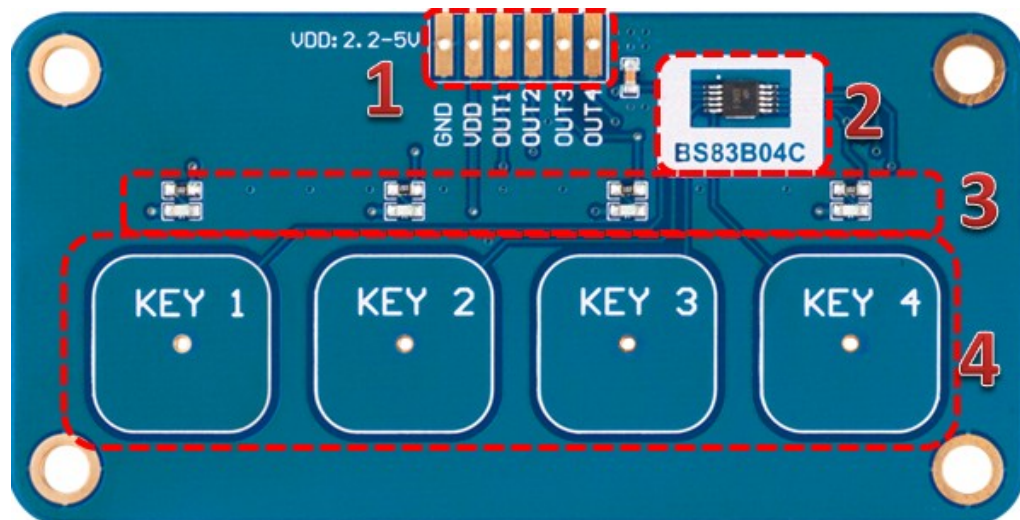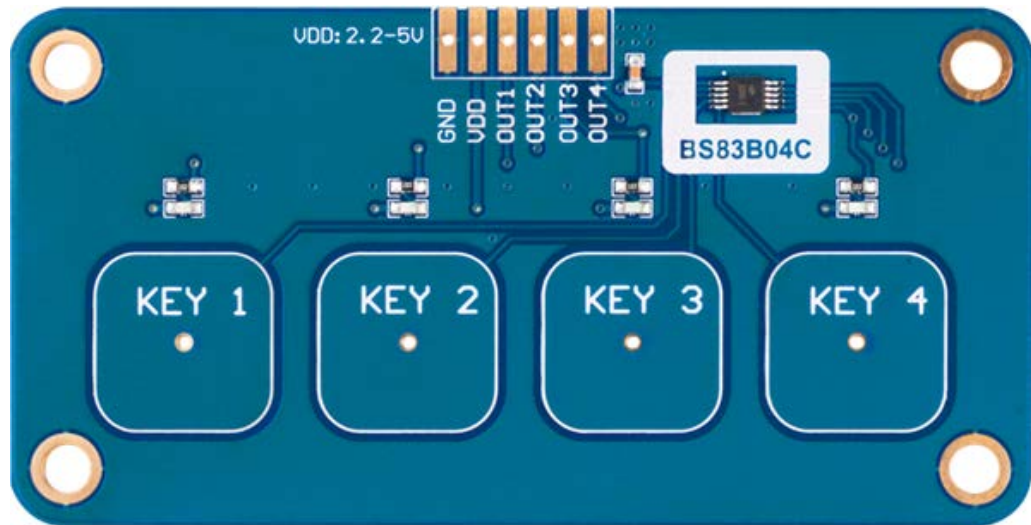# Operation Guide

Layout Diagram

This diagram shows the 4-key Capacitive Touch Sensor PCBA layout.

1. Connector : 6-pin connector

2. IC : BS83B04C (product of Holtek Semiconductor Inc.)

3. LED : KEY1 ~ KEY4 indicator

4. Touch Key : KEY1 ~ KEY4

Pin Function

Name	Function
GND	Ground. Should be connected to the ground of host circuit.
VDD	Power supply. Should be connected to a voltage between 1.8V ~ 5V
OUT1	KEY1 output. When the KEY1 pad is touched, the OUT1 voltage is low and the associated LED will light up, otherwise it is high and the LED is off.
OUT2	KEY2 output. When the KEY2 pad is touched, the OUT2 voltage is low and the associated LED will light up, otherwise it is high and the LED is off.
OUT3	KEY3 output. When the KEY3 pad is touched, the OUT3 voltage is low and the associated LED will light up, otherwise it is high and the LED is off.
OUT4	KEY4 output. When the KEY4 pad is touched, the OUT4 voltage is low and the associated LED will light up, otherwise it is high and the LED is off.

Example Code

The example code and the Arduino board connection are shown below.
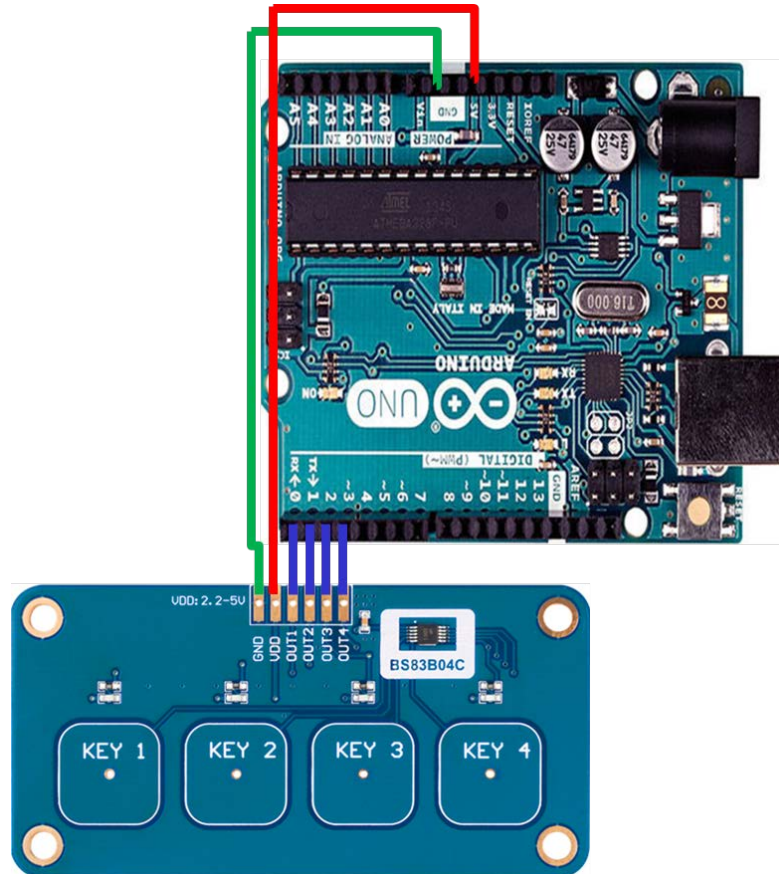

```
int input1 = 0;

int input2 = 1;

int input3 = 2;

int input4 = 3;


int led1 = 7;

int led2 = 6;

int led3 = 5;

int led4 = 4;


int key1=0;

int key2=0;
```

```
int key3=0;
int key4=0;


// the setup routine runs once when you press reset:
void setup() {
  pinMode(input1, INPUT);

  pinMode(input2, INPUT);

  pinMode(input3, INPUT);

  pinMode(input4, INPUT);

  // initialize the digital pin as an output.
  pinMode(led1, OUTPUT);

  pinMode(led2, OUTPUT);

  pinMode(led3, OUTPUT);

  pinMode(led4, OUTPUT);

}


// the loop routine runs over and over again forever:
void loop() {
  digitalWrite(input1,HIGH);

  digitalWrite(input2,HIGH);

  digitalWrite(input3,HIGH);

  digitalWrite(input4,HIGH);


  key1=digitalRead(input1);

  key2=digitalRead(input2);

  key3=digitalRead(input3);

  key4=digitalRead(input4);


  if(key1==LOW)
  {
    digitalWrite(led1, LOW);   // turn the LED on (LOW is the voltage level)
  }
  else
  {
    digitalWrite(led1, HIGH);   // turn the LED off (HIGH is the voltage level)
```

```
  }

  if(key2==LOW)
  {
    digitalWrite(led2, LOW);  // turn the LED on (LOW is the voltage level)
  }
  else
  {
    digitalWrite(led2, HIGH);  // turn the LED off (HIGH is the voltage level)
  }

  if(key3==LOW)
  {
    digitalWrite(led3, LOW);  // turn the LED on (LOW is the voltage level)
  }
  else
  {
    digitalWrite(led3, HIGH);  // turn the LED off (HIGH is the voltage level)
  }

  if(key4==LOW)
  {
    digitalWrite(led4, LOW);  // turn the LED on (LOW is the voltage level)
  }
  else
  {
    digitalWrite(led4, HIGH);  // turn the LED off (HIGH is the voltage level)
  }
}
```