Temp sensor connected to ESP8266 and upload data using MQTT

Made by Mark Tashiro - Published in Everything ESP
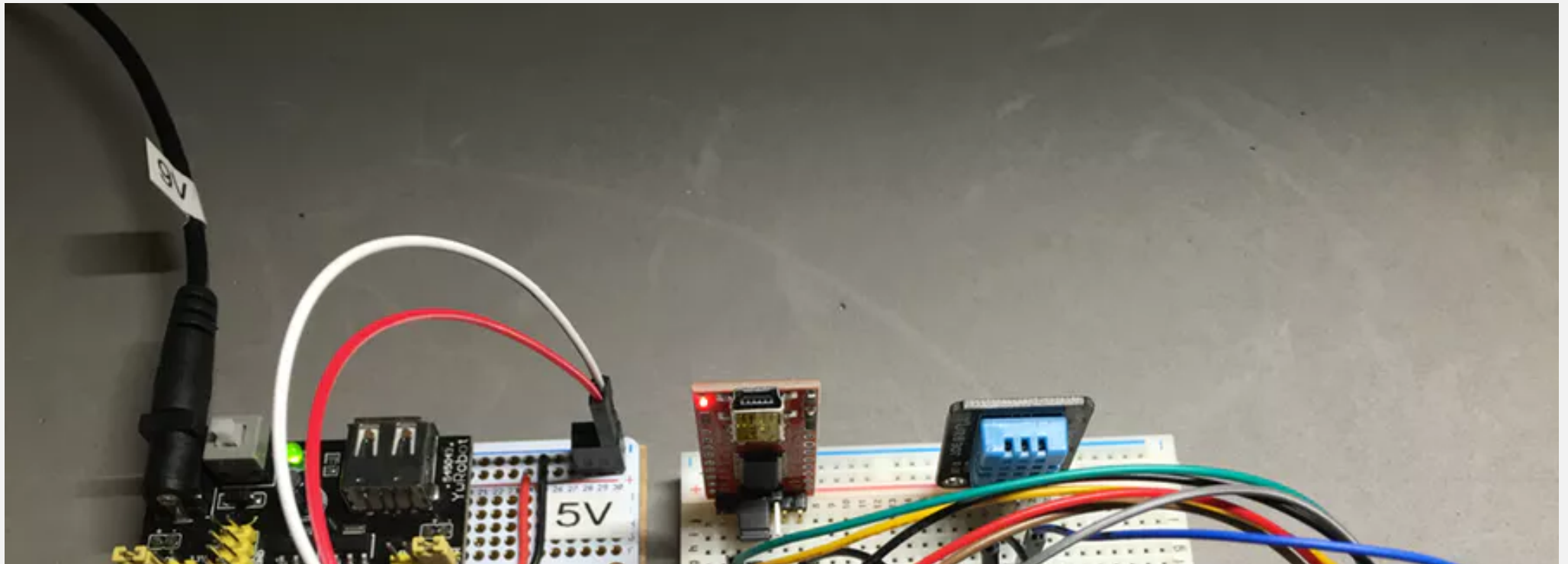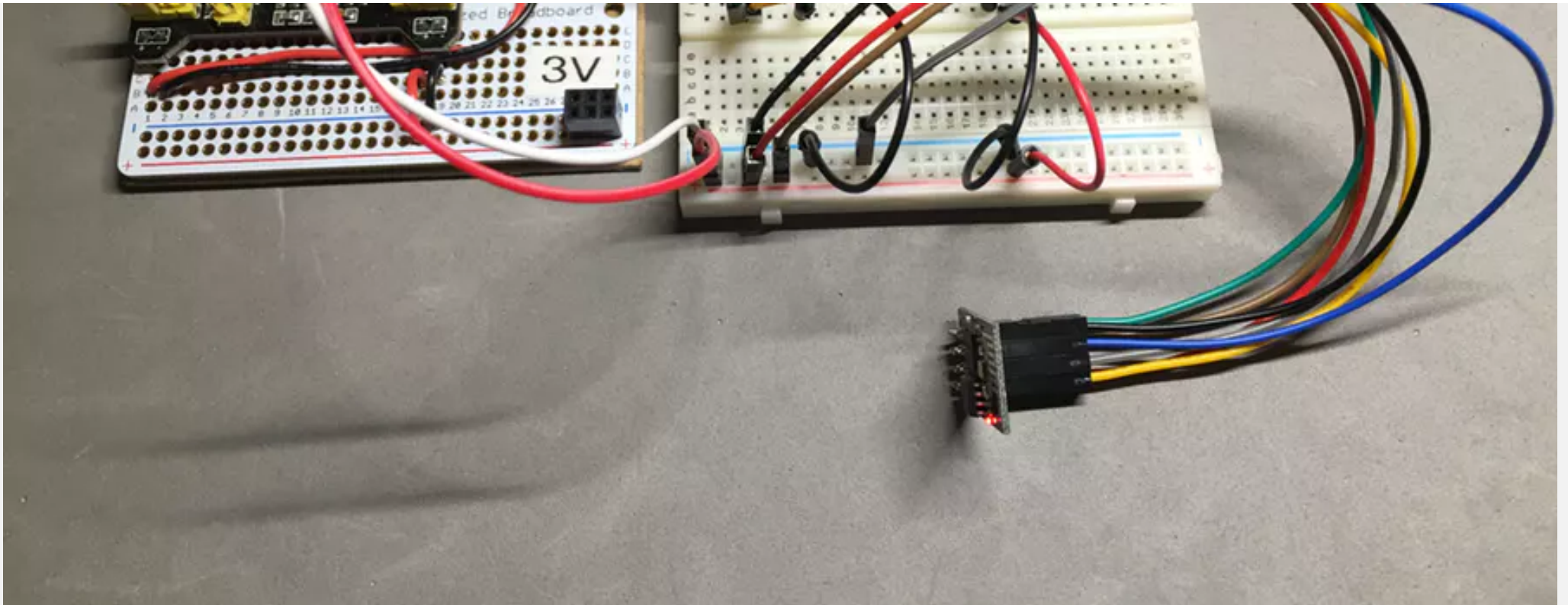
ABOUT THIS PROJECT

This project will show you how to connect a ESP8266 to a USB to Serial TTL adapter and monitor temperature using a DHT11 sensor.
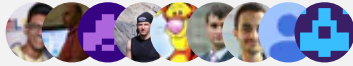
🏷 **esp8266** 🏷 **mqtt**

PROJECT INFO

Type	✪ Protip
Difficulty	**Intermediate**

Estimated time	2 hours
Published	February 19, 2016

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THINGS USED IN THIS PROJECT

Hardware components:

[Everything ESP ESP8266 ESP-01](#)	×	1	🛒	⋮
DHT11 Temperature & Humidity Sensor	×	1	🛒	
FT232RL 3.3V 5.5V FTDI USB to TTL Serial Adapter	×	1	🛒	

Intro:

The ESP8266 is a great inexpensive device that gives you WIFI connectivity as well as a couple GPIO ports to connect sensors. In this project I will outline the following:

- Connect the ESP8266 to a USB to TTL Serial adapter to enable you to program the ESP8266 using the Arduino IDE.
- Upload code to take a reading from a DHT11 Temp/Humidity sensor and upload that to Adafurit IO using MQTT.

Parts Needed:

Here are the parts and pieces needed for this project

- ESP8266
- DHT11

Read more

CODE

ESP8266_TEMP_MQTT C/C++

Collect sensor data and sent to Adafruit IO via MQTT

```
1   /* Sketch to collect temp and send via MQTT to web.
2
3     Must use ESP8266 Arduino from:
4       https://github.com/esp8266/Arduino
5
```

```
 6
 7      MQTT code Written by Tony DiCola for Adafruit Industries.
 8      MIT license, all text above must be included in any redistribution
 9
10   */
11
12
13   #include <ESP8266WiFi.h>
14   #include <Adafruit_MQTT.h>
15   #include <Adafruit_MQTT_Client.h>
16   #include <DHT.h>
17
18
19   /* DHT SENSOR SETUP */
20
21   #define DHTTYPE DHT11
22   #define DHTPIN  2
23
24   /* WIFI SETUP */
25
```

CREDITS

Mark Tashiro

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Thanks to **Lady Ada** and **ESP8266**.

REPLICATIONS

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