Grove - Touch Sensor User Manual

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Wiki: http://www.seeedstudio.com/wiki/Grove_-_Relay

Bazaar: http://www.seeedstudio.com/depot/Grove-Touch-Sensor-p-747.html?cPath=85_94

Document Revision History

Revision	Date	Author	Description
1.0	Sep 22, 2015	Loovee	Create file

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Disclaimer

For physical injuries and possessions loss caused by those reasons which are not related to product quality, such as operating without following manual guide, natural disasters or force majeure, we take no responsibility for that.

Under the supervision of Seeed Technology Inc., this manual has been compiled and published which covered the latest product description and specification. The content of this manual is subject to change without notice.

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1. Introduction

Grove - Touch Sensor enables you to replace press with touch. It can detect the change in capacitance when a finger is nearby. That means no matter your finger directly touches the pad or just stays close to the pad, Grove - Touch Sensor would outputs HIGH also.

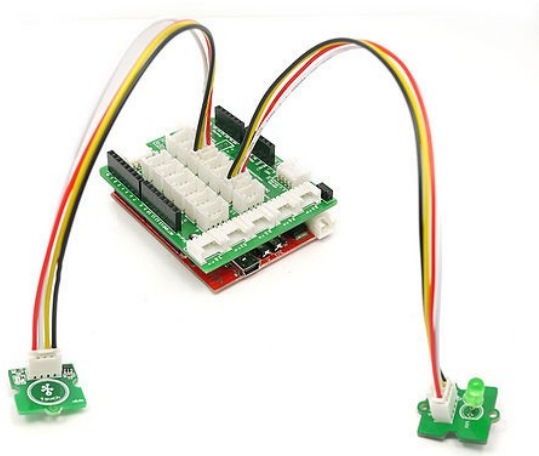


2. Specifications

- Operating Voltage: 2.0 - 5.5V
- Operating Current(Vcc=3V):1.5 - 3.0 μ A
- Operating Current(VDD=3V):3.5 - 7.0 μ A
- Output Response Time: 60 - 220mS
- Used Chipset: TTP223-BA6

3. Demonstration

3.1 With Arduino



This demo is going to show you how to turn on/off an LED.

Demo Code:

```
const int TouchPin=9;
const int ledPin=12;
void setup() {
    pinMode(TouchPin, INPUT);
    pinMode(ledPin,OUTPUT);
}

void loop() {
    int sensorValue = digitalRead(TouchPin);
    if(sensorValue==1)
    {
        digitalWrite(ledPin,HIGH);
    }
    else
    {
        digitalWrite(ledPin,LOW);
    }
}
```

3.2 With Raspberry Pi

You should have got a raspberry pi and a grovepi or grovepi+.

You should have completed configuring the development enviroment, otherwise follow here.

Connection

Plug the sensor to grovepi socket D4 by using a grove cable.

Navigate to the demos' directory:

```
cd yourpath/GrovePi/Software/Python/
```

- ***To see the code***

```
nano grove_touch_sensor.py   # "Ctrl+x" to exit #
import time
import grovepi

# Connect the Grove Touch Sensor to digital port D4
# SIG,NC,VCC,GND
touch_sensor = 4

grovepi.pinMode(touch_sensor,"INPUT")

while True:
    try:
        print grovepi.digitalRead(touch_sensor)
        time.sleep(.5)

    except IOError:
        print "Error"
```

5. Run the demo.

```
sudo python grove_touch_sensor.py
```

4. Resources

- Eagle Files
- TTP223pdf
- how to upload code