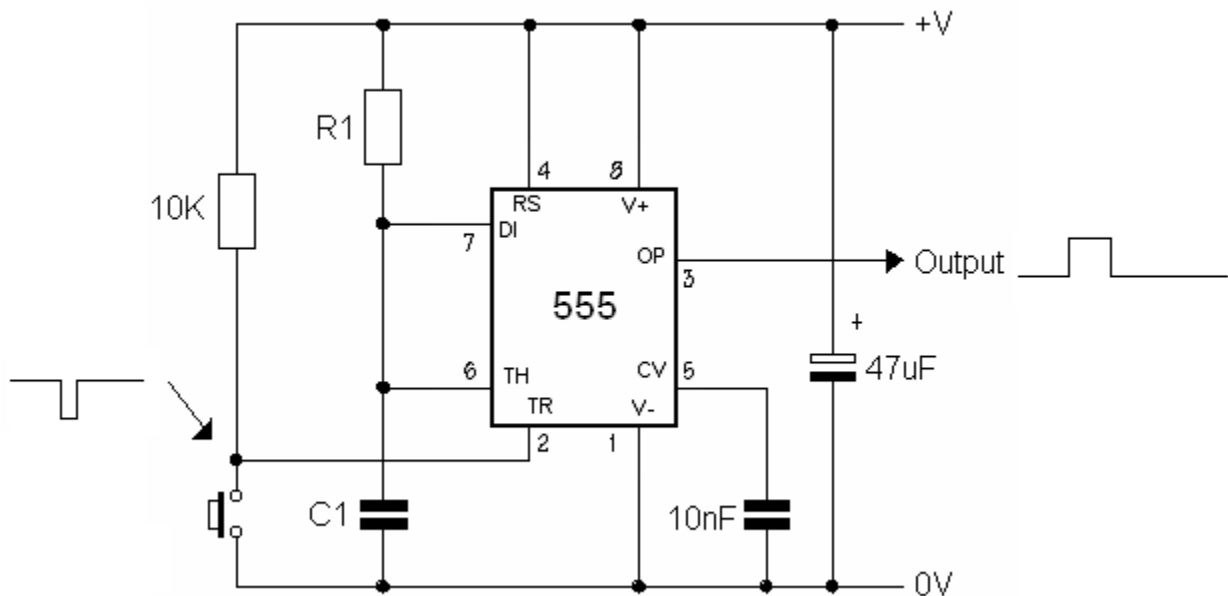


### Monostable Multivibrator

The monostable circuit allows you to produce accurate time delays. In its normal state the output is turned off. But when it receives a trigger pulse the output is switched on for a set period depending on the values of R1 and C.



### How it works

When the circuit is first switched on the output is low.

The trigger input is pulled high to +V via the 10K resistor. When the button is pressed the trigger input is shorted to 0V and the circuit is triggered.

The output goes up to +V for a period determined by timing component R1 and C1, following the formula:

$$T = 1.1 \times R \times C \text{ (Seconds)}$$

Once this time is over the output goes back low to 0V again.

### **555 Timer based astable circuit**

The 555 timer IC was designed in 1970 by Signetics. Although it is over thirty years old it is still used due to its simplicity and versatility.

The circuit to the right shows how a 555 IC can be used to construct an astable multivibrator: