ASSIGNMENT 1

Topic : Smart Waste Management System For Metropolitan Cities

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CODE

```
int e=3;
int t=2;


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


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)
```

```arduino
  {
  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);

 }
 }
```

Output