**Assignment -1**

**Python Programming**

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| Assignment Date | 19 September 2022 |
| Student Name | VIJAY K V J |
| Student Roll Number | 111519106174 |
| Maximum Marks | 2 Marks |

**Question-1:**

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

**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 detected !");

tone(12,10);

delay(1000);

noTone(12);

delay(3000);

}

else

{

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

delay(1000);

}

double data=analogRead(A2);

double n=data/1024;

double voltage=n\*5;

double offsetvol=voltage-0.5;

double temp=offsetvol\*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:***

**Graphical user interface, diagram

Description automatically generated**

***OUTPUT:***

Working simulation video link:

<https://drive.google.com/file/d/1Qbud06RNyy9Y7HF0niAhRoSfYhcw7OAu/view>