

TEAM ID	PNT2022TMI04391
DATE	17 NOVEMBER 2022
PROJECT NAME	Smart Waste Management for Metropolitan Cities
TEAM MEMBERS	ROHITH VIGNESH HARI PRASATH P HARSHIT R MOHAMED ROSHAN M

FINAL CODE OUTPUT:

The screenshot shows the Wokwi IDE interface. On the left, the code for the project is displayed, including setup and loop functions. On the right, the simulation results are shown, including a diagram of the circuit and a log of the program's output.

Code Snippet:

```

36
37 void setup()
38 {
39   Serial.begin(115200);
40   pinMode(LED_BUILTIN, OUTPUT);
41   pinMode(TRIG_PIN, OUTPUT);
42   pinMode(ECHO_PIN, INPUT);
43   //pir
44   pinMode(4, INPUT);
45   //ledpins
46   pinMode(23, OUTPUT);
47   pinMode(2, OUTPUT);
48   pinMode(4, OUTPUT);
49   pinMode(15, OUTPUT);
50
51   lcd.init();
52
53   lcd.backlight();
54   lcd.setCursor(1,0);
55   lcd.print("");
56   wifiConnect();
57   mqttConnect();
58 }
59 float readcmOH()
60 {
61   digitalWrite(TRIG_PIN, LOW);
62   delayMicroseconds(2);
63   digitalWrite(TRIG_PIN, HIGH);
64   delayMicroseconds(10);
65   digitalWrite(TRIG_PIN, LOW);
66   int duration = pulseIn(ECHO_PIN, HIGH);
67   return duration * 0.034 / 2;
68 }
69 void loop()
70 {

```

Simulation Results:

Connecting to Wifi..Wifi connected, IP address: 10.10.0.2
Reconnecting MQTT client to 3defda.messaging.internetofthings.ibmcloud.com
IBM subscribe to cmd OK

No motion detected
No motion detected
No motion detected

WOKWI

sketch.ino diagram.json libraries.txt Library Manager

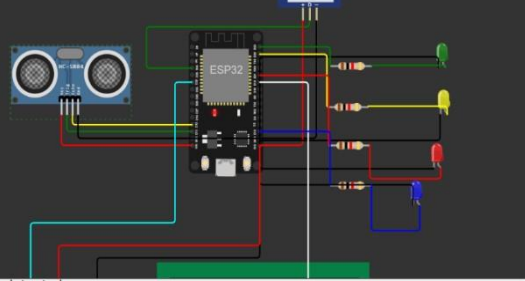
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Simulation

00:59.704 100%

Editing Ultrasonic Distance Sensor

Distance: 87cm



No motion detected

Sending payload: {"High Alert!!":"86.99left" }

Publish OK

Sending distance: 86.99

Publish OK

WOKWI

sketch.ino diagram.json libraries.txt Library Manager

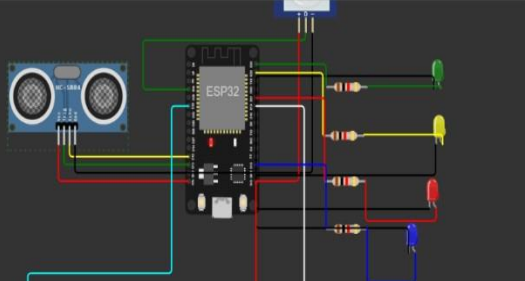
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67   return duration * 0.034 / 2;
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```

Simulation

01:16.536 99%

Editing Ultrasonic Distance Sensor

Distance: 164cm



Sending distance: 163.98

Publish OK

No motion detected

Sending distance: 163.95

Publish OK

WOKWI

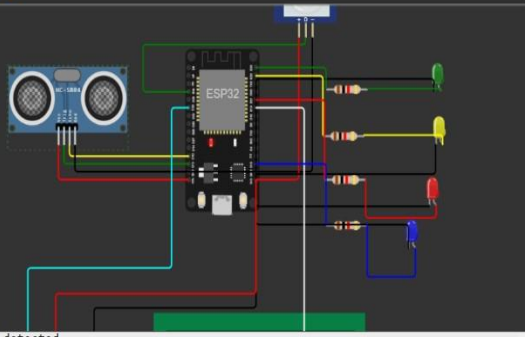
sketch.ino diagram.json libraries.txt Library Manager

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64   delayMicroseconds(10);
65   digitalWrite(TRIG_PIN, LOW);
66   int duration = pulseIn(ECHO_PIN, HIGH);
67   return duration * 0.034 / 2;
68 }
69 void loop()
70 {
```

Simulation

01:34.270 106%

Editing Ultrasonic Distance Sensor
Distance: 59cm



No motion detected

Sending payload: {"High Alert!": "58.94left" }
Publish OK

Sending distance: 58.94
Publish OK

WOKWI

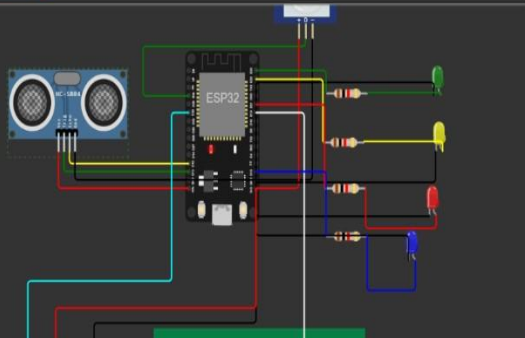
sketch.ino diagram.json libraries.txt Library Manager

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64   delayMicroseconds(10);
65   digitalWrite(TRIG_PIN, LOW);
66   int duration = pulseIn(ECHO_PIN, HIGH);
67   return duration * 0.034 / 2;
68 }
69 void loop()
70 {
```

Simulation

01:26.412 99%

Editing Ultrasonic Distance Sensor
Distance: 223cm



Sending distance: 222.97
Publish OK

No motion detected

Sending distance: 222.94
Publish OK

