555 Monostable Circuit

\[ T = 1.1 \times C_1 \times R_1 \]

Pin 4 Reset Low (below 1/3 supply voltage) will activate the circuit. Connect to + if not used.

Pin 2 Input Low (below 1/3 supply voltage) will activate the circuit.

Monostable Wave Output from Pin 3

Input Circuits

Switch Input Circuits

Outputs:
- Pushbutton Open = 0
- Pushbutton Closed = 1

Sensor Circuit

Outputs:
- Pushbutton Open = 1
- Pushbutton Closed = 0

Note: Switches can be replaced with Normally Closed Switches or sensor devices including photoresistors, phototransistors, thermistors, microphones, touch sensors, or strain gauges. The resistor in each circuit pulls the output voltage up or down, and may need to have the value changed depending on the sensor signal characteristics.
555 Astable Circuit

T = 0.693 x C1 x (R1 +2R2)

Note: Pin 4 Reset Input. Tie Pin 4 to +5V for normal operation. Tie Pin 4 to ground (0V) to shut down or reset the timer.

Output Circuits

Transistor Output Circuit

LOAD
Can be any number of devices including an LED, Motor, Relay Coil, Speaker, or Light.

Logic Input:
NPN Transistor
1 = Turns on Transistor
0 = Turns Off Transistor

Use a current limit resistor connected to the base to protect transistor.

LED Output Circuits

Logic Input:
0 = Turns on LED1
1 = Turns on LED2

Always include a current limit resistor to protect LED.