FABLIMP

created by Eduardo Chamorro Martin, Santi Fuentemilla updated by Miriam Choi

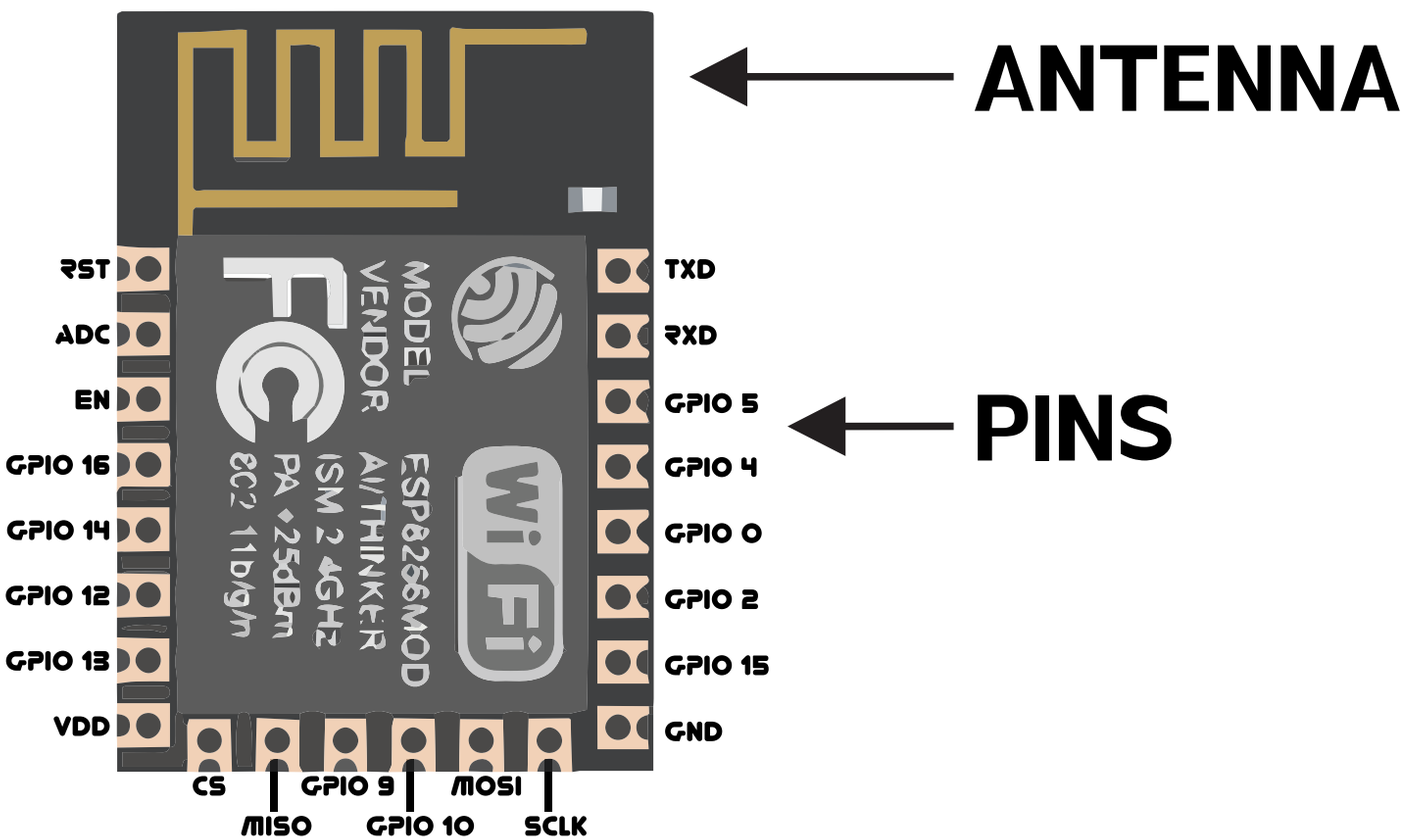
FABLIMP

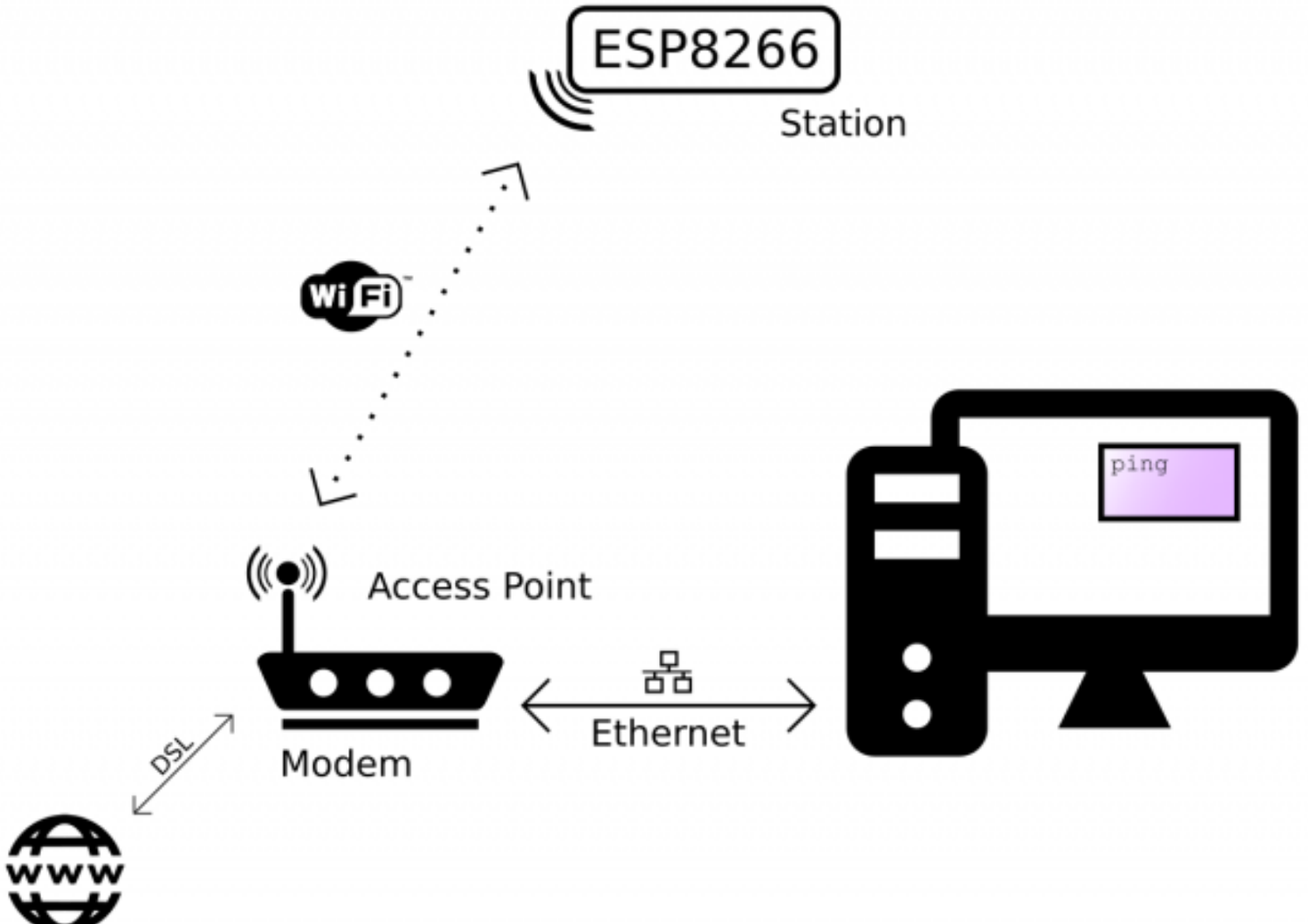
1. USING ESP 8266

2. HOW TO SOLDER

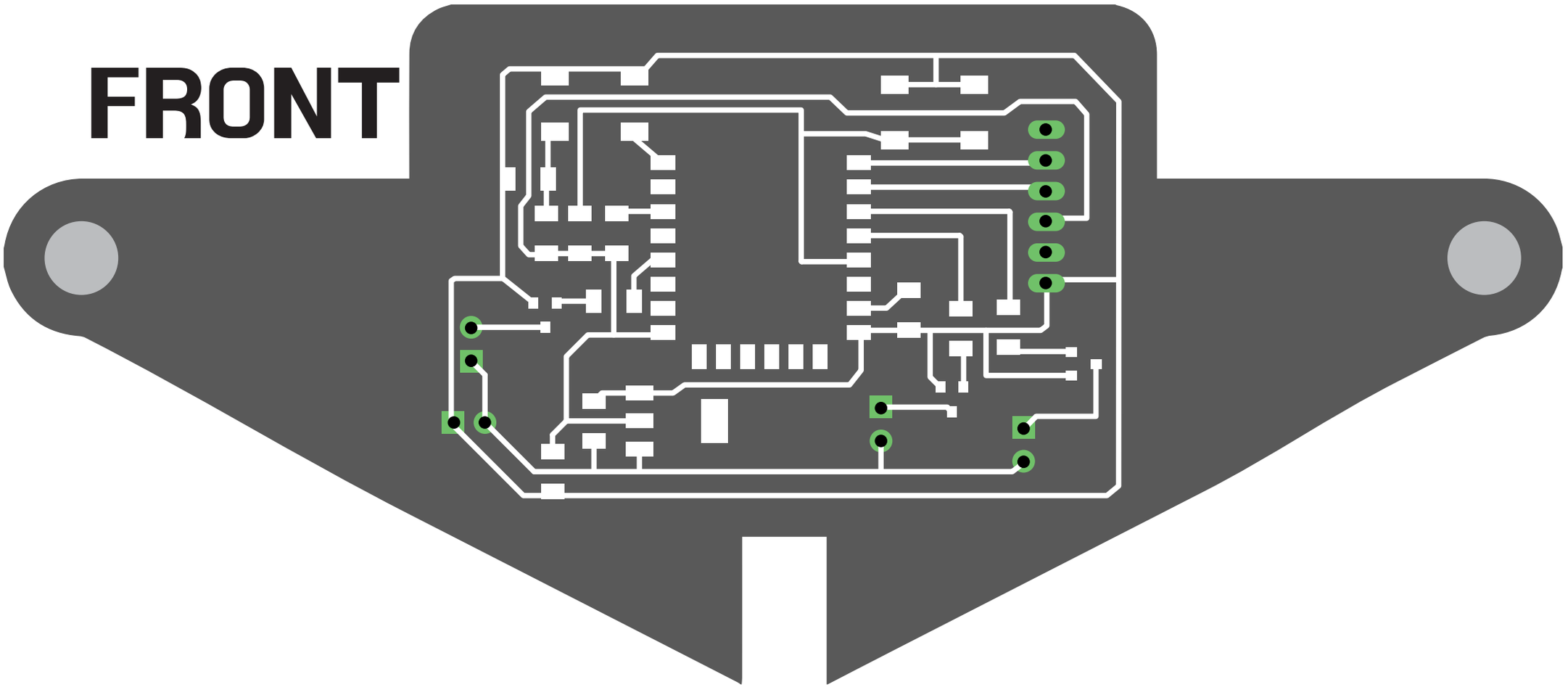
3. UPLOADING THE CODE

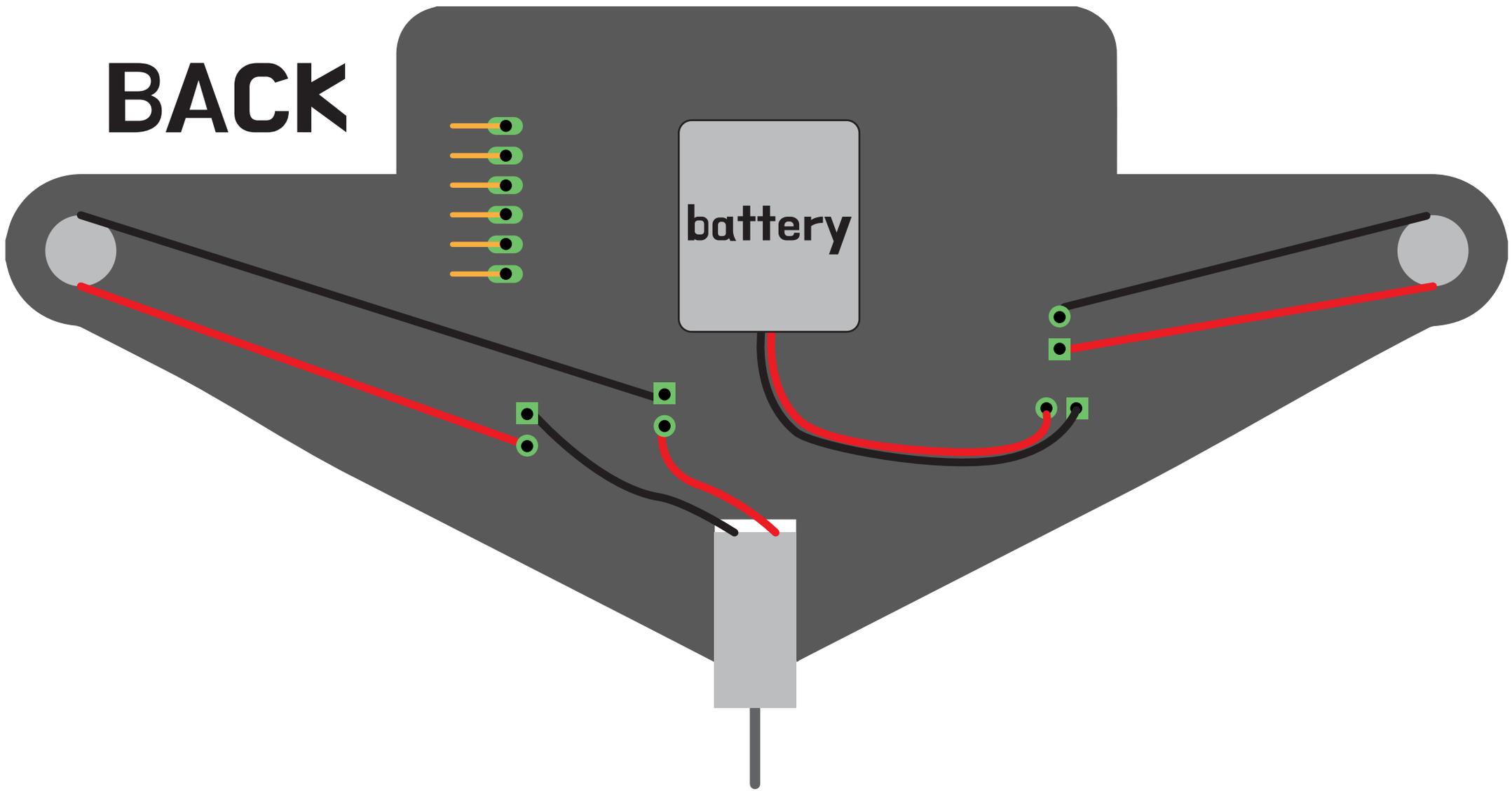
ESP 8266 12-e


ANTENNA
PINS
RST
ADC
EN
GPIO 16
GPIO 14
GPIO 12
GPIO 13
VDD
TXD
RXD
GPIO 5
GPIO 4
GPIO 0
GPIO 2
GPIO 15
GND
CS
MISO
GPIO 9
GPIO 10
MOSI
SCLK
MODEL
VENDOR
ESP8266MOD
AI/THINKER
ISM 2.4GHz
PA +25dBm
802.11b/g/n
Wi Fi


ESP8266
Station
Wi Fi
ping
Access Point
Ethernet
DSL
Modem
www

FRONT




BACK
battery

COMPONENTS

3 X 100 OHM
4 X 10K OHM

2 X 4.7 uf
1 X 10 uf

3 X N Channel 30v 1.7 Amp (MOSFET)

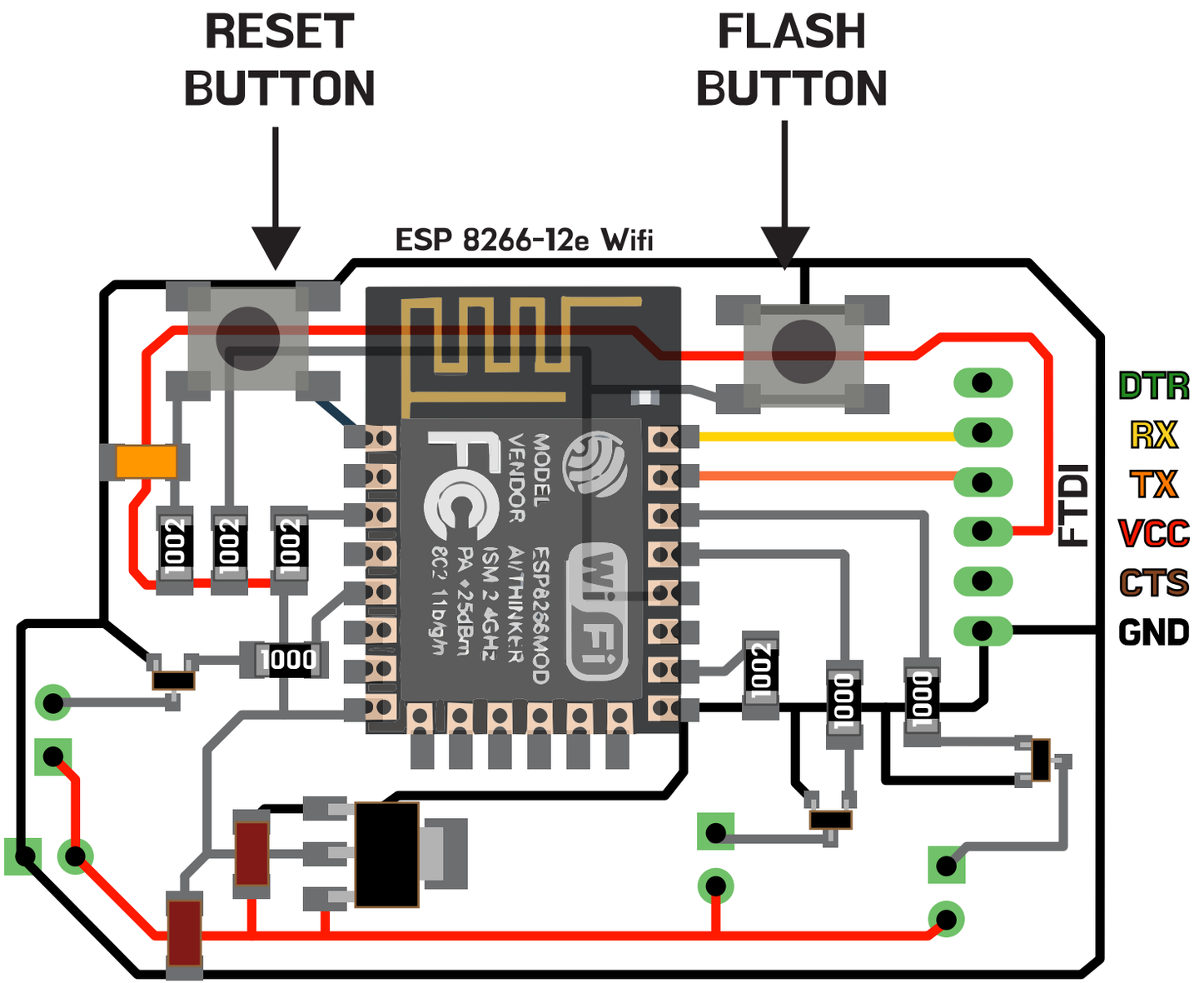
2 X Switch Button

1 X IC Regulator 3.3 v

1 X ESP 8266- 12e

1 X 3.7v battery 220~300 mAh size

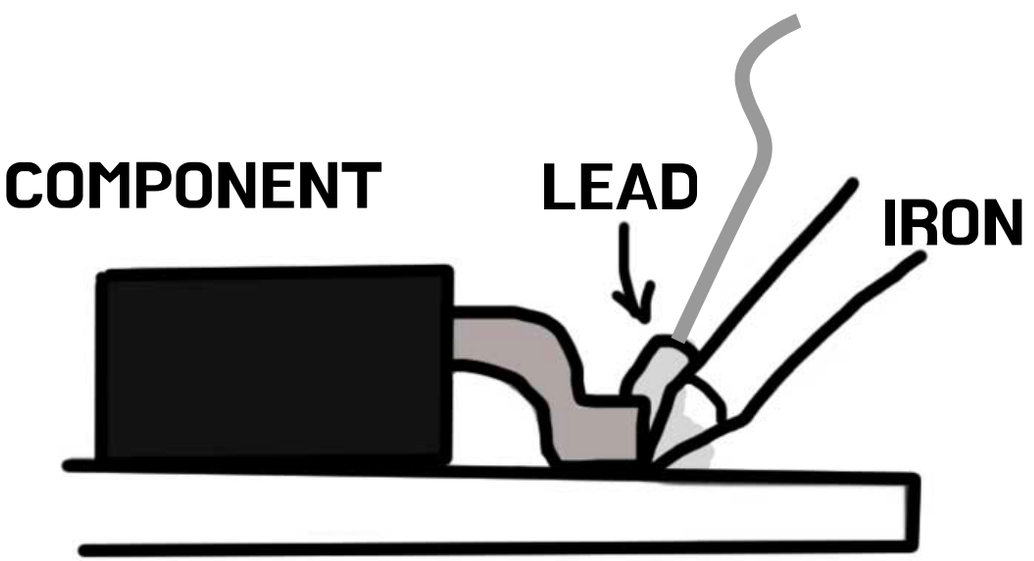
3 X tiny DC motors (and fan wings)



HOW to SOLDER!

* make sure that the soldering iron is clean and hot

1. Put the soldring iron on the copper.
2. Count to 5.
3. Put the lead wire to the iron.



SOLDERING THOUGH-HOLE

NO Connection

NOT ENOUGH Solder

TOO MUCH Solder

Burnt

Good job

Coding

WIFI

(Connects to the wifi)

```
// ----------------
// Input your WiFi SSID and Password here
// ----------------
const char* ssid = "MyFabLab";
const char* password = "012345678";
```

Good: Long range. quick response.
Bad: Code needs to be changed with change of wifi. Relies on internet availability.

Hotspot

(Making the Blimp have its own hotspot)

```
// -----------------
// Set your WiFi SSID and Password here
// -----------------
const char* ssid = "MyBlimpName";
const char* password = "012345678";
```

Good: Only need to upload the code once, does not rely on internet availability.
Bad: Less range, slower response.

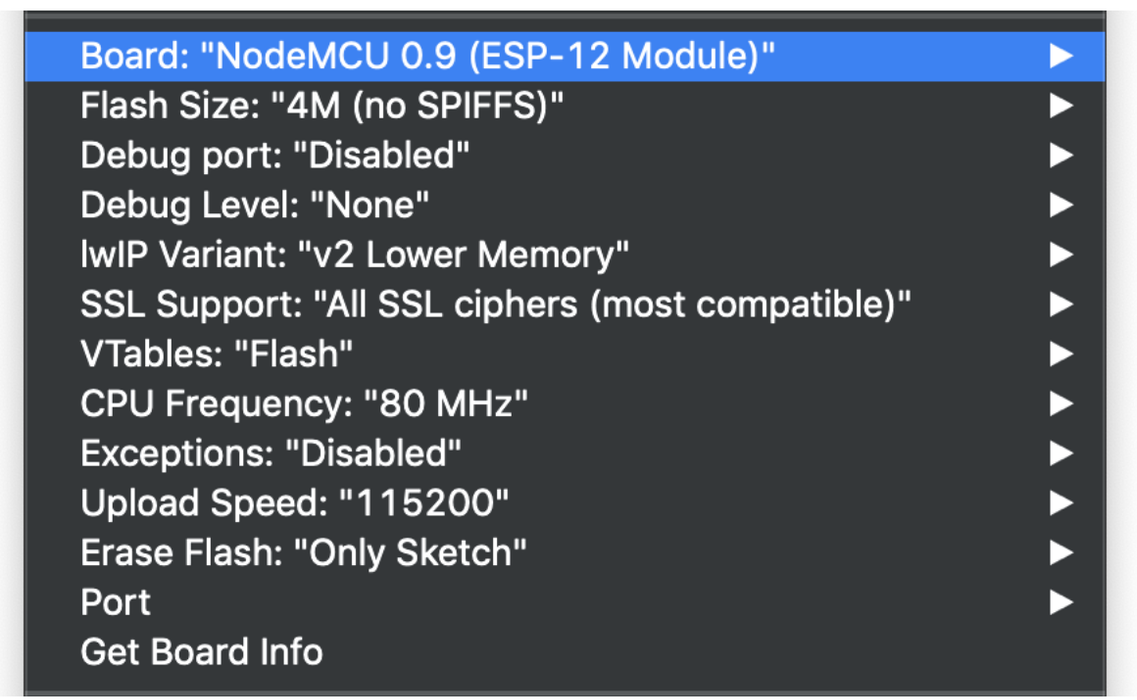
Uploading the code

Download the Arudino Library for ESP 8266 from:

https://github.com/esp8266/Arduino

Uploading the code

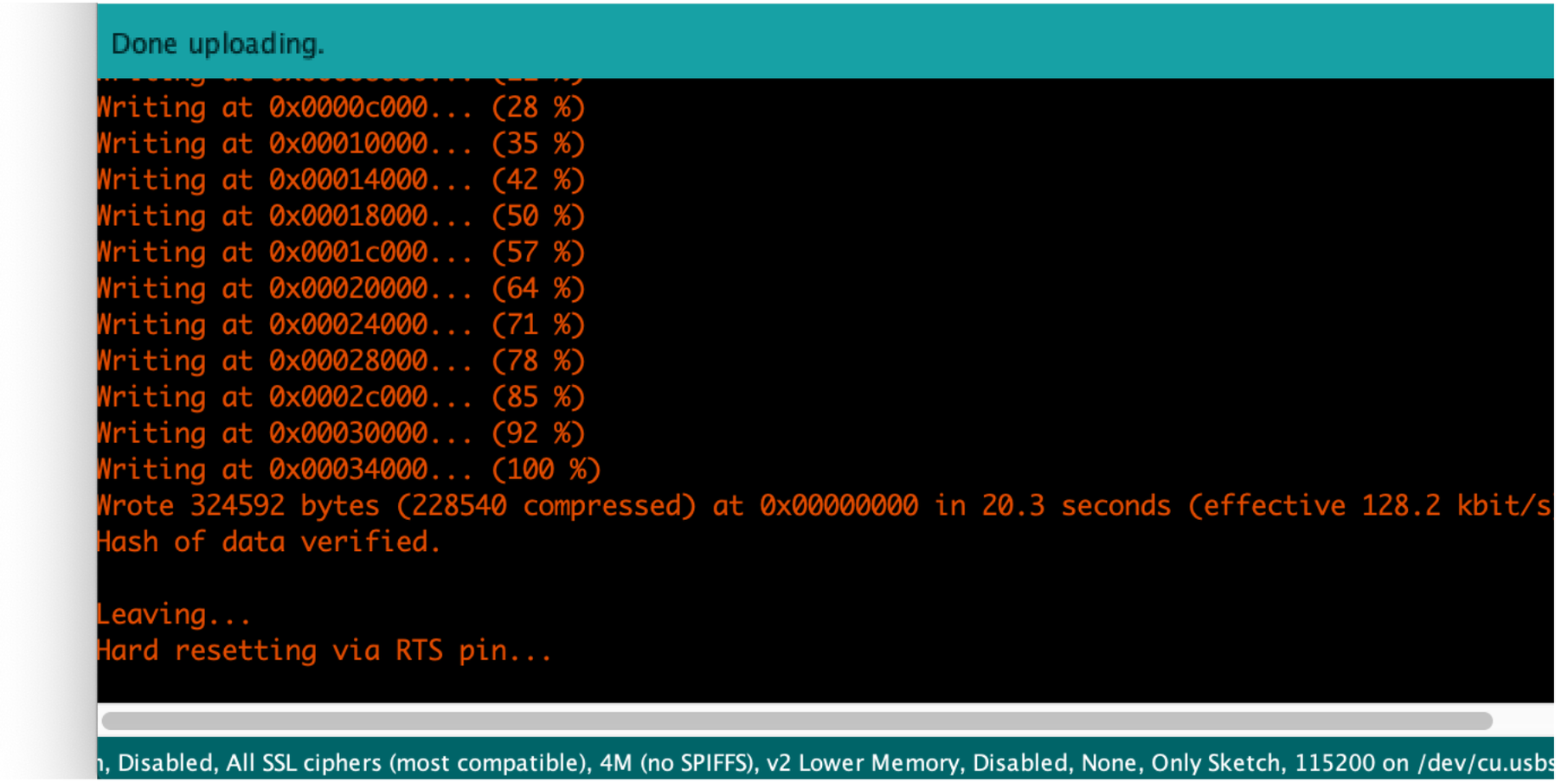
Load the Library for ESP 8266 and set the board to NodeMCU.
Connect the FTDI Cable and set the Port to your FTDI.



After compiling the sketch, click “Upload”

Push both FLASH and RESET BUTTONS down.

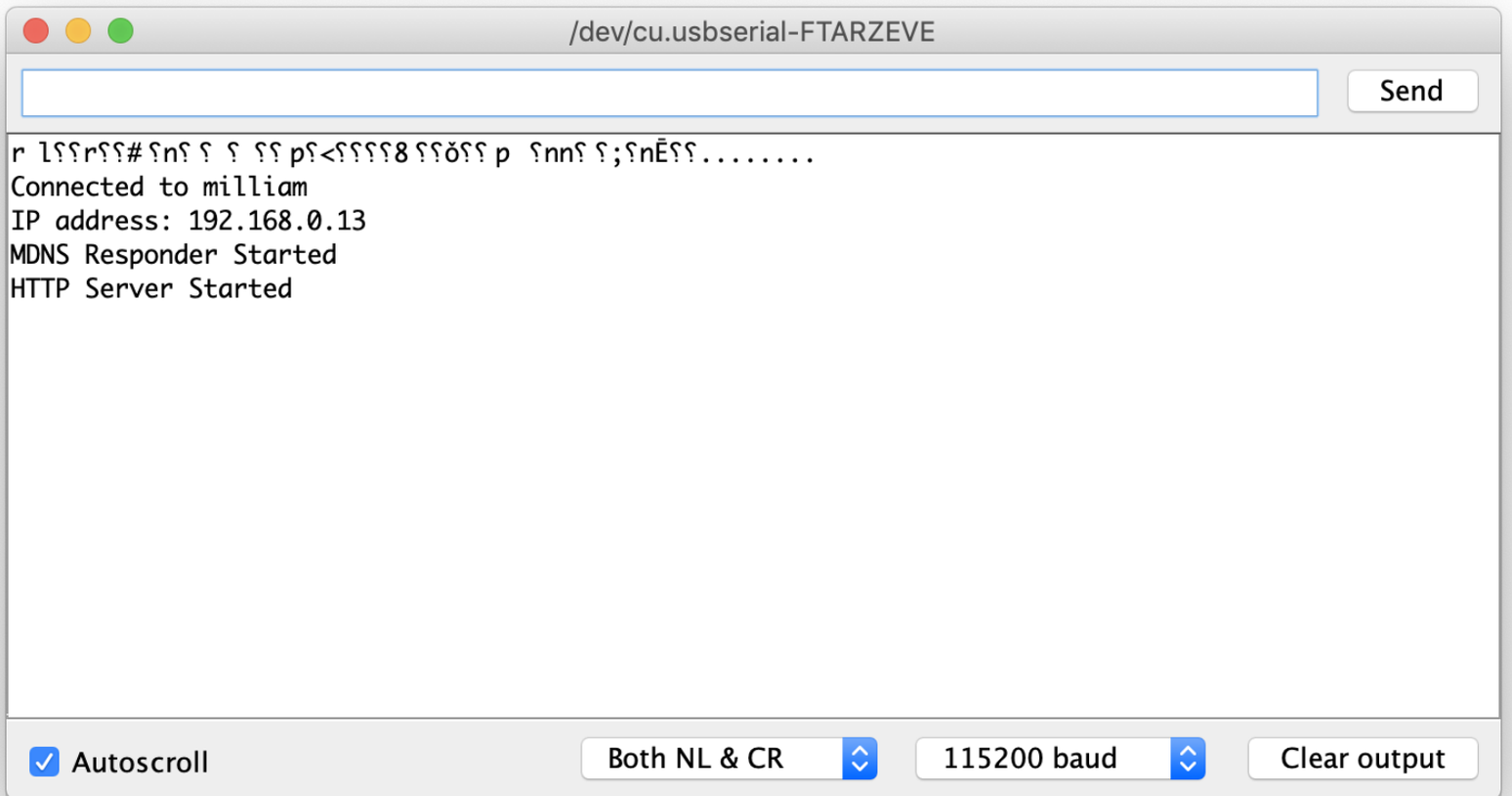
When it says "Connecting....____", let go of the RESET BUTTON



You may let go of both buttons once it is done uploading.

**After uploading, the motor might still be activated. just press the reset button once.

Open up your Serial monitor (keep FTDI in) and let it load.
get the IP address for the controller website and open it on your device.



**Make sure that your device is connected to the same wifi as your blimp

ENJOY!!!

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