TTP223 Touch Sensor

Introduction

TTP223 module is a capacitive touch switch module based on touch detection IC. Under normal conditions, the module outputs low level and low power mode; when touching the corresponding area with a finger, the module will output high level and shift to fast mode; when without touching for 12 seconds, the module will switch to low power mode. You can install the module in the surface of nonmetal materials such as plastic, glass, and the surface of module can be covered with a thin piece of paper (non-metallic).As long as the right position can be touched, the module can be made into a key hidden in the walls and desktop. This module can release you from the annoyance of usual press button.

Module Features

1. Initial state is a low level, shifts to high when touched, back to low when releasing the touch (similar to the touch key function)
2. Low power consumption
3. Power supply can be 2~5.5V DC
4. Both he front and back sides can be used as a touch surface, which can replace the traditional touch keys

5. Four M2 screw positioning holes are easy for installation

Experiment Purpose

The purpose of this experiment is to control a small light through the touch pad on the sensor.

Component List

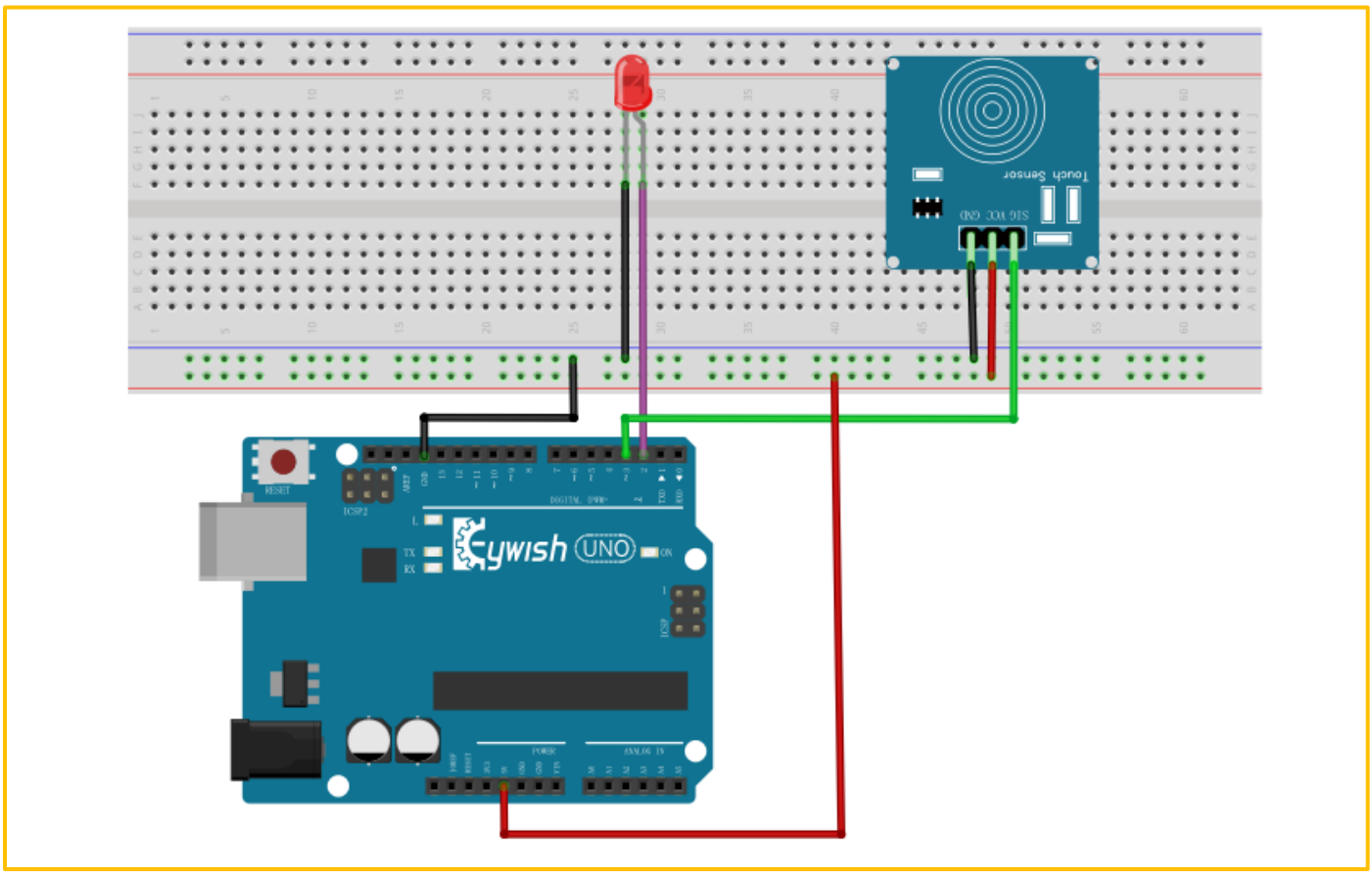
- Keywish Arduino UNO R3 mainboard
- Breadboard
- USB cable
- TTP223 Touch Sensor*1
- LED light*1
- Some wires

Schematic Diagram

Wiring of Circuit

arduino Uno	TTP223
5V	VCC
3	SIG
GND	GND

arduino Uno	LED
2	+
GND	-


Touch Sensor
SIG VCC GND
RESET
ICSP2
Eywish UNO
ON
ICSP
POWER
ANALOG IN

Code

```
//Demo for Touch Sensor
//by Catalex
//catalex.taobao.com
//Demo Function: While you touch the touch sensor with your finger,
the buzzer will sound.

#define TOUCH_SENSOR 3//the touch sensor is connected with D3 of
Arduino/Catduino
#define BUZZER 2//the buzzer is connected with D2 of Arduino/Catduino
void setup() {
  Serial.begin(9600);
  pinMode(TOUCH_SENSOR, INPUT);
  pinMode(BUZZER, OUTPUT);
}

void loop() {
  int sensorValue = digitalRead(TOUCH_SENSOR);
  if(sensorValue)
  {
    Serial.println("Touch");
    digitalWrite(BUZZER,HIGH);
    delay(40);
    digitalWrite(BUZZER,LOW);
    while(digitalRead(TOUCH_SENSOR) == HIGH);
    Serial.println("Nobody touch");
  }

}
```

Experiment Result