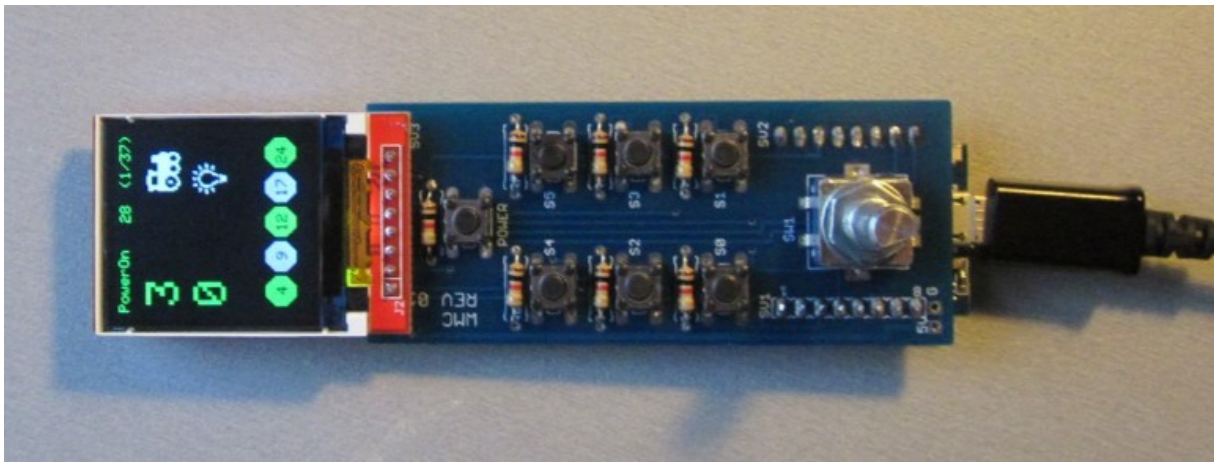
# *WMC*

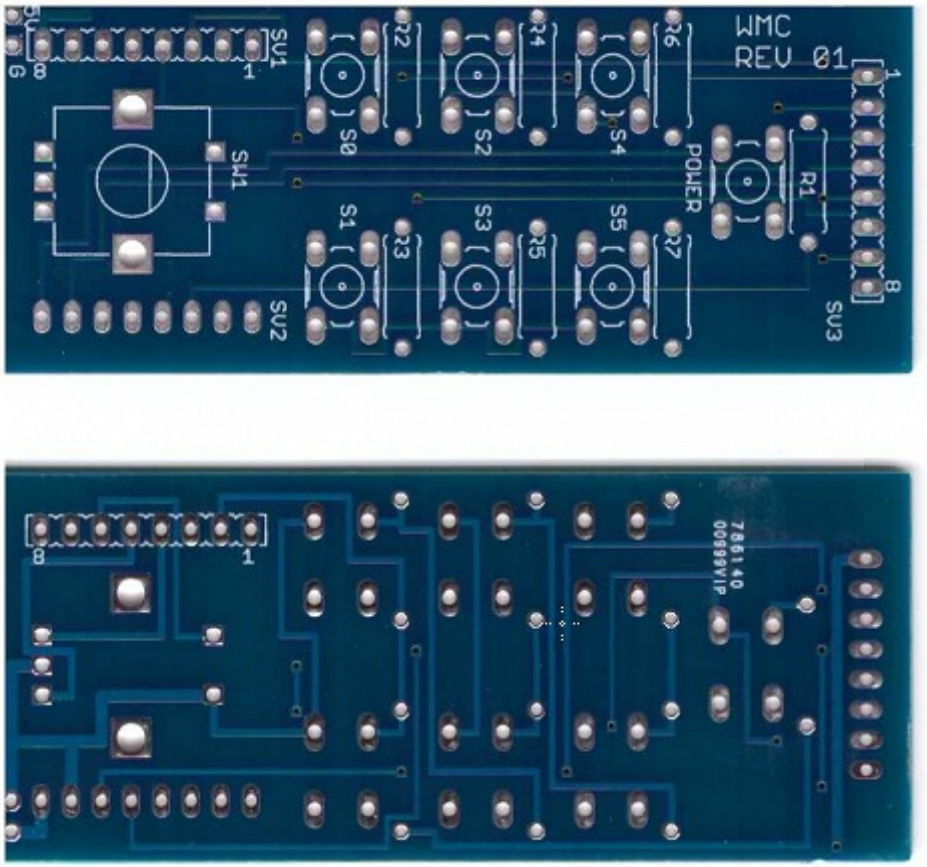


# Inhoudsopgave

# 1. Introduction.

This document describes how to mount components on the WMC PCB and how to pogram the ESP8266 module withput the need for installing Arduino[1] on a system and building all code.

A description of how to operate the WMC can be found on the Github wiki[2].



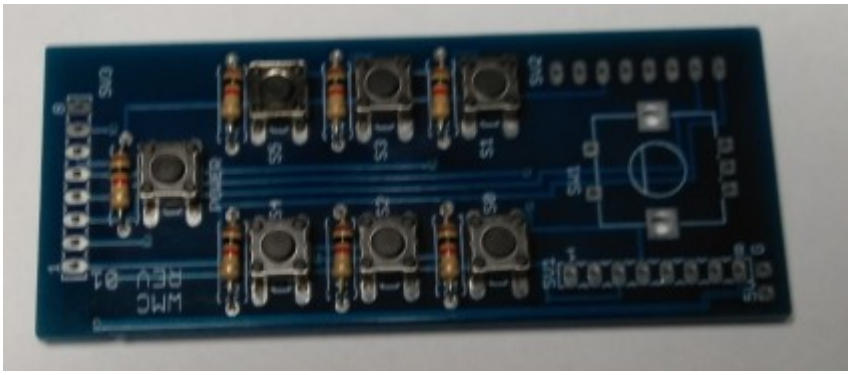

## 1.1 Used components

- Wemos ESP8266 D1 mini[3]
- S7735 display. Buy the so called “Replace Nokia 5110/3310 LCD”. Other displays will work but might not be directly soldered on connector SV3 as they might be not pin compatible.
- 1K resistors (7 pieces)
- 7 push buttons  DIP P4
- Pulse switch (rotary pulse swith)

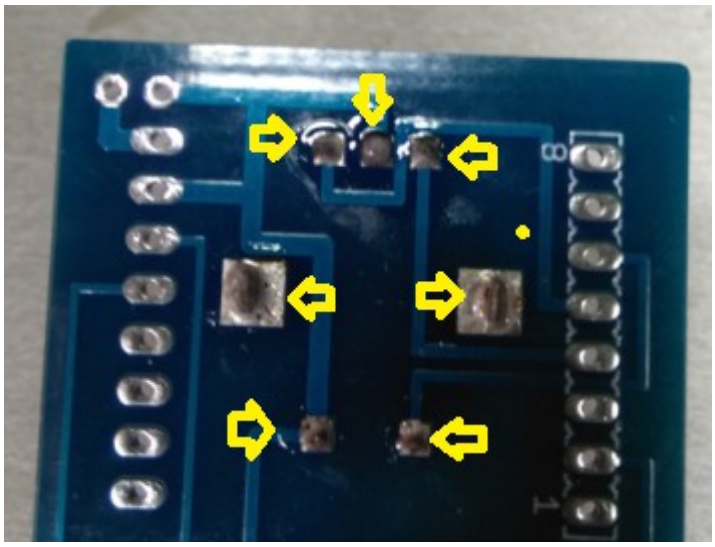
1 https://www.arduino.cc/
2 https://github.com/MDRRC/WMC/wiki
3 https://wiki.wemos.cc/products:d1:d1_mini

## 2. Soldering components.

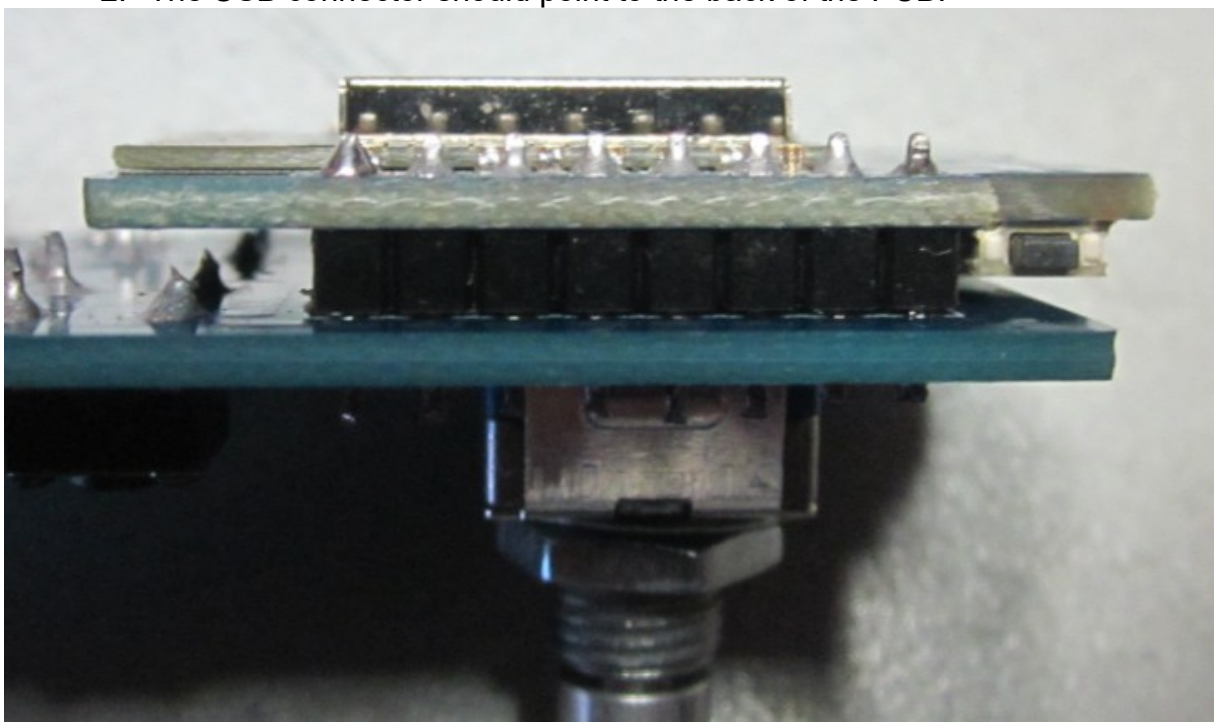
1. Solder the push buttons and the resistors.



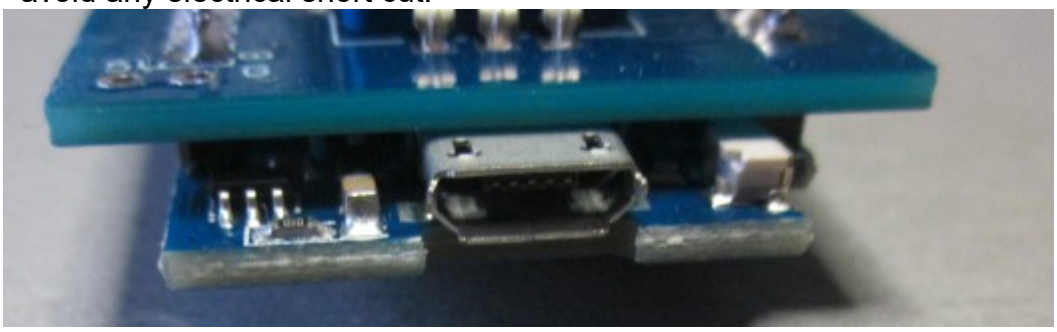
2. Solder the pulse switch and cut the solder points very short (solder points marked with yellow arrow) so they can not make contact with the Wemos ESP8266 module.



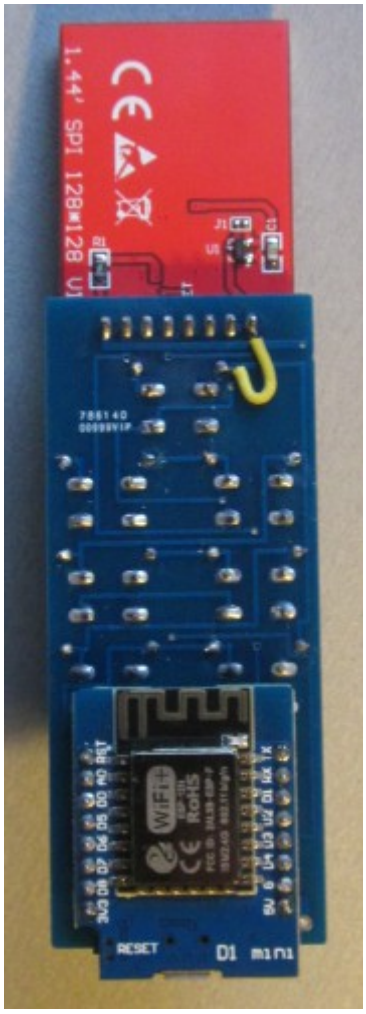
3. Solder the ESP8266 module on the BACKSIDE of the PCB.
    1. Make sure enough room is present between the ESP8266 module and the solder point below the ESP8266.
    2. The USB connector should point to the back of the PCB.

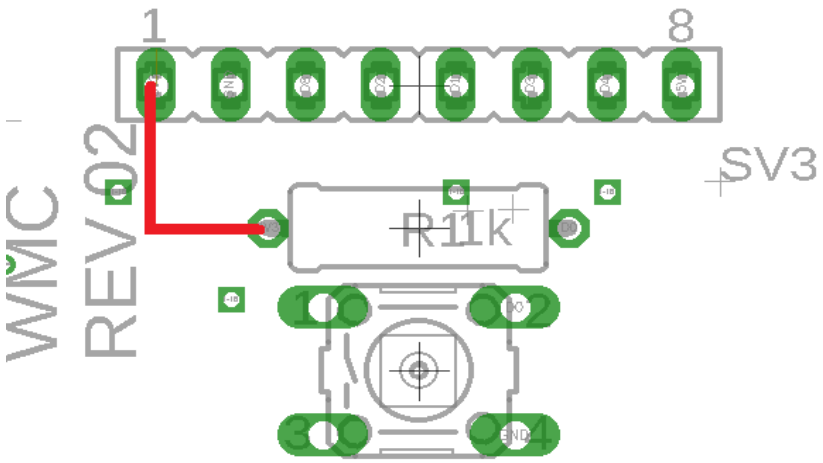


4. Verify if some space is betrween the USB connector and the PCB. In doubt put some adhesive tape on the PCB where the USB connector is present to avoid any electrical short cut.



5. Unfortunally a small error is present of the PCB REV01. A small wire needs to be soldered as shown in the pictures below.

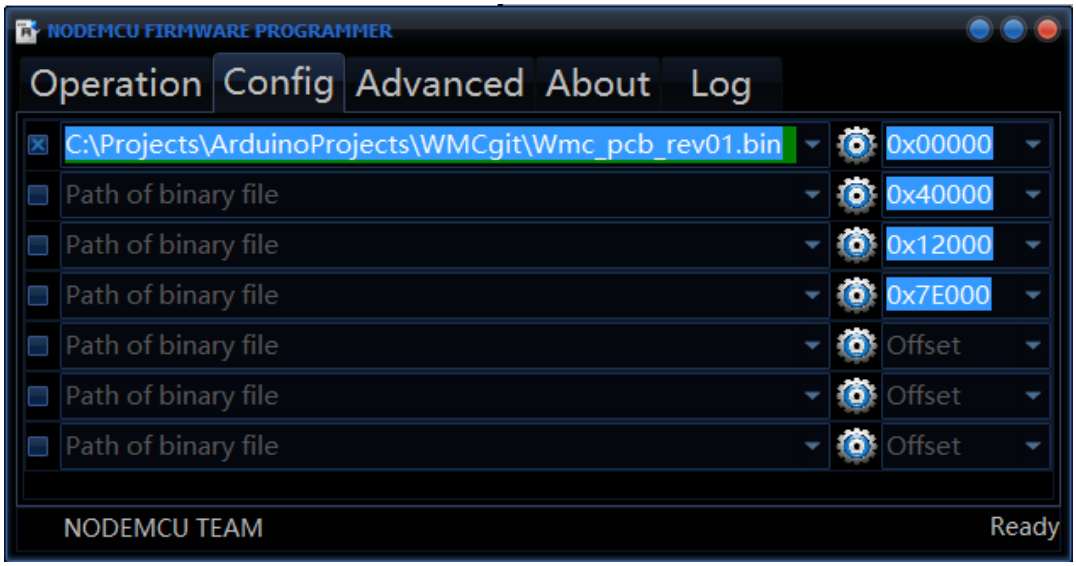


## 3. Programming.

To program the ESP8266 it's not required to install Arduino and ESP8266 related tools. It's also possible to download the wmc.bin file from Github[4] and program the file with for example NodeMcu flasher[5].

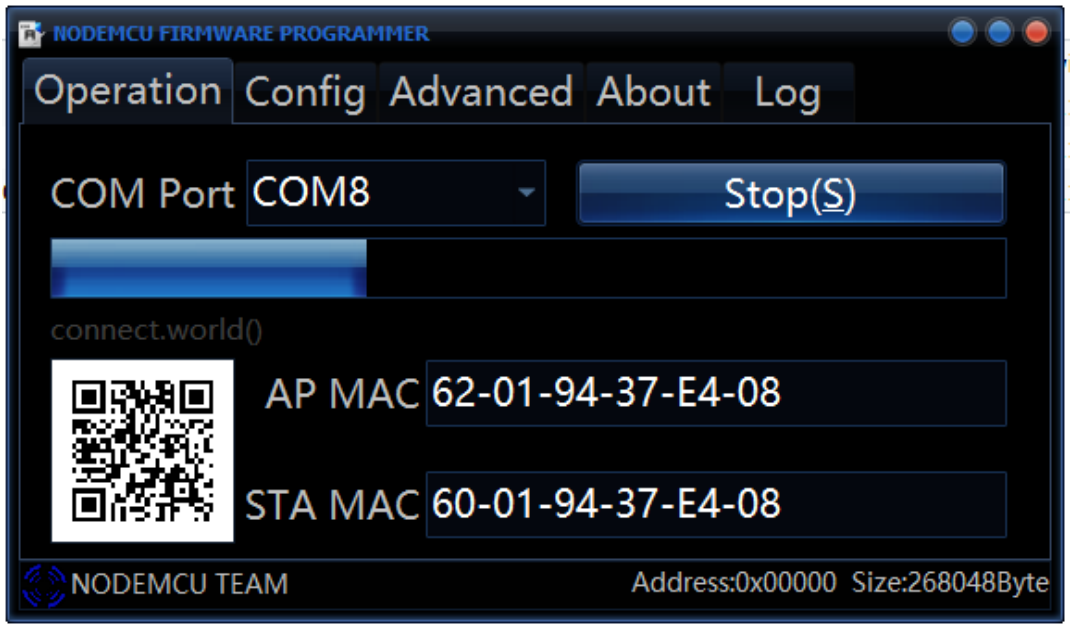
1. Select the wmc_pcb_rev01.bin file to be programmed, file location in lower screenshot is just and example, select the file on your own PC.




2. Check the Anvanced settings, should look like this.


4 https://github.com/MDRRC/WMC
5 http://domoticx.com/esp8266-wifi-software-nodemcu-flasher/

3. Select the com port of the ESP8266 module and press Flash. Takes some time to program...



# 4. Changes.

| Version | Date | Desciption |
|---|---|---|
| 1 | 05-05-18 | Initial version |
| 2 | 17-05-18 | 1 Introduction. Added link to how to operate the WMC.<br>3 Programming. Filename and screenshot updated. |