

# LAB REPORT

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IRE 212 : IoT Architecture and Technologies  
Sessional

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## List of Problems

1.

Design a system to demonstrate a street traffic light system.

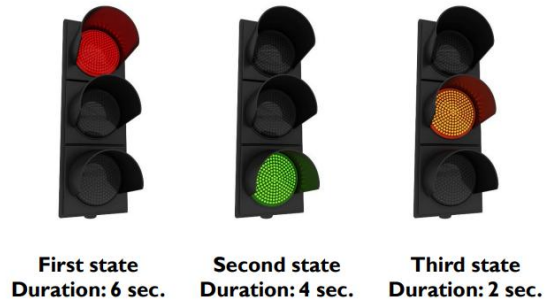


Figure 0: Traffic light system problem statement

## Problem No.: 01

### Problem Statement:

Design a system to demonstrate a street traffic light system.

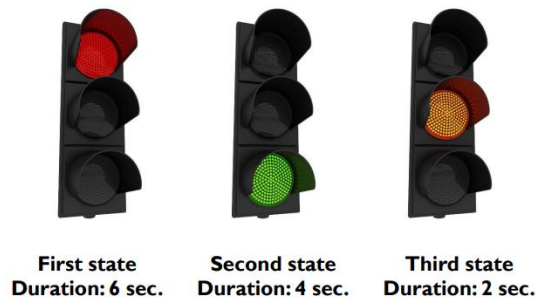


Figure 1.1: Traffic light system problem statement

### Code:

```
void setup()
{
  //2,6,10-red
  //3,4,7,8,11,12-yellow
  //5,9,13-green
  for(int i=2; i<14; i++){
    pinMode(i, OUTPUT);
  }
  Serial.begin(9600);
}

void loop()
{
  digitalWrite(2, HIGH);
  delay(6000);
  digitalWrite(2, LOW); //red

  digitalWrite(9, HIGH);
  delay(4000);
  digitalWrite(9, LOW); //green

  digitalWrite(11, HIGH);
  digitalWrite(12, HIGH);
  delay(2000);
  digitalWrite(11, LOW);
  digitalWrite(12, LOW); //yellow
}
```

## Circuit:

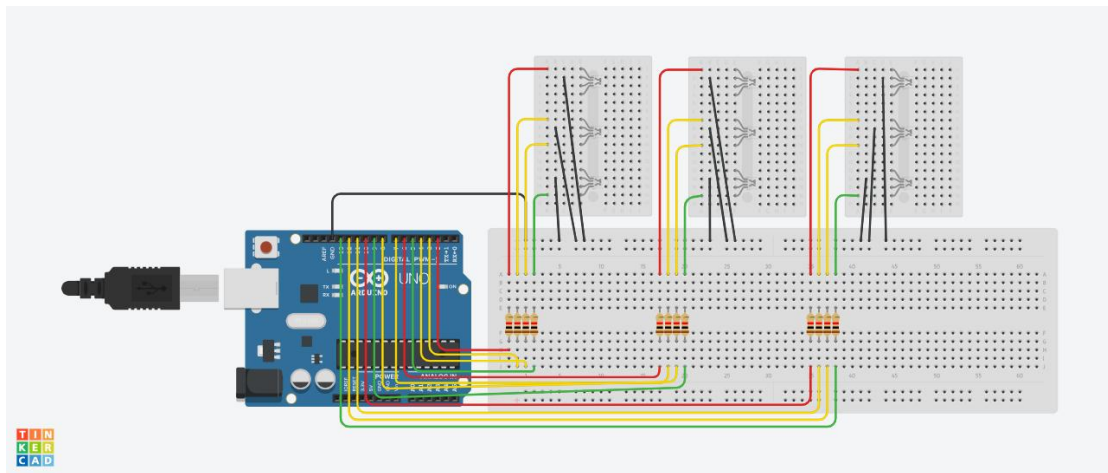


Figure 1.2: Circuit design on a simulator

## Output:

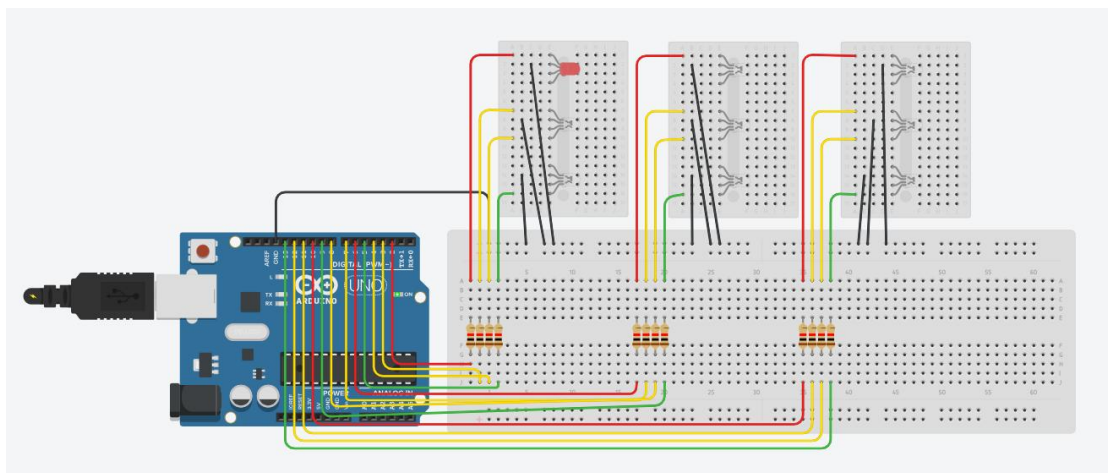


Fig 1.3: Output on simulator.

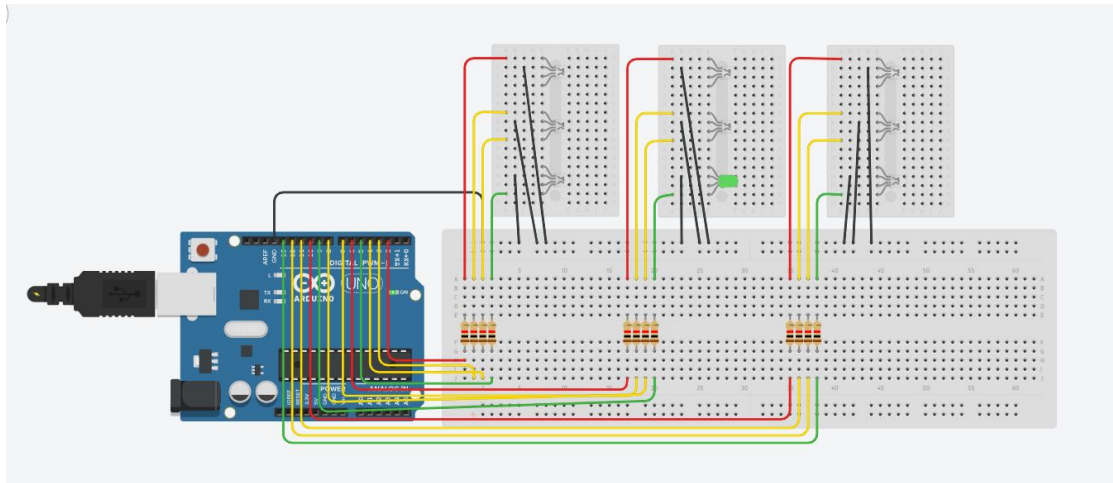


Fig 1.4: Output on simulator.

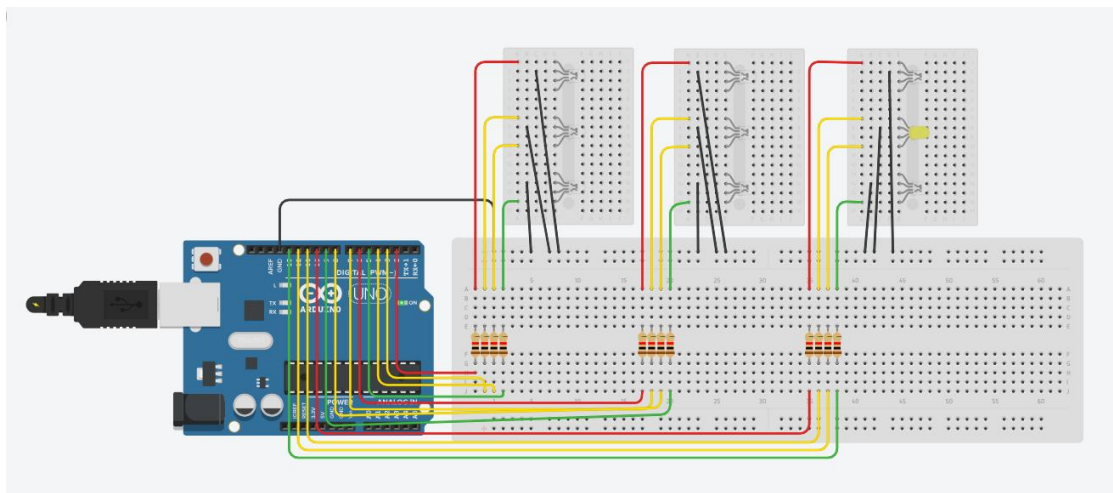


Fig 1.5: Output on simulator.