ASSIGNMENT 1

Assignment Date	17 September 2022
Student Name	Bhavadharani S
Student Roll Number	611219106006
Maximum Marks	2 Marks

Question:

Build a Smart home automation using three sensors

CIRCUIT:
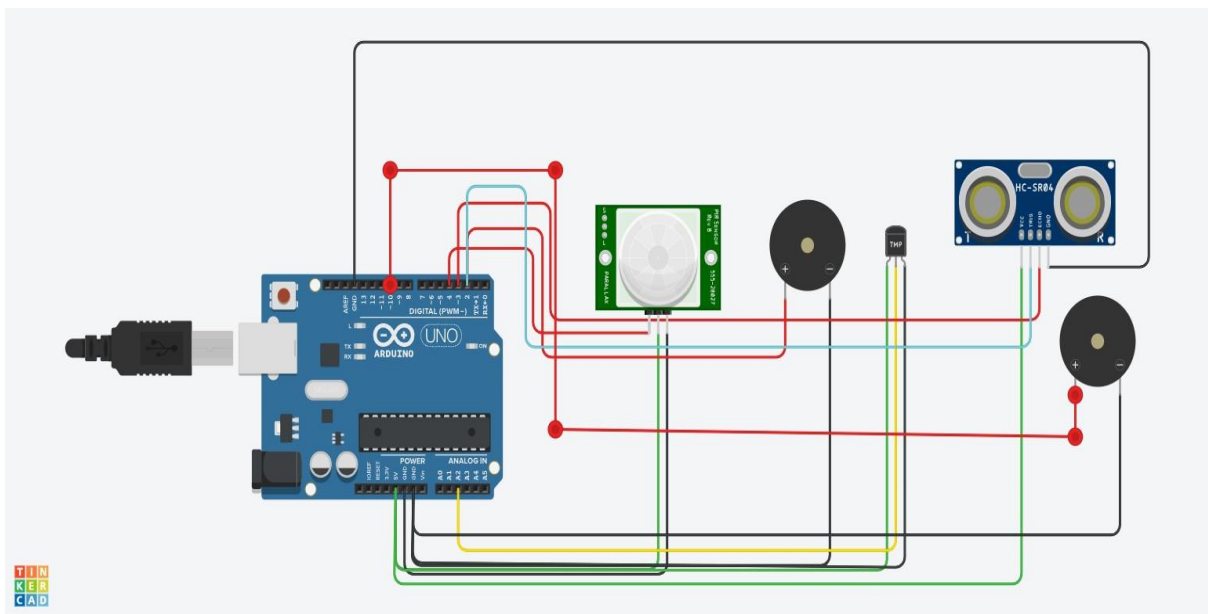
CODE:

```
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);
        }

}
```