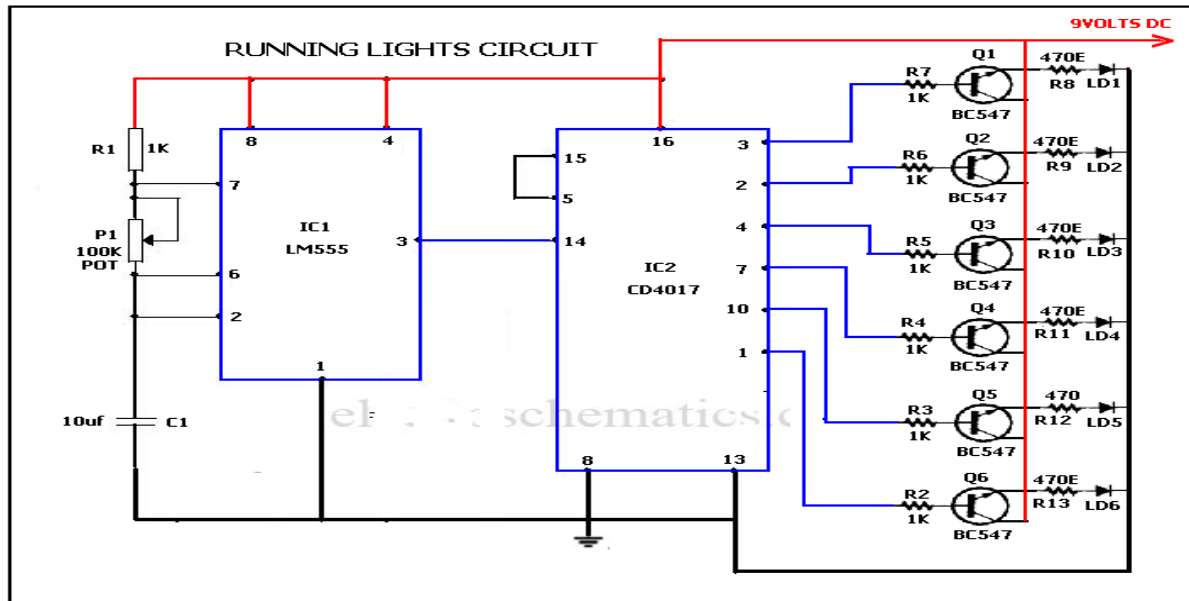


Running Lights:



This running lights circuit is used for decoration lighting arrangements in sequential switching mode. The circuit utilizes a 555 IC generating a clock pulse in astable-multivibrator mode and this clock pulse inputs the IC-2 (CD 4017) to perform its sequential counting operation. The IC-2 CD 4017 is a decade counter whose output switches on sequentially after the other with every clock input. The outputs in this circuit are directly connected to LEDs using Q1 to Q6. But in real time LEDs can be replaced by relay switches to connect more lights. This circuit operates with 9 – 12 volts battery or a power source.

Components used: R1 = 1k resistor, R2 = 1k resistor, R3=1k resistor, R4 = 1k resistor, R5 =1K resistor, R6 = 1k resistor, R7 =1k resistor, R8 = 470 E resistor, R9 = 470 E resistor, R10 = 470 E resistor, R11 = 470 E resistor, R12 = 470 E resistor, R13 = 470 E resistor, C1 =10uf capacitor, Q1 = BC 547 NPN Transistor, Q2 = BC 547 NPN Transistor, Q3 = BC 547 NPN Transistor, Q4 = BC 547 NPN Transistor, Q5 = BC 547 NPN Transistor, Q6 = BC 547 NPN Transistor, LD1 = L E D, LD2 = L E D, LD3 = L E D, LD4 = L E D, LD5 = L E D, LD6 = L E D, IC 1 = LM 555 (with base), IC2=CD 4017, Battery = 9volt, Battery snapper.

