

Touch Keypad Enter Key to Output PIN Toggle ON/OFF

```
#define SCL 2 // TTP229 SCL connected to D2
#define SDO 3 // TTP229 SDO connected to D3

byte Key;
const int outputPins[16] = {4, 5, 6, 7, 8, 9, 10, 11, 12, A0, A1, A2, A3, A4, A5, 13}; //
Array of I/O pins for 16 keys
bool pinStates[16] = {0}; // Array to store the current state of each pin

byte Read_TTP229_Keypad(void) {
    byte Num;
    byte Key_State = 0;

    for (Num = 1; Num <= 16; Num++) {
        digitalWrite(SCL, LOW);
        if (!digitalRead(SDO)) {
            Key_State = Num; // Record the pressed key number
        }
        digitalWrite(SCL, HIGH);
    }
    return Key_State;
}

void setup() {
    Serial.begin(9600);
    pinMode(SCL, OUTPUT);
    pinMode(SDO, INPUT);

    // Set all output pins to OUTPUT mode and LOW initially
    for (int i = 0; i < 16; i++) {
        pinMode(outputPins[i], OUTPUT);
        digitalWrite(outputPins[i], LOW);
    }
}

void loop() {
    Key = Read_TTP229_Keypad();

    if (Key) {
        Serial.print("Key Pressed: ");
        Serial.println(Key);
        delay(100);
        int pinIndex = Key - 1; // Map the key (1-16) to the outputPins array index (0-15)

        // Toggle the state of the corresponding pin
        pinStates[pinIndex] = !pinStates[pinIndex]; // Flip the state (HIGH <-> LOW)
        digitalWrite(outputPins[pinIndex], pinStates[pinIndex]); // Set the pin to the new state
    }
}
```

```
    delay(200); // Debounce delay to avoid multiple toggles from a single press  
}
```

Step 1: Verify Wiring

- **TTP229 SDA** → Arduino **D3**
- **TTP229 SCL** → Arduino **D2**
- **TTP229 VCC** → Arduino **5V**
- **TTP229 GND** → Arduino **GND**



