Flashing Arduino MEGA2560 for OpenTX

Archive MEGA2560 bootloader.rar content :

Arduino_Drivers	Windows USB driver for M2560 with Atmega A8U or A16U2
avrdude.conf	Configuration file of avrdude
avrdude.exe	Flashing executable
🔮 avrdude_tutorial.url	Describes what you can do with avrdude
ch341ser.exe	Windows USB driver for M2560 with CH340G
🛗 mega2560-dfu-usbserial-16u2.hex	Firmware for A16U2
🗰 mega2560-dfu-usbserial_a8u.hex	Firmware for A8U
mega2560_stk500boot_v2.hex	Bootloader for M2560
🚳 mega2560_usbasp_flash_bootloader.bat	Write bootloard on M2560
imega2560_usbasp_flash_firmware_A16U2.bat	Write firmware on A16U2
🚳 mega2560_usbasp_flash_firmware_A8U.bat	Write firmware on A8U
🚳 mega2560_usbasp_flash_fuses.bat	Write fuses on M2560

Board connectivity :



Step 1 : preparing board (require usbasp AVR programmer adapter)

- install usbasp driver and connect usbasp adapter to usb port
- connect usbasp adapter on M2560 ICSP port
- write fuses (with mega2560...fuses.bat)
- write bootloader (with mega2560...bootloader,bat)

Nota :

- no need to connect the M2560 to a power supply
- firmware of A8U or A16U2 should not be flashed onless necessary (can resolve a nondetection of board by PC if CPU is frozen or reseted)

Step 2 : connecting board to USB

CH340G board	A8U or A16U2 board
 execute « ch341ser.exe » to install driver connect M2560 on one USB port Windows should automatically configure driver 	 connect M2560 on one USB port Windows opens an installation panel choose manually the driver arduino.inf » in the folder Arduino_Drivers » provided

- verify on Windows device management (direct access : devmgmt.msc) if device works, and witch com is used (com1, com2, etc.)

> 🦛 Pér	iphériques d'interface utilisateur
🕞 🜉 Pér	iphériques système
🎍 🖤 Por	ts (COM et LPT)
L	USB-SERIAL CH340 (COM3) 🛛 🔫 —
Pro	cesseurs

Step 3 : setting Companion communication

- launch OpenTX Companion 2.1
- open the « Configure communications » menu
 - set the following parameters (with the right com) :

AVRDUDE Location	C:/Echange FEDORA/CompanionTX/avrdude.exe		Browse
Programmer	stk500v2	• [ist Available
Port	[com3	•	
Extra Arguments	-D		Show Help
Use advanced control	s 🗖		

- A8U or A16U2 board : for each firmware or eeprom access (read or flash), M2560 must be reset just before (press reset button is board is already connected, or simply plug the board on USB)
- CH340G board : USB communication remains open after startup, no need to reset

Step 3 : setting Companion Radio Profile and and Application Settings

- go to the « Settings » menu, click « Settings »
 - select « Radio Profile » tab
 - check LCD, language and options needed :

en				
V ST7565P	ST7565R	ERC12864FSF	ST7920	frsky
telemetrez	📃 jeti	🔲 ardupilot	nmea 📃	📃 mavlink
PXX	DSM2	DSM2PPM	🗸 heli	templates
🔲 nofp	nocurves	✓ sdcard	voice	V ppmca
🗸 gvars	🗸 symlimits	Mixersmon	autosource	🔽 autoswitch
🗸 dblkeys	nographics	battgraph	nobold	🔲 pgbar
imperial	ppmus	sqt5font	nooverridech	faichoice
faimode				
Application	Settings	tah		

—	select « Application Settings » tab
_	open a folder for eeprom backup (don't che

moment) op Automatic Backup Folder C:\OpenTX_Data Enable automatic backup before writing firmware

Step 4 : first flash with Companion

- go to « File » menu, click « Download »
- download firmware
- go to « Read/Write » menu, click « Write Firmware to Radio »
- load the downloaded firmware
- uncheck (for the moment) « Backup and restore Models ans Settings »

Tash Firmware			
C:/OpenTX_Data/opentx-mega2560-heli-heli-sdcard Load			
Version	2.0.99		
Variant	217		
Date & Time	2015-05-27 12:53:22		
Use profile start screen			
Use firmware start screen			
O Use library start screen			
O Use another start screen			
Check Hardware compatibility			
Backup and restore Models and Settings			
Cancel Write to TX			

- write to TX...
- unplug the radio form USB port
- run the radio or plug it to usb port
- OpenTX should start and launch the init sequence (formatting eeprom then calibrate the sticks)
- enjoy... :)