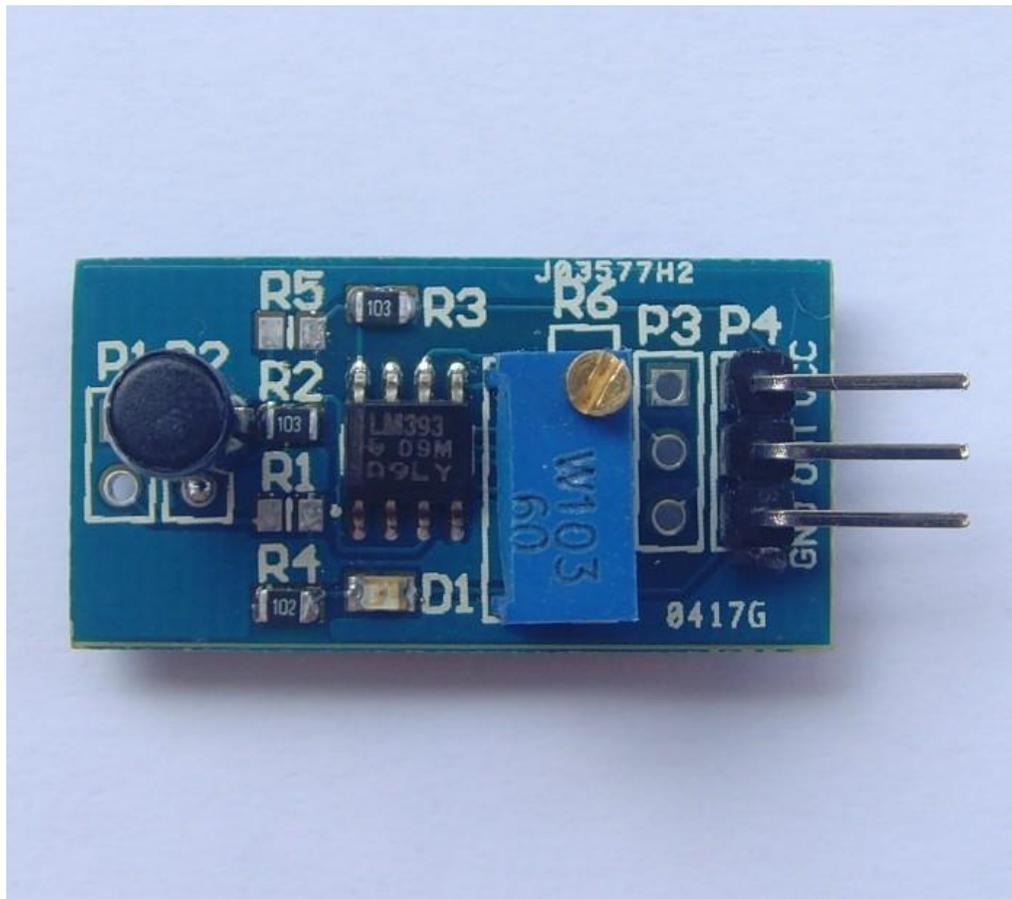# Vibration Switch Sensor Module

General Description:

Vibration sensor is used originally as vibration switch because of its high sensitivity; it is sensitive to environment vibration, and generally used to detect the ambient vibration strength. When module did not reach the threshold in shock or vibration strength, DO port output gets high level and when external vibration strength exceeds the threshold, D0 port output gets low level.

Small digital output D0 can be directly connected to the microcontroller, for the microcontroller to detect low level, thereby to detect the ambient vibration. Small digital output DO can directly drive the relay module, which can be composed of a vibration switch.
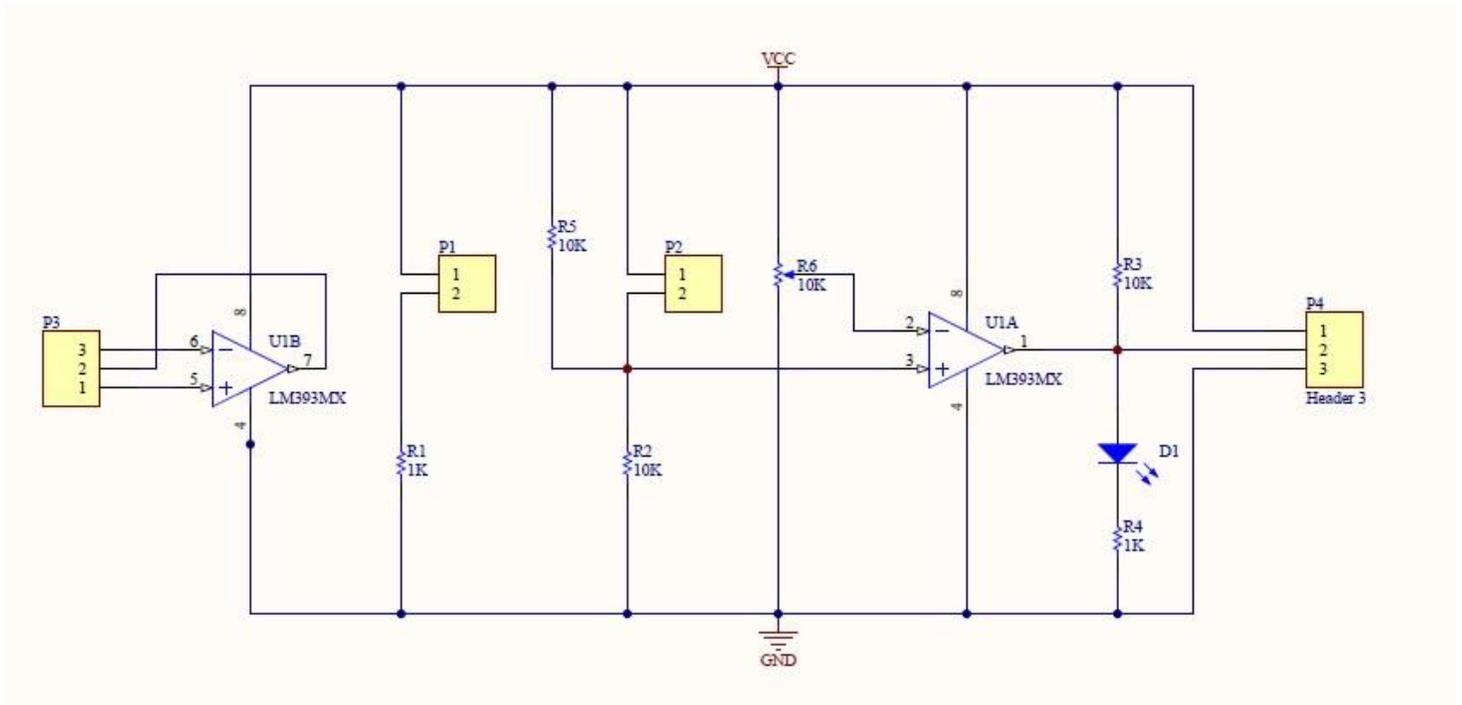
Specifications:

- The default state of the switch is open
- Digital output
- Supply voltage:3.3V-5V
- On-board LM393 voltage Comparator chip and Vibration sensing probe
- Signal detection sensitivity can be adjusted.
- Dimension: 3cm x 1.5cm

Pin Configuration:

1. VCC
2. Output
3. Ground
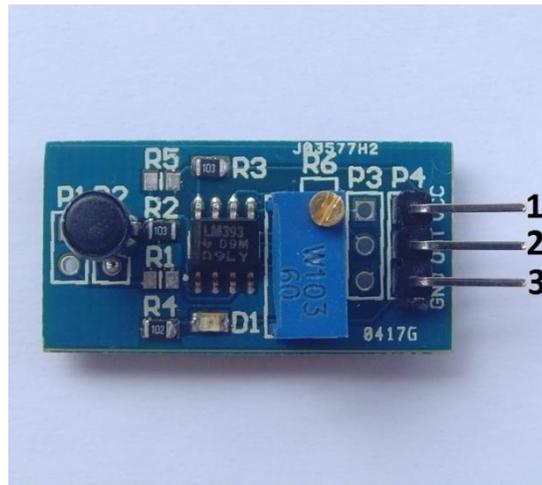
Schematic Diagram:

How to test:

1. Connect your Arduino microcontroller to the computer.
2. Connect the VCC pin of your module to the to the 5V pin of your Arduino.
3. Connect the GND pin of your module to the GND pin of your Arduino.
4. Connect the Output pin of your module to the A0 pin of you Arduino.
5. Enter this program to your Arduino Integrated Development Environment (IDE):

```
void setup()
{
  Serial.begin(9600);
}

void loop()
{
  (analogRead(A0)<11) Serial.println("OFF");
  else Serial.println("ON");
  delay(100);
}
```

6. Click the Upload Button.
7. Lastly, click the Serial Monitor button.

Testing Results:

When there is no vibration:
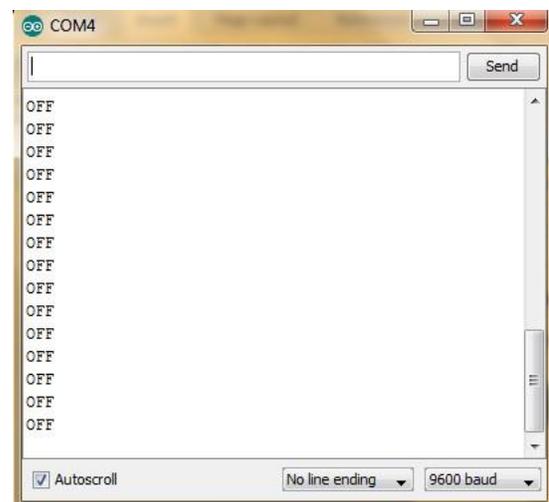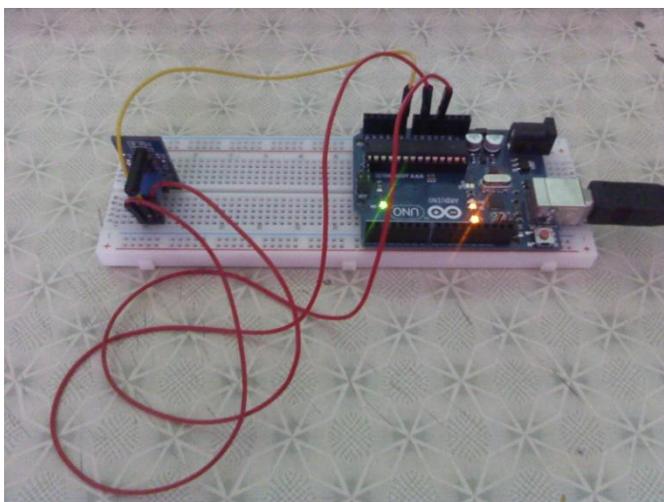
When exposed to an electric fan with a vibrating motor: