# Handson Technology

TTP223B+ 1-Touch Capacitive Sensor Module

This module is based on capacitive touch-sensing IC TTP223B. This versatile small sensor board is configured with "Momentary High" output for easy micro-controller interfacing. This touching detection module is designed for replacing traditional mechanical button switch with diverse pad size with no wear and tear problem of mechanical switches.
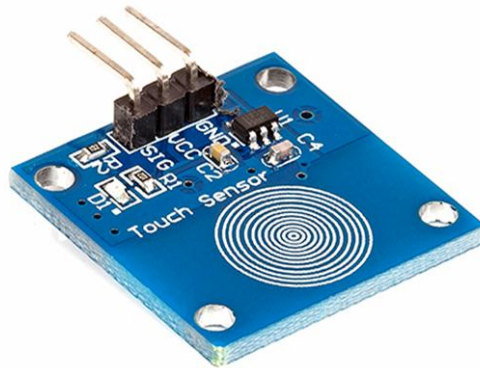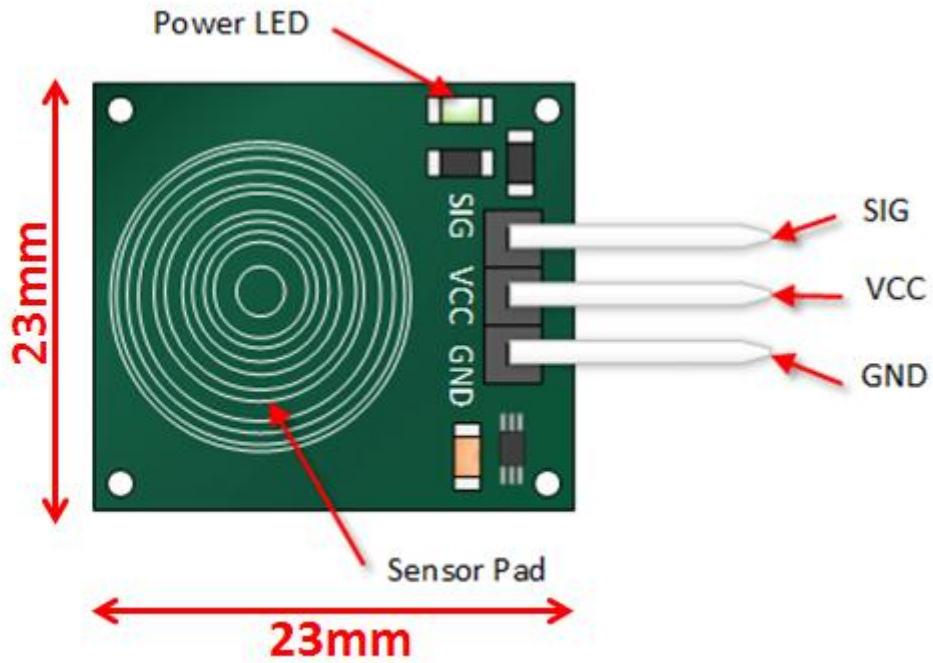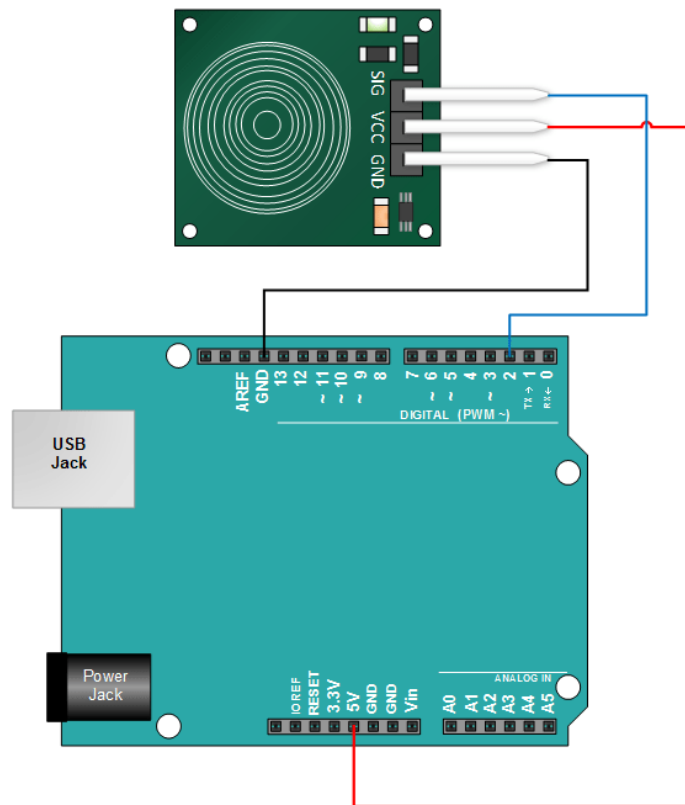
SKU: MDU-1065

Brief Data:

- Operating voltage: 2.0~5.5V.
- Operating current @VDD=3V: 1.5uA, maximum 3.0uA.
- Output: Active High Momentary.
- Response time: 220mS max@ 3V.
- 2.54mm breadboard friendly header pin connector.

Functional Diagram:

Application Example with Arduino Uno:

This is a real simple set up. You will know that you have power properly applied when the green LED is on.

Upload the below sketch to Arduino Uno Board.

```
// Handson Technology www.handsontec.com
// TTP223 Capacitive Touch Sensor Module Tutorial

// When Sig Output is high, touch sensor is being pressed

#define ctsPin 2        // Pin for capacitive touch sensor module

int ledPin = 13; // pin for the on-board LED indicator "L"

void setup() {
  Serial.begin(9600);
  pinMode(ledPin, OUTPUT);
  pinMode(ctsPin, INPUT);
}

void loop() {
  int ctsValue = digitalRead(ctsPin);
  if (ctsValue == HIGH){
    digitalWrite(ledPin, HIGH);
    Serial.println("TOUCHED");
  }
  else{
    digitalWrite(ledPin,LOW);
    Serial.println("not touched");
  }
  delay(500);

}
```

Once the sketch had successfully uploaded, the on-board LED indicator on the Arduino Board "L" will light up when touched.

You can also observe the touch module output status by opening the Serial Monitor: