

# TOUCH SENSOR SWITCH

In this circuit, a 555-timer IC will be utilized to produce precise timing delays in the circuit's flow, thereby making the LED turn on or off with a single touch of the copper wires installed within the circuit. With the help of this component, a touch sensor switch will be created.

## Features

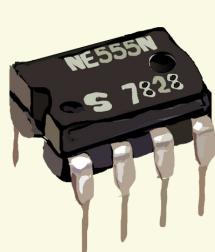
The circuit mainly relies on the human body's capacitance and the 555 timer IC's precise timing pulse. When a user touches the circuit's copper wires, it will create variations in capacitance, triggering the 555 timer IC which then turns the LED on or off.

## **Equipment and Components**

Connector Wires	Light Emitting Diode
Copper Wires	680 ohms Resistor
Breadboard	555 Timer IC
12V Power Supply	

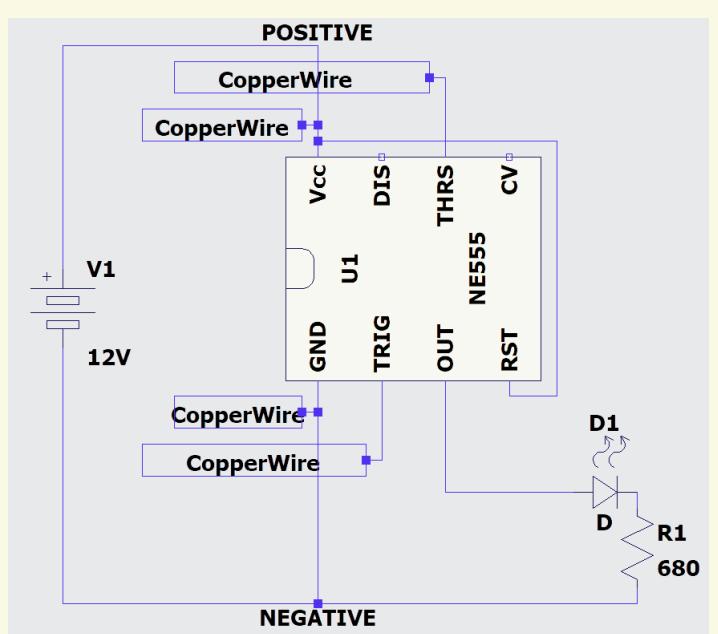
## **Procedure**

## What is a 555 timer IC?



A 555 timer IC is an integrated chip used in providing or signalling precise timing delays or pulses on various electrical components/circuits and devices.

## Schematic Drawing



1. Place the 555 Timer IC on the middle of the breadboard in the correct position.
  2. Place the copper wires at the 555 timer IC's pins 8, 6, 1, and 2.
  3. Place a connecting wire on the positive rail of the breadboard to pin 4.
  4. Place a connecting wire (reset wire) on pins 8 to 4.
  5. Place a connecting wire on pin 1 to the negative rail of the breadboard.
  6. Place a connecting wire on pin 30 and the anode of the LED.
  7. Place one leg of the 680 ohms resistor on the cathode of the LED and the other leg on the negative rail of the breadboard.
  8. Place the LED's anode on the end of the connecting wire while the cathode is on the other leg of the resistor
  9. Place one end of the connecting wire on the negative rail and another connecting wire on the positive rail of the breadboard.
  10. Connect the other ends on the negative and positive sides of the battery.

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