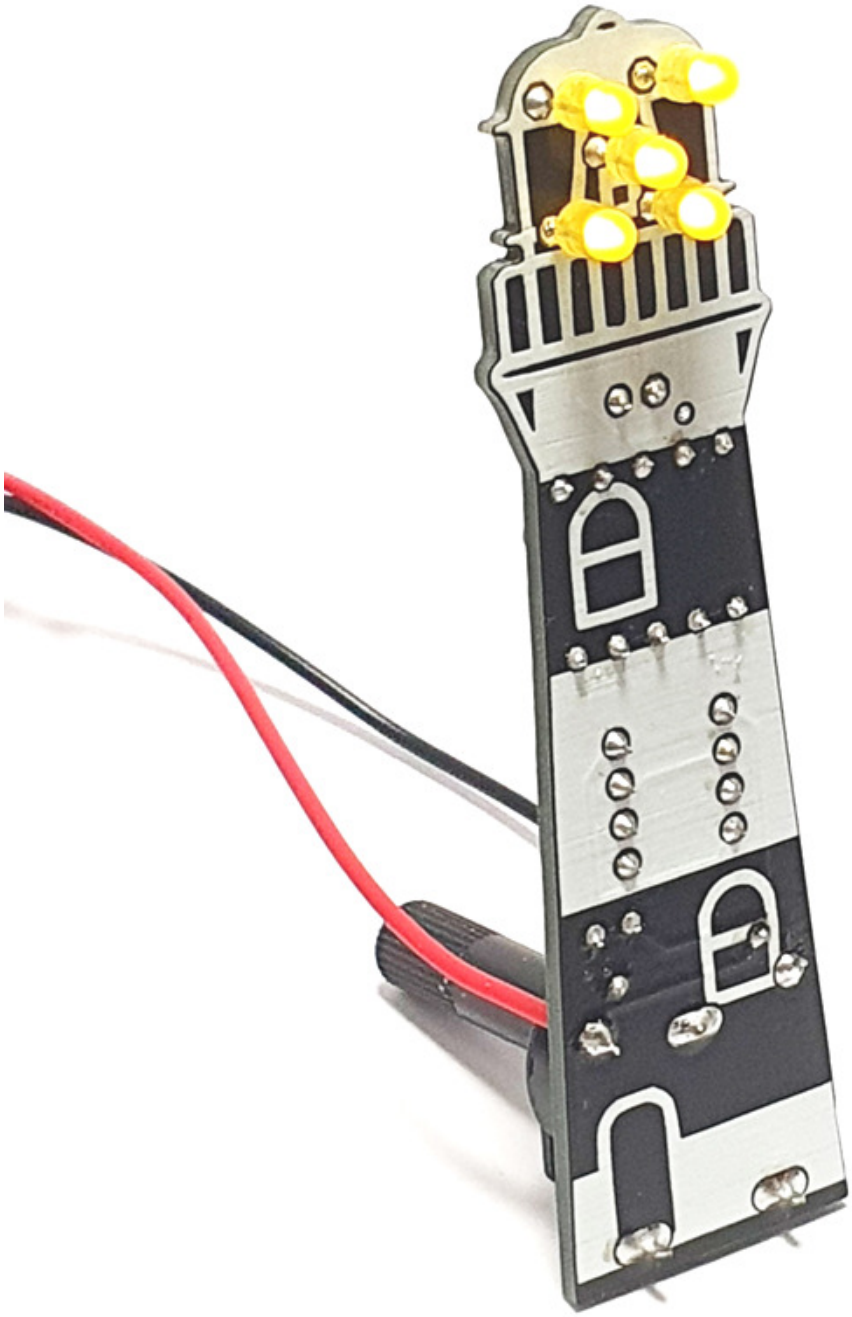
CRICKLEWOOD ELECTRONICS

Flashing LED Lighthouse Solder Practice Kit



Please make sure all the components are present – see table below:

Designation	Description	Part #	Quantity
R1	1kΩ ¼ W carbon resistor	Q1K0	1
R2	47kΩ vertical trimpot (variable resistor)	PT15B47K	1
R3-R7	220Ω ¼ W carbon resistors	Q220R	5
C1	10nF ceramic capacitor	CZF10N	1
C2	47µF 25V electrolytic capacitor	47R25	1
D1-D5	Yellow 3mm LED	Y3W	5
IC1	NE555N timer IC	NE555N	1
IC1*	8 pin IC socket	SDL8	1
N/A	PP3 battery snap	PP3H	1
N/A	Spindle for trimpot	PT15SB	1
N/A	PCB	CKLHPCB	1

*IC socket is to be mounted on the PCB; the chip itself should sit in the socket.

Tools Required:
Soldering iron, 15W or higher
Good quality electronics solder
Side cutters

Assembly Instructions

All components are to be placed on the same side as the silkscreen (white markings corresponding to each component) EXCEPT the 5 yellow LEDs, which are mounted on the opposite side of the PCB, as shown on the picture on the first page.
For ease of assembly, please place and solder the components in the following order:

- Resistor **R1** and **R2** through **R7**
- Capacitor **C1**
- Capacitor **C2 –** long leg should be soldered on the pad marked "+", short leg on "-"
- IC socket **IC1 –** please ensure the small notch on the top of the socket itself and the notch on the silkscreen marking on the PCB line up
- Trimpot **R2**
- Insert the LEDs **D1** through **D5** on the other side of the PCB - long leg should come out of the pad marked "+" and short leg should come out of "-".

Mount the NE555N IC into the socket on the PCB, minding the polarity (the notch on the IC and the socket should line up). Insert the spindle into the trimpot **R2 –** the spindle turns the wiper on the trimpot to change the flashing frequency and it also acts as a stand for the PCB assembly.

Solder the wires from the battery connector to the PCB – red wire to "+", black wire to "-".

Plug in the battery and the lights should now start flashing.

Enjoy your own personal miniature lighthouse!