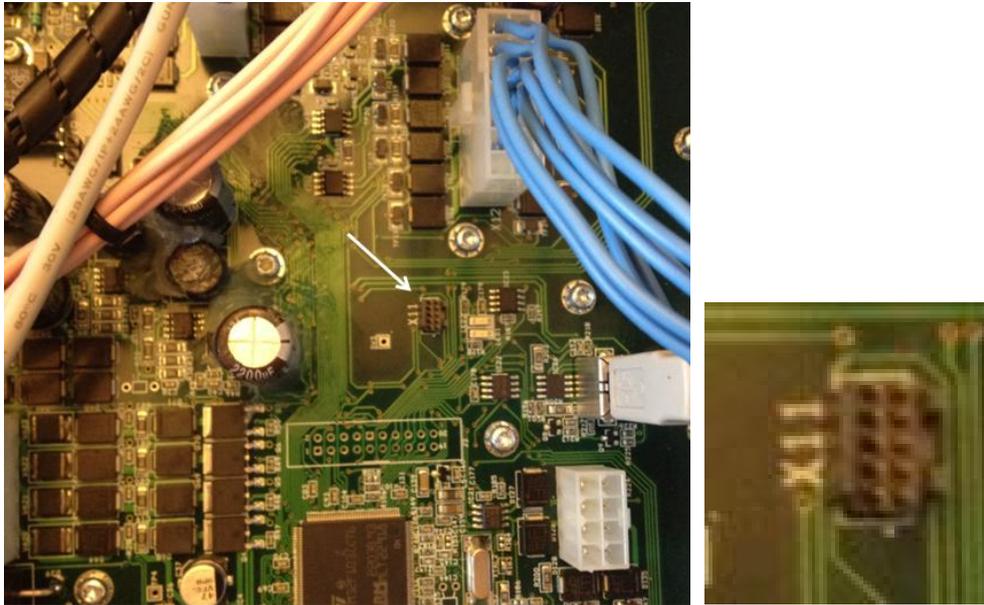# Update IO Board in LineMaster (Using ST-Link)

The IO board must be updated using the ST-Link if the software version is 1.xx.xx.41 or less
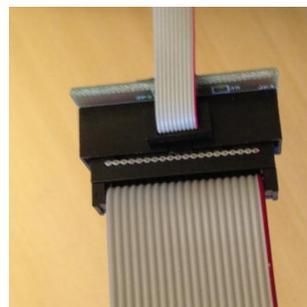
1) Locate X11 at the IO Board in the LineMaster

2) Connect the ST Link

The small 10 pin plug, must be connected to X11 on the IO board of the LineMaster. It must be connected so the red "wire" is down.

Also check that it is Red to Red in the connection from the big to small plug.

The USB plug must be connected to a laptop (Or desktop)

3) Install the driver for the ST Link (If it is the first time using ST Link.)
   Open the folder "ST link/STM32 ST-LINK Utility"
   Run "ST-Link _V2_USBdriver. And follow the installation wizzard.

📁 ST-LINK Utility	11-06-2015 07:22	Filmappe	
📄 Release notes	09-10-2012 14:58	Adobe Acrobat D...	57 KB
ST-Link_V2_USBdriver	02-08-2011 10:28	Program	11.299 KB

DT-14-03
  Andre enheder
    STM32 STLink
  Billedenheder
  Brugerstyrede inputenheder
  Computer
  Diskdrev
  Dvd/cd-rom-drev
  Enheder til lyd, video og spil
  IDE ATA/ATAPI-controllere
  Mus og andre pegeredskaber
  Netværkskort
  Porte (COM og LPT)
  Processorer

(If this does not succeed, you must try to update the driver in the device manager.

4) Now run the Software "Program JE834 (in the folder ST link.)

Navn	Ændringsdato	Type	Størrelse
📁 STM32 ST-LINK Utility	03-07-2015 05:41	Filmappe	
📄 firmware_loader 2015 02 03.hex	03-02-2015 10:34	HEX-fil	40 KB
📄 JE834_045.hex	11-06-2015 07:21	HEX-fil	350 KB
Program JE834	11-06-2015 07:23	Windows-batchfil	2 KB

5) Now the Downloading of the Software to the IO Board should start.
   This is how it looks when the software is downloaded.

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

Flash Programming:
   File : JE834_045.hex
   Address : 0x08004000
Flash Programming...
                                              100%
Verification...
                                              100%
Flash memory programmed in 15s and 335ms.
Verification...OK
Programming Complete.

">>> Resetting--------------------------------"
STM32 ST-LINK CLI v1.4.0
STM32 ST-LINK Command Line Interface

Connected via JTAG.
Device ID:0x414
Device flash Size : 256 Kbytes
Device family :STM32F10x High-density

MCU Reset.

Tryk på en vilkårlig tast for at fortsætte . . .
```