

**Assignment -1**  
C Programming

|                     |                   |
|---------------------|-------------------|
| Assignment Date     | 12 September 2022 |
| Student Name        | AHAMED YOONUS ZH  |
| Student Roll Number | 962319104007      |
| Maximum Marks       | 2 Marks           |

**Question-1:**

Build an smarthome iot device using an audrino uno microcontroller and attach at least 2 sensors in it .

**Program :**

```
#include<Servo.h>
Servo servo;
void setup()
{
    servo.attach(3);

    pinMode(13,OUTPUT);
    pinMode(5,OUTPUT);
}
void loop()
{
    //open the window if temp is high
    double input = analogRead(A1);
    double t = (((input/1024)*5)-0.5)*100;
    if(t > 32) servo.write(180);
    else servo.write(0);

    //open windows
    int temp = analogRead(A0);
    if(temp > 552)digitalWrite(13,1);
    else digitalWrite(13,0);

    //turn fan
    if(temp > 40) analogWrite(5,255);
}
```

**Components Used :**

1.Temperature sensor

- 2.Servo motor
- 3.LED
- 4.Photoresistor
- 5.Micro Servo

### Wire Connection:

