

NAAN MUDHALVAN-IBM

ASSIGNMENT 1

TRACK-IOT

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TOPIC-BUILD A SMART HOME IN WOKWI WITH MINIMUM TWO SENSORS, LED
AND BUZZER.

WOKWI LINK- <https://wokwi.com/projects/363319685319853057>

CODE:

```
#include <Servo.h>
#include "DHT.h"
int Pir = 8;
int buzzerPin = 9;

int statusPir = 0;
#define DHTPIN 13
#define DHTTYPE DHT22
Servo myservo;
DHT dht(DHTPIN, DHTTYPE);

void setup() {
    // put your setup code here, to run once
    Serial.begin(9600);
    myservo.attach(6);
    pinMode(Pir, INPUT);
    pinMode(buzzerPin, OUTPUT);

    dht.begin();
}

void loop() {

    statusPir = digitalRead(Pir);
    float h = dht.readHumidity();
    // Read temperature as Celsius (the default)
    float t = dht.readTemperature();
    // Read temperature as Fahrenheit (isFahrenheit = true)
    float f = dht.readTemperature(true);

    // Check if any reads failed and exit early (to try again).
    if (isnan(h) || isnan(t) || isnan(f)) {
        Serial.println(F("Failed to read from DHT sensor!"));
    }
}
```

```

    return;
}

float hif = dht.computeHeatIndex(f, h);
float hic = dht.computeHeatIndex(t, h, false);

Serial.print(F("Humidity: "));
Serial.print(h);
Serial.print(F("% Temperature: "));
Serial.print(t);
Serial.print(F("°C "));
Serial.print(f);
Serial.print(F("°F Heat index: "));
Serial.print(hic);
Serial.print(F("°C "));
Serial.print(hif);
Serial.println(F("°F"));
if(statusPir == LOW)
{
    myservo.write(90);
    delay(1000);
    noTone(buzzerPin);
}

else{
    myservo.write(270);
    delay(1000);
    tone(buzzerPin, 50);
    Serial.println("Door Closed");
}
delay(1000);
}

```

OUTPUT

