

555 Timer (J1) [EELKTR] by TRONIC.LK

When the 555 adjustable timer is switched on. The green LED turns ON and shows that timing is in progress. When the time period is over the green LED turns OFF and the red LED turns ON. The time period can be adjusted by the variable resistor.

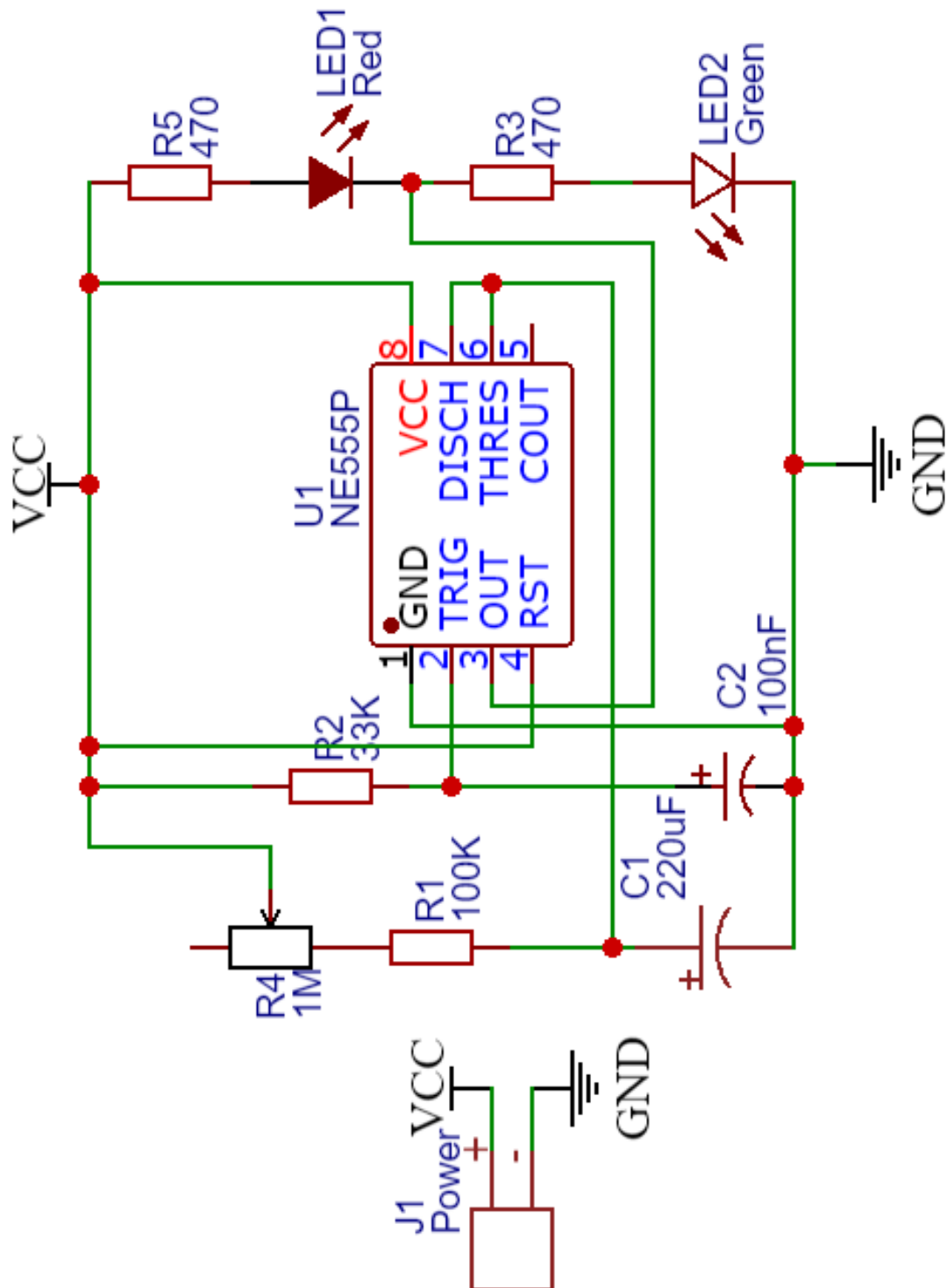
Working Principle

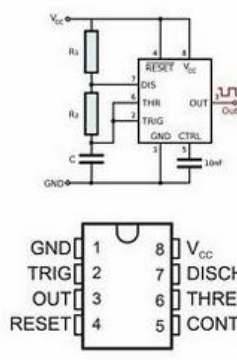
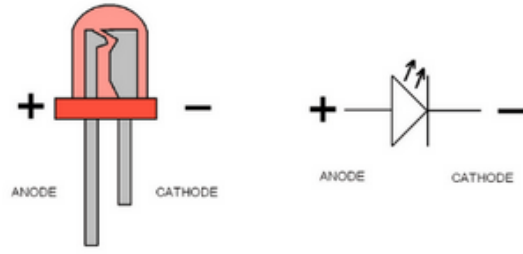
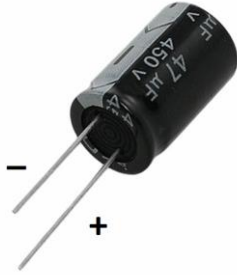
Astable multivibrator inside the 555 timer IC generates continuous pulses where the frequency of the circuit is controlled by R4, R1 resistors and C1 capacitor. Since R4 is adjustable, it is used to control the frequency.

The period T is equals to $1.1 \times (R4 + R1) \times C1$ where T is in seconds, R4, R1 are in ohms and C1 in farads (not in microfarads)

ITEM CODE	VALUE	DESIGNATOR	QUANTITY	IMAGE
CA0125	220uF	C1	1	
CA0002	100nf	C2	1	
TA0443	Header	J1	1	
LE0026	LED 5mm Green	LED 2	1	
LE0027	LED 5mm Red	LED 1	1	
RP0031	470 Ohm	R5, R3	2	
RP0059	100K	R1	1	
RP0053	33K	R2	1	
RE0162	470K V/R	R4	1	
IC0018	NE555	U1	1	
HE0014	8 pin IC Base	U1	1	

Supply Voltage: 5V



PIN DESCRIPTION OF SPECIAL COMPONENTS	
  GND 1 8 V_{CC} TRIG 2 7 DISCH OUT 3 6 THRES RESET 4 5 CONT	 ANODE CATHODE
	

COMPONENTS & FINAL ASSEMBLY

555 IC Timer

