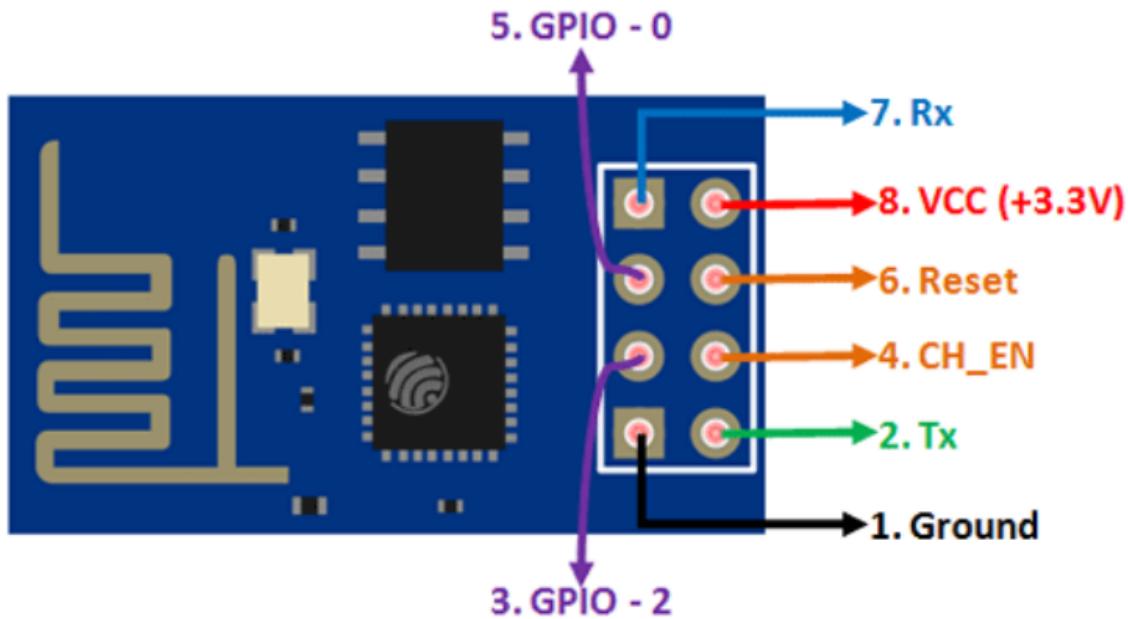


Using the ESP8266 WiFi Module with Arduino Uno publishing to ThingSpeak

the pinout



Flash Firmware

flash ai-thinker firmware

- Follow this tutorial: [Flash ESP8266-01 with Arduino Uno](#)
- With this firmware: https://wiki.aprbrother.com/en/Firmware_For_ESP8266.html
- then you will be fine :-)

flash original firmware

- Same as above, but
- use original firmware, listed on [How to Update Flash ESP8266 Firmware – Flashing Official AT Firmware](#)
- don't use tool for win, but use esptool on MAC instead, refer [Flash ESP8266-01 with Arduino Uno](#)

- refer <https://github.com/espressif/esptool> to know how to flash 4 files.

```
esptool.py --port /dev/cu.usbmodem14201 erase_flash
```

```
esptool.py --port /dev/cu.usbmodem14201 --baud 115200 write_flash --flash_size=detect
```

further readings

- [How to Update Flash ESP8266 Firmware — Flashing Official AT Firmware \(sh#t, work on WIN, not MAC\)](#)
 - [How to reset ESP8266 wifi module \(not really convince\)](#)
 - [Flash ESP8266-01 with Arduino Uno](#)
 - [Getting Started with ESP8266 and Arduino: ESP8266 Arduino Interface](#)
-

Working Mode

In general, you have

- a **VCC** for power
- and your common **GND**.
- You also have **TX** and **RX** to transmit and Receive.
- You have **two GPIO pins**,
- a **reset** pin,
- and a **CH_PD** pin.

This board is designed to be an add-on to another micro-controller and offers a feature for being able to turn it on or off by setting the **CH_PD** pin from High (be an add-on) to Low (stand alone).

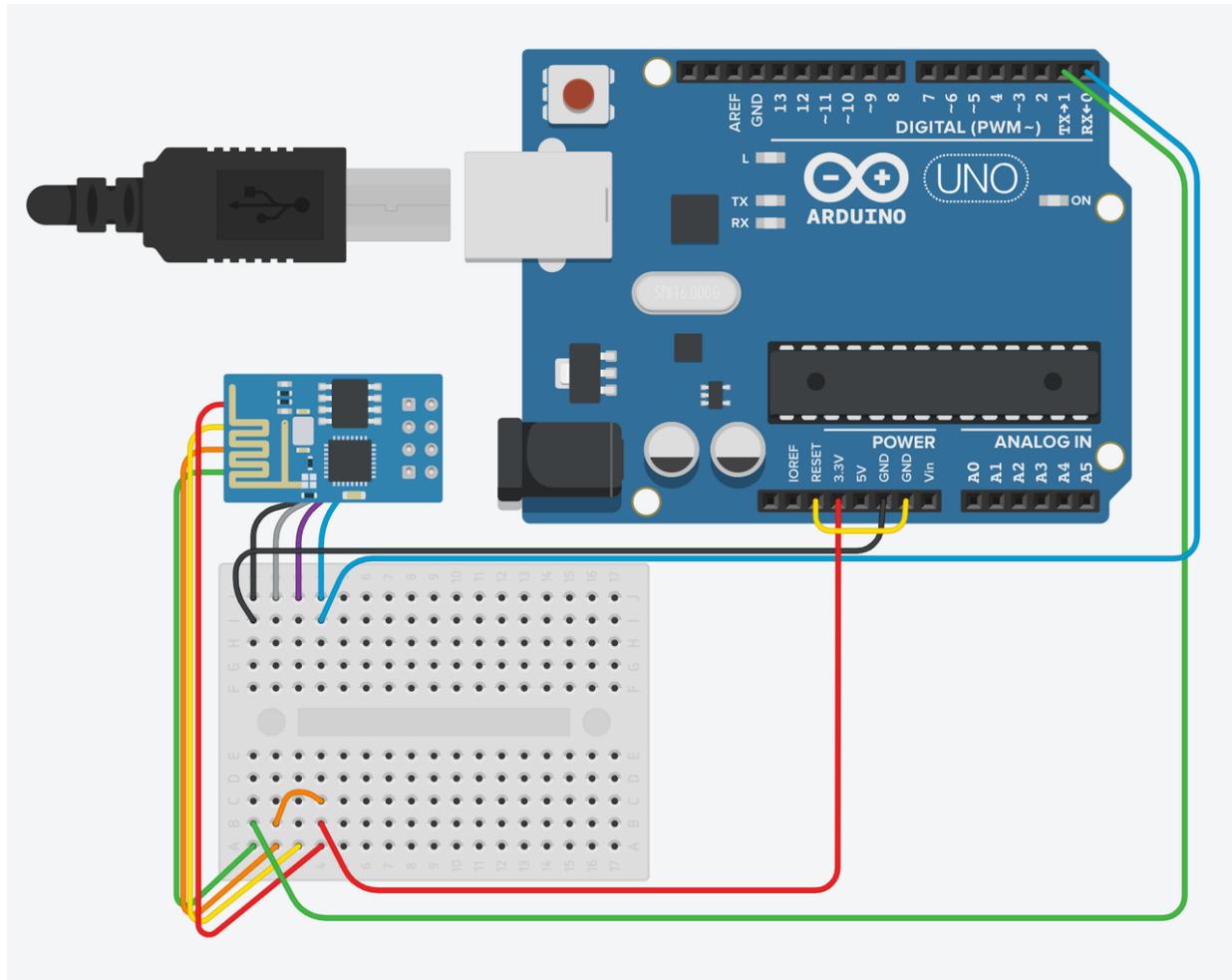
Flash Mode

Same as Bridge Mode, but have GPIO-0 connected to GND.

Optional: Instead of setting the yellow jumper between GND and RESET, you can upload an empty sketch to your Arduino

Bridge Mode

(Use the Uno as a bridge to talk to the module directly. Bypassing the Uno boot loader connecting RESET to GND, then connect TX to TX, RX to RX, GND to GND, VCC and CH_PD to 5v.)



Arduino Mode

(write code to Arduino, then Arduino will talk to the module)

Download Mode

(update image here)

Programming Mode

(update image here)

Using the ESP8266 WiFi Module with Arduino Uno publishing to ThingSpeak

- AT Command List

- [thingspeak - test channel](#)
 - [ESP8266 IOT Using Arduino and ThingSpeak](#)
(in order to connect to wifi, be sure set to right mode)
-

