

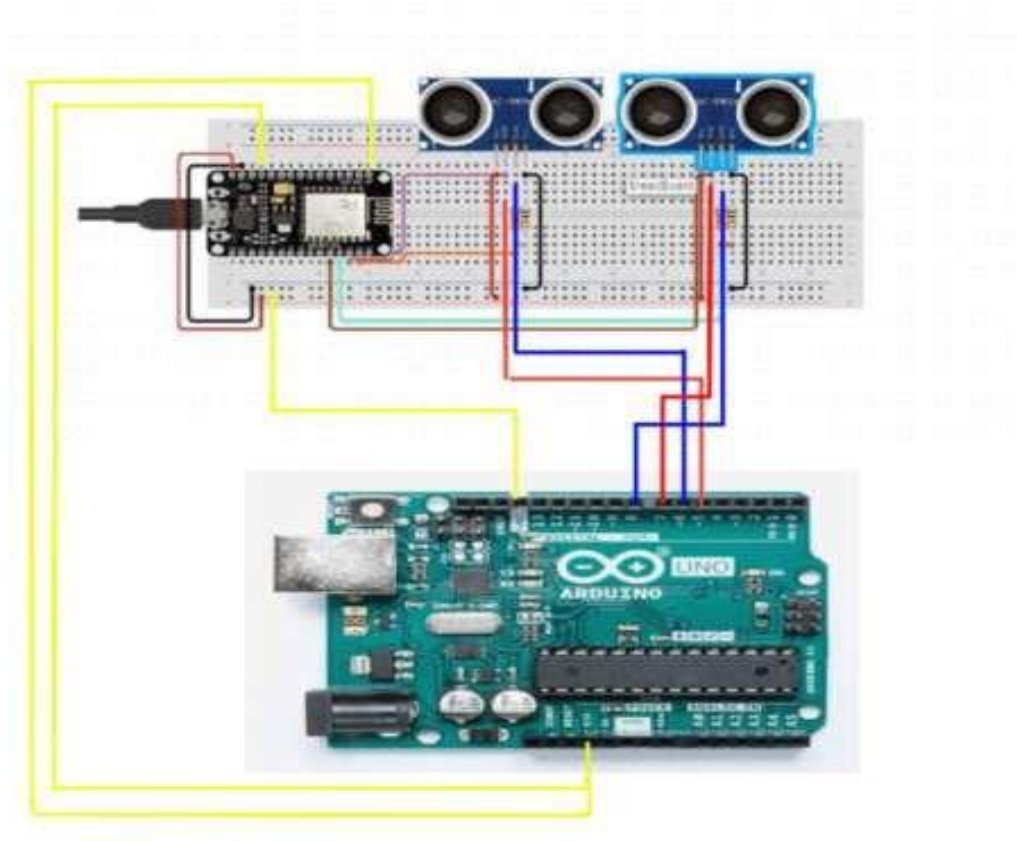
ASSIGNMENT-I

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Smart Waste Management System For Metropolitan Cities

Circuit Diagram:



Code:

```
Int  
t=2;  
int e=3;  
void setup()
```

```

{
  Serial.begin(9600);
  pinMode(t,OUTPUT);
  pinMode(e,INPUT);

  pinMode(12,OUTPUT);
}
//ultrasonic sensor
void loop()
{
  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 Monitoring  
//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);  
}  
}
```