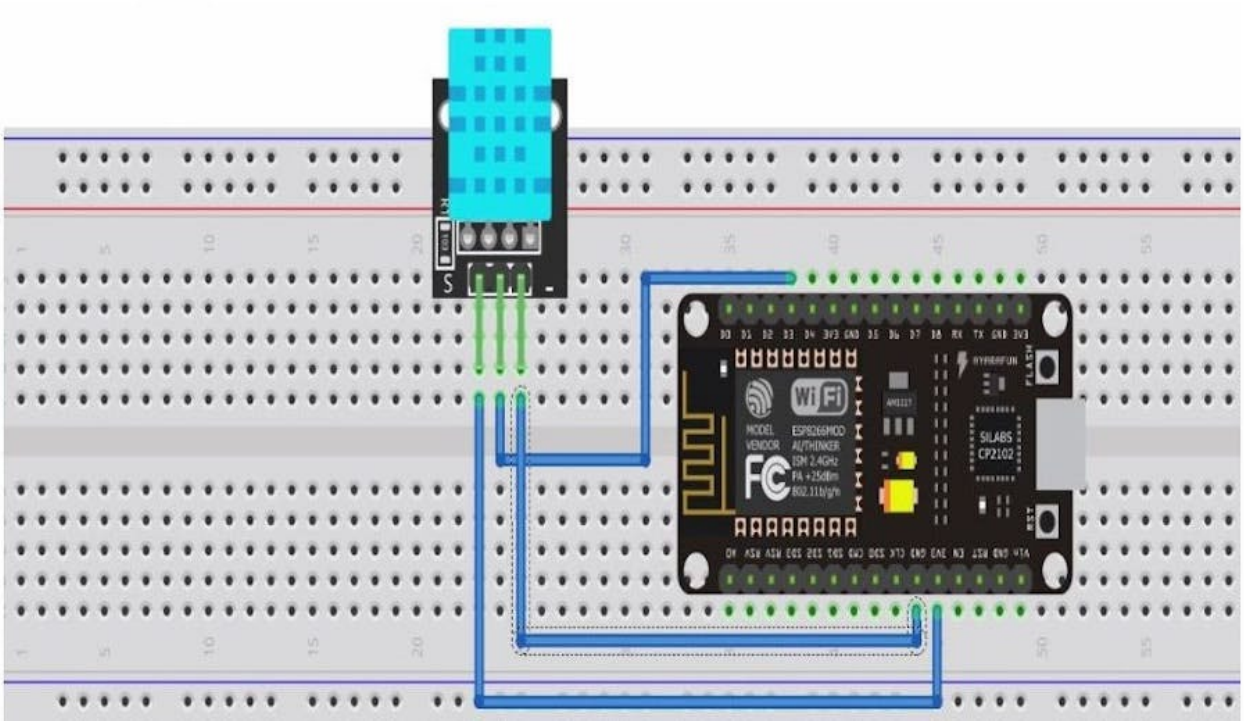
Project 3 DHT11 Sensor



This project is about the ESP8266 and DHT11 with Blynk. We will learn how to monitor temperature and humidity with your smartphone device, using a platform called Blynk. Blynk allows you to control Arduino, ESP8266, Raspberry Pi and other such boards through their iOS and Android apps. It provides an easy to use dashboard through which you can monitor various sensors and control actuators.

Register Blynk

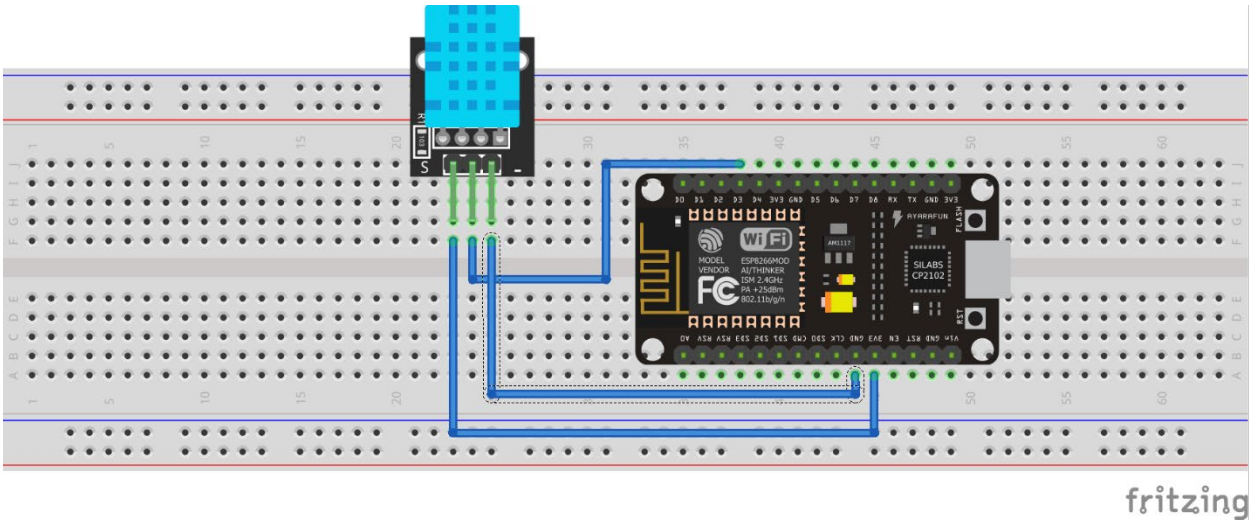
https://blynk.io/getting-started

Parts You Need

- NodeMCU

- DHT11
- Jumper wire
- Breadboard

Schematics




```
//DHT11 And NodeMCU With Blynk
#define BLYNK_PRINT Serial


#include <ESP8266WiFi.h>
#include <BlynkSimpleEsp8266.h>
#include <DHT.h>

// You should get Auth Token in the Blynk App.
// Go to the Project Settings (nut icon).
char auth[] = "Your Blynk Auth Code";

// Your WiFi credentials.
// Set password to "" for open networks.
char ssid[] = "SSID";
char pass[] = "Password";

#define DHTPIN 0          // D3

// Uncomment whatever type you're using!
#define DHTTYPE DHT11     // DHT 11
//#define DHTTYPE DHT22   // DHT 22, AM2302, AM2321
//#define DHTTYPE DHT21   // DHT 21, AM2301
```

```
DHT dht(DHTPIN, DHTTYPE);
BlynkTimer timer;

// This function sends Arduino's up time every second to Virtual Pin (5).
// In the app, Widget's reading frequency should be set to PUSH. This means
// that you define how often to send data to Blynk App.
void sendSensor()
{
  float h = dht.readHumidity();
  float t = dht.readTemperature(); // or dht.readTemperature(true) for Fahrenheit

  if (isnan(h) || isnan(t)) {
    Serial.println("Failed to read from DHT sensor!");
    return;
  }
  // You can send any value at any time.
  // Please don't send more that 10 values per second.
  Blynk.virtualWrite(V5, t);
  Blynk.virtualWrite(V6, h);
}

void setup()
{
  // Debug console
  Serial.begin(9600);

  Blynk.begin(auth, ssid, pass);
  // You can also specify server:
  //Blynk.begin(auth, ssid, pass, "blynk-cloud.com", 8442);
  //Blynk.begin(auth, ssid, pass, IPAddress(192,168,1,100), 8442);

  dht.begin();

  // Setup a function to be called every second
  timer.setInterval(1000L, sendSensor);
}

void loop()
{
  Blynk.run();
  timer.run();
}
```