

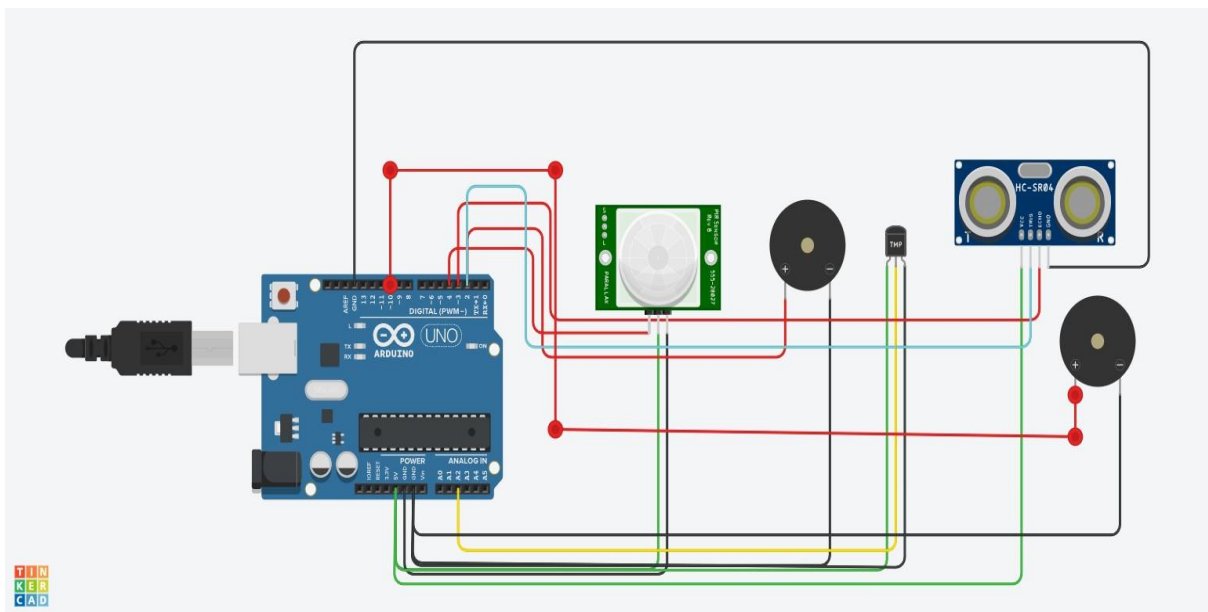
ASSIGNMENT 1

Assignment Date	17 September 2022
Student Name	Vinothkumar S
Student Roll Number	620119104117
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);  
}  
}
```