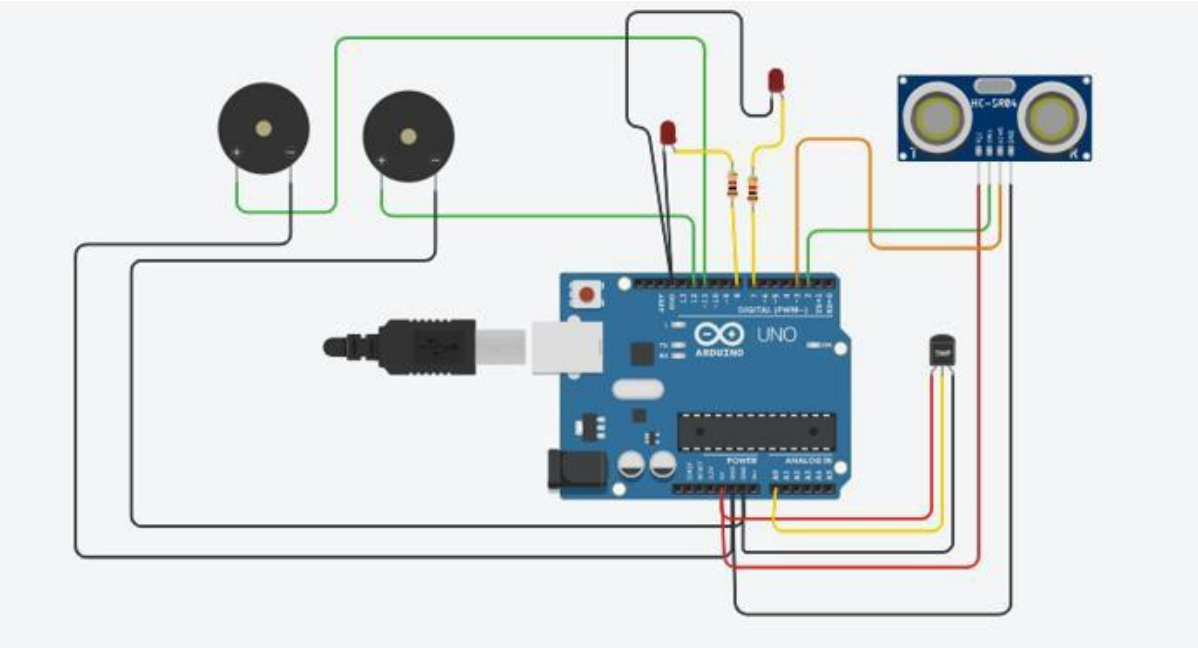
ASSIGNMENT-1

SMART HOME

Assignment Date	22 September 2022
Student Name	Sruthi.S
Student Roll Number	960219104105
Marks	2 Marks

CIRCUIT DIAGRAM:



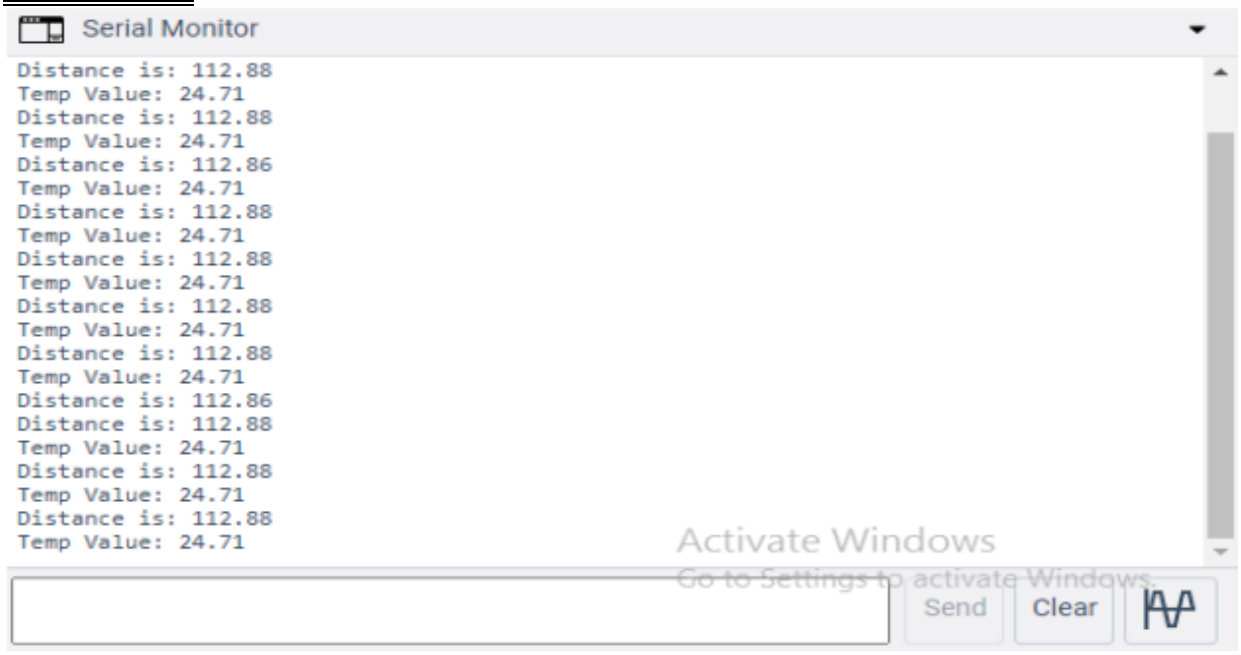
SOURCE CODE:

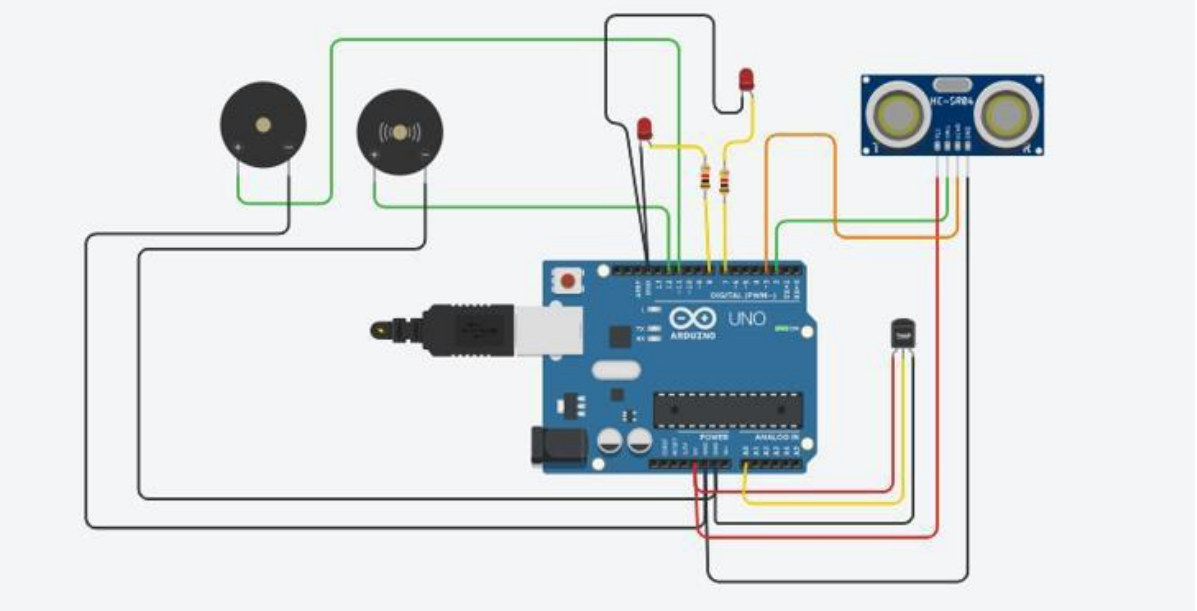
```
// C++ code
//
int trig=2;
int echo=3;
void setup()
{
  Serial.begin(9600);
  pinMode(trig,OUTPUT);
  pinMode(echo,INPUT);
  pinMode(12,OUTPUT);
}
void loop()
{
  //ultrasonic sensor
  digitalWrite(trig,LOW);
  digitalWrite(trig,HIGH);
  delayMicroseconds(10);
  digitalWrite(trig,LOW);
  float dur=pulseIn(echo,HIGH);
  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 trig=(((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(trig);
delay(1000);
   //LED ON
if(trig>=100)
{
  digitalWrite(8,HIGH);
  digitalWrite(7,HIGH);
}
 //Buzzer for Temperature Sensor
if(trig>=100)
```

```
  {
  for(int i=0; i<=30000; i=i+10)
  {
  tone(12,i);
  delay(1000);
  noTone(12);
  delay(1000);
  }
  }
   //LED OFF
  if(trig<100)
  {
    digitalWrite(8,LOW);
    digitalWrite(7,LOW);
  }
}
```

OUTPUT:

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