

Xiaomi

M365/Lite/1S/PRO/PRO2

BMS Flashing guide

by Topol

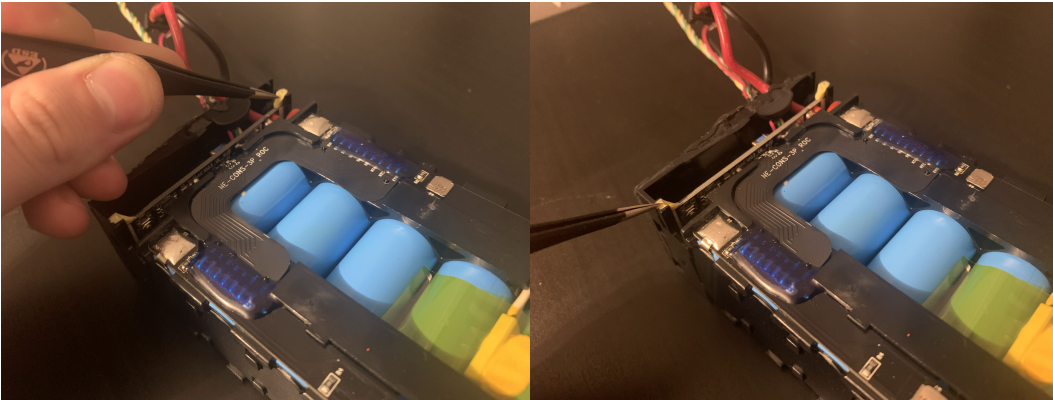
Requirements:

- PC with windows
- [ST Visual programmer software](#)
- [ST-Link Programmer](#)
- [Dupont jumper wires male -> female](#)
- [BMS 1.2.6](#) (M365/PRO)
- [BMS 1.2.8](#) (Lite/1S/PRO2)
- Philip screwdriver (PRO/PRO2)
- Flathead screwdriver (M365/Lite/1S/PRO/PRO2)
- Knife (M365/Lite/1S/PRO/PRO2)
- Manual skills

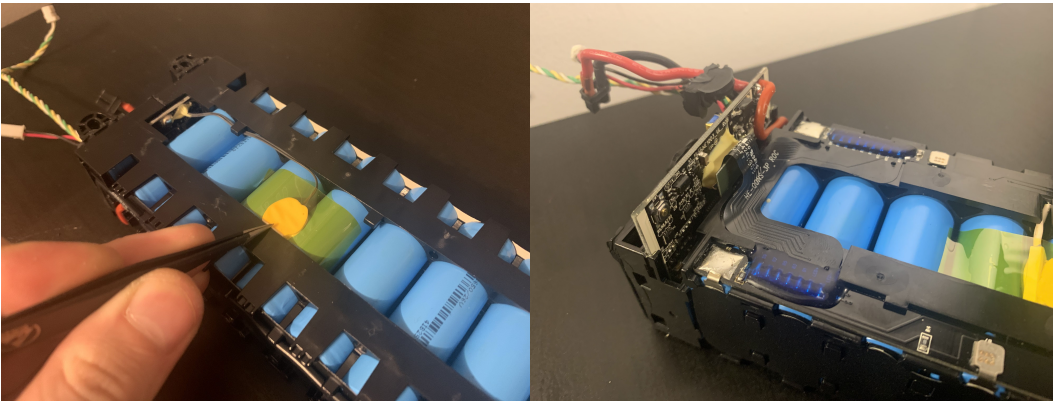


1. M365/Lite/1S battery dissemble

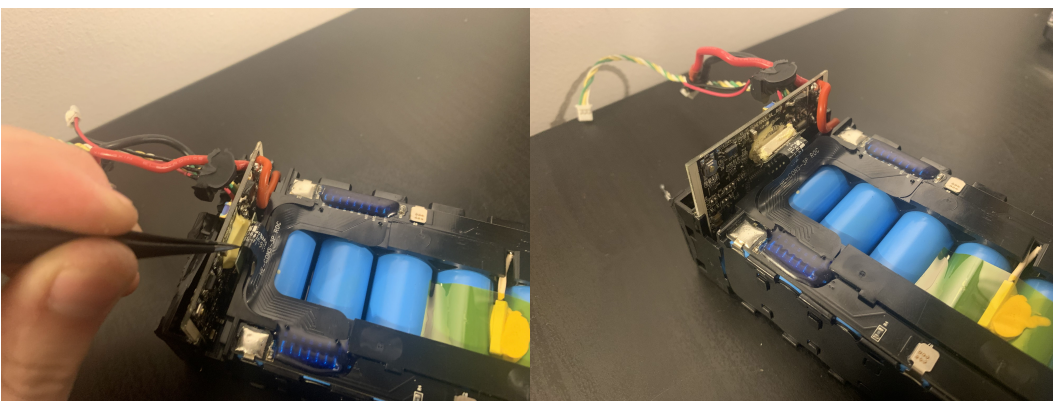
Take out battery from heat shrink and than remove yellow glue from top of BMS



Remove temperature sensor and gently slight up BMS

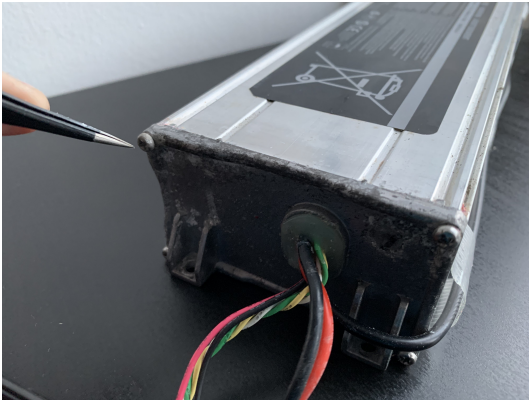


Cut/Remove glue from balancer connector and gently unplug

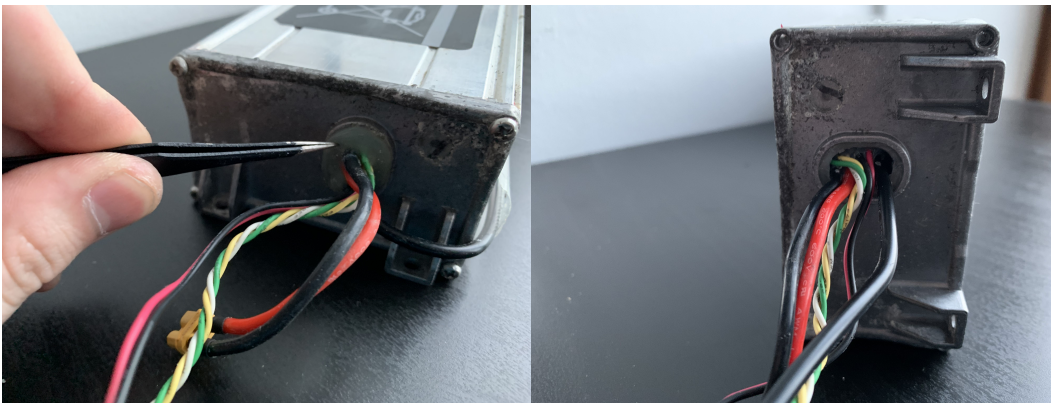


2. PRO/PRO2 battery dissemble

Unscrew 4 philip screws from top of battery.

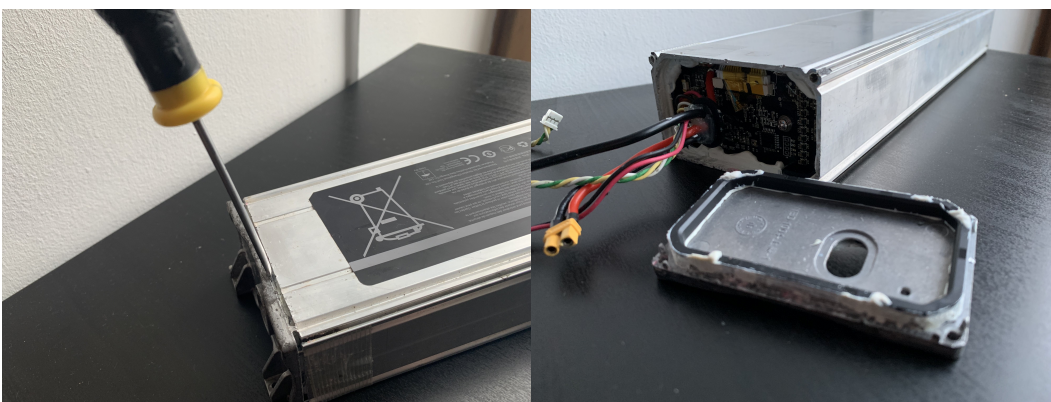


Remove gently silicone around wires and push wires with seal inside.



Slide screwdriver between top part and rest of body and with help of another one try lift top part.

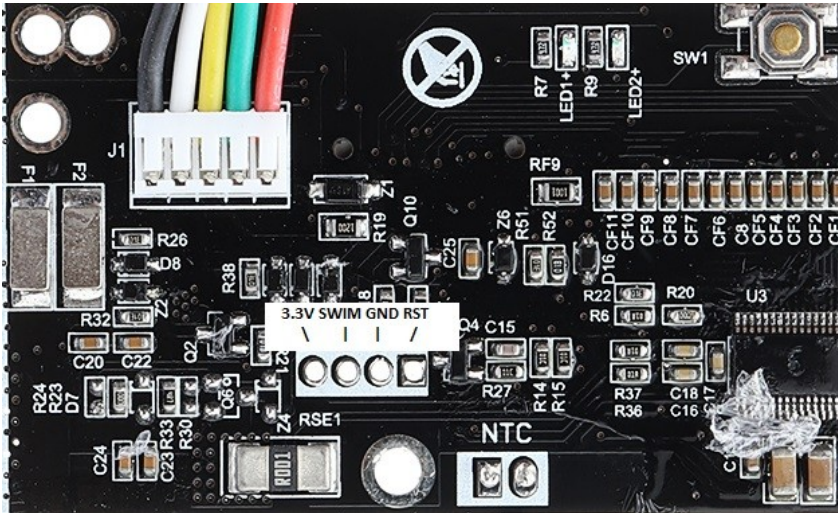
!IMPORTANT! That cover is sealed with silicone so patience is required to remove it.



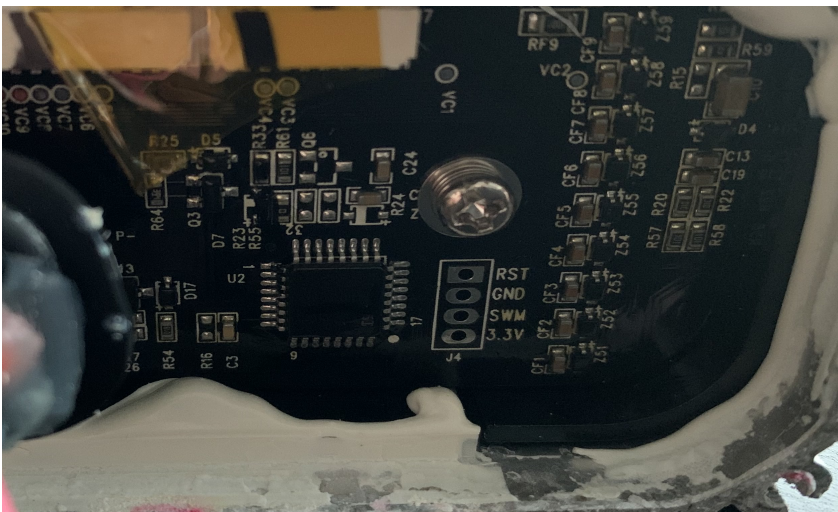
4. St-Link wiring

Connect ST-Link to BMS. You can insert pins and try connect by PC but to make sure that You will not have connection problem, errors etc. I recommend to solder them.

M365/Lite/1S:



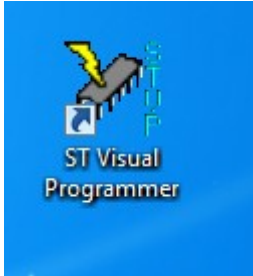
PRO/PRO2:



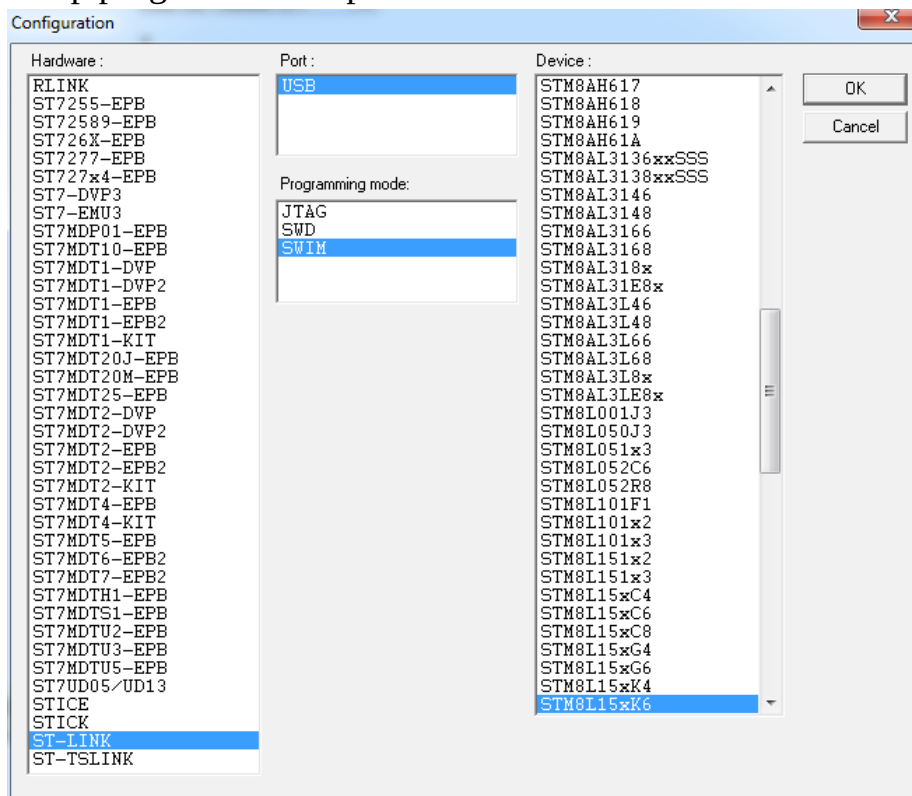
!IMPORTANT! Your St-Link pins can be placed differently than on diagram. Check pins on Your St-Link programmer to make sure that BMS is connected correct.

4. Software install & setup

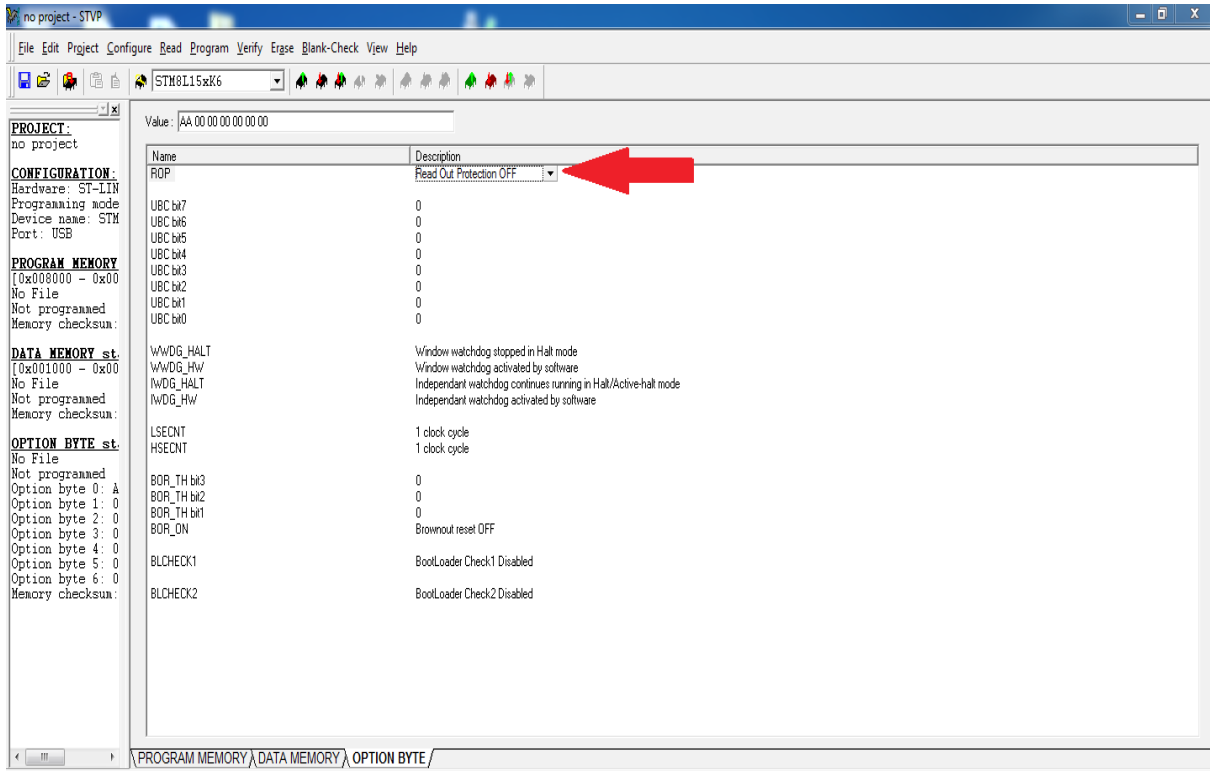
- Install St Visual programmer software
- Connect St-link to Your computer
- Run ST Visual programmer



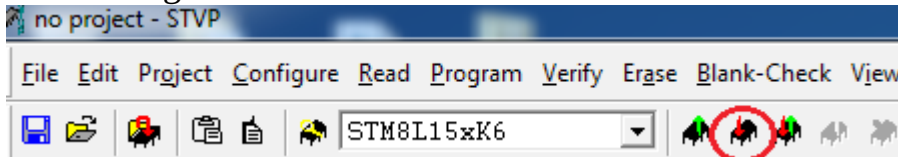
Setup program like on photo:



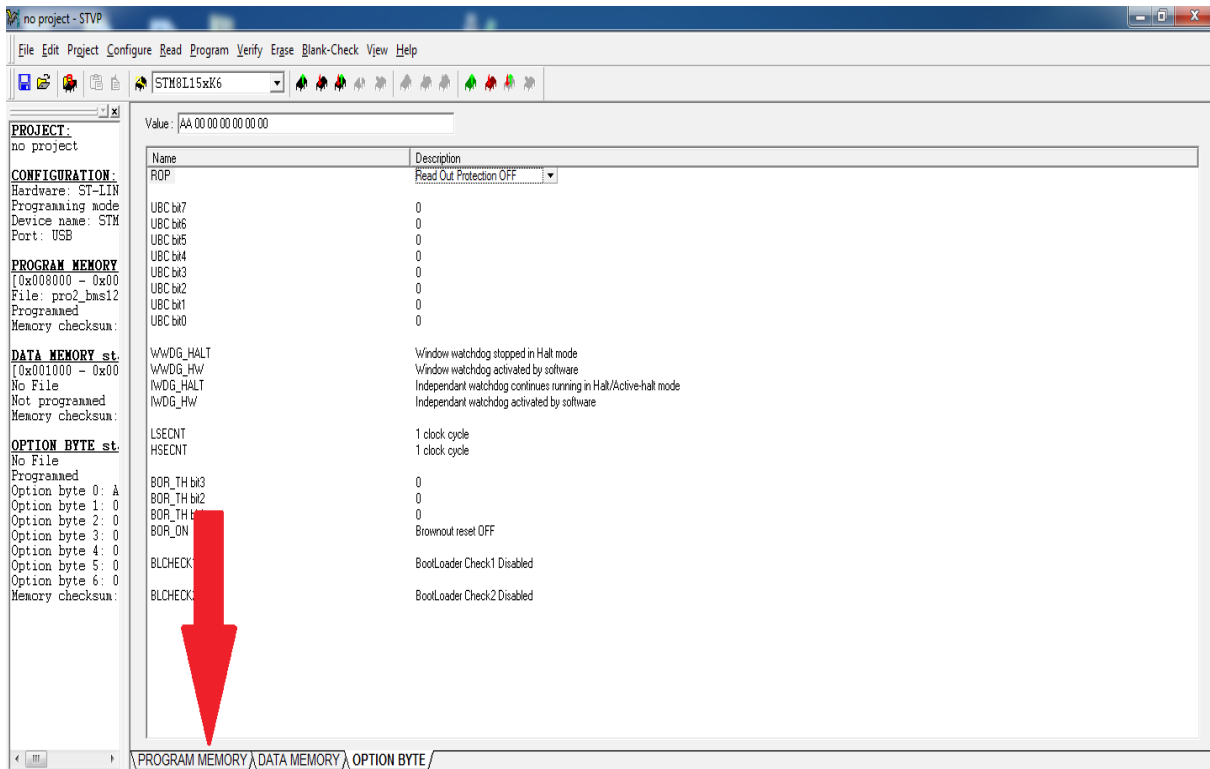
Set “Read Out Protection OFF”



Press “Program current tab or active sessions”

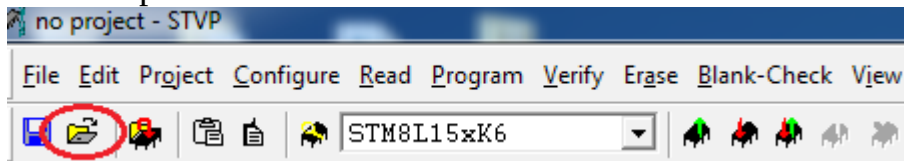


Come back to “PROGRAM MEMORY”

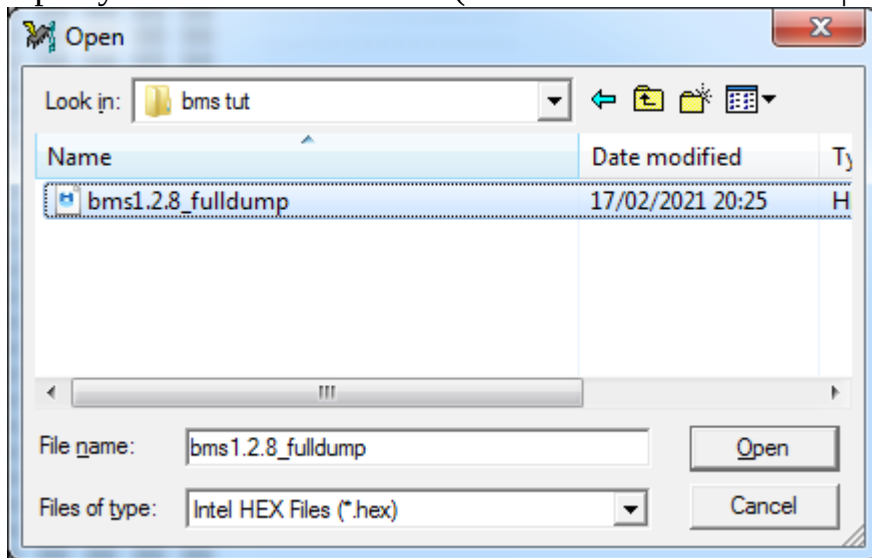


6. Load & Flash BMS Firmware

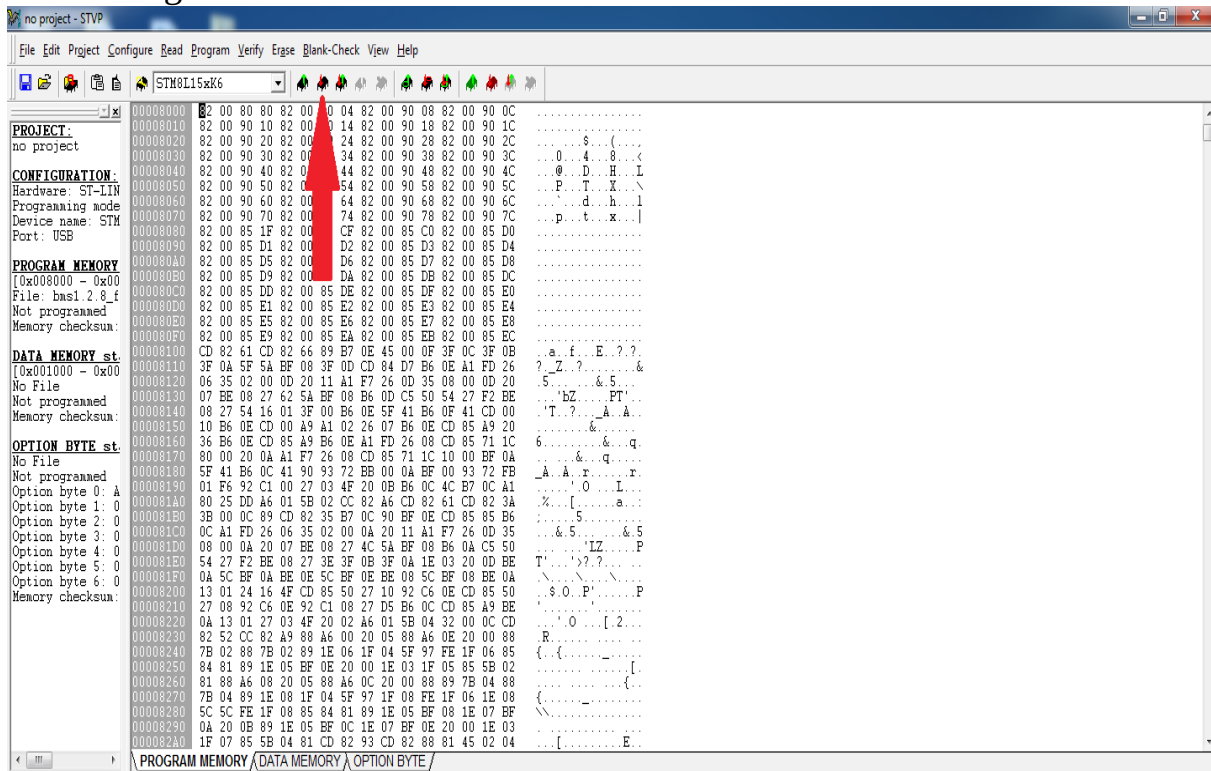
Press "Open a file"



Open your firmware file .hex (M365/PRO = BMS1.2.6 | 1S/Lite/PRO2 = BMS1.2.8)

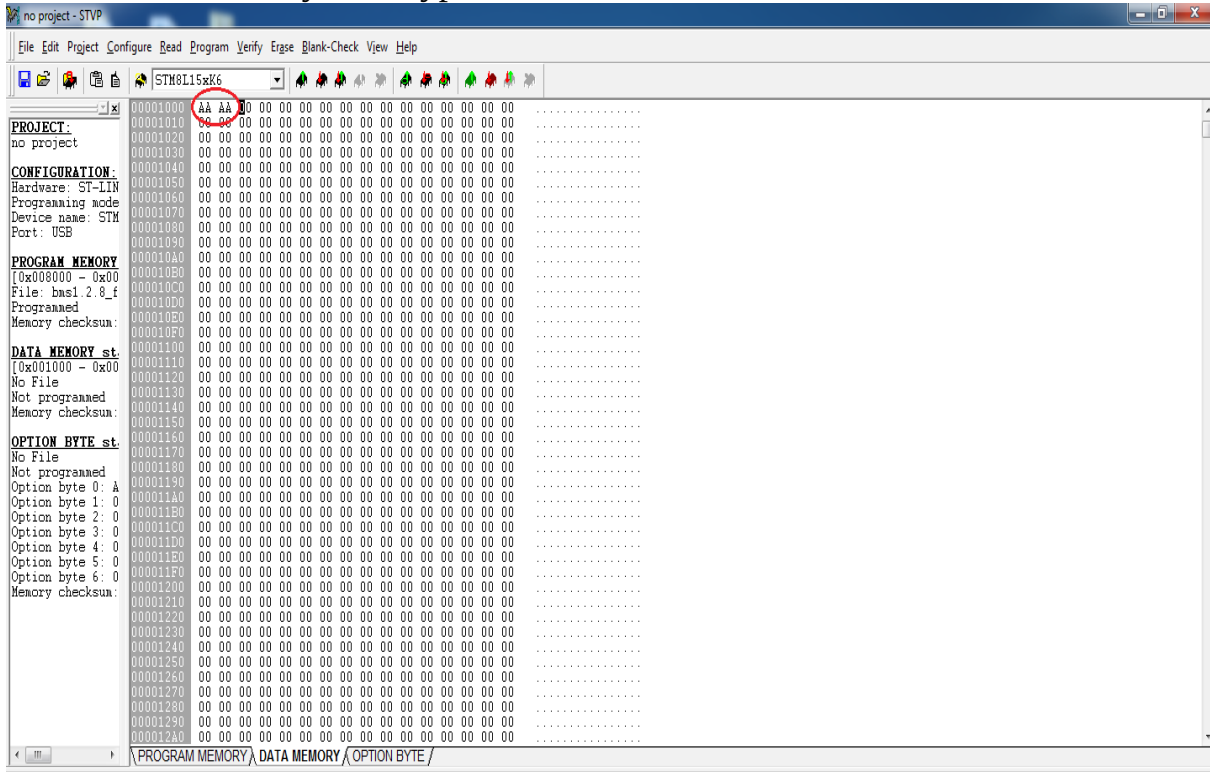


Press "Program current tab or active sessions"

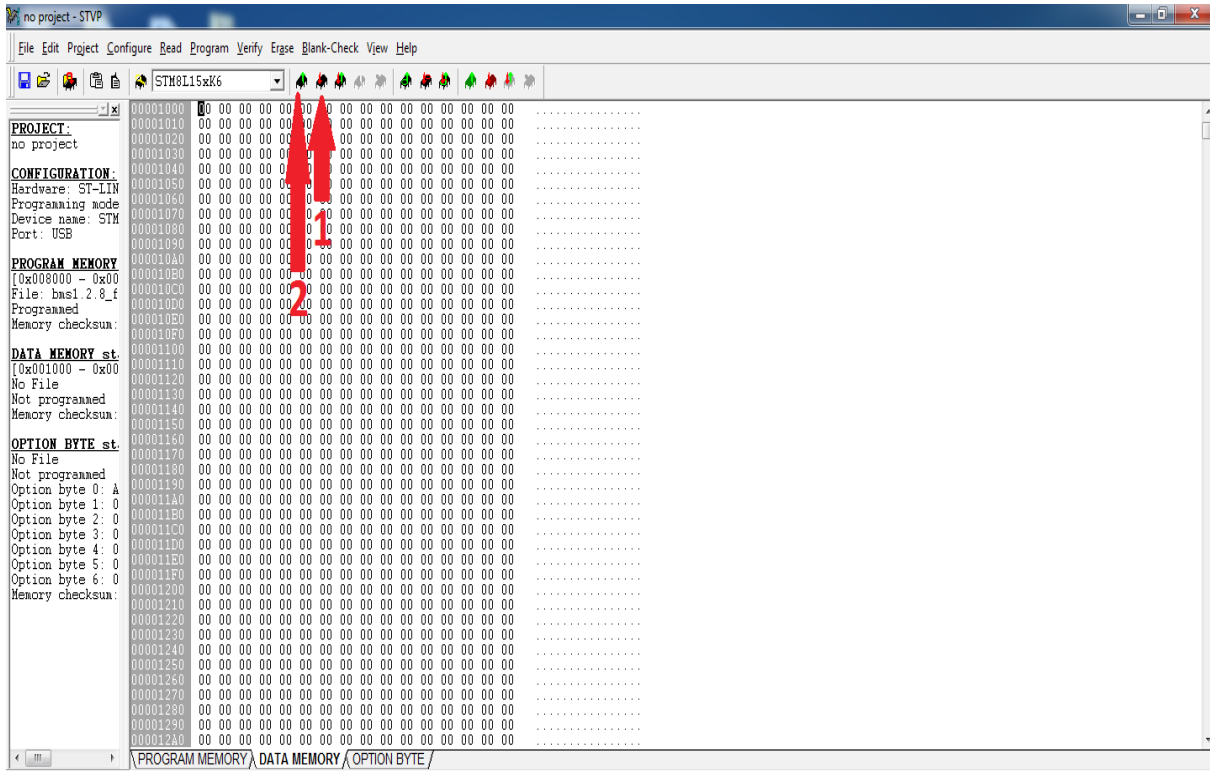


7. Setup BMS Firmware

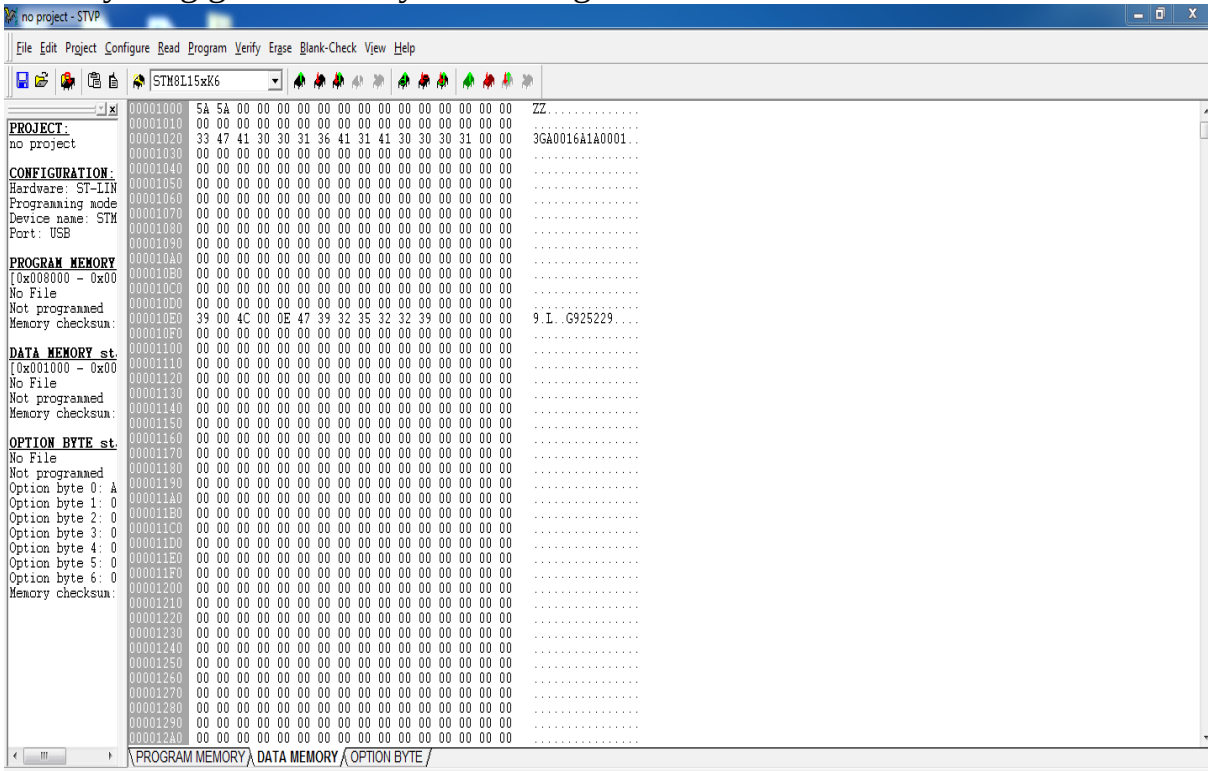
Go to “Data memory” and type in address 0x1000 “AA AA”



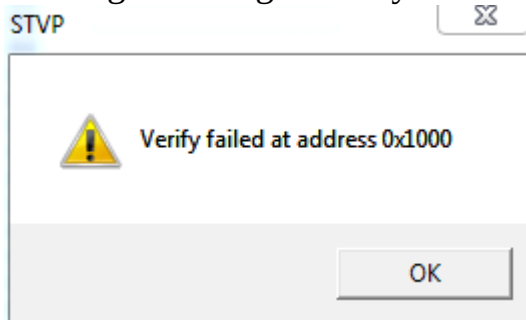
Press 1 - “Program current tab or active sessions” and than 2 - “Read current tab or active sessions”



If everything goes correct you should get view like that:



If You got message “Verify failed at address 0x1000” or something similar:



Check if address 0x1020 is not empty:

```
00001020 33 47 41 30 30 31 36 41 31 41 30 30 30 31 00 00 3GA0016A1A0001...
```

and 0x10E0:

```
000010E0 39 00 4C 00 0E 47 39 32 35 32 32 39 00 00 00 00 9.L.G925229....
```

If one of them are empty you need repeat step 7 until values will appear.
!IMPORTANT! If address 0x10E0 will be empty You will get error 22



8. Setup serial number

Press “Read current tab or active sessions” and go to address 0x1020

```
00001020  33 47 41 30 30 31 36 41 31 41 30 30 30 31 00 00  3GA0016A1A0001...
```

3GA0016A1A0001 is default serial address.

!IMPORTANT! BMS with default serial number will give error 23.

If You don't want set full serial number just change number:

47 to 4A for M365/1S

47 to 58 for PRO/PRO2

or leave **47** if You flashing Lite, but than You need change at least 1 of another character to don't keep default serial.

```
00001020  33 58 41 30 30 31 36 41 31 41 30 30 30 31 28 01  X0016A1A0001(...)
```

If You wish to setup Your serial number You need convert each character to HEX.

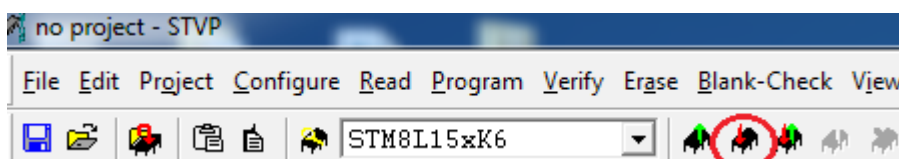
For Example default serial number:

ASCII	3	G	A	0	0	1	6	A	1	A	0	0	0	1
HEX	33	47	41	30	30	31	36	41	31	41	30	30	30	31

ASCII to HEX table:

A = 41	I = 49	Q = 51	Y = 59	6 = 36
B = 42	J = 4A	R = 52	Z = 5A	7 = 37
C = 43	K = 4B	S = 53	0 = 30	8 = 38
D = 44	L = 4C	T = 54	1 = 31	9 = 39
E = 45	M = 4D	U = 55	2 = 32	
F = 46	N = 4E	V = 56	3 = 33	
G = 47	O = 4F	W = 57	4 = 34	
H = 48	P = 50	X = 58	5 = 35	

After setup serial press “Program current tab or active sessions”



Well done ! Your BMS is programmed correctly and ready to use.



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