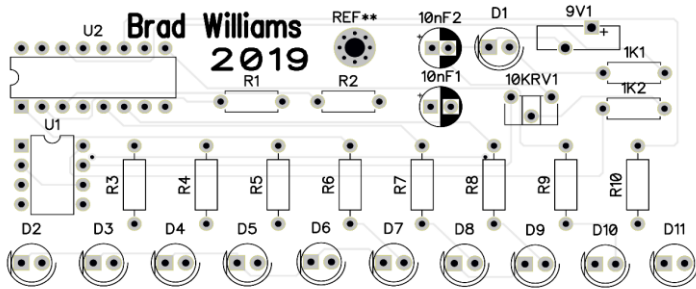


LED CHASER 2019



by Brad Williams

2019

V1.4g

What's happening in the circuit?

The ne555p is a Timing Chip that uses passive connected components (Resistors and Capacitors) to control its time, or Oscillation. Because the Timer is connected to outside passive components, it behaves as a Voltage Controlled Oscillator (VCO) because outside components manipulate the power entering and exiting. This Oscillation is then sent to the cd4017be Counter Chip and determines how often the pins will say "ON" or "OFF" to their connected LED. This ON or OFF is understood by the Counter Chip as the presence of Voltage or no Voltage.

TRY THIS!

By rotating the white dial called the Potentiometer, you are manipulating a passive component connected to the Timing Chip thus changing its behavior, its oscillation being sent to the Counter Chip!

COMPONENTS

RESISTORS

- 430 Ohm (per 10 LED)
- 47k Ohm
- 1k Ohm
- 10k, 20k or 100k Ohm potentiometer

CAPACITORS

- 10nF mlcc
- 10uF

INTEGRATED CIRCUITS

- cd4017be (16 pin)
- ne555p (8 pin)

LEDs

- 11 LEDs (3.0v - 3.3v)

OTHERs – 9v Battery

Merry Christmas!

For more details and updates, search for my website www.williamsbrad.com

Wishing you a productive
New Year,

- Brad Williams

