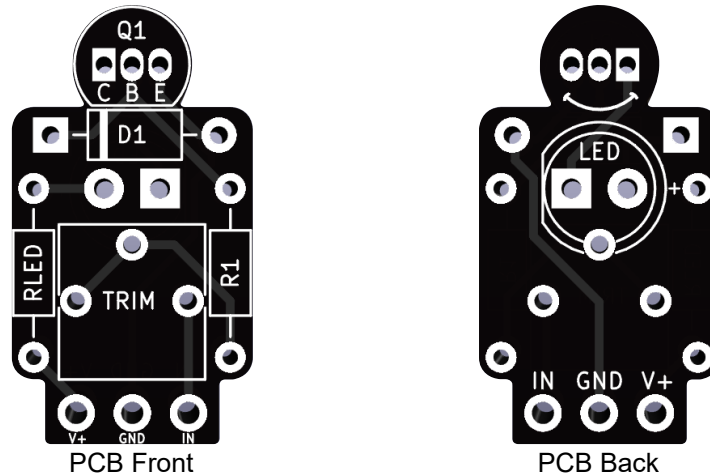


DIY LED Driver PCB (P-PC-LED-DRV)

This small PCB is a simple way to add an indicator light that pulses to the rate of LFOs and clocks used in pedals, synthesizers, and other equipment. Simply connect the positive supply voltage to V+, ground to GND, and the output of a positive signal (0 to V+) such as an LFO or clock to the IN pad. The trimmer can adjust how the LED reacts to the signal. Fully clockwise it will simply pulse on and off when paired with a strong signal. If the signal is a sine, triangle, or any other non-pulse type signal, adjusting the trimmer counter clockwise can dial in settings that follow the shape of the waveform, brightening and dimming with the changing voltage. For certain dual op-amp LFOs in effect pedals, the signal may not go low enough to turn the LED fully off. If the change in brightness is not obvious enough, connect the IN pad to the side of the op-amp generating the square wave instead.

A variety of different parts and values can be used in this circuit but a list of recommended values along with their part numbers are listed below for using this PCB with +9V effects pedals. These values can also be used with standard synth supply voltages (12V, 15V) but the RLED value will need to be increased. Additionally if you are building this with a different LED than the recommended part, keep in mind that the RLED will need to be adjusted.



PCB Designator	Type	Recommended Value for 9V	SKU
R1	1/8W Resistor	18kΩ	R-G18K
RLED	1/8W Resistor (LED Current Limiting)	560Ω	R-G560
TRIM	3362P Trimmer	1MΩ	R-VT62P-1M
D1	Small Signal Diode (DO-35)	1N4148	P-Q971
LED	LED	Panel Mount 3mm LED	P-L400
Q1	NPN BJT (CBE Pinout)	BC550C	P-QBC550C

