**Assignment -1**

Python Programming

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| Assignment Date | 19 September 2022 |
| Student Name | Vengam Sasikumar |
| Student Roll Number | 111519106172 |
| Maximum Marks | 2 Marks |

**Question-1:**

Write a program to detect temperature and motion-based buzzer alarm using temperature and PIR sensor using Ardino UNO.

SOLUTION:

**CODE:**

**void setup()**

**{**

**Serial.begin(9600);**

**pinMode(2,INPUT);**

**pinMode(12,OUTPUT);**

**}**

**void loop()**

**{**

**int motion=digitalRead(2);**

**if(motion==1)**

**{**

**Serial.println("Motion is detected !");**

**tone(12,10);**

**delay(1000);**

**noTone(12);**

**delay(3000);**

**}**

**else**

**{**

**Serial.println("No Motion !!!");**

**delay(1000);**

**}**

**double data=analogRead(A2);**

**double temp=(((data/1024)\*5)-0.5)\*100;**

**if(temp>60)**

**{**

**Serial.println("Temperature is greater than 60 degrees !");**

**Serial.println(temp);**

**tone(12,100);**

**delay(1000);**

**noTone(12);**

**delay(3000);**

**}**

**else**

**{**

**Serial.println("Temperature is less than 60 degrees !!!");**

**Serial.println(temp);**

**delay(1000);**

**}**

**}**

**CIRCUIT:** Diagram

Description automatically generated

**OUTPUT:**

Simulation video link:

[**https://drive.google.com/file/d/1g46Hn9xyNwVSIj0DTTM99l4bI6nExPAq/view?usp=sharing**](https://drive.google.com/file/d/1g46Hn9xyNwVSIj0DTTM99l4bI6nExPAq/view?usp=sharing)