

# ASSIGNMENT 1

**Date: 12.09.2022**

**Create a circuit with piezo alarm, PIR sensor, Temperature sensor consisting following features**

- 1. Alarm when temperature is above 60 degree celcius, and**
- 2. Alarm when motion detected using Passive Infrared sensor**

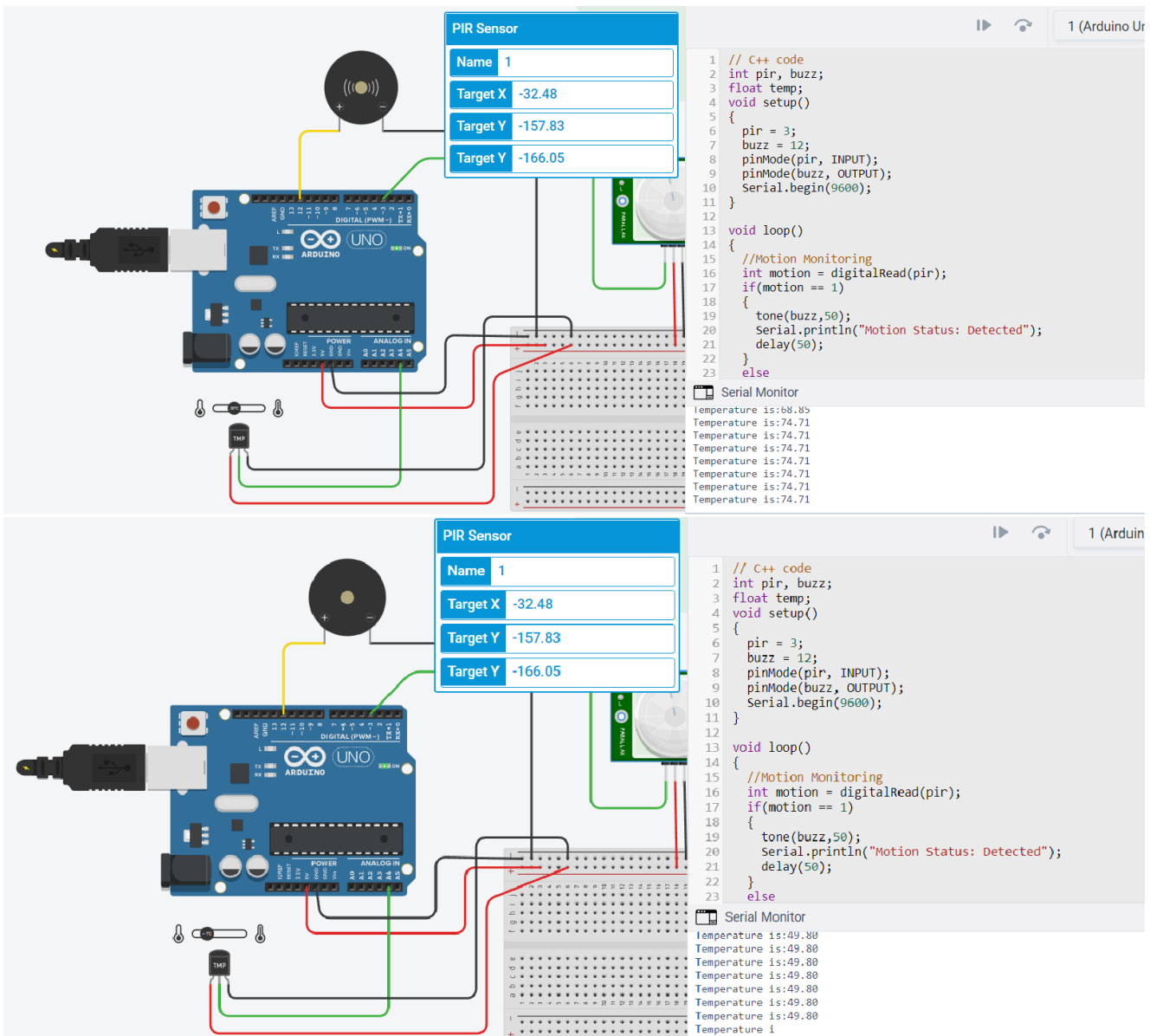
## **PROGRAM:**

```
// C++ code
int pir, buzz;
float temp;
void setup()
{
    pir = 3;
    buzz = 12;
    pinMode(pir, INPUT);
    pinMode(buzz, OUTPUT);
    Serial.begin(9600);
}

void loop()
{
    //Motion Monitoring
    int motion = digitalRead(pir);
    if(motion == 1)
    {
        tone(buzz, 50);
        Serial.println("Motion Status: Detected");
        delay(50);
    }
    else
    {
        noTone(buzz);
        Serial.println("Motion Status: Not Detected");
    }

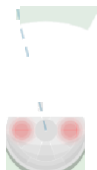
    //Temperature Measurement
    float data = analogRead(A4);
    float temp = (((data/1024.0)*5)*100);
```

### OUTPUT :





ee



Target Y -157.83  
16.5

```
* 1
6 pir = 3;
  buzz = 12;
8 pinMode(pir, INPUT);
  pinMode(buzz, OUTPUT);
11 )

15 //Motion Monitoring
16 int motion = digitalRead(pir);

19 tone(buzz,50);
20 Serial.println("Motion Status: Detected");
21 delay(50);
```

Serial Monitor

Motion Status: Detected

6 B + @ • -- • {(@ §)\t Simulator time:00:00:10.543

Code Stop Simulation



Name 1

Target Y 157.83

Target Y -166.05



```
20 Serial.println("Motion Status: Detected");
21 delay(50);
```

```
25 noTone(buzz);
26 Serial.println("Motion Status: Not Detected");
27 }
28
```

```
31 float temp = (((data;i02a.u)*s)*1mu);
32 Serial.print("Temperature is:");
33 Serial.println(temp);
34 if(temp>60)
35 {
```

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