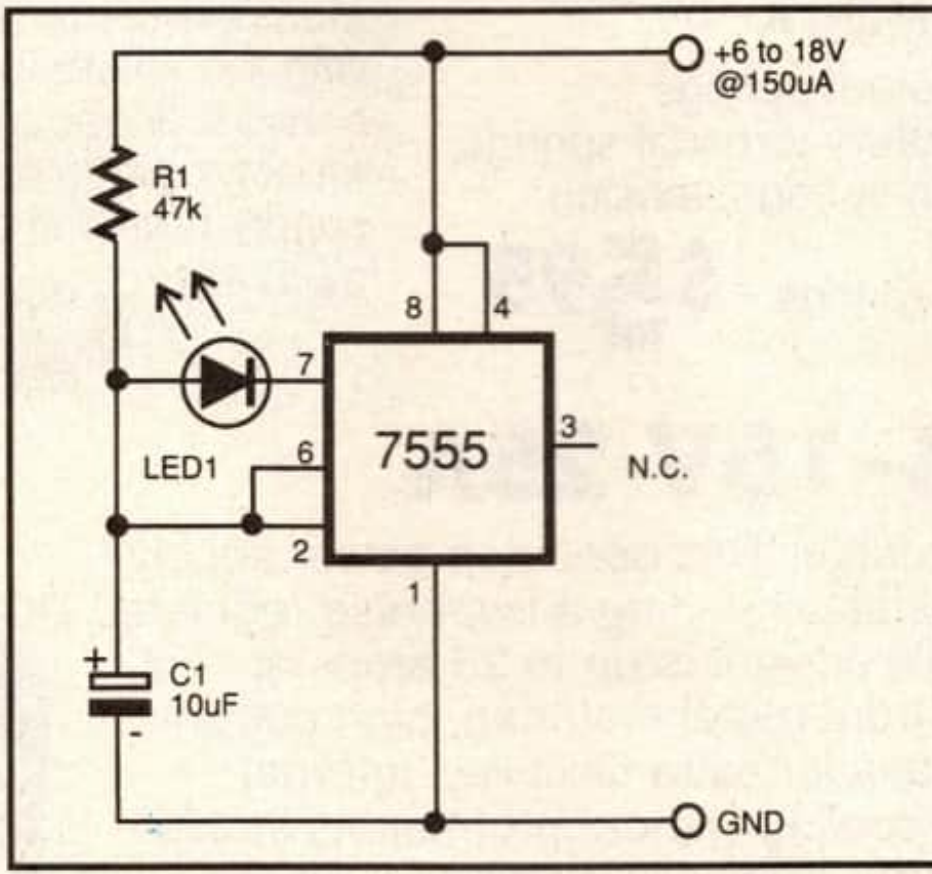
Low current LED flasher

This simple LED flasher uses only three components to brightly flash a LED with very low power consumption. Instead of the usual LM3909, this circuit uses the cheaper CMOS version of the 555, the 7555.

The circuit operates as a normal astable multivibrator, but instead of driving the LED from pin 3 as usual, the circuit makes use of the capacitor discharge current flowing through pin 7. When power is applied to the circuit, C1 charges through R1 until the voltage on pin 6 rises above 2/3 Vcc.

At this point the 7555 discharges the capacitor through pin 7 to ground, via LED1. As the capacitor voltage falls to 1/3 Vcc, the pin 7 is disconnected, allowing the capacitor to charge up again.

These short, high current pulses as C1 discharges cause LED1 to flash, giving a bright, eye catching display



whilst consuming only 150uA from the supply. The circuit can be powered from 6 to 18 volts, and while pin 3 is not used here, there is no reason why its output could not be used for other purposes.

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