# DHT SENSOR

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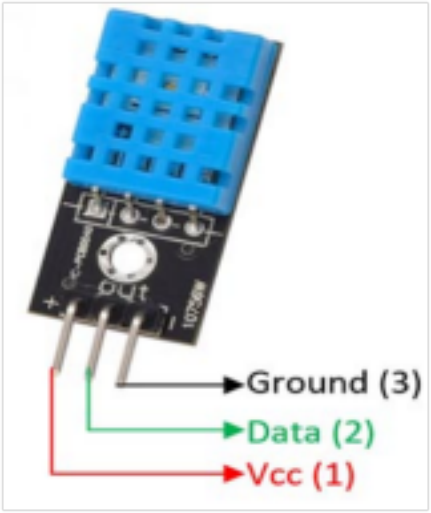
### INTRODUCTION

The DHT sensors are made of two parts, a capacitive humidity sensor and a thermistor. There is also a very basic chip inside that does some analog to digital conversion and spits out a digital signal with the temperature and humidity. The digital signal is fairly easy to read using any microcontroller.

### DHT 11

The DHT11 is a commonly used Temperature and humidity sensor. The sensor comes with a dedicated NTC to measure temperature and an 8-bit microcontroller to output the values of temperature and humidity as serial data. The sensor is also factory calibrated and hence easy to interface with other microcontrollers.
The sensor can measure temperature from 0°C to 50°C and humidity from 20% to 90% with an accuracy of ±1°C and ±1%. So if you are looking to measure in this range then this sensor might be the right choice for you.



| For DHT11 Sensor module | | |
|---|---|---|
| 1 | VCC | Power supply 3.5V to 5.5V |
| 2 | Data | Outputs both Temperature and Humidity through serial Data |
| 3 | Ground | Connected to the ground of the circuit |

## PROJECT

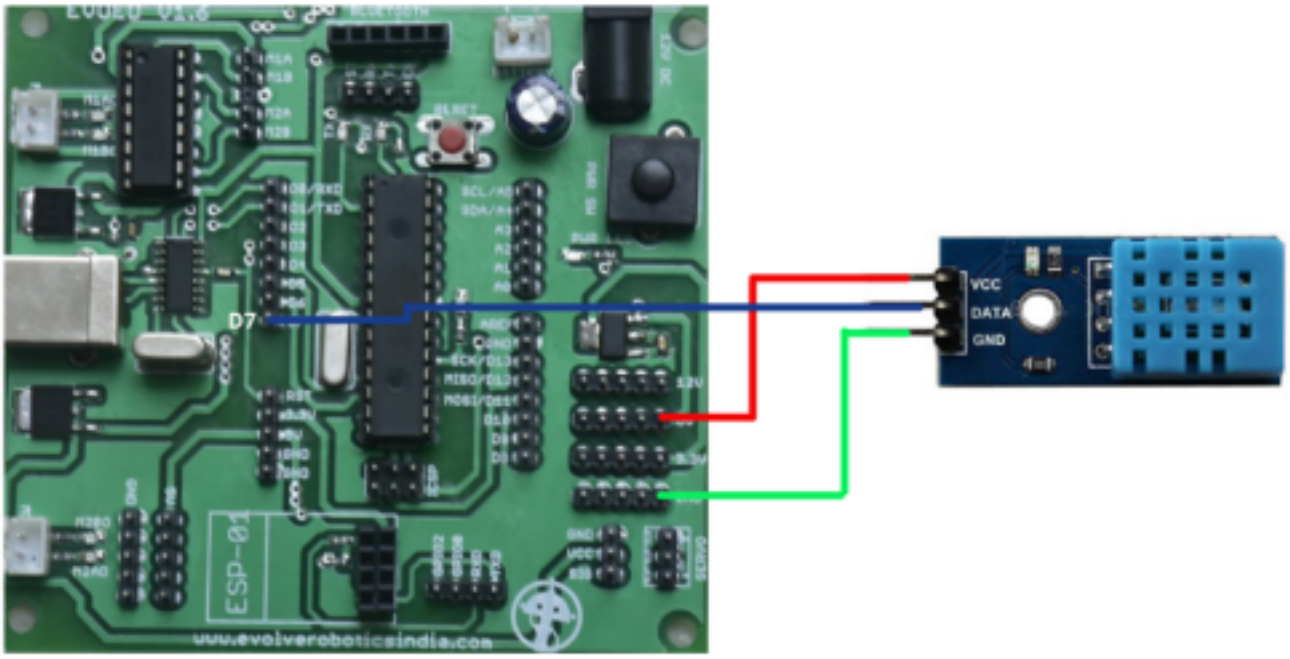
AIM:

CONSTRUCT A HUMIDITY TEMPERATURE MONITORING SYSTEM.

COMPONENTS USED:

EVOED BOARD, DHT SENSOR, JUMPER WIRES

CIRCUIT DIAGRAM:




PROGRAM:

```
#include "DHT.h"
#define DHTPIN 7
#define DHTTYPE DHT11
```

```
DHT dht(DHTPIN, DHTTYPE);
void setup(){
  Serial.begin(9600);
  dht.begin();
}

void loop(){
  delay(2000);
  float h = dht.readHumidity();
  float t =
  dht.readTemperature();
  Serial.print(" Humidity: ");
  Serial.print(h);
  Serial.print("% Temperature:
  "); Serial.print(t);
  Serial.println(" ");
}
```