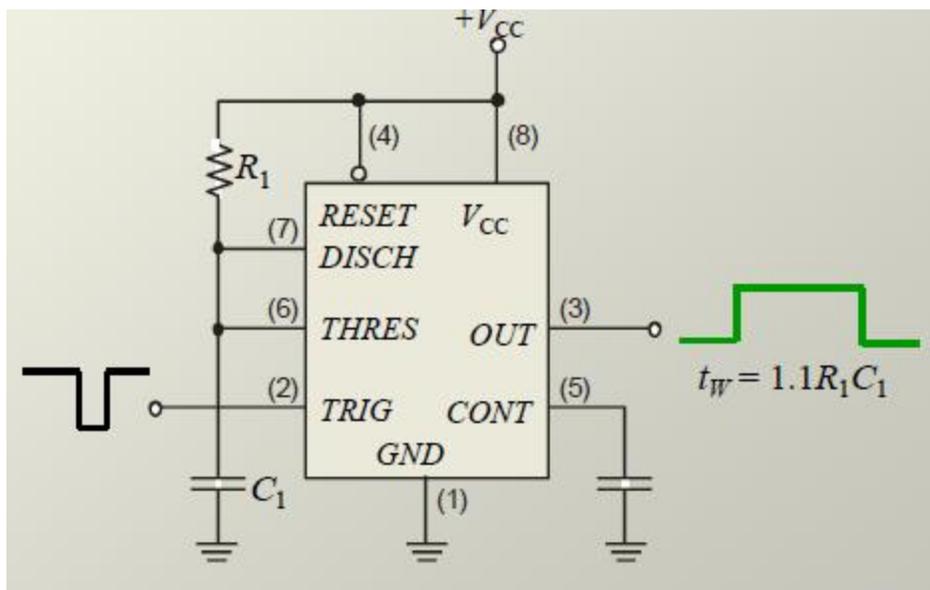


## 555 Timer and Counter in Proteus

### 555 Timer

- **Monostable or one-shot Timer**

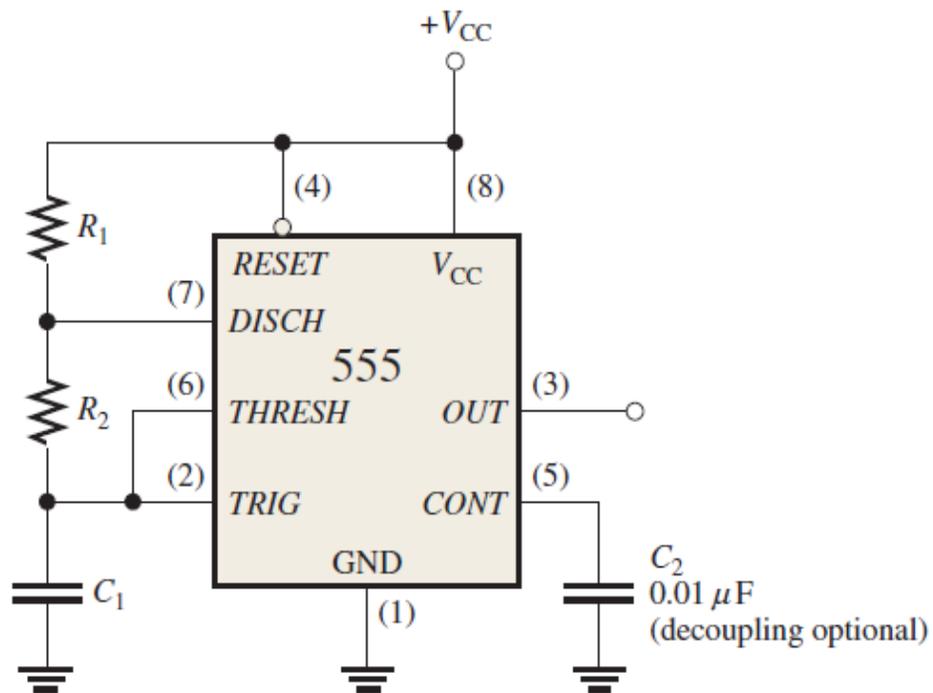
The pulse width is determined by  $R_1C_1$  and is approximately  $t_w = 1.1R_1C_1$ .



- **Astable Timer**

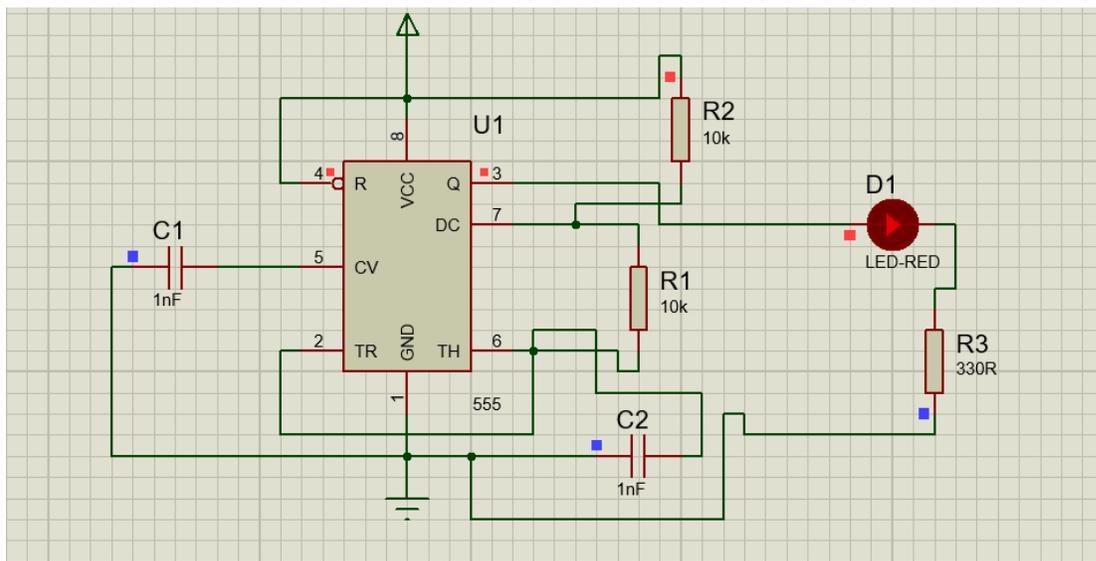
An astable is a device that has no stable states. The resulting output is **typically a square wave that is used as a clock signal** in many types of sequential logic circuits.



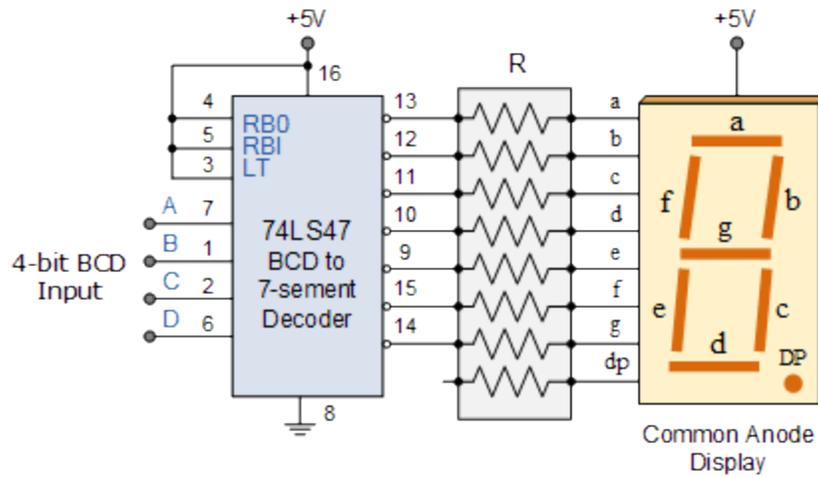


$$f = \frac{1.44}{(R_1 + 2R_2)C_1}$$

- 555 Timer in proteus



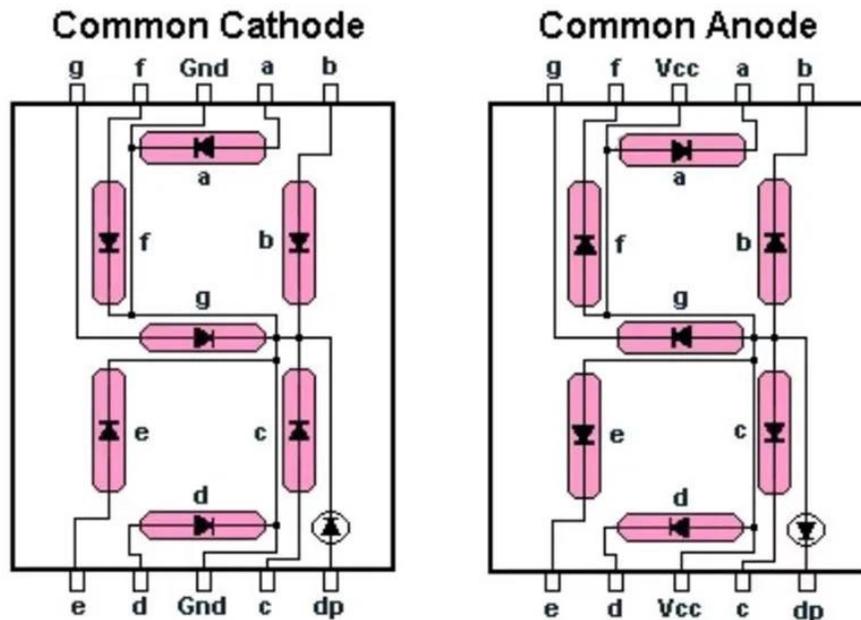
## Counter in Proteus (74LS90)



## Decoder and 7 segments

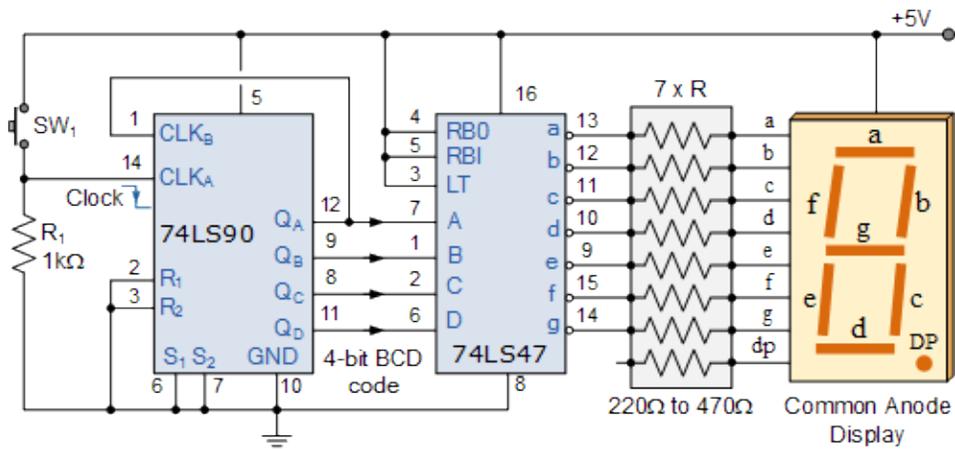
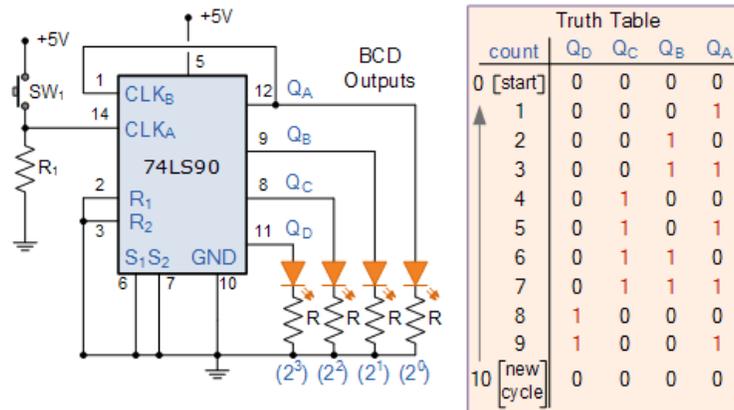
74ls47 ,7 segment anode

74ls48, 7segment cathode



SSD Configuration

## 74LS90 BCD Decade Counter



- Counter in proteus (74LS90)

