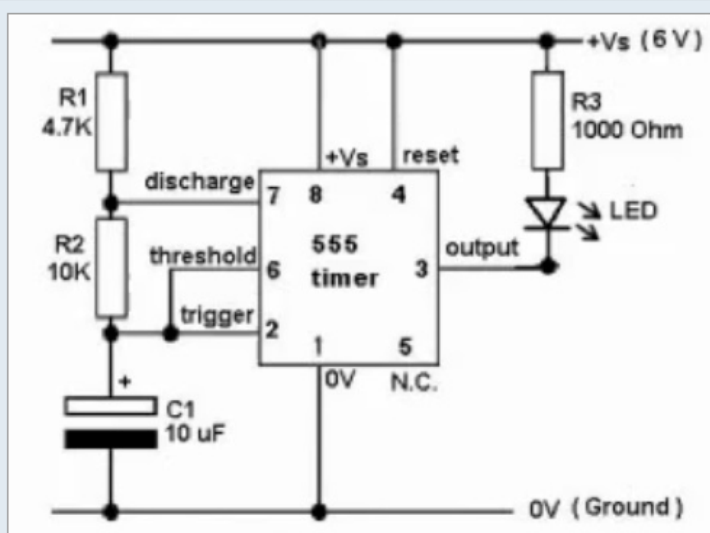


EET-200L & EET-210L 555 Timer Experiment #1



Breadboard 555 YouTube Circuit.jpg (32.42 KiB) Viewed 18 times

Part 2 of the video takes you through a step-by-step assembly of this circuit. Even if you don't have speakers on your computer, you can visually see how each component and connection is made. You will need the following components:

COMPONENTS:

Protoboard (plastic black box with power, switches, etc.)

555 Time IC (8-pin dual in-line package (DIP))

Red LED

C1 10 uF Electrolytic Capacitor

R1 4.7 kilo-ohm resistor (yellow-violet-red-gold)

R2 10 kilo-ohm resistor (brown-black-orange-gold)

R3 1 kilo-ohm resistor (brown-black-red-gold)

The forums have the links for the YouTube videos detailing the construction process of this circuit. If you have a computer, tablet or smartphone, you are encouraged to watch the videos as you construct the circuit. When completed, the circuit should flash the LED at approximately 7 Hz (7 flashes per second).

When you have verified that the circuit works, you should do the following:

1. Connect the Agilent Digital scopes so that they display the 555 output (pin 3) and the voltage waveform across the 10 uF capacitor (pin 2).
2. Use the measurement capabilities to measure the frequency and peak-to-peak amplitude of the signal on pin 3 and the peak-to-peak amplitude of the signal across the 10 uF capacitor.
3. Change the Label of one of the channels to reflect your name or initials.
4. Take a screenshot of the display showing the signals on pins 3 & 2 of the 555, the voltage measurements listed above and the axis with your name on the label.
5. Save your screenshot to your USB drive. You should save the file as a 24-bit PNG type file.
6. Post your screenshot on the Forums (EET-200L or EET-210L) Week #2 in the lab area.
7. Put all of your components and equipment away and make sure your work area is neat.