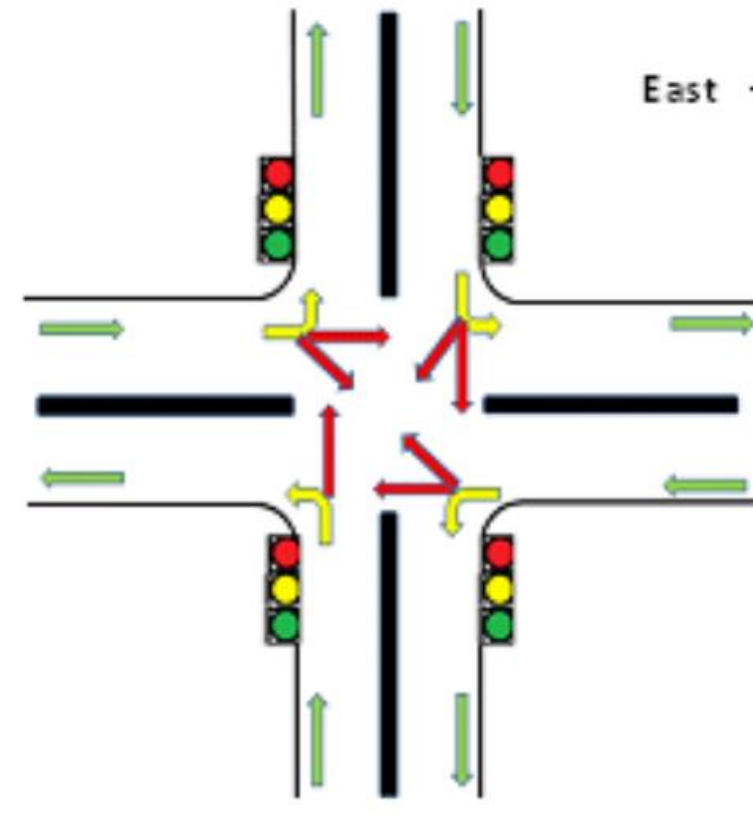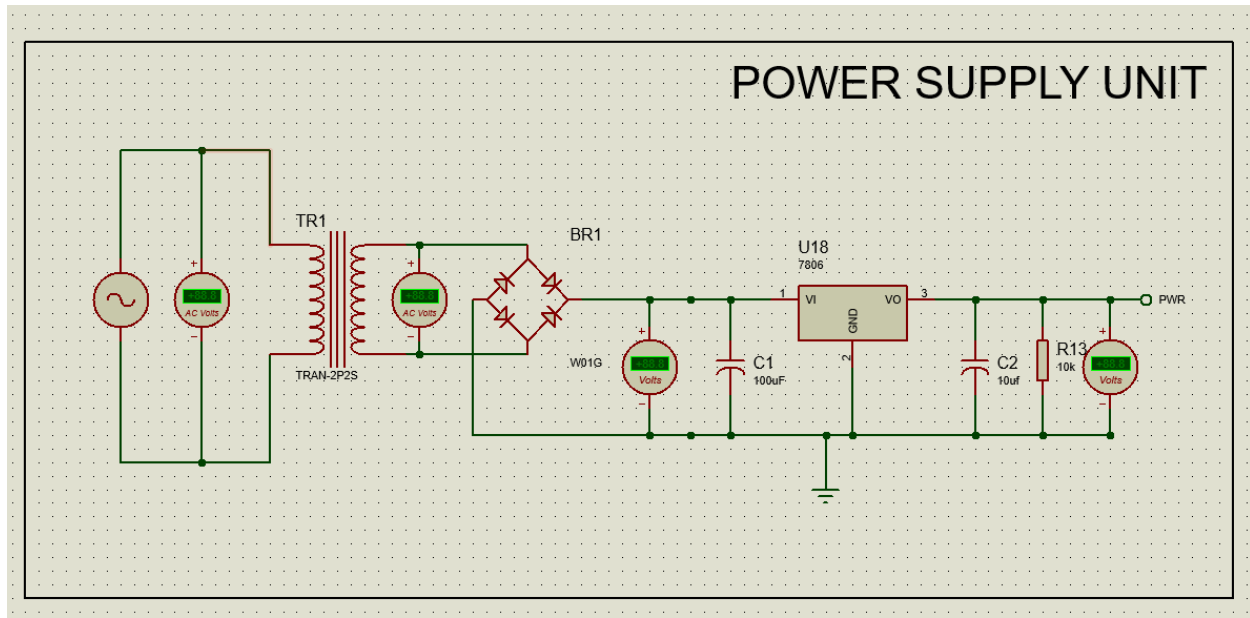**Title:** Four Way Traffic light Control with Basic Circuit
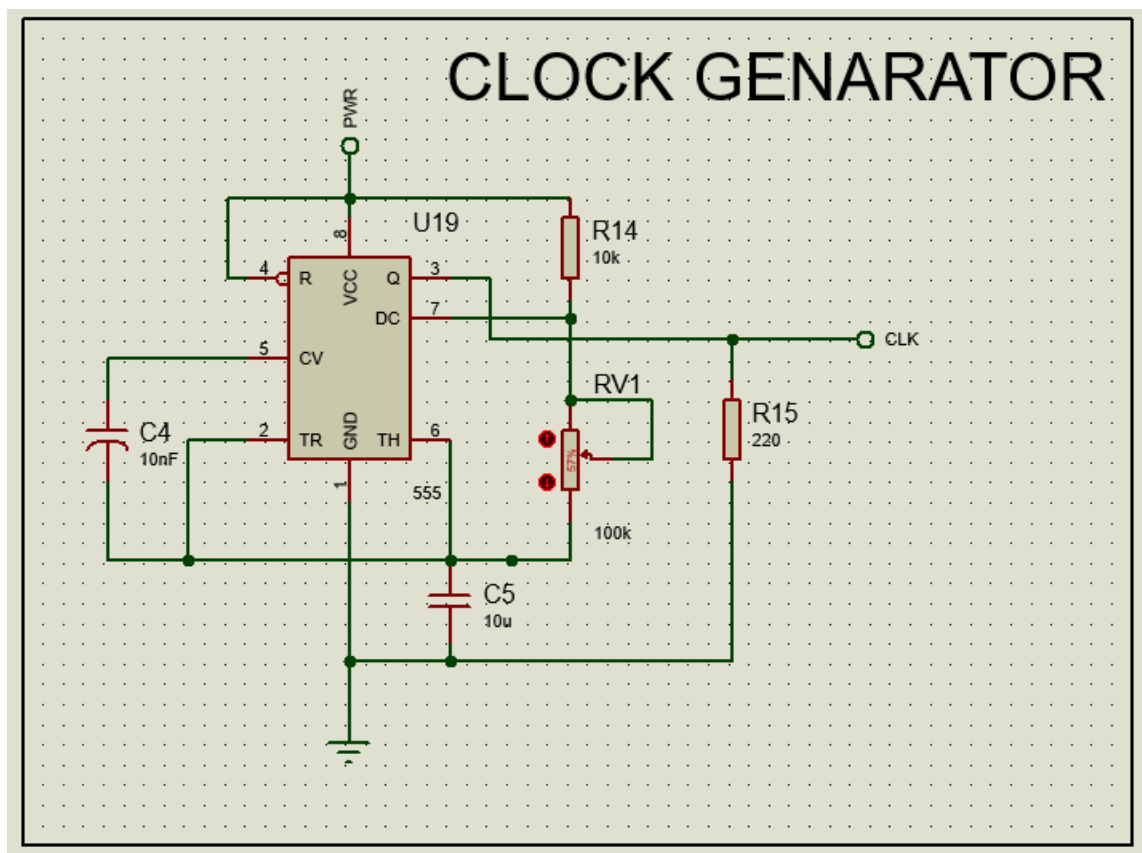

Methodology:

For this project, we'll need a power production circuit that can generate 6v DC. We shall use this electricity as a source. Then we'll need a frequency generator that runs at 1 Hz. We also built a positive counter to keep track of the time. side is controlled by a control circuit. Then I created a circuit based on the logic of the green, yellow, and red lights.
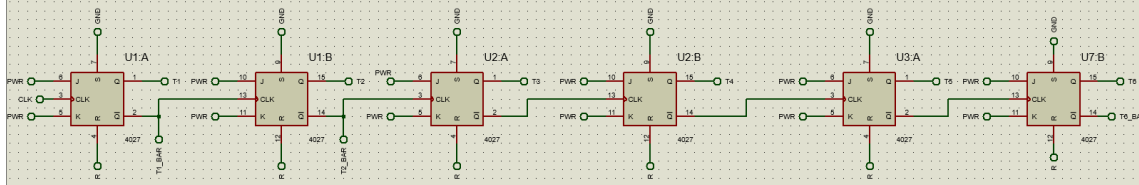
Circuit Diagram:

POWER SUPPLY UNIT

This is a power supply unit that accepts 220v 50hz ac as an input and outputs 6v dc. The power will be used as the circuit's source throughout.

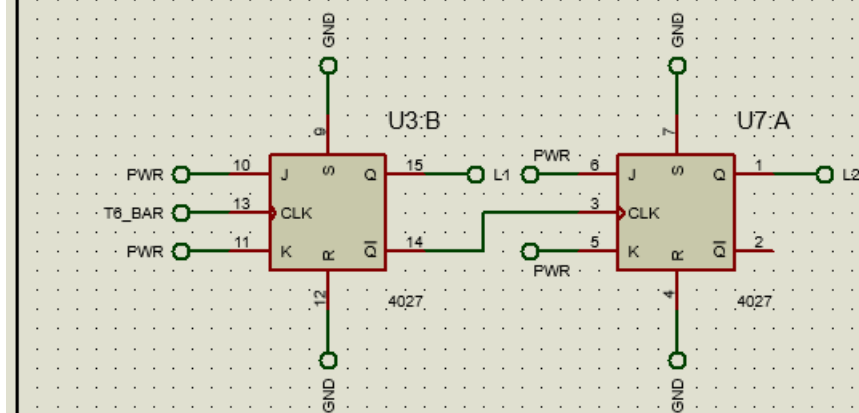## CLOCK GENARATOR

This is a circuit for a 1Hz clock generator. As an Astable (free-running) mode, I utilized a 555 timer.

U1:A U1:B U2:A U2:B U3:A U7:B
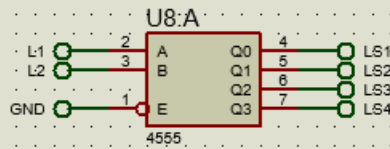
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PWR CLK PWR

This is an up-counter circuit diagram. As a counter, the T-flip Flop is utilized. The quantity of flipflops depends on how much time you have to wait.

CONTROL BIT

U3:B

PWR
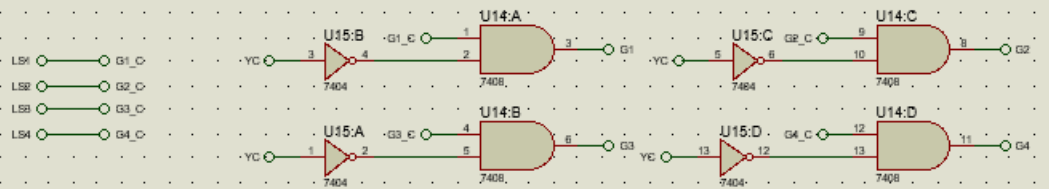T6_BAR
PWR

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U7:A

PWR

PWR

4027

ROAD CONTROLLER

control This bit is used to select which side of the road you want to control.

And final for Green , Yellow , Red light will look like this ,

GREEN LIGHT

YELLOW LIGHT

RED LIGHT

TRAFFIC SIGNAL