TinkerKit Tilt Sensor
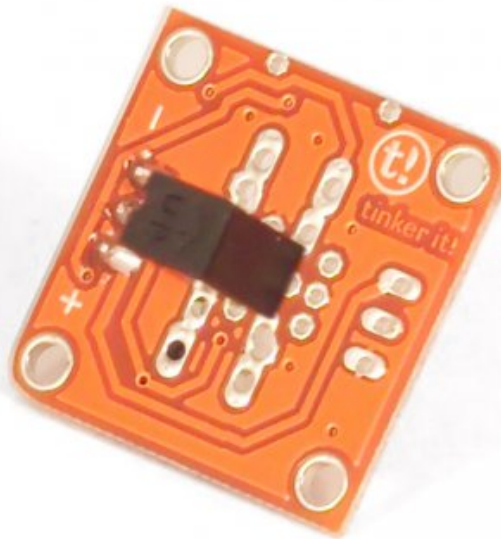
Overview

The **Tilt Sensor** can detect when it is at an angle.

Output: This module contains two contacts and a small metal ball. When the sensor is in its upright position, the ball bridges the two contacts, completing the circuit. When the board is tilted, the ball moves, and the circuit opens. When upright, the module outputs 5V and when it is tilted, it outputs 0V. When connected to an input on the Arduino using the TinkerKit Shield, you can expect to read a value of 1023 when in its upright position and 0 when it is titled.

Module description: this module features a Tilt Sensor, a signal amplifier, the standard TinkerKit 3pin connector, a green LED that signals that the module is correctly powered and a yellow LED that lights up when a connection is made (the sensor is upright).

This module is a **SENSOR**. The connector is an **OUTPUT** which must be connected to one of the **INPUT** connectors on the TinkerKit Shield.

Code Example

```
/*
Tilt

Turns on and off a T010111 LED Module connected to O0 (digital
pin 11), triggered by a T000190 Tilt Sensor attached to I0 (analog pin 0).

created 2005
by DojoDave <http://www.0j0.org>
modified 17 Jun 2009
by Tom Igoe
modified 7 dec 2010
by Davide Gomba

This example code is in the public domain.

*/

#define O0 11
#define O1 10
#define O2 9
#define O3 6
#define O4 5
#define O5 3
#define I0 A0
#define I1 A1
#define I2 A2
#define I3 A3
#define I4 A4
#define I5 A5

// constants won't change. They're used here to
// set pin numbers:
const int tiltPin = I0; // the number of the Tilt Sensor pin
const int ledPin = O0; // the number of the LED pin

// variables will change:
int tiltState = 0; // variable for reading the tilt Sensor status

void setup() {
// initialize the LED pin as an output:
pinMode(ledPin, OUTPUT);
// initialize the tilt Sensor pin as an input:
pinMode(tiltPin, INPUT);
}

void loop(){
// read the state of the tilt Sensor value:
tiltState = digitalRead(tiltPin);
```

```arduino
// check if the tilt Sensor is tilted.
// if it is, the buttonState is HIGH:
if (tiltState == HIGH) {
// turn LED on:
digitalWrite(ledPin, HIGH);
}
else {
// turn LED off:
digitalWrite(ledPin, LOW);
}
}
```