

ASSIGNMENT 1

Home Automation Using Sensors

CODE:

```
void setup() {

  Serial.begin(9600);
  pinMode(2,INPUT);
  pinMode(13,OUTPUT);

}

void loop() {

  int motion=digitalRead(2);
  double temp=analogRead(A4);
  double x=temp/1024;
  double volt=x*5;
  double off =volt-0.5;
  double temperature=off*100;
  double deg= 50;
  if (motion==1)
  {

    digitalWrite(13,HIGH);
    delay(1000);
    digitalWrite(13,HIGH);
    delay(1000);
    Serial.println("Motion is being detected");

  } else {

    digitalWrite(13,LOW);
    Serial.println("Motion is not detected");
  }if (temperature> deg)
  {

    digitalWrite(13,HIGH);
    Serial.print("Temperature:");
    Serial.println(temperature);
  } else {

    digitalWrite(13,LOW);
    Serial.print("Temperature:");
    Serial.println(temperature);

  }
}
```

OUTPUT

