KONGU ENGINEERING COLLEGE

Smart Waste Management System for Metropolitan Cities
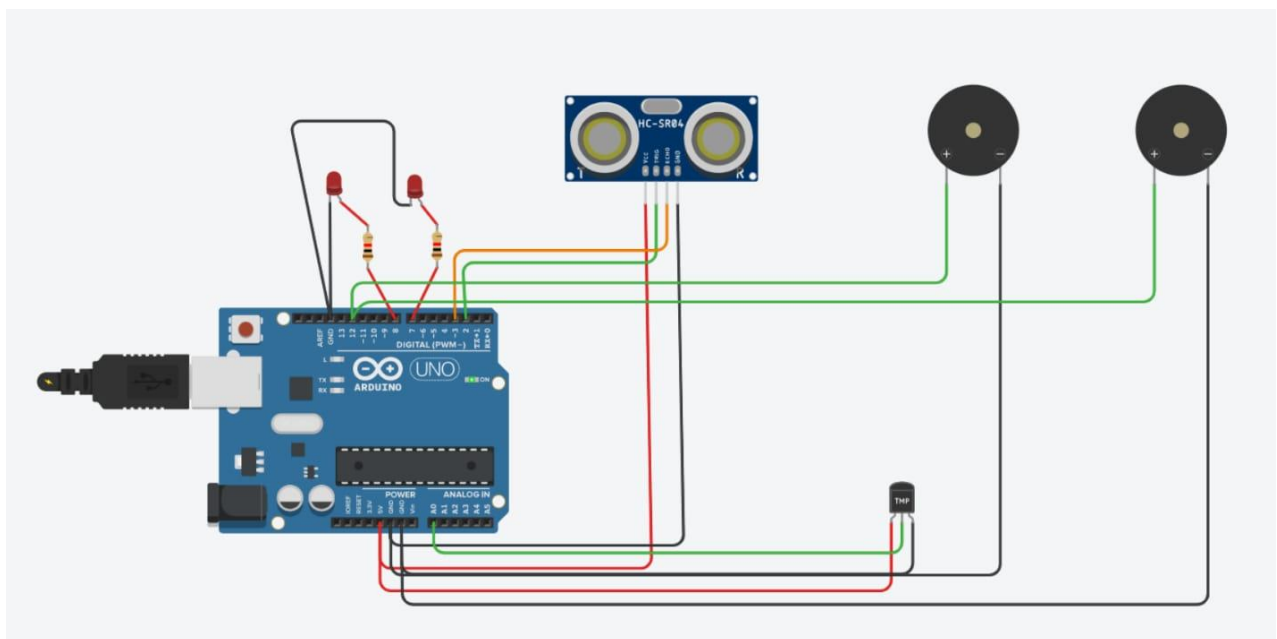
TEAM ID: PNT2022TMID04344
IBM Nalaiya Thiran Assignment 1:

Aim:

Make a Smart Home in Tinkercad, using 2+ sensors, Led, Buzzer in single code and circuit.

Circuit Diagram:

Code:

```
int e=3;

void setup()
{
 Serial.begin(9600);
 pinMode(t,OUTPUT);
 pinMode(e,INPUT);
 pinMode(12,OUTPUT);
```

```arduino
    }

    void loop()
    {
     //ultrasonic sensor
     digitalWrite(t,LOW);
     digitalWrite(t,HIGH);
     delayMicroseconds(10);
     digitalWrite(t,LOW);
     float dur=pulseIn(e,HIGH);
     float dis=(dur*0.0343)/2;
     Serial.print("Distance is: ");
     Serial.println(dis);

      //LED ON
     if(dis>=100)
     {
      digitalWrite(8,HIGH);
      digitalWrite(7,HIGH);
     }

     //Buzzer For ultrasonic Sensor
     if(dis>=100)
     {
     for(int i=0; i<=30000; i=i+10)
     {
     tone(12,i);
     delay(1000);
     noTone(12);
     delay(1000);
     }
     }




      //Temperate Sensor
     double a= analogRead(A0);
     double t=(((a/1024)*5)-0.5)*100;
     Serial.print("Temp Value: ");
     Serial.println(t);
     delay(1000);
```

```
//LED ON
if(t>=100)
{
  digitalWrite(8,HIGH);
  digitalWrite(7,HIGH);
}

//Buzzer for Temperature Sensor
if(t>=100)
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}

 //LED OFF
if(t<100)
{
  digitalWrite(8,LOW);
  digitalWrite(7,LOW);
}
}
```