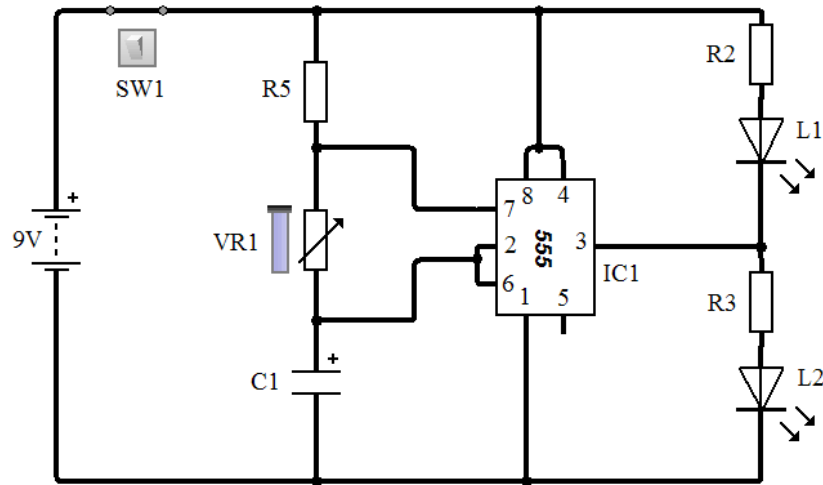


Theme: Safe Environment

Astable Circuits using the 555 Chip

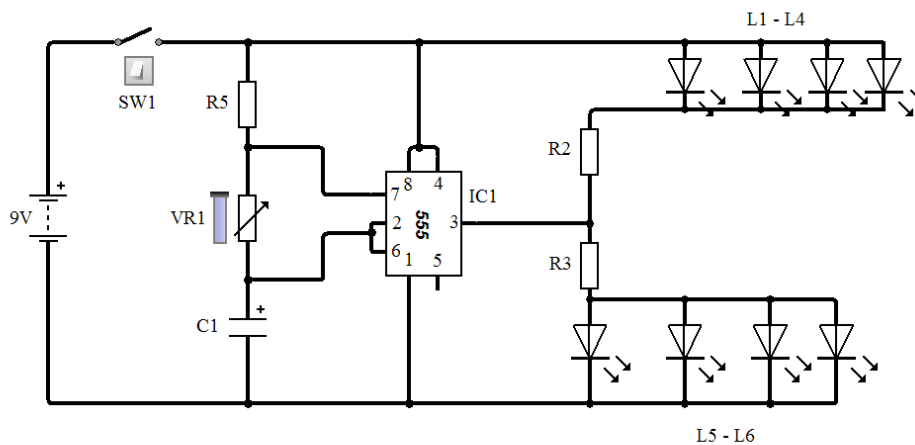
Flashing Lights – Hazzard/warning/schools crossing



R2 = 470 ohms
R3 = 470 ohms
R5 = 1k ohms
C1 = 100uF
VR1 = 100k

SW1 = Toggle switch
IC1 = 555 Microchip
L1 = 1 LED on Horizontal line of LEDs
L2 = 1 LED on 'L' shape line of LEDs

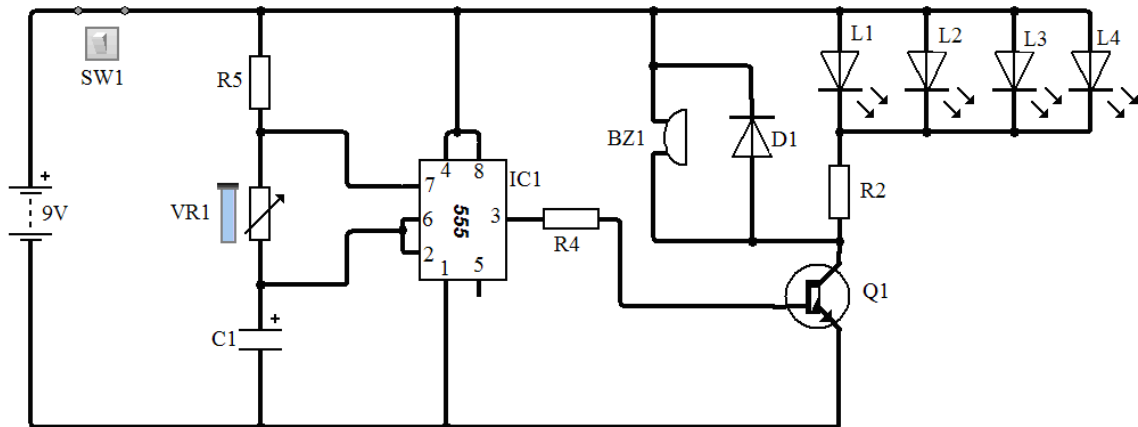
Set of 4 Flashing Lights



R2 = 100 ohms
 R3 = 100 ohms
 R5 = 1k ohms
 C1 = 10uF
 VR1 = 100k

SW1 = Toggle switch
 IC1 = 555 Microchip
 L1 – L4 = Horizontal line of LEDs
 L5 – L6 = ‘L’ shape line of LEDs

4 Flashing LEDs and a Buzzer – alarm/lorry reversing
 (For sound only the LEDs can be removed)



R2 = 100 ohms
 R4 = 2200 ohms
 R5 = 1k ohms
 D1 = 1N4148
 Q1 = BC 108

C1 = 10uF
 VR1 = 100k
 SW1 = Toggle switch
 IC1 = 555 Microchip
 L1 – L4 = Horizontal line of LEDs

Modifications to above circuits:

Water Level Detector - replace SW1 with a float switch.
 Steep Gradient Indicator – replace SW1 with a tilt switch.