

```

1  #include "DHT.h"
2  #include <Wire.h>
3  #include <Adafruit_GFX.h>
4  #include <Adafruit_SH1106.h>
5
6  #define DHTPIN 2
7  #define DHTTYPE DHT11
8  DHT dht(DHTPIN, DHTTYPE);
9  #define OLED_RESET -1
10 String Comment;
11
12 Adafruit_SH1106 display(OLED_RESET);
13
14 int ldrPin = A0;
15 int ldrValue = 0;
16
17 void setup() {
18     Serial.begin(9600);
19     dht.begin();
20
21     display.begin(SH1106_SWITCHCAPVCC, 0x3C); // Initialize OLED
22     display.clearDisplay();
23     display.display();
24
25     pinMode(ldrPin, INPUT);
26 }
27
28 void loop() {
29     float h = dht.readHumidity();
30     float t = dht.readTemperature();
31     float f = dht.readTemperature(true);
32
33     //simplified version of the heat index formula
34     float feelsLikeC = t + (0.33 * (1.0 - (h / 100.0)) * (t - 30.0));
35
36     if(feelsLikeC >= 32)
37     {
38         Comment="It is hot today";
39     }
40     else if(feelsLikeC < 32)
41     {
42         Comment="The weather is okay";
43     }
44
45     ldrValue = analogRead(ldrPin);
46     float sunlight = map(ldrValue, 0, 1023, 0, 100);
47     display.clearDisplay();
48
49     display.setTextSize(1);
50     display.setTextColor(WHITE);
51     display.setCursor(0, 0);
52     display.print("Humidity: ");
53     display.print(h);
54     display.print("%");
55
56     display.setTextSize(1);
57     display.setCursor(0, 10);
58     display.print("Temperature: ");
59     display.print(t);
60     display.print("C");
61
62     display.setTextSize(1);
63     display.setCursor(0, 20);
64     display.print("Temperature: ");
65     display.print(f);
66     display.print("F");
67
68     display.setTextSize(1);
69     display.setCursor(0, 30);

```

```
70     display.print("Feels like: ");
71     display.print(feelsLikeC);
72     display.print("C");
73
74     display.setTextSize(1);
75     display.setCursor(0, 40);
76     display.print("Light: ");
77     display.print(map(ldrValue, 1023, 0, 0, 100)); //In my sensor at Minimum light value
1023
78     display.print("%");
79
80     display.display();
81     delay(1000);
82 }
```