

## Experiment 7

### 555 Timer based: (a) Astable (b) Mono-stable and c) Schmitt Trigger

#### 1. : Astable Multivibrator

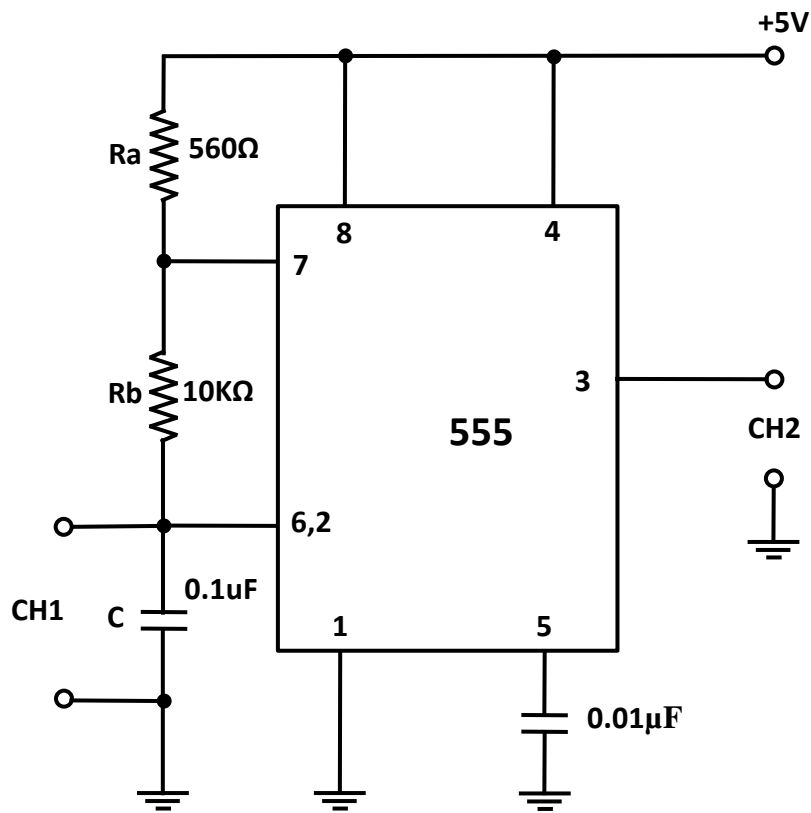
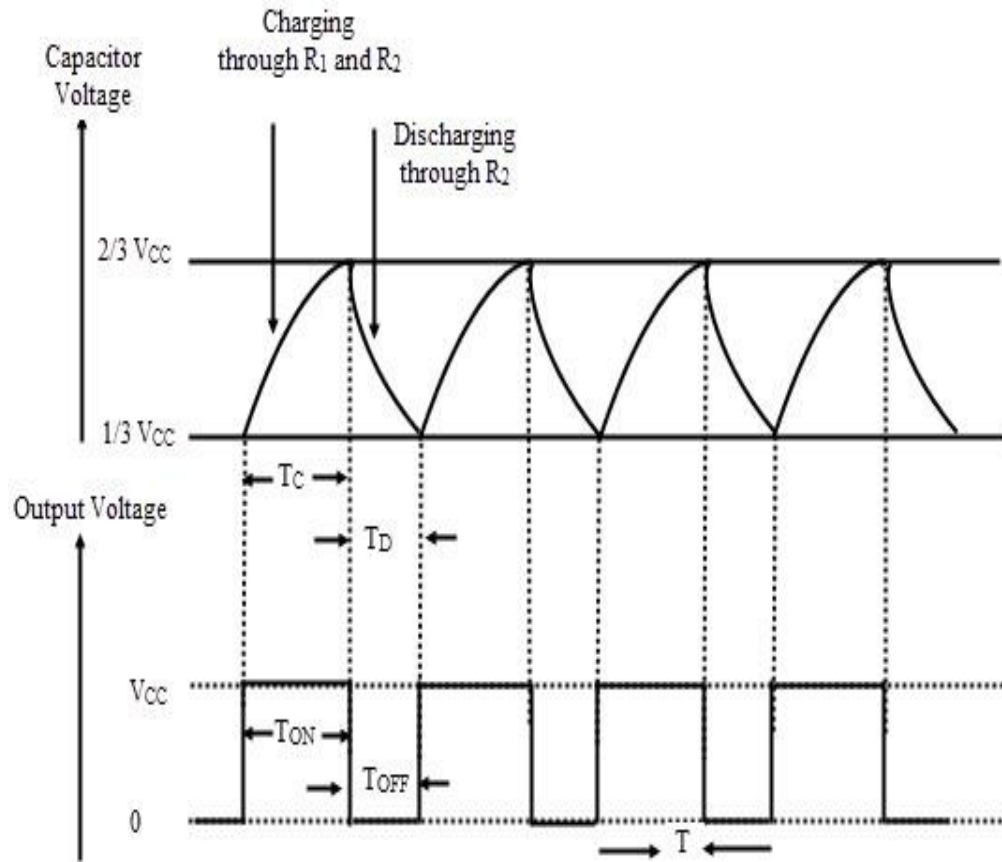


Fig 7.1: Astable Multivibrator Circuit



**Fig 7.2: Wave forms for Astable multivibrator .**

$$T_{ON} = 0.69(R_a + R_b)C$$

$$T_{OFF} = 0.69R_b C$$

## 2. Monostable Multivibrator:

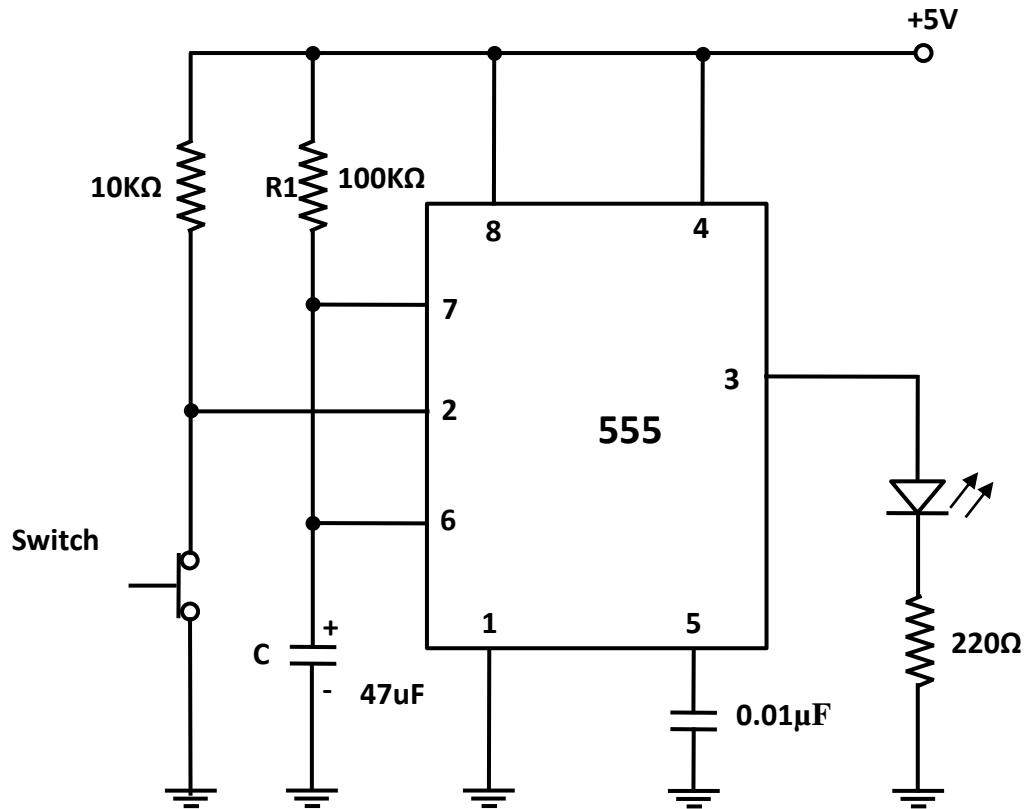


Fig 7.3: Monostable Multivibrator Circuit to glow LED at one shot.

$$\text{LED ON TIME} = T_{ON} = 1.1R_1C$$

### 3. Schmitt Trigger Circuit:

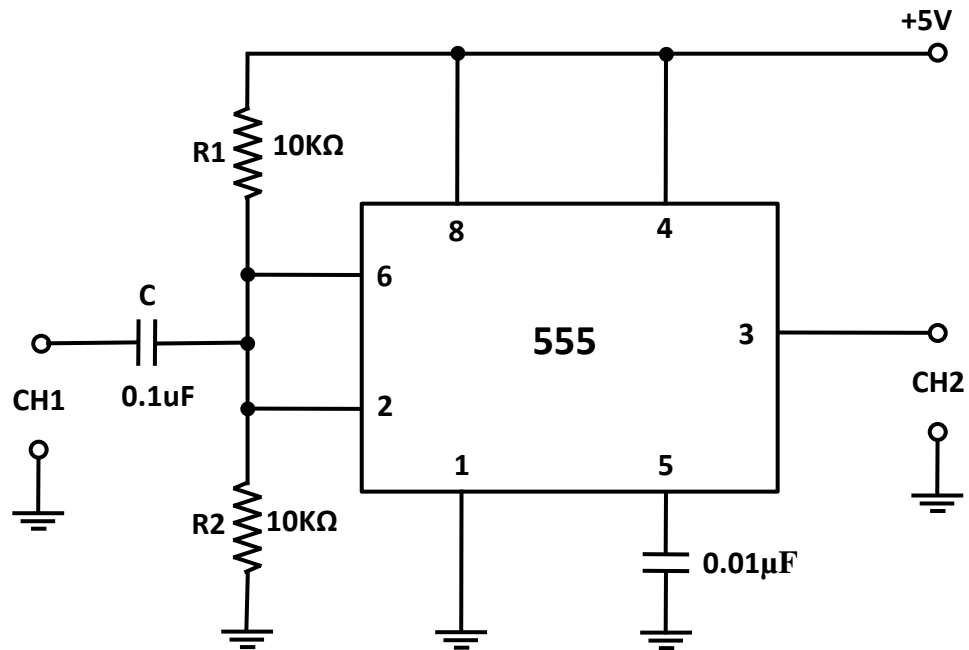
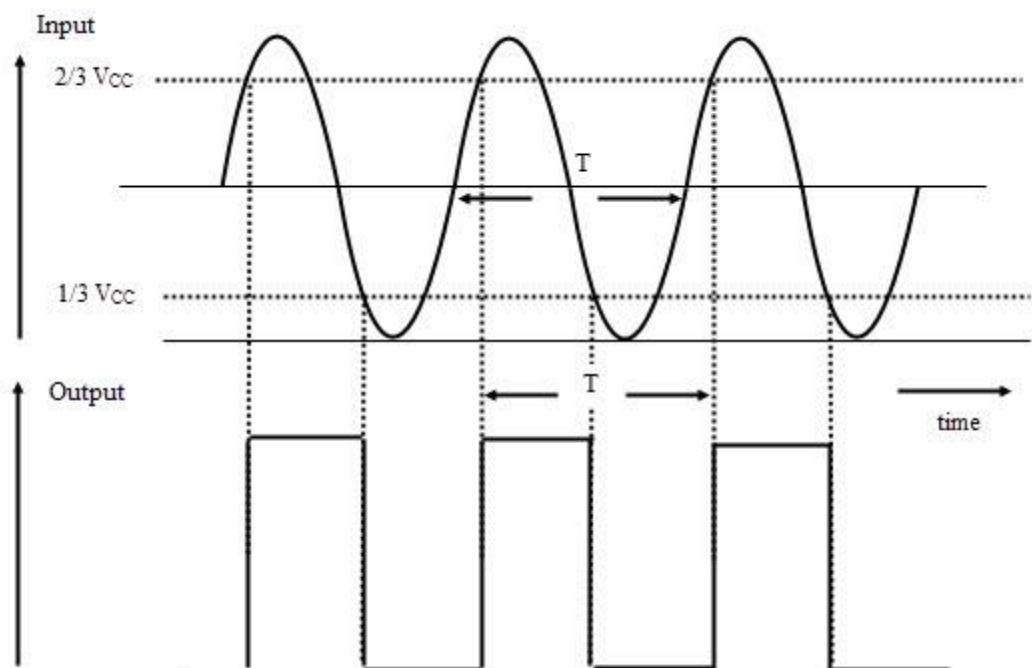


Fig 7.4: Schmitt Trigger Circuit



**Fig 7.5: Wave forms for Schmitt Trigger.**