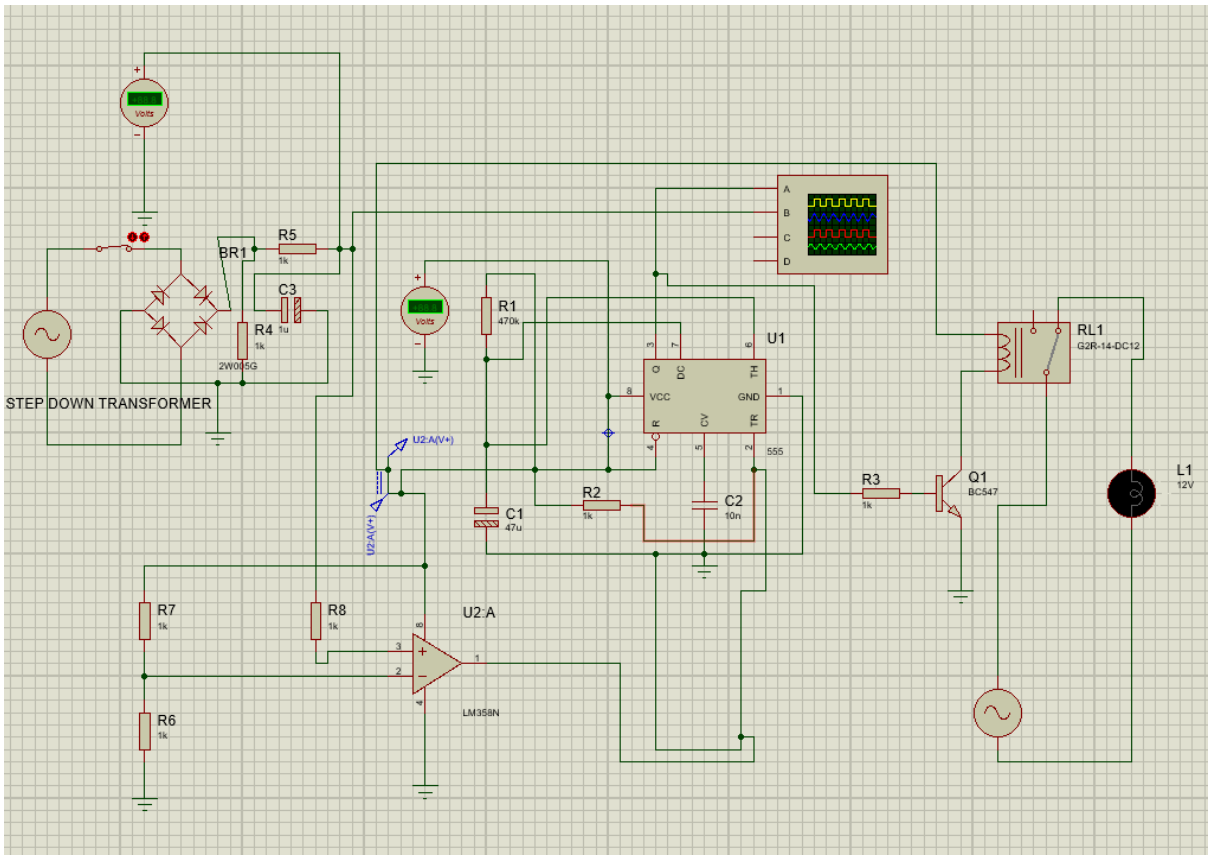
TDR REPORT

Introduction



The 555 IC was designed in 1971 by Hans Camenzind under contract to SigNetics Corporation.

• Basically, 555 timer is a highly stable circuit used to generate time delays, or Oscillations.

• A single 555 timer can provide time delay ranging from microseconds to hours.

• It operates from a wide range of power supplies ranging from + 5 Volts to +18 Volts supply voltage.

The function of each pin of the IC is given below

Ground

Trigger

Output

Reset Pin-5: Control Voltage

Threshold

Discharge

Vcc

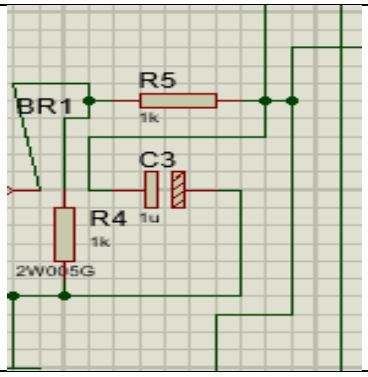
Modes of Operation

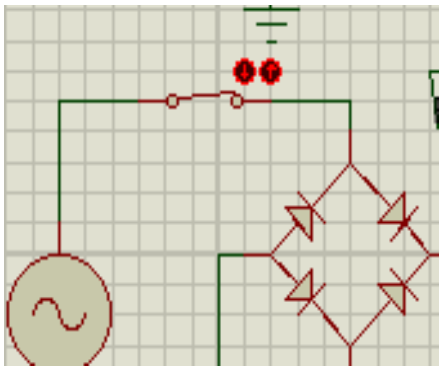
555 IC Timer applications can be classified into two main categories:

1. Monostable Multivibrators:- Producing a single pulse when triggered.

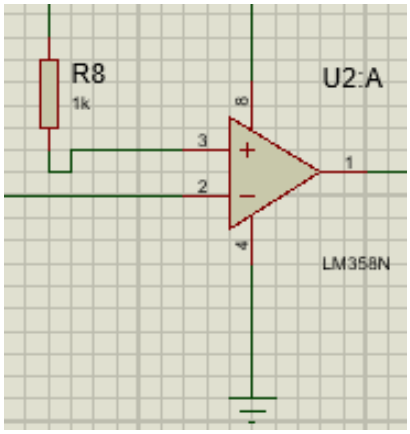
2. Astable Multivibrators.:- Producing a square wave.

WORKING OF TDR

		• LOW POWER FILTER

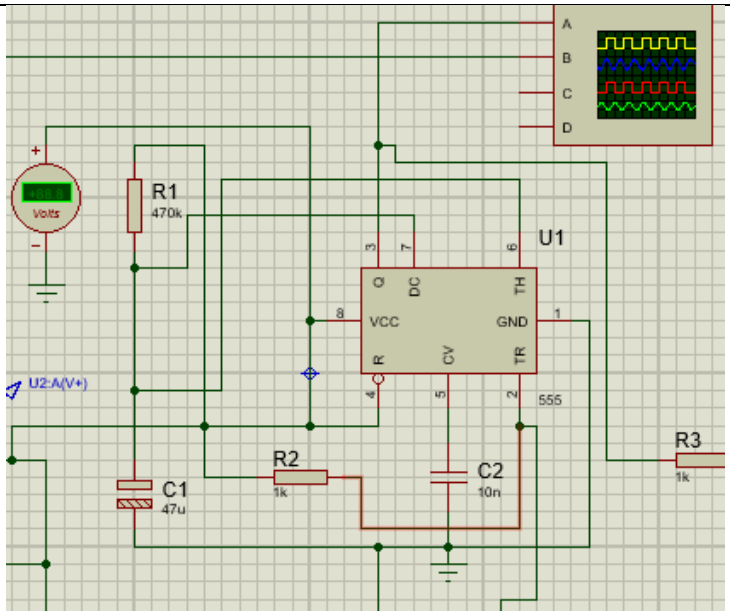


• SWITCH TO CONNECT AND DISCONNECT AC SOURCE FROM CIRCUIT



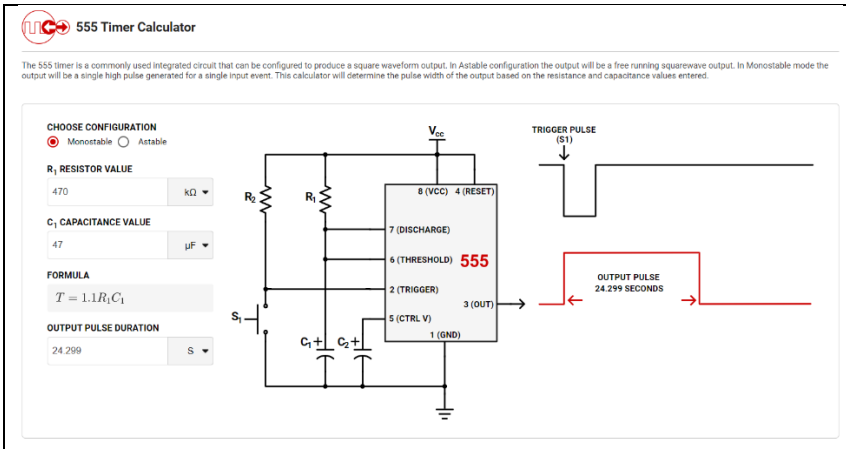
OPAMP

• IT IS USED AS COMPARATOR RESISTOR 7(R7) AND RESISTOR 6 (R6) USED TO SET REFERANCE VOLTAGE TO COMPARATOR *IT WORK AS A POTENTIAL DIVIDER

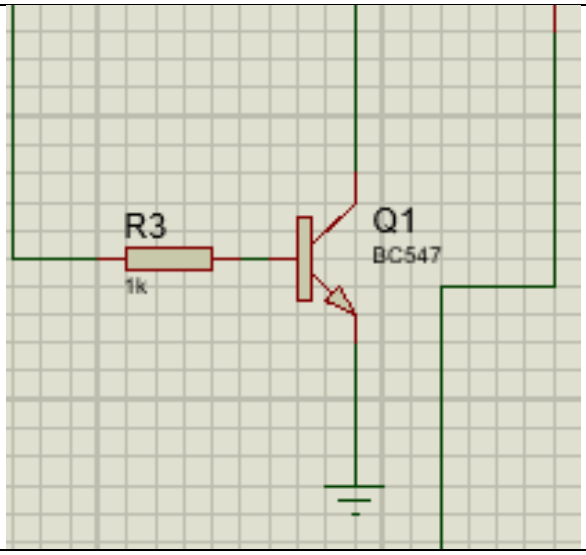


● USING U1(NE555) TIMER IC AS MONOSTABLEVIBRATOR CASE 1 (ON SWITCH) OUTPUT OF THE COMPARATOR IC PIN 1 WILL BE 12 VOLTS CASE 2(OFF SWITCH) OUTPOT OF THE COMPARATOR IC PIN 1 WILL BE LOW

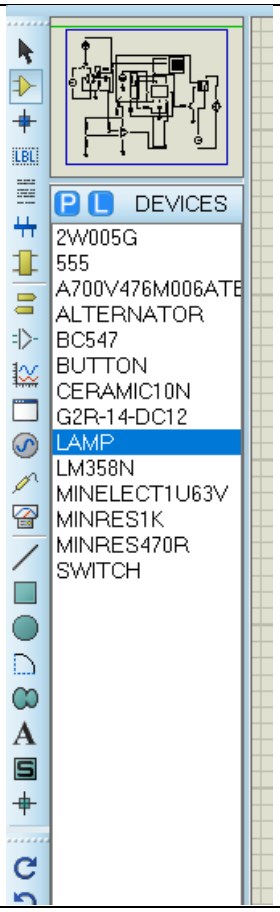
•IN THIS WAY IT ACT AS TRIGGER



IN THE SELECTED RESISTOR (R1) AND CAPACITOR(C1) VARIES SUCH THAT THE TIME IC GENRATES 24.3 SECOUND DELAY
THIS DELAY APPERS ON PIN 3 OF 555 TIMER IC WHICH IS CONNECTED TO THE BASE BIPOLAR TRANSISTOR BC-547



•TRANSISTOR D1 IS USED TO DRIVE THE 12 VOLT S RELAY
THE BASE DRIVE OF TRANSISTOR IS CONTROLLED BY OUPUT PIN OF TIMER 555 IC PIN 3
RELAY RL1 USED TO RUN/STOP THE AIR CONDITION (L1)

		Component used