

555 Led Flasher

In this circuit a 555 IC is used to alternatively switch a red and green LED on and off. The 555 is used in the astable mode.

TOOLS REQUIRED

1) Side cutter 2) Small flat screwdriver. 3) Sharp nose pliers

BEFORE YOU START

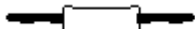
Remove the paper strip of the resistors by cutting it away. If you just pull it of some of the glue will remain this will prevent it from making electric contact.

Cut the electrolytic capacitors legs to equal length this will insure it to go deep into the connection block and make good electrical contact.

Cut the LED's legs to equal length but keep in mind that the short leg is the cathode. The cathode is also indicated by a flat side.

COMPONENT IDENTIFICATION

RESISTORS



Do not have any polarity you can insert any terminal in to any respective hole.

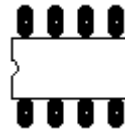
LED (Light Emitting Diode)



LED's do have polarity and must be placed the correct way round into the circuit its polarity is indicated by a long and short terminal. The short terminal is the cathode (-) and the long terminal is the anode (+). If the legs are cut use the flat

side as a indication of the cathode.

555 IC



The 555 is a 8 terminal component and you number its terminals by numbering them anti clock wise placing the indicated side at 12 o clock Pin1 will be first leg on the left. You identify the indicated side by a half circle or a round dot on one of the sides.

ELECTROLYTIC CAPACITOR

Identify the Electrolytic Capacitor by reading its value of 46uF 16V on it and also observe and insert the negative terminal indicated by a white strip.

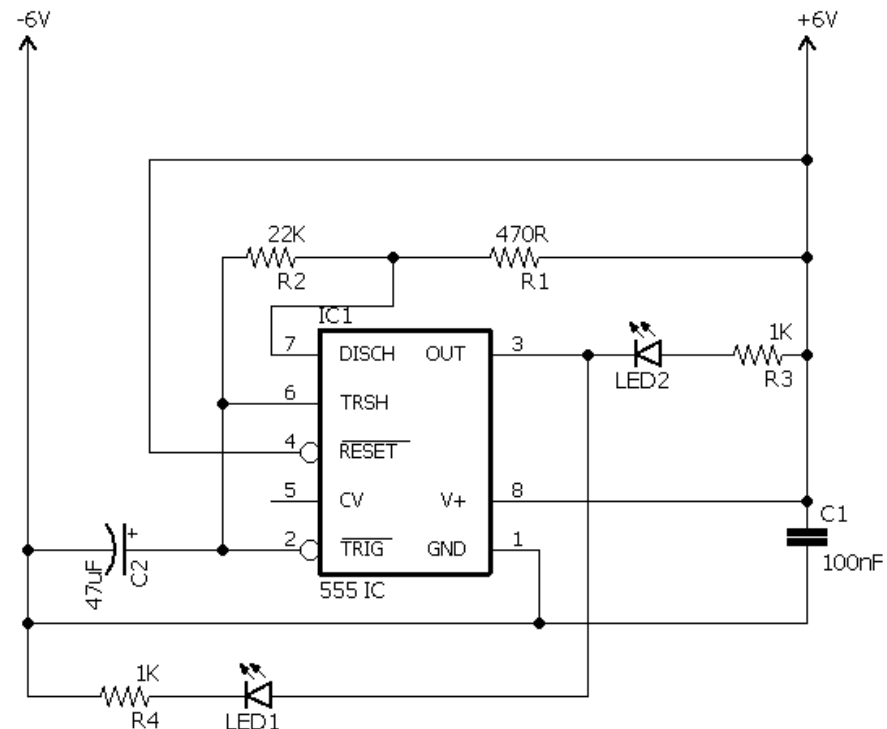
CERAMIC CAPACITOR

You can identify the ceramic capacitors by reading its value written as 104 on it again there is no polarity.

COMPONENTS REQUIRED

Electronic Workstation

JH656 X 1



4cm Yellow connecting wire	X 2
4cm Black connecting wire	X 1
4cm Red connecting wire	X 1
7cm Red connecting wire	X 2
7cm White connecting wire	X 1
15cm Red connecting wire	X 1
15cm Black connecting wire	X 1
555 IC Timer (DIP8)	HB100 X 1
470Ω Resistor 1/4 Watt 5% (yellow, purple, brown, gold)	DB052 X 1
1kΩ Resistor 1/4 Watt 5% (brown, black, red, gold)	DB056 x 2
22kΩ Resistor 1/4 Watt 5% (red, red, orange, gold)	DB072 X 1
100nF 50V Ceramic Capacitor	DB202 X 1
47μF 16V Electrolytic Capacitor	HB185 X 1
5mm Red LED	HB077 X 1
5mm Green LED	HB078 X 1

CONFIGURATION TABLE

555 IC Timer (reference mark must be on the left)	
Pin1	H22
Pin8	G22
470Ω Resistor 1/4 Watt 5% (R1) (yellow, purple, brown, gold)	B23 -C23
22kΩ Resistor 1/4 Watt 5% (R2) (red, red, orange, gold)	C24 - F23
1kΩ Resistor 1/4 Watt 5% (R3) (brown, black, red, gold)	B29 - C29
1kΩ Resistor 1/4 Watt 5% (R4)	

(brown, black, red, gold)	L29 - M29
100nF 50V Ceramic Capacitor (C1)	I20 - I22
47μF 16V Electrolytic Capacitor (C2)	
(-) Terminal	K22
(+) Terminal	K23
5mm Green LED1	
Cathode (-) flat side	K29
Anode (+)	K28
5mm Red LED2	
Cathode (-) flat side	E28
Anode (+)	E29
4cm Yellow connecting wire	G28 - H28
4cm Yellow connecting wire	I28 - J24
4cm Black connecting wire	L22 - M22
4cm Red connecting wire	B22 - C22

7cm Red connecting wire	B20 - H20
7cm Red connecting wire	F22 - I25
7cm White connecting wire	F24 - I23
15cm Red connecting wire	B19 - (+ 6V)
15cm Black connecting wire	M19 - (- 6V)
COMPANY DETAILS	
Company name:	Electronics123 Retail Store CC
Physical address:	Cnr. Codonia & Moulton Str. Waverley, 0135, Pretoria, South Africa.
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Happy building please contact us if your having trouble☺	

