Assignment -1
Embedded c Programming

Assignment Date	19 September 2022
Student Name	Praveen.G
Student Roll Number	113019106060
Maximum Marks	2 Marks

Question-1:

Create circuit with Piezo alarm, PIR sensor, tmp sensor with below functionalities:

1. Alarm should sound in one manner if temp is above 60 C

2. Alarm should sound with another frequency if motion is detected in PIR sensor.

Solution:

```c
int led = 13;

int sensor = 2;

int state = LOW;

int val = 0;

const int buzzer = 3;

const int buzz = 6;

float temp;

int tempPin = 0;

void setup() {

  pinMode(led, OUTPUT);

  pinMode(sensor, INPUT);

  pinMode (buzzer, OUTPUT);

  pinMode (buzz, OUTPUT);

  Serial.begin(9600);      }

void loop(){

  temp = analogRead(tempPin);

   temp = temp * 0.48828125;
```

```
  Serial.print("TEMPERATURE = ");
   Serial.print(temp);
  Serial.print("*C");
   Serial.println();
   delay(1000);
  if(temp>=60)
  {
    digitalWrite(buzzer,HIGH);
    delay(3000);
    digitalWrite(buzzer,LOW);
    delay(1000);
  }
val = digitalRead(sensor);
  if (val == HIGH) {
    digitalWrite(led, HIGH);
    digitalWrite(buzz,HIGH);
    delay(1000);
    digitalWrite(buzz,LOW);
   if (state == LOW) {
      Serial.println("Motion detected!");
      state = HIGH;
   }
  }
  else {
    digitalWrite(led, LOW);
    delay(500);

    if (state == HIGH){
      Serial.println("Motion stopped!");
      state = LOW;
```

```
        }

    }

}
```