

TECHNOLOGICAL UNIVERSITY OF PINLON
DEPARTMENT OF ELECTRONIC ENGINEERING

RUNNING LIGHT

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“RUNNING LIGHT”

Aim

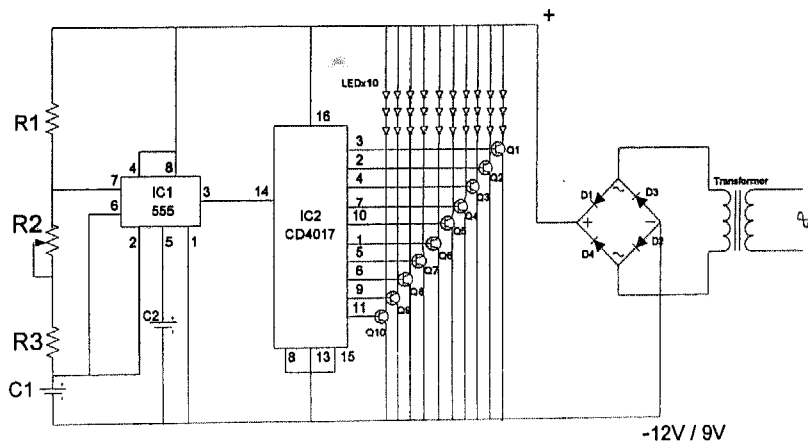
Nowadays, Running Light Circuit is widely used in developing countries. For this reason, Running Light Circuit is selected as a project. It is the basic circuit of Running Light Circuit and this circuit can provide many electronic devices.

Application

It can be used in Buddha Image's halo

Construction

Schematic Diagram and Component List of Running Light



- (1) $R1=2.4\text{ K}$
- (2) $R2=10\text{ K Volume/Pre}$
- (3) $R3=500\ \Omega$
- (4) $C1=47\ \mu\text{F (16V)}$
- (5) $C2= 1\ \mu\text{F (16V)}$
- (6) $Q1\text{ to }Q10=C1383$
- (7) $IC1=555$
- (8) $IC2=4017$
- (9) $LEDS=40$

Operation

Operation of Running Light Circuit

We mainly use 555 timer and 4017 decade counter in this circuit. 555 timer IC gives clock pulse. It is given to IC2 (4017). The output pin3 changes from Low to High and High to Low alternately when there is an entering pulse at the Clock input pin. In this way, the putput pins of IC2 receive high voltage alternately for each clock pulse.

Transistors are needed because of many L.E.Ds. It amplifies the output voltage from the putput pins of IC2. Therefore the cathodes of LEDs get high voltage and they will be light roll by roll. IC2 may call cathodes driver. Running Light speed is adjustable by 10k volume preset. 12v power supply is used in this circuit.