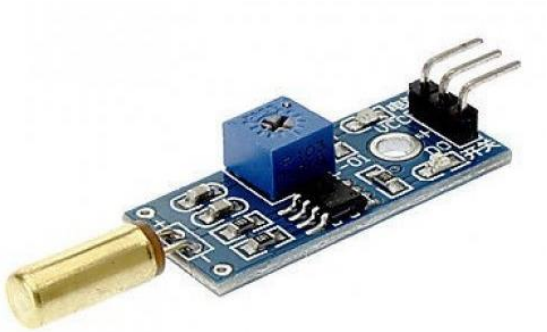
Tilt Sensors



Introduction

Tilt sensors are devices that produce an electrical signal that varies with an angular movement. These sensors are used to measure tilt within a limited range of motion. An example application of such a sensor would be to automatically rotate a display orientation when tilted.

Interfacing with Arduino

The way how the sensor works is pretty trivial. It is basically a tube with metal balls inside enclosed inside a cylinder. When tilted, the metal balls touch the electrical contacts which produces a continuity in the circuit.

The circuit has 3 pins and the usage is very trivial. There is also a trimmer resistor onboard, however you don't need to adjust it unless the sensor is not triggering properly.

VCC connects to 5V, GND to ground and DO is the output which can be connected directly to Arduino.

Once powered up, you can see that there is an LED that turns on whenever the sensor is tilted.

Unllike the other sensors, this works on an inverted logic – meaning the output will be logic LOW when tilted and a logic HIGH when not tilted. Always remember!

You can create a simple program at reads the state of the sensor using digitalRead() or use an interrupt on the pin.