

SPRINT -2

DATE	14November 2022
TEAM ID	PNT2022TMID08717
PROJECT NAME	SMART WASTE MANAGEMENT FOR METROPOLITAN CITIES

Code for Data Transfer fromSensors

```
#include <LiquidCrystal_I2C.h>
#include <WiFi.h>
LiquidCrystal_I2C lcd(0x27, 16, 2); // I2C address 0x3F, 16 column and 2 rows

int trigPin = 2;    // TRIG pin
int echoPin = 15;   // ECHO
pin

float duration_us, distance_cm,distance;

void setup() {
  lcd.init();           // initialize the lcd
  lcd.backlight();
  pinMode(5,OUTPUT);
  pinMode(18,OUTPUT);
  pinMode(19,OUTPUT);
  pinMode(23,OUTPUT);
  pinMode(34,INPUT);
  pinMode(14,OUTPUT);
  // open the backlight
  pinMode(trigPin, OUTPUT); // config trigger pin to output mode
  pinMode(echoPin, INPUT);
  Serial.println(9600); // config echo pin to input mode
}

void loop() {
  lcd.clear();
  lcd.setCursor(0, 0); // start to print at the first row
  lcd.print("waste level: ");
  lcd.print(distance);
  // generate 10-microsecond pulse to TRIG
  pin digitalWrite(trigPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin, LOW);
  // measure duration of pulse from ECHO pin
  duration us = pulseIn(echoPin, HIGH);
```

```

    // calculate the distance
    distance_cm = 0.017 * duration_us;
    distance=400-distance_cm;
    if(digitalRead(34))
{
Serial.println("Motion Detected");
Serial.println("Lid Opened");
    lcd.setCursor(0, 1); // start to print at the first row
    lcd.print("LID OPENED ");
    digitalWrite(14, HIGH);

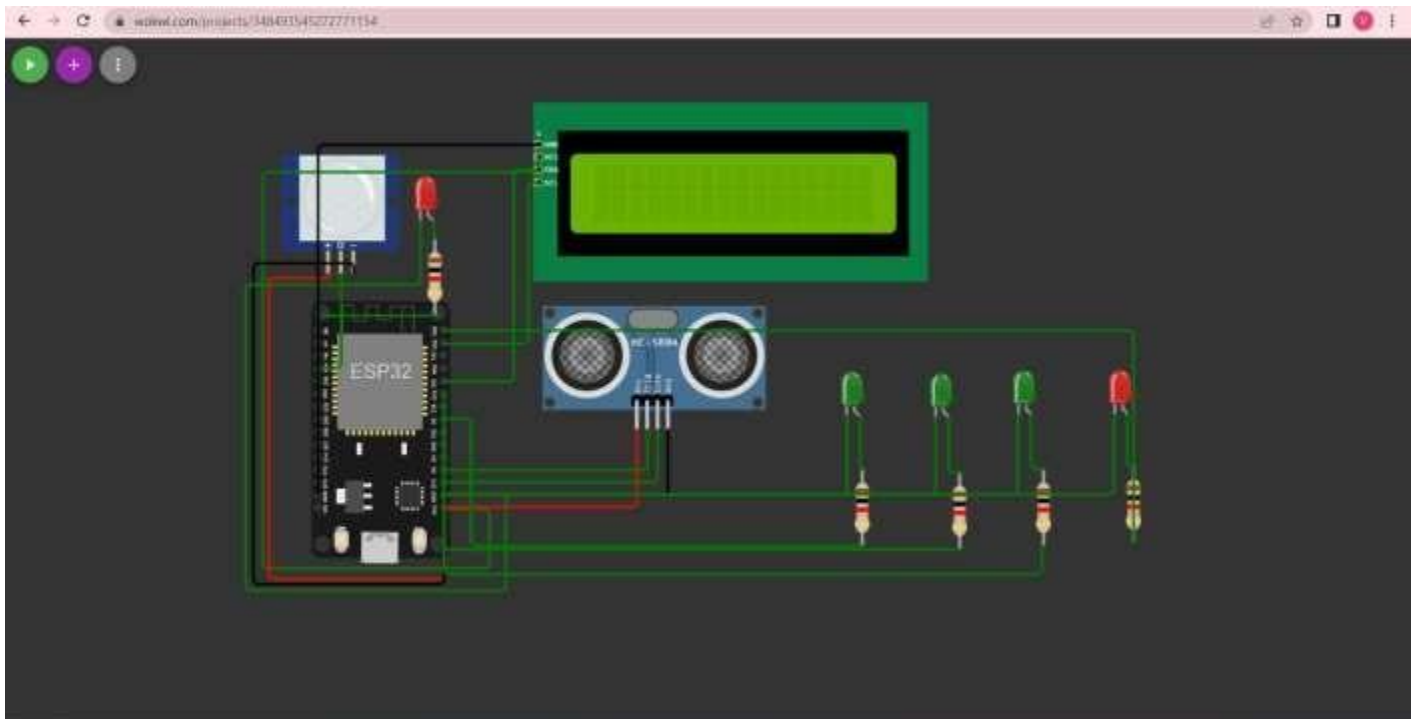
}
else
{
    digitalWrite(14, LOW);
    lcd.setCursor(0, 1); // start to print at the first row
    lcd.print("LID CLOSED ");
}

    digitalWrite(5,HIGH);
    digitalWrite(18,LOW);
    digitalWrite(19,LOW);
    digitalWrite(23,LOW);
    if(distance>=175)
    {
        digitalWrite(18,HIGH);
        digitalWrite(5,LOW);
        digitalWrite(19,LOW);
        digitalWrite(23,LOW);
    }
    if(distance>=275)
    {
        digitalWrite(19,HIGH);
        digitalWrite(5,LOW);
        digitalWrite(18,LOW);
        digitalWrite(23,LOW);
    }
    if(distance>=375)
    {
        digitalWrite(23,HIGH);
        digitalWrite(18,LOW);
        digitalWrite(5,LOW);
        digitalWrite(19,LOW);
    }

    delay(500);
}

```

Connection Diagram



Working

