



# RapidESC firmware update



Easy firmware update without AVR programmer

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## Required hardware and software

TURNIGY USB Linker available from:

[http://www.hobbyking.com/hobbyking/store/uh\\_viewItem.asp?idProduct=10628](http://www.hobbyking.com/hobbyking/store/uh_viewItem.asp?idProduct=10628)

Driver for USB Linker from SiLabs:

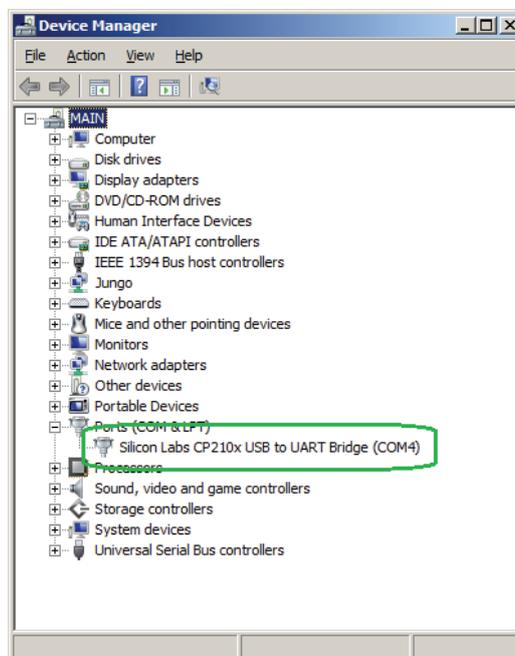
<http://www.silabs.com/products/mcu/Pages/USBtoUARTBridgeVCPDrivers.aspx>

Firmware upgrade package for Windows:

[http://www.abusemark.com/downloads/rapidesc\\_update.zip](http://www.abusemark.com/downloads/rapidesc_update.zip)

Actual RapidESC firmware, version 2012.06.01 or newer:

<https://github.com/sim-/tgy/downloads>



**1** Download and install SiLabs VCP drivers. Connect USB Linker, and check device manager for COM port number.

**2** Download and unzip firmware upgrade package. Place its contents in the same folder, for example d:\firmware.

Name	Date modified ^	Type	Size
 avrdude.exe	1/20/2010 3:09 AM	Application	306 KB
 bs_nfet.hex	6/1/2012 2:09 PM	HEX File	9 KB
 avrdude.conf	6/2/2012 10:38 AM	CONF File	494 KB
 flash.cmd	6/2/2012 11:01 AM	Windows Command ...	1 KB

**3** Download latest RapidESC firmware files and place them in the same folder with firmware upgrade package.

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## Update instructions

Connect TURNIGY USB Linker to the ESC as shown. Note black wire must be connected to the "-" terminal of USB Linker. ESC must be powered (by battery or current-limited power supply). USB Linker does not power ESC.



ESC from abusemark are all using "bs\_nfet.hex" firmware. Double click "flash.cmd". Follow on-screen instructions - enter COM port (ex. COM2 - check Device Manager) and firmware filename. In the image below, user-entered text is underlined in green. On successful update, message underlined in red is displayed.

```
C:\Windows\system32\cmd.exe

RapidESC

1. Connect USB Linker to available USB port
2. Connect servo wire from RapidESC to USB Linker. Black cable to "-" pin.
3. Apply power to ESC.
Enter serial port for USB Linker (e.g. COM4): COM4
You entered: "COM4"
Enter filename for firmware you want to load (e.g. bs_nfet.hex): bs_nfet.hex
You entered: "bs_nfet.hex"
Make sure the firmware is located in the same folder and filename is correct.
After checking.
Press any key to continue . . .

avrdude: AVR device initialized and ready to accept instructions

Reading : ##### : 100% 0.15s

avrdude: Device signature = 0x1e9307
avrdude: reading input file "bs_nfet.hex"
avrdude: input file bs_nfet.hex auto detected as Intel Hex
avrdude: writing flash (8192 bytes):

Writing : ##### : 100% 6.82s

avrdude: 8192 bytes of flash written
avrdude: verifying flash memory against bs_nfet.hex:
avrdude: load data flash data from input file bs_nfet.hex:
avrdude: input file bs_nfet.hex auto detected as Intel Hex
avrdude: input file bs_nfet.hex contains 8192 bytes
avrdude: reading on-chip flash data:

Reading : ##### : 100% 10.53s

avrdude: verifying ...
avrdude: 8192 bytes of flash verified

avrdude done. Thank you.

Firmware update complete.
Press any key to continue . . .
```