Debugging ESP8266 with PL2303HX or STC USB-TTL ...

The Definitive Guide

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Installing PL2303HX Driver

(For Windows 8/8.1/10 Users)

- Remove device driver signature enforcement first

- Latest driver of PL2303HX is buggy so use the working one

  Download URL: http://bit.ly/2mdD9jX

PL2303HX Pinout Diagram

We will only need
RX, TX, VCC(+3.3V) & GND

STC USB-TTL

- It doesn’t need additional Drivers
- We will only use

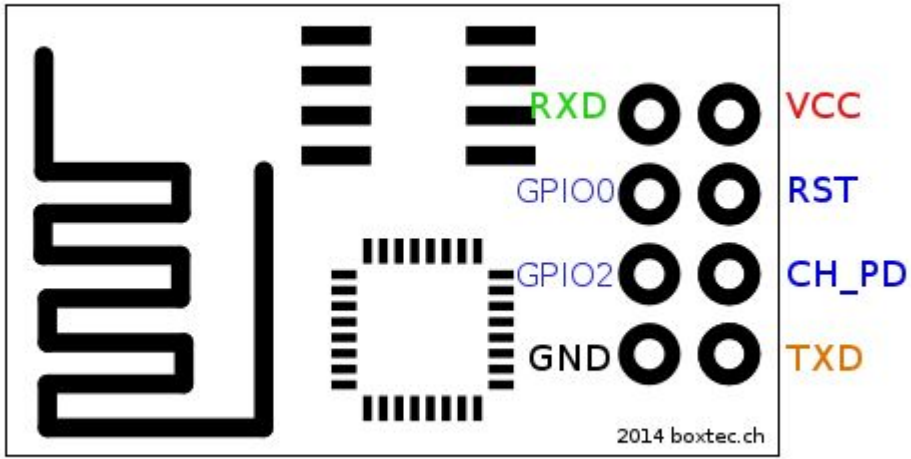
TX, RX, VCC(+3.3V), GND

ESP8266 Pin Out

We will need the following pins

VCC
CH_PD

TXD
RXD
GND



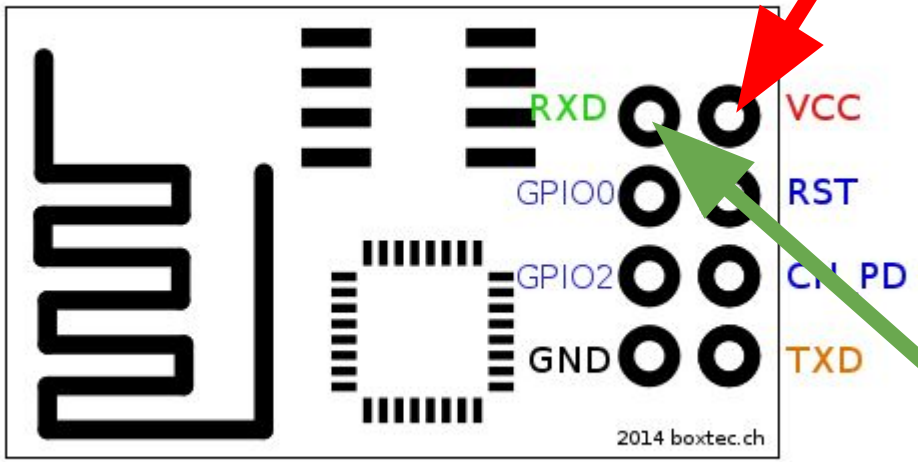
Before connecting USB-TTL with ESP8266 - CAUTION

ESP8266 is a +3.3V module, connecting it with +5V will fry the chip.

Make sure you've connected +3.3V to the VCC pinout AND USED A +3.3V Regulator IC at the RX pin of the ESP8266

Which means

+3.3V Here



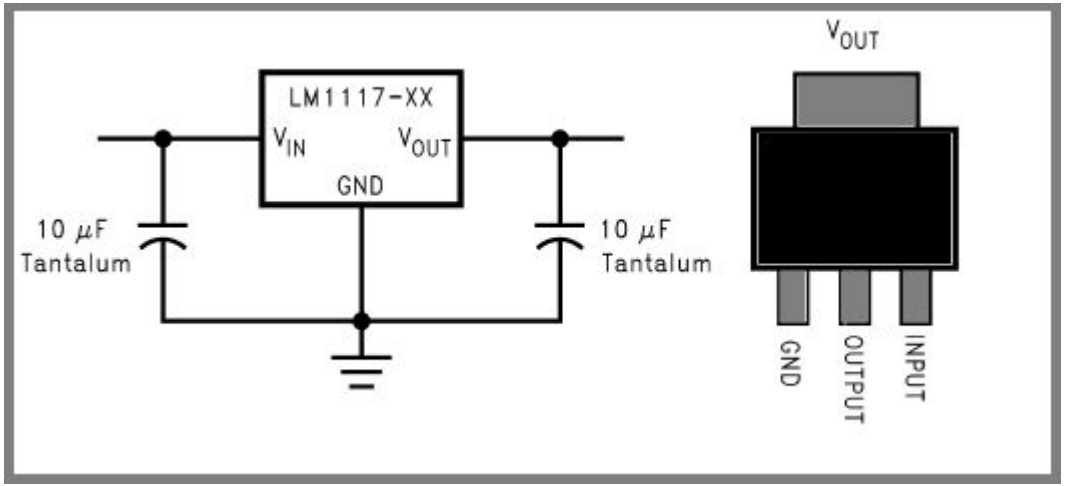
3.3V Voltage Regulator Here

Since PL2303HX Uses +3.3V Logic Level at its' TX/RX pinout

You won't need a 3.3V Voltage Regulator when you're **debugging wifi module with PL2303HX**

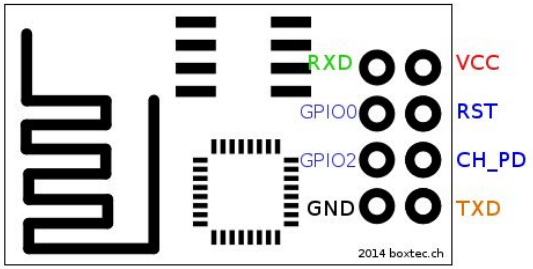
We will be using this one as a 3.3V Regulator

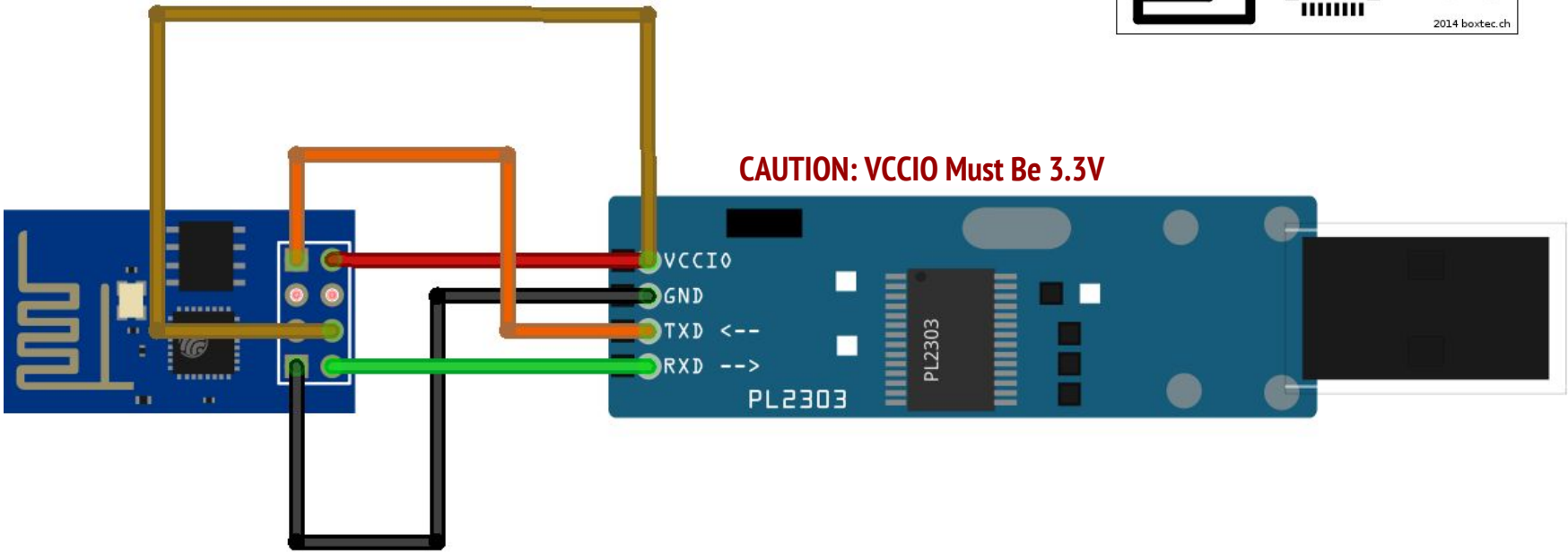
AMS 1117 3.3V Regulator



ESP8266 with USB-TTL

(Connection diagram)





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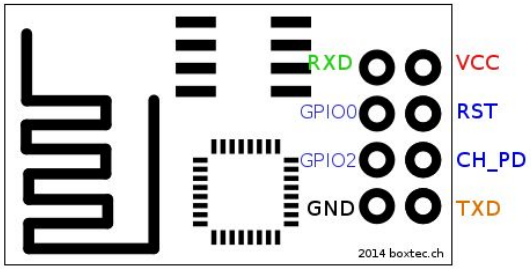
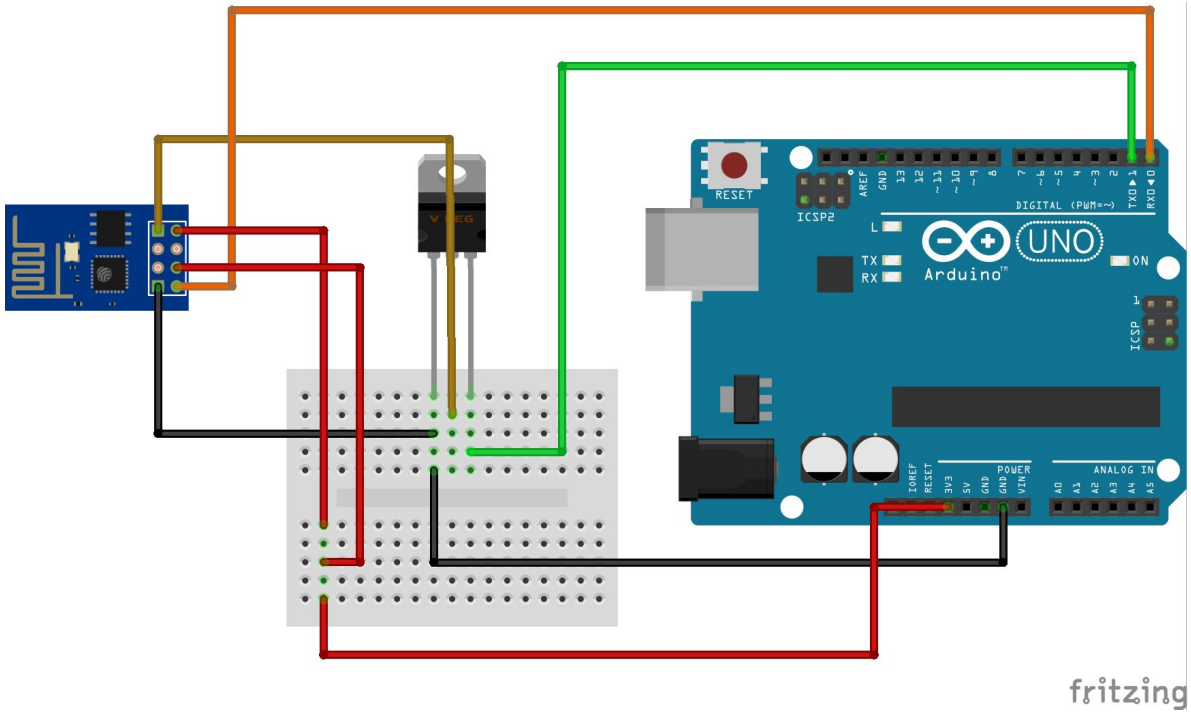
ESP8266 with Arduino





Procedure:

- Set up USB-TTL with ESP8266
- Connect USB-TTL to your PC
- Open RealTerm
- Configure COM Port and send `AT\r\n`, it should reply `OK`

Some important AT (Attention) Commands

Commands	Description
`AT+CWJAP=<ssid>,<password>`	Connects to a WiFi Network
`AT+CIPSTA=<ip>,<gateway>,<subnet>`	Setting Static IP address to the WiFi Module
`AT+CIPSTART=<connection type>,<ip>,<port>`	Start TCP/UDP Connection with a web server
`AT+CIPSEND=<next_command_length>`	Initializes connection for sending data

ANY QUESTIONS?