

Delivery of Sprint_1

Team ID	PNT2022TMID26530
Project Name	Smart Waste Management System For Metropolitan Cities

CIRCUIT CODE:

```
#include
<ESP32Se
rvo.h>
#include
<LiquidC
rystal_I
2C.h>
LiquidCrystal_I2C LCD =
LiquidCrystal_I2C(0x27, 16, 2);
Servo servo;
i
n
t

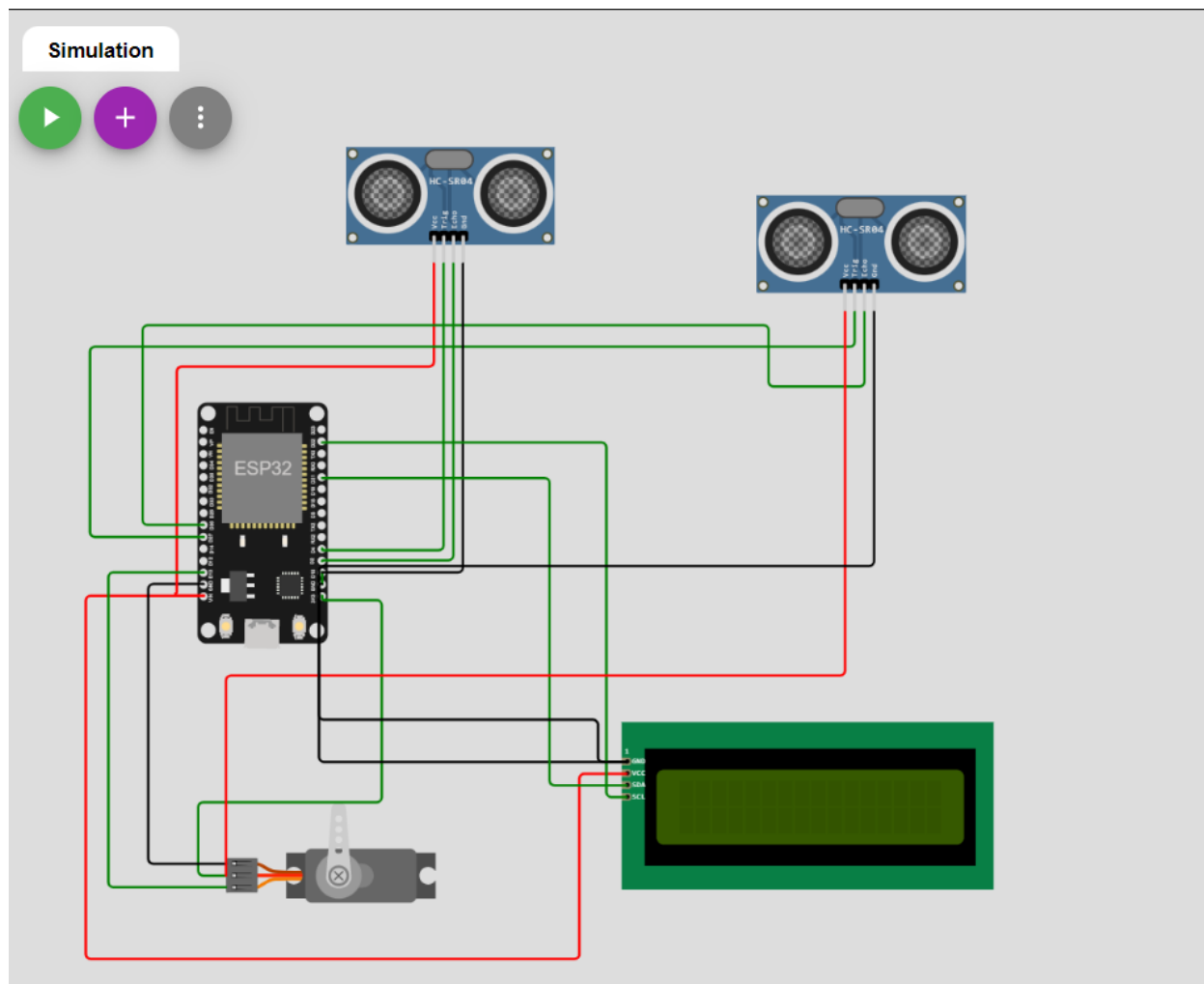
t
r
i
g
p
i
n
1
=
2
;
.
```

```
digitalWrite(trigPin2, LOW);
delayMicroseconds(2);
digitalWrite(trigPin2, HIGH);
delayMicroseconds(10);
digitalWrite(trigPin2, LOW);
duration2 = pulseIn(echoPin2, HIGH);
distance2= duration2*0.034/2;
Serial.println("The lid is closed");

}
LCD.setCursor(0,1);
LCD.print("Fill Status: ");

if(distance2>300 && distance2<=400){
    LCD.setCursor(12,1);
    LCD.print("25% ");
    Serial.println("Bin status:25%");
}
else if(distance2 > 200 && distance2<= 299){
    LCD.setCursor(12,1);
    LCD.print("50%");
    Serial.println("Bin status:50%");
}
else if(distance2 >50 && distance2<=199){
    LCD.setCursor(12,1);
    LCD.print("75%");
    Serial.println("Bin status:75%");
}
else{
    LCD.setCursor(12,1);
    LCD.print("100%");
    Serial.println("Bin status:100%");
}
if(distance1<=50){
    servo.write(90);
}
else{
    servo.write(0);
}
}
```

CIRCUIT DESIGN:



OUTPUT:

Service Detail x IBM Watson x IBM x IBM-Project-2 x (10) WhatsApp x IBM-Project-1 x Circuit Code x New ESP32 P x sketchuno - V x +

wokwi.com/projects/new/esp32

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WOKWI SAVE SHARE Docs

sketch.ino diagram.json libraries.txt Library Manager

```
48 }
49
50 LCD.setCursor(0,1);
51 LCD.print("Fill Status: ");
52
53 if(distance2>300 && distance2<=400){
54   LCD.setCursor(12,1);
55   LCD.print("25% ");
56   Serial.println("Bin status:25%");
57 }
58 else if(distance2 > 200 && distance2<= 299){
59   LCD.setCursor(12,1);
60   LCD.print("50%");
61   Serial.println("Bin status:50%");
62 }
63 else if(distance2 >50 && distance2<=199){
64   LCD.setCursor(12,1);
65   LCD.print("75%");
66   Serial.println("Bin status:75%");
67 }
68 else{
69   LCD.setCursor(12,1);
70   LCD.print("100%");
71   Serial.println("Bin status:100%");
72 }
73 if(distance1<=50){
74   servo.write(90);
75 }
76 else{
77   servo.write(0);
78 }
79
80
```

Simulation

00:15.265 69%

Bin status:100%
The lid is open
Bin status:100%
The lid is open
Bin status:100%
The lid is open
Bin status:100%

Service Detail x IBM Watson x IBM x IBM-Project-2 x (10) WhatsApp x IBM-Project-1 x Circuit Code x W New ESP32 Pi x sketch.ino - V x

wokwi.com/projects/new/esp32

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sketch.ino • diagram.json • libraries.txt • Library Manager

```
48 }
49 LCD.setCursor(0,1);
50 LCD.print("Fill Status: ");
51
52
53 if(distance2>300 && distance2<=400){
54   LCD.setCursor(12,1);
55   LCD.print("25% ");
56   Serial.println("Bin status:25%");
57 }
58 else if(distance2 > 200 && distance2<= 299){
59   LCD.setCursor(12,1);
60   LCD.print("50%");
61   Serial.println("Bin status:50%");
62 }
63 else if(distance2 >50 && distance2<=199){
64   LCD.setCursor(12,1);
65   LCD.print("75%");
66   Serial.println("Bin status:75%");
67 }
68 else{
69   LCD.setCursor(12,1);
70   LCD.print("100%");
71   Serial.println("Bin status:100%");
72 }
73 if(distance1<=50){
74   servo.write(90);
75 }
76 else{
77   servo.write(0);
78 }
79
80 }
```

Simulation 00:25.281 90%

The lid is open
Bin status:100%
The lid is open
Bin status:100%
The lid is open
Bin status:100%
The lid is open

Type here to search 79% 26°C 0959 17-11-2022