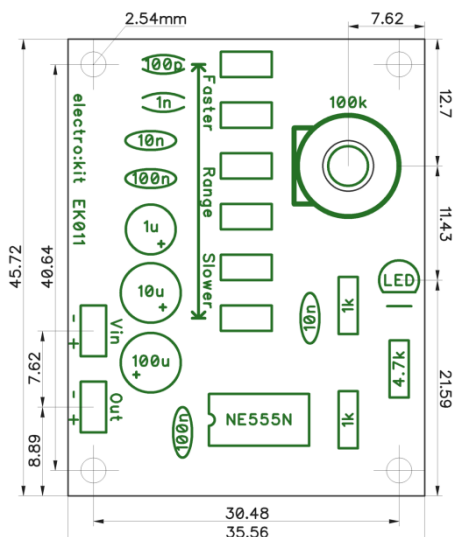
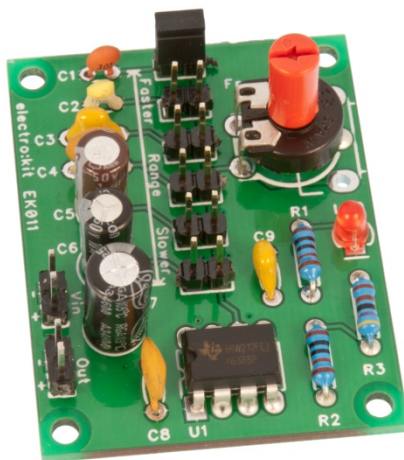


# EK011 – Pulse generator

## Kit description:

EK011 is a pulse generator built around a 555-timer IC that is wired to produce a square wave with 50% pulse width. The frequency is adjustable in six ranges and fine tuned with the potentiometer. For other frequency ranges, capacitors C1 through C6 can be swapped for smaller or larger values. A red LED indicates that the generator is powered. Two different patterns are available for the potentiometer. Either mount a horizontal trimmer, type PT-10, or a vertical 16mm potentiometer.

- \* Supply voltage: 3 - 15VDC
- \* Max output current:  $\pm 200\text{mA}$
- \* Frequency ranges: 0.8 - 14Hz, 8 - 140Hz, 80 - 1400Hz,  
0.8 - 14kHz, 8 - 140kHz, 80 - 260kHz
- \* Dimensions: 35.56 x 45.72mm
- \* Mounting holes: c-c 30.48 x 40.64mm,  $\varnothing 2.54\text{mm}$




## Assembly guide:

Before you begin mounting components, make sure the board is free from damage and scratches. Make sure all the components are included and are of correct value. Compare with the component list!

Begin mounting the lowest components and work your way up to the largest. IC sockets, resistors, ceramic capacitors and diodes go first. Electrolytic capacitors, connectors and potentiometers go last. Some components are polarized and must be mounted in the right way. Please observe the markings on the board!

## Component list:

RefDes	Value	Qty.	Part.no.	
HDR	2.54mm	8	41001167	
JMP	2.54mm	1	41000598	
C1	100 pF	1	40500020	
C2	1 nF	1	40500030	
C3, C9	10 nF	2	41011998	
C4, C8	100 nF	2	41003038	
C5	1 uF	1	41015174	
C6	10 uF	1	40520021	
C7	100 uF	1	41015203	
LD1	LED 3mm	1	41004448	
R1, R2	1 kohm	2	40811310	
R3	4.7 kohm	1	40811347	
U1	NE555	1	40350001	
U1	DIP-8	1	40410008	
VR3	100k PT-10	1	41013765	
VR3	SHAFT PT-10	1	41013772	
VR4	100k 16mm	1	40910030	

## Schematic:

