

ASSIGNMENT-3

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TEAM ID: PNT2022TMID15088

MAXIMUM MARKS: 2 Marks

QUESTION 1: Blinking of Traffic lights using Raspberry pi

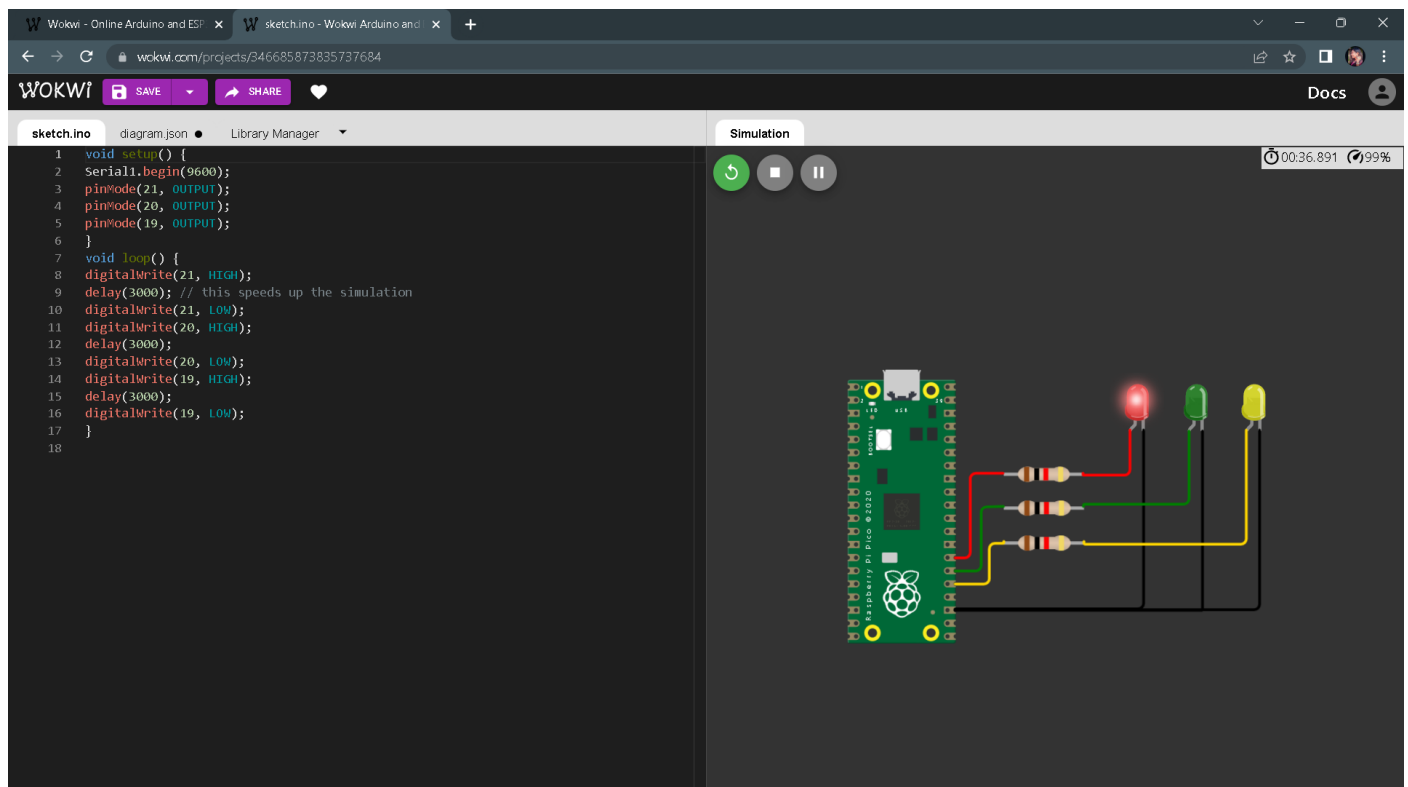
QUESTION 2: Blinking of LED using Raspberry pi

TRAFFIC LIGHTS PROGRAM:

```
void setup() {  
  Serial1.begin(9600);  
  pinMode(21, OUTPUT);  
  pinMode(20, OUTPUT);  
  pinMode(19, OUTPUT);  
}  
  
void loop() {  
  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:

(i) RED LIGHT:



(ii) GREEN LIGHT:

Wokwi - Online Arduino and ESP x sketch.ino - Wokwi Arduino and x +

wokwi.com/projects/346685873835737684

WOKWI SAVE SHARE

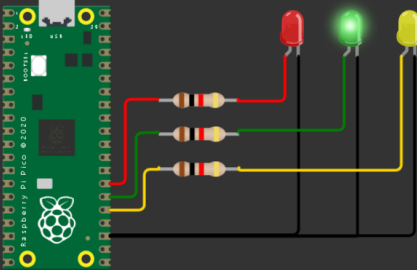
Docs

sketch.ino diagram.json Library Manager

```
1 void setup() {
2   Serial1.begin(9600);
3   pinMode(21, OUTPUT);
4   pinMode(20, OUTPUT);
5   pinMode(19, OUTPUT);
6 }
7 void loop() {
8   digitalWrite(21, HIGH);
9   delay(3000); // this speeds up the simulation
10  digitalWrite(21, LOW);
11  digitalWrite(20, HIGH);
12  delay(3000);
13  digitalWrite(20, LOW);
14  digitalWrite(19, HIGH);
15  delay(3000);
16  digitalWrite(19, LOW);
17 }
18 }
```

Simulation

00:39.957 100%



(iii) YELLOW LIGHT:

Wokwi - Online Arduino and ESP x sketch.ino - Wokwi Arduino and x +

wokwi.com/projects/346685873835737684

WOKWI SAVE SHARE

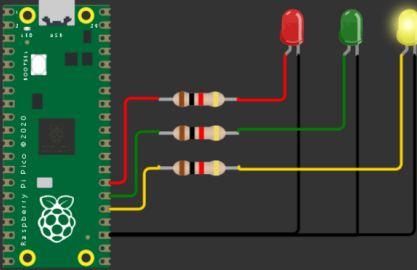
Docs

sketch.ino diagram.json Library Manager

```
1 void setup() {
2   Serial1.begin(9600);
3   pinMode(21, OUTPUT);
4   pinMode(20, OUTPUT);
5   pinMode(19, OUTPUT);
6 }
7 void loop() {
8   digitalWrite(21, HIGH);
9   delay(3000); // this speeds up the simulation
10  digitalWrite(21, LOW);
11  digitalWrite(20, HIGH);
12  delay(3000);
13  digitalWrite(20, LOW);
14  digitalWrite(19, HIGH);
15  delay(3000);
16  digitalWrite(19, LOW);
17 }
18 }
```

Simulation

00:43.040 99%



BLINKING OF LED PROGRAM:

```
void setup() {  
  Serial1.begin(9600);  
  pinMode(22, OUTPUT);  
}  
void loop() {  
  digitalWrite(22, HIGH);  
  Serial.println("LED ON");  
  delay(2000); // this speeds up the simulation  
  digitalWrite(22, LOW);  
  Serial.println("LED OFF");  
  delay(2000);  
}
```

OUTPUT:

