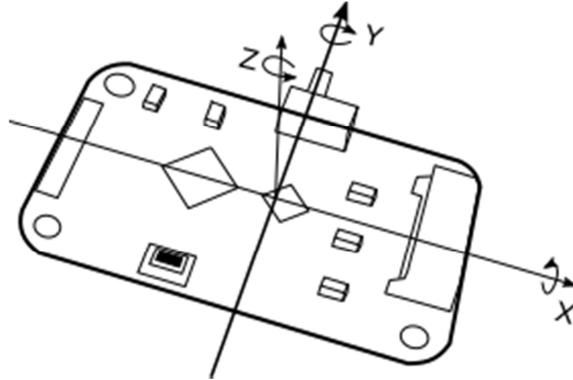


Image 7

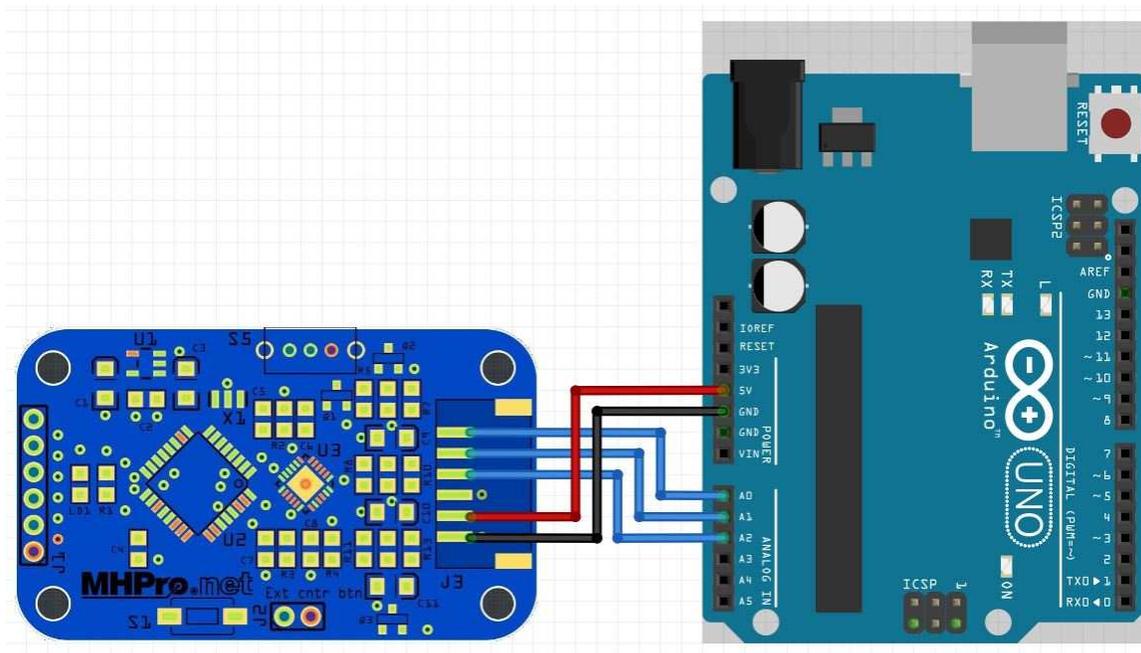
Orientation

Here is the axis orientation.



Example

Here is an example to connect the gyroscope to an Arduino Uno.



Simply use the AnalogRead example sketch to read the signal of the outputs.