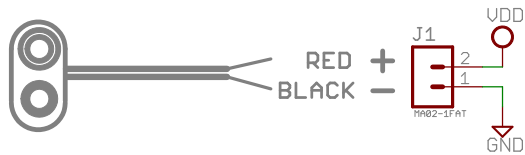
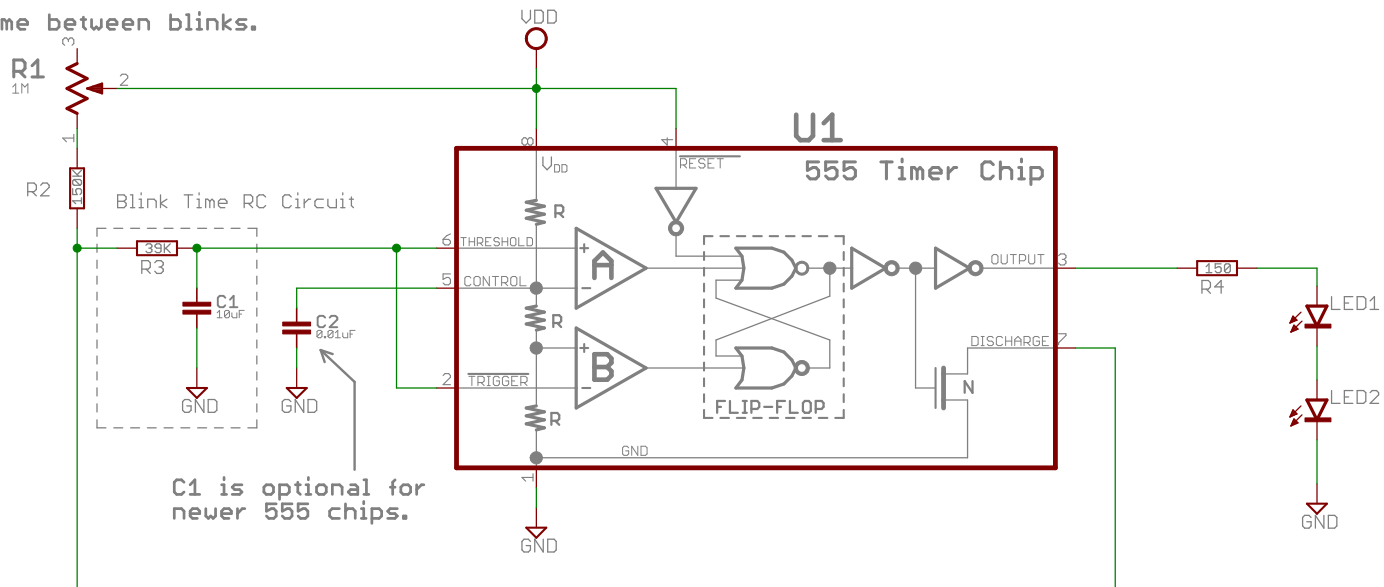


"Astable" 555 Timer Circuit Configuration

9V Battery Clip



Trim Pot
Adjust time between blinks.



How does it work?

Blink Time LEDs OFF

Is determined by R1 and C1.

$$\begin{aligned} T_{\text{blink}} &\sim R1 * C1 * 0.693 \\ &= 39K * 10\mu F * 0.693 \\ &= 0.27 \text{ Seconds} \end{aligned}$$

Time Between Blinks LEDs ON

Is determined by Potentiometer[R3], R1,R2 and C1.

$$T_{\text{between}} \sim (R1 + R2 + R3) * C1 * 0.693$$

$$\begin{aligned} \text{Shortest Time} &= 189K * 10\mu F * 0.693 \\ &= 1.31 \text{ Seconds} \end{aligned}$$

$$\begin{aligned} \text{Longest Time} &= 1189K * 10\mu F * 0.693 \\ &= 8.24 \text{ Seconds} \end{aligned}$$

Original Circuit Borrowed from Makezine.com Halloween Archives:

http://blog.makezine.com/archive/2006/10/blinking_eyes_circuit_for.html

CircuitMonkey.com

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