

GOVERNMENT COLLEGE OF ENGINEERING,BODINAYAKKANUR

Name:S.Mohamed Shajith

Reg no:923319106019

QN:Build a python code,assume u get temperature and humidity values(generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperatue.

Arduino code:

```
#include<dht.h>
```

```
dht DHT;
```

```
#define DHT11_PIN 4
```

```
Int temp;
```

```
Int hum;
```

```
Int buzzer=13;
```

```
Void setup()
```

```
{
```

```
    Serial.begin(9600);
```

```
}
```

```
Void loop()
```

```
{
```

```
    int chk=DHT.read(DHT11_PIN);
```

```
    temp=DHT.temperature;
```

```
    hum=DHT.humidity;
```

```
    Serial.print(temp);
```

```

Serial.print("x");

Serial.println(hum);

delay(2000);

if(temp>=60)
{
    digitalWrite(13,HIGH);

    delay(500);

    digitalWrite(13,LOW);

    delay(500);

}
else{

    delay(1000);

}

}

```

Python Code:

```

import serial

import time

import schedule

def main_func();

    arduino=serial.Serial('com3',9600)

    print('established serial connection to arduino')

    arduino_data=arduino.readline()

    decoded_values=str(arduino_data[0:len(arduino_data)].decode("utf-8"))

    list_values=decoded_values.split('x')

    for item in list_values:

```

```
        list_in_floats.append(float(item))  
    print('collected readings from arduino:')  
    arduino_data=0  
    list_in_floats.clear()  
    list_values.clear()  
    arduino.close()  
    print('connection closed')  
    print('<----->')
```