KCG COLLEGE OF TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

IOT ASSIGNMENT -3

TOPIC: IoT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE

NAME: PREETHI S

Python Code:

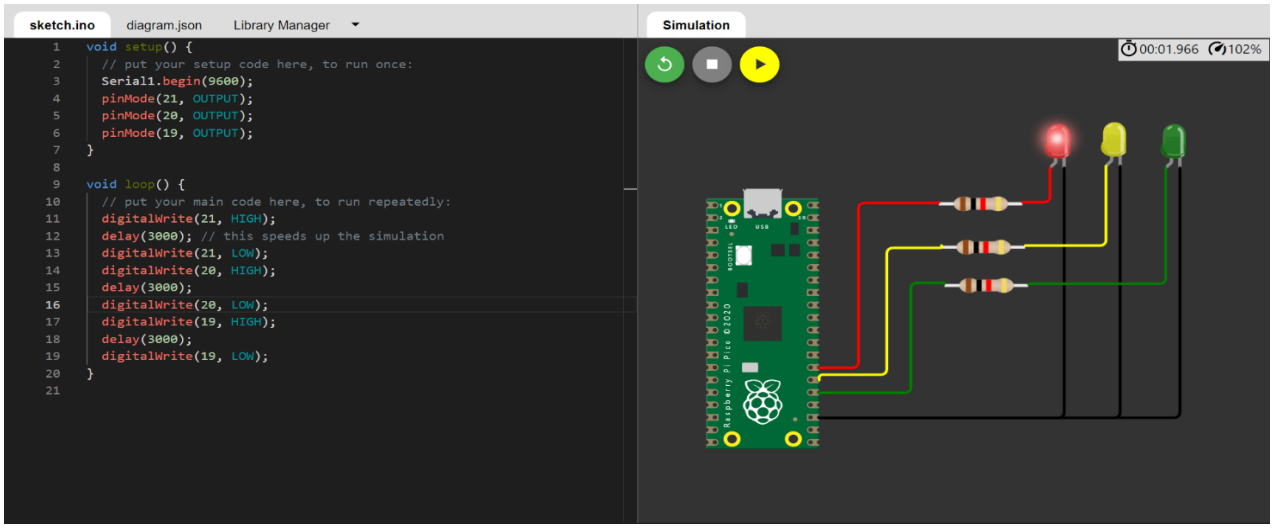
```
void setup() {
  // put your setup code here, to run once:
  Serial1.begin(9600);
  pinMode(21, OUTPUT);
  pinMode(20, OUTPUT);
  pinMode(19, OUTPUT);
}

void loop() {
  // put your main code here, to run repeatedly:
  digitalWrite(21, HIGH);
  delay(3000); // this speeds up the simulation
  digitalWrite(21, LOW);
  digitalWrite(20, HIGH);
  delay(3000);
  digitalWrite(20, LOW);
  digitalWrite(19, HIGH);
  delay(3000);
  digitalWrite(19, LOW);
}
```

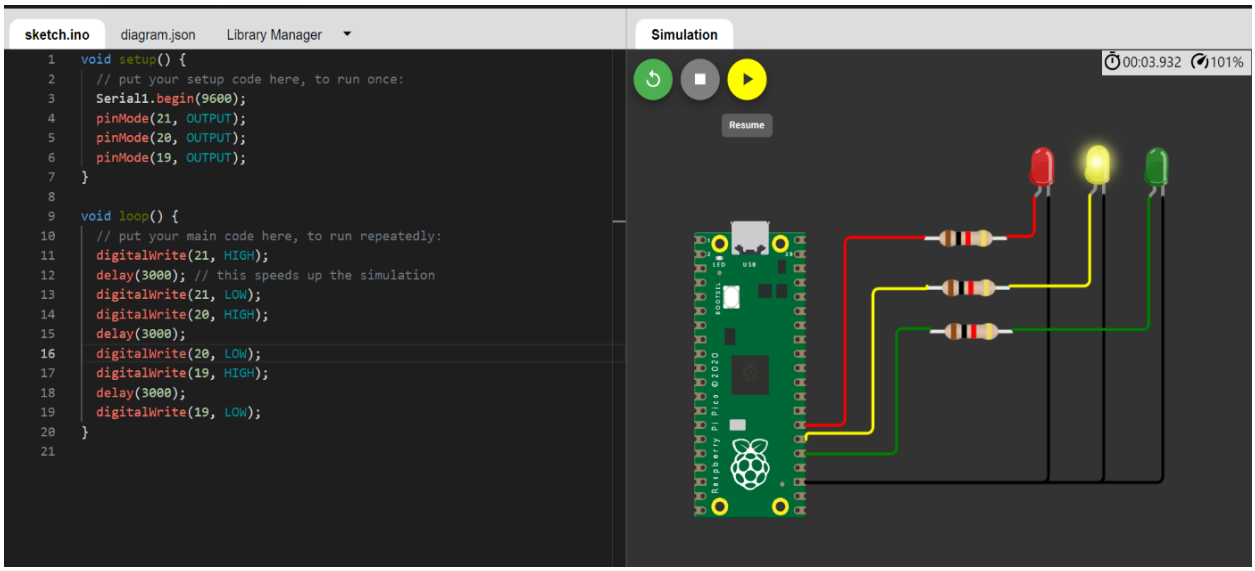
OUTPUT:

Traffic Lights For Raspberry Pi

Blinking Red Light:



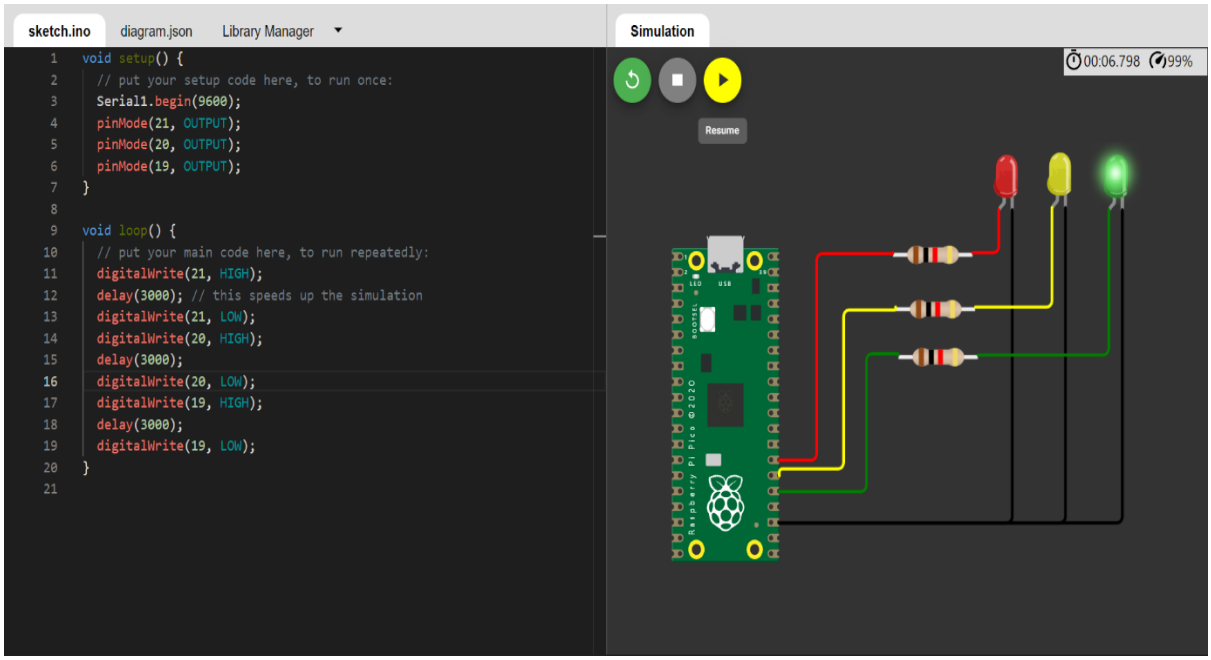
Blinking Yellow Light:




```
void setup() {
  // put your setup code here, to run once:
  Serial1.begin(9600);
  pinMode(21, OUTPUT);
  pinMode(20, OUTPUT);
  pinMode(19, OUTPUT);
}

void loop() {
  // put your main code here, to run repeatedly:
  digitalWrite(21, HIGH);
  delay(3000); // this speeds up the simulation
  digitalWrite(21, LOW);
  digitalWrite(20, HIGH);
  delay(3000);
  digitalWrite(20, LOW);
  digitalWrite(19, HIGH);
  delay(3000);
  digitalWrite(19, LOW);
}
```

Blinking Green Light:




```
void setup() {
  // put your setup code here, to run once:
  Serial1.begin(9600);
  pinMode(21, OUTPUT);
  pinMode(20, OUTPUT);
  pinMode(19, OUTPUT);
}

void loop() {
  // put your main code here, to run repeatedly:
  digitalWrite(21, HIGH);
  delay(3000); // this speeds up the simulation
  digitalWrite(21, LOW);
  digitalWrite(20, HIGH);
  delay(3000);
  digitalWrite(20, LOW);
  digitalWrite(19, HIGH);
  delay(3000);
  digitalWrite(19, LOW);
}
```

<u>BLINKING LED</u>:

PROGRAM FOR BLINKING LED:

Python code:

```
void setup() {
  // put your setup code here, to run once:
```

```
  Serial.begin(9600);
  pinMode(22, OUTPUT);
}

void loop() {
  // put your main code here, to run repeatedly:
  digitalWrite(22, HIGH);
  Serial.println("LED ON");
  delay(2000);
  digitalWrite(22, LOW);
  Serial.println("LED OFF");
  delay(2000);
}
```

Output:

Blinking LED For Raspberry pi: