



WMC

WMC





Inhoudsopgave

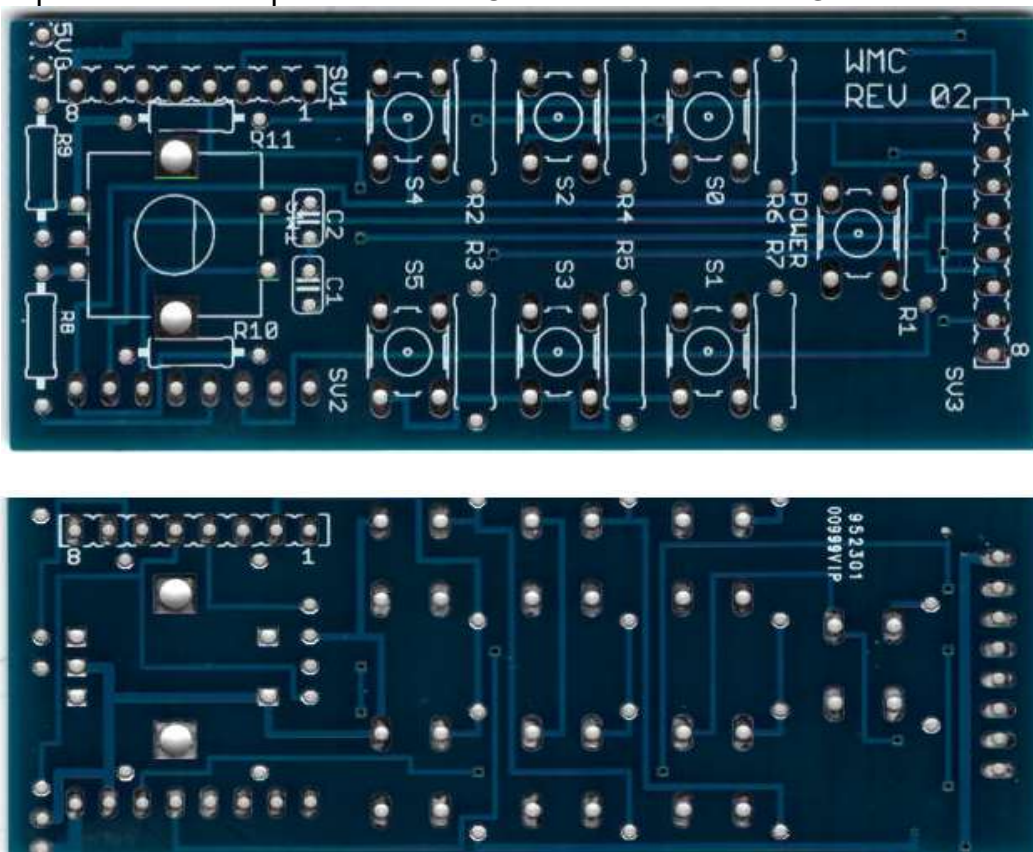
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1. Introduction.

This document describes how to mount components on the WMC PCB (REV 02) and how to program the ESP8266 module without the need for installing Arduino¹ on a system and building all code.

A description of how to operate the WMC can be found on the Github wiki².



1.1 Used components

- Wemos ESP8266 D1 mini³
- 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.
- Some resistors, see schematic for values.
- 7 push buttons DIP P4
- Pulse switch (rotary pulse switch)

¹ <https://www.arduino.cc/>

² <https://github.com/MDRRC/WMC/wiki>

³ https://wiki.wemos.cc/products:d1:d1_mini

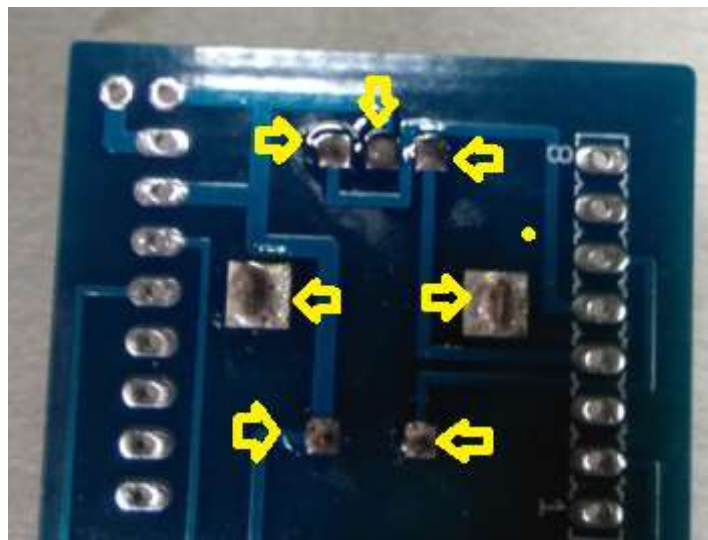


2. Soldering components.

1. Solder the push buttons and the resistors.

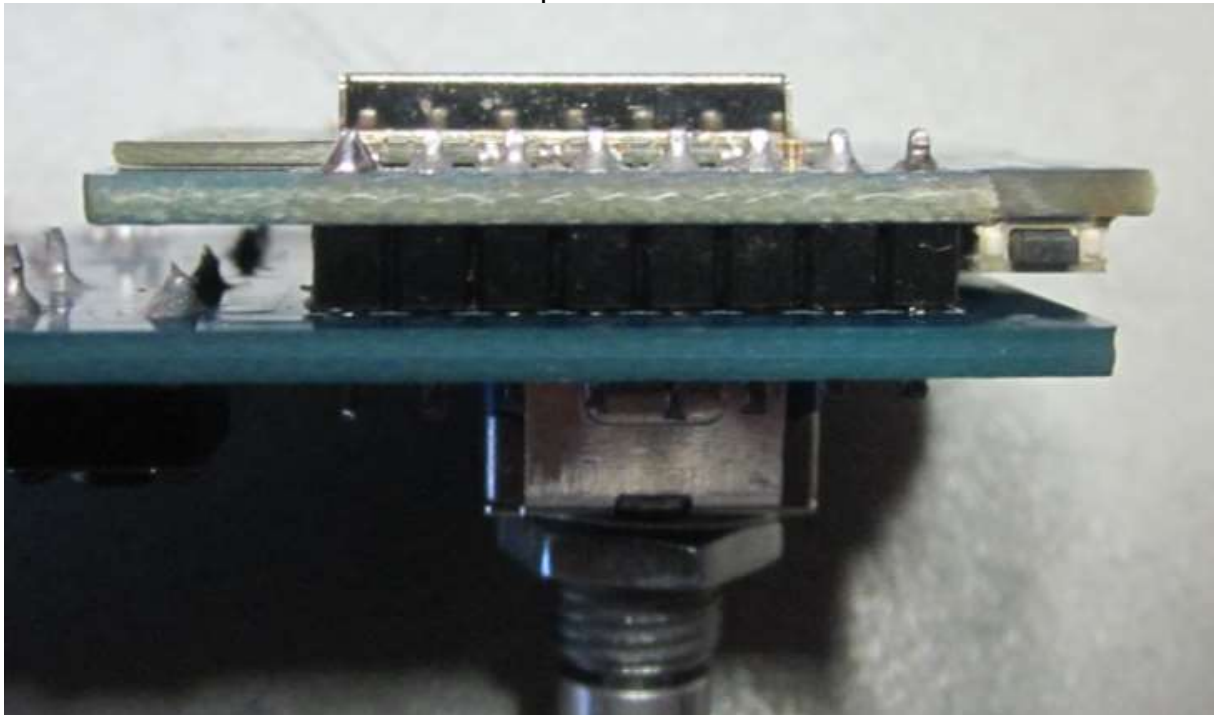


2. Solder the pulse switch and cut the solder points very short (solder points marked with yellow arrow) so they can not make contact with the Wemos ESP8266 module.





3. Solder the ESP8266 module on the BACKSIDE of the PCB.
 1. Use an IC foot to mount the ESP8266 module, when the ESP82888 module get's defect it ie easier to replace it.
 2. Make sure enough room is present between the ESP8266 module and the solder point below the ESP8266.
 3. The USB connector should point to the back of the PCB.



4. Verify if some space is between 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.

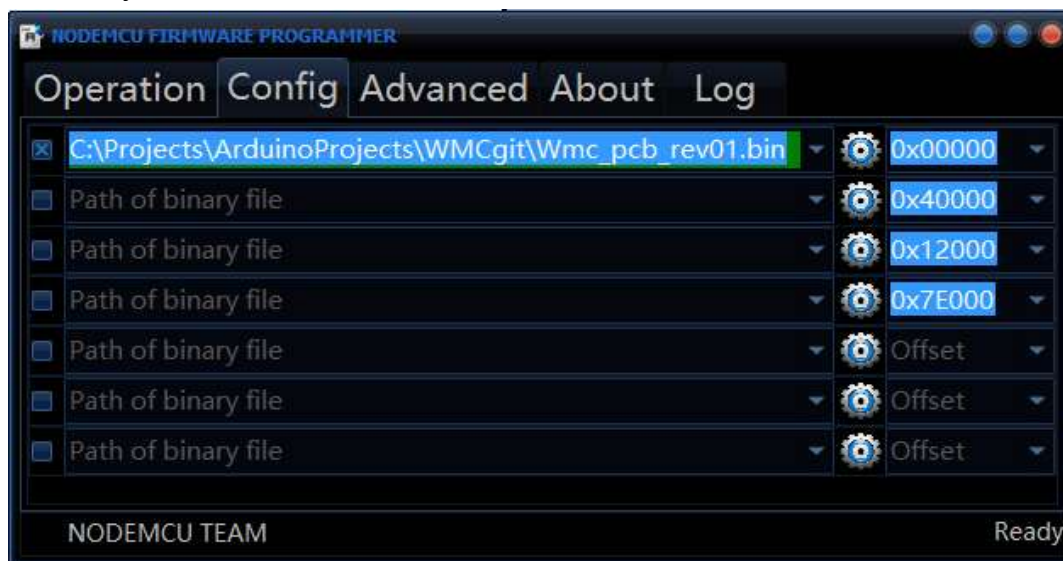




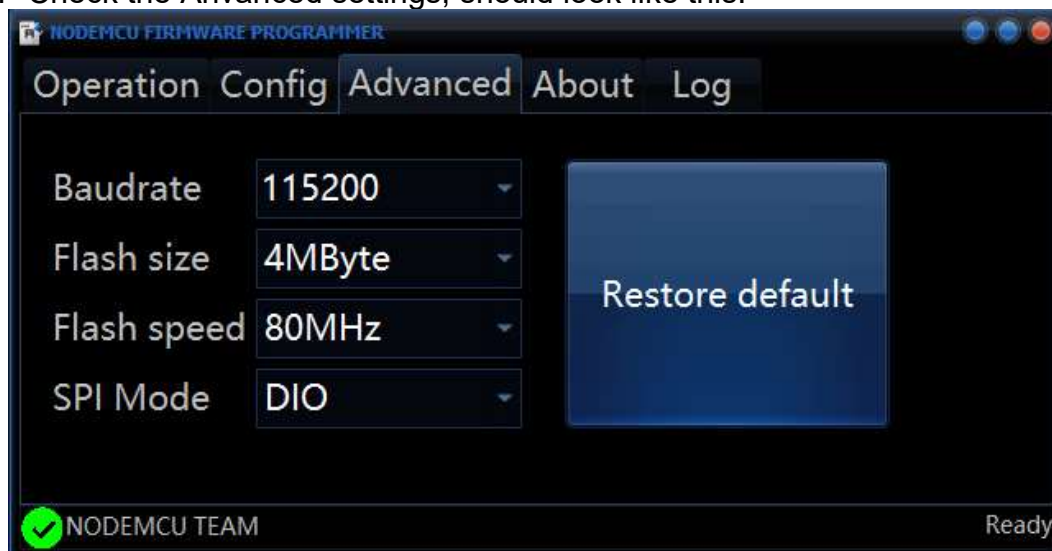
3. Programming.

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 Github⁴ and program the file with for example NodeMcu flasher⁵.

1. Select the wmc_x_x_x.bin file (where x_x_x is the actual version) to be programmed, file location in lower screenshot is just an example, select the file on your own PC.



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

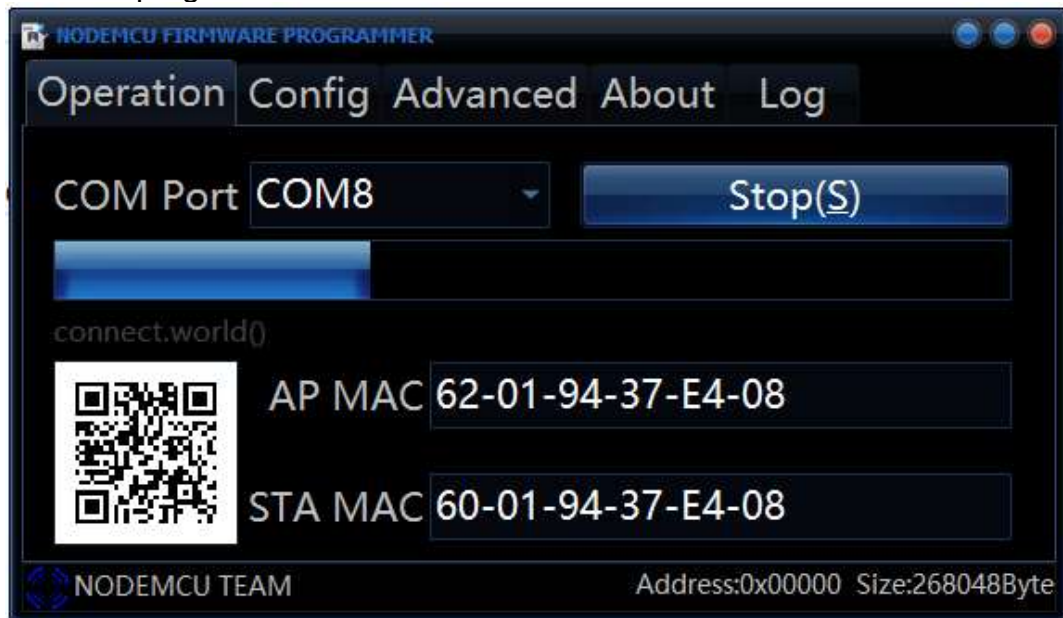


4 <https://github.com/MDRRC/WMC>

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	Description
1	05-05-18	Initial version
2	17-05-18	1 Introduction. Added link to how to operate the WMC. 3 Programming. Filename and screenshot updated.
3	17-11-18	Some PCB images updated. 3 Programming. Filename updated.
4	03-11-20	1.1 Used components Test of resistors updated.