

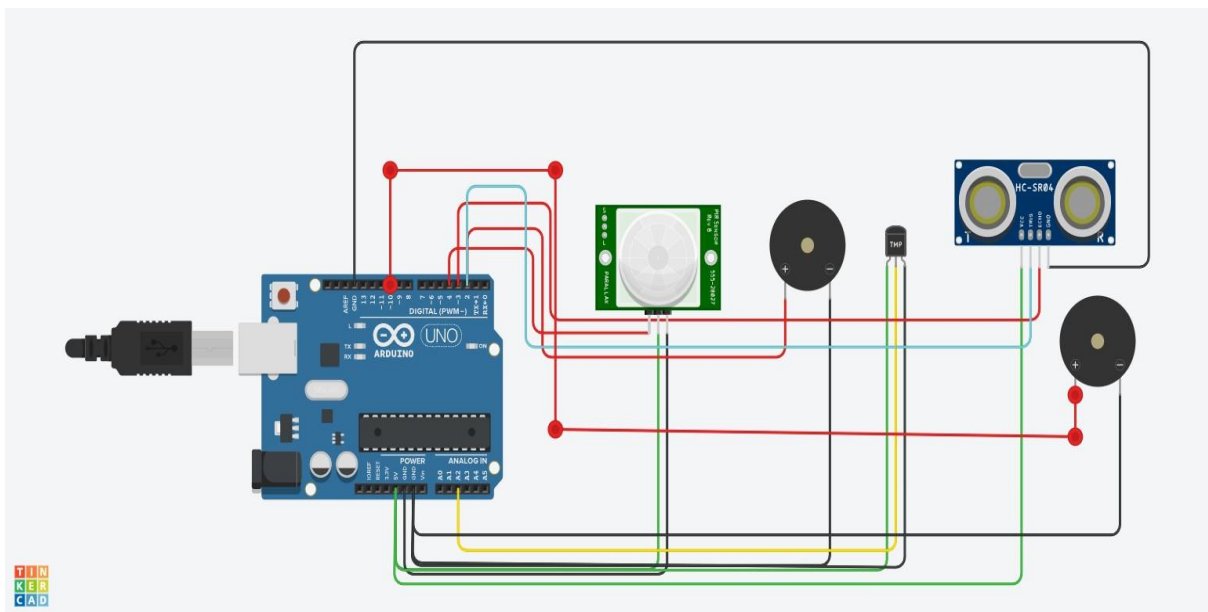
ASSIGNMENT 1

Assignment Date	17 September 2022
Student Name	Suvatha A S
Student Roll Number	611219106078
Maximum Marks	2 Marks

Question:

Build a Smart home automation using three sensors

CIRCUIT:



CODE:

```
int trigger_pin = 2;
int echo_pin = 3;
int buzzer_pin = 10;
int time;
int distance;
void setup()
{
  Serial.begin(9600);
  pinMode(2,OUTPUT);
```

```

pinMode(4,INPUT);
pinMode (trigger_pin, OUTPUT);
pinMode (echo_pin, INPUT);
pinMode (buzzer_pin, OUTPUT);
}

void loop()
{
  int motion = digitalRead(4);
  double data = analogRead(A2);
  double n =data/1024;
  double volt= n*5;
  double off=volt-0.5;
  double temp= off*100;
  if(temp>60){
    tone(2,1000,1000);
  }
  else if(motion==1){
    tone(2,2000,1000);
  }
  else{
    noTone(2);
  }
  digitalWrite (trigger_pin, HIGH);
  delayMicroseconds (10);
  digitalWrite (trigger_pin, LOW);
  time = pulseIn (echo_pin, HIGH);
  distance = (time * 0.034) / 2;

  if (distance <= 10)

```

```
{  
  Serial.println (" Door Open ");  
  Serial.print (" Distance= ");  
  Serial.println (distance);  
  digitalWrite (buzzer_pin, HIGH);  
  delay (500);  
}  
else {  
  Serial.println (" Door closed ");  
  Serial.print (" Distance= ");  
  Serial.println (distance);  
  digitalWrite (buzzer_pin, LOW);  
  delay (500);  
}  
}
```