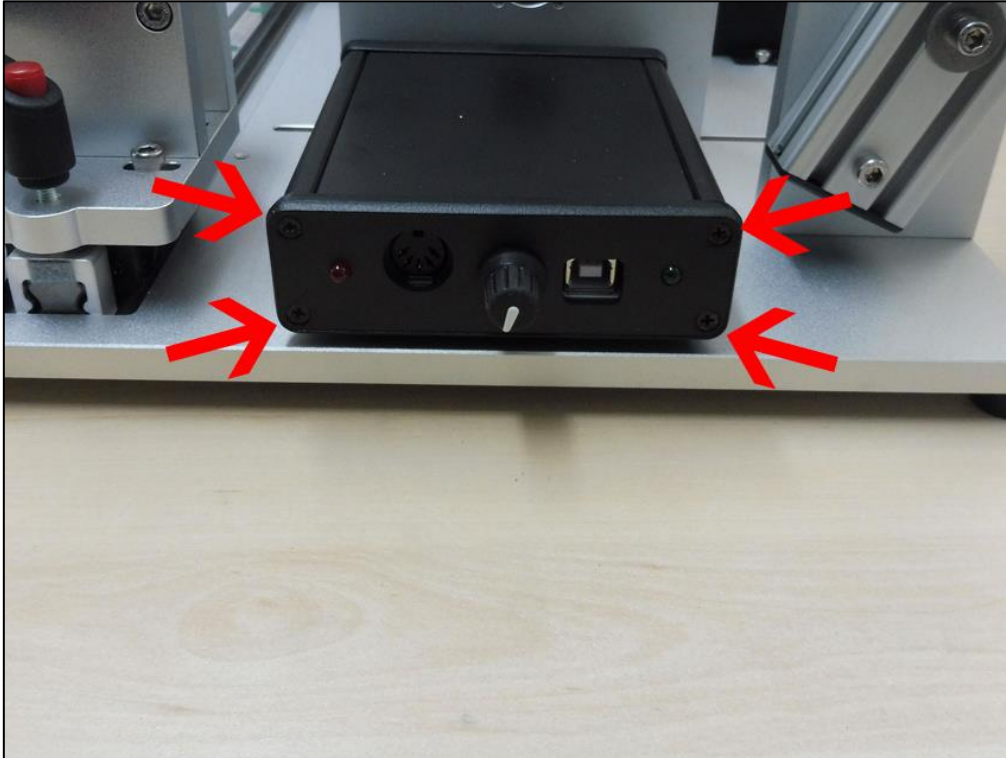


UPGRADING FIRMWARE

Connecting the JTAG Programmer



Remove the 4 screws on the front panel.



Pull the manual winder cap off.



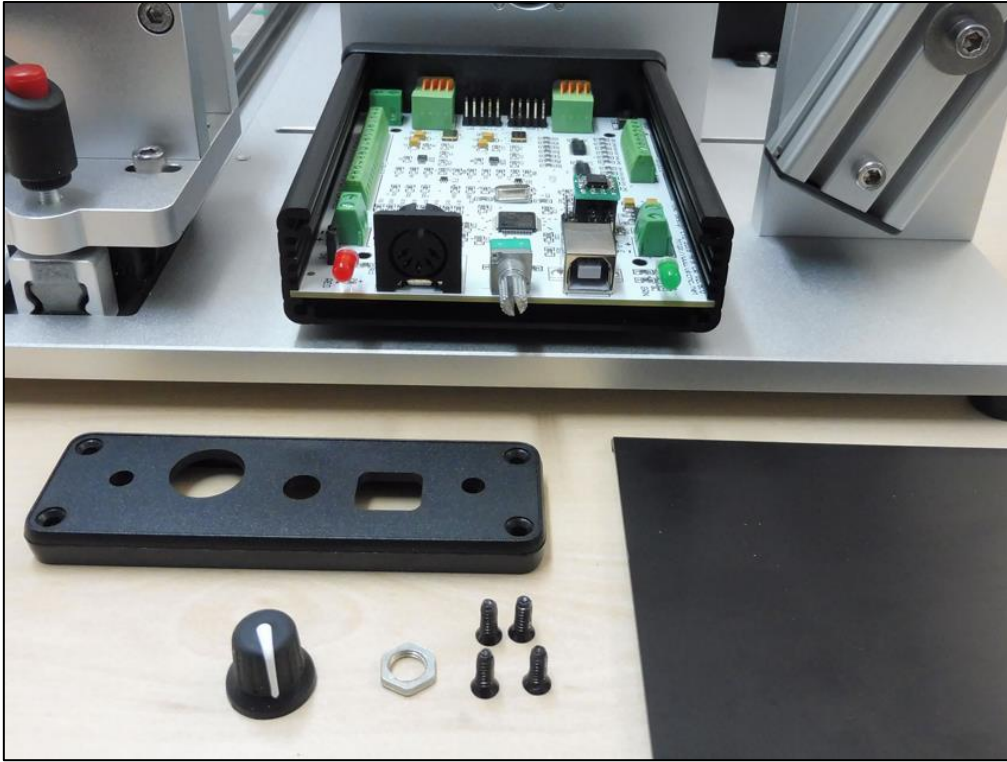
Using a 10mm spanner remove the nut.



Pull the front panel off.



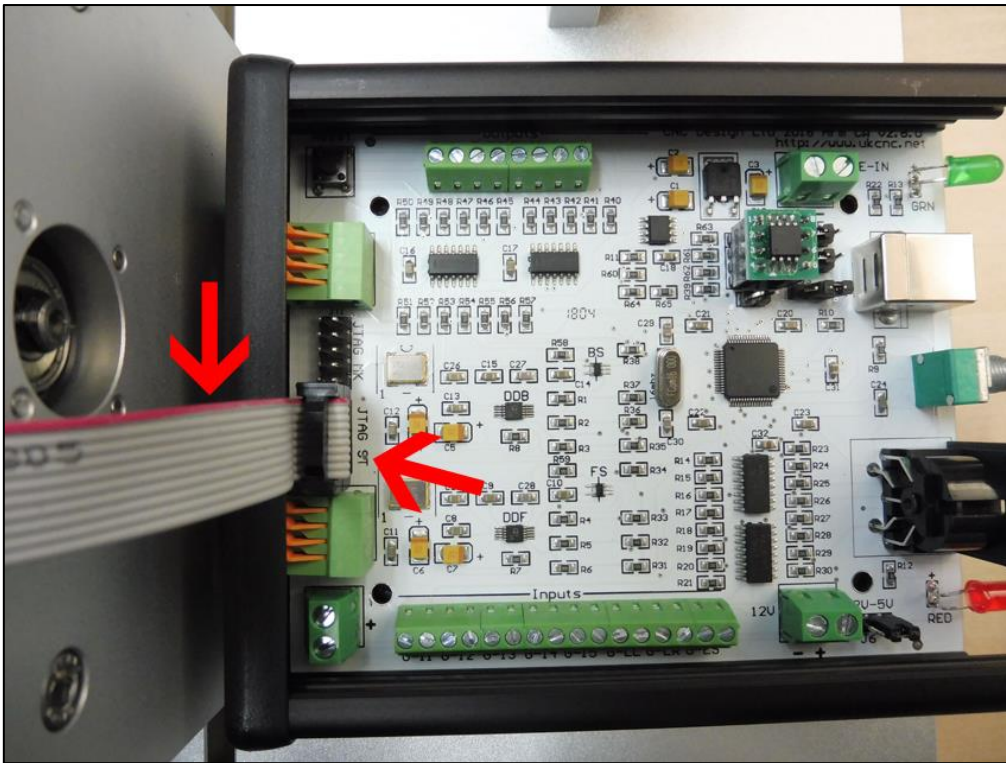
Then slide the lid out of the casing.



Now the lid is off we can connect the JTAG programmer.

Check that cable is plugged in the correct way.





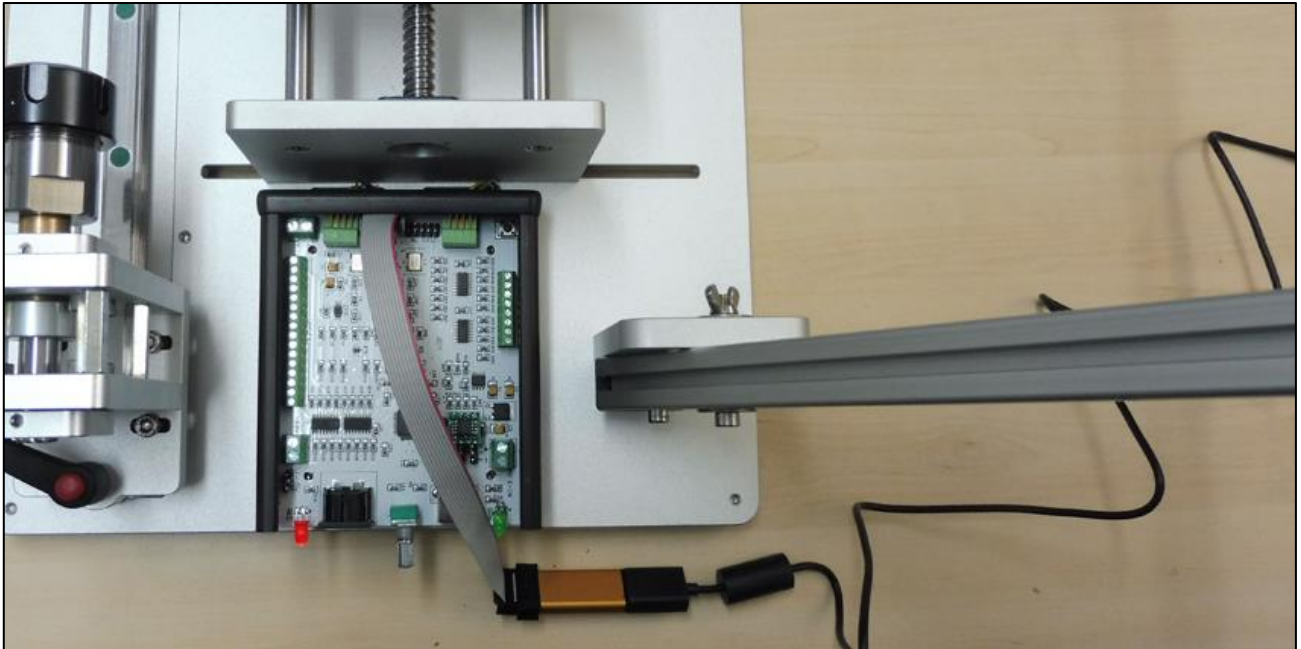
Ensure your JTAG Programmer is connected as shown above with the red line at the top. (IMPORTANT: Always connect your programmer to “JTAG ST” on the controller Board.



Make sure the adapter PCB is connected the correct way.

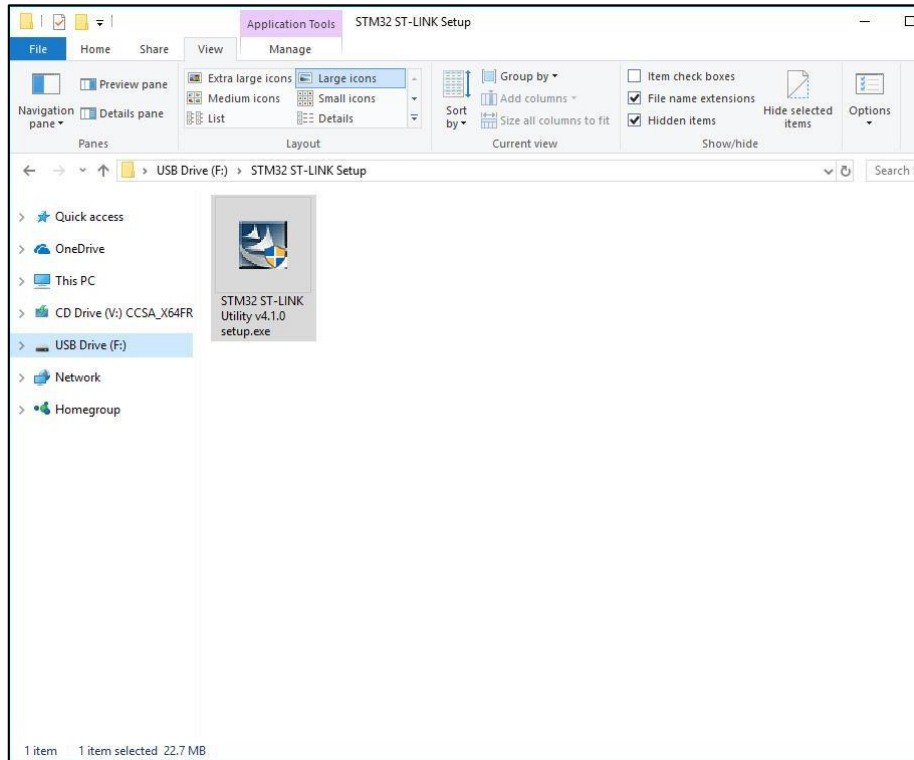


JTAG to ARM Controller MKII for Firmware Updates



Please Note: If the JTAG programmer does not reach your PC, use a Male to Female USB Lead as shown above.

Installing STM32 ST-Link Utility and programming firmware

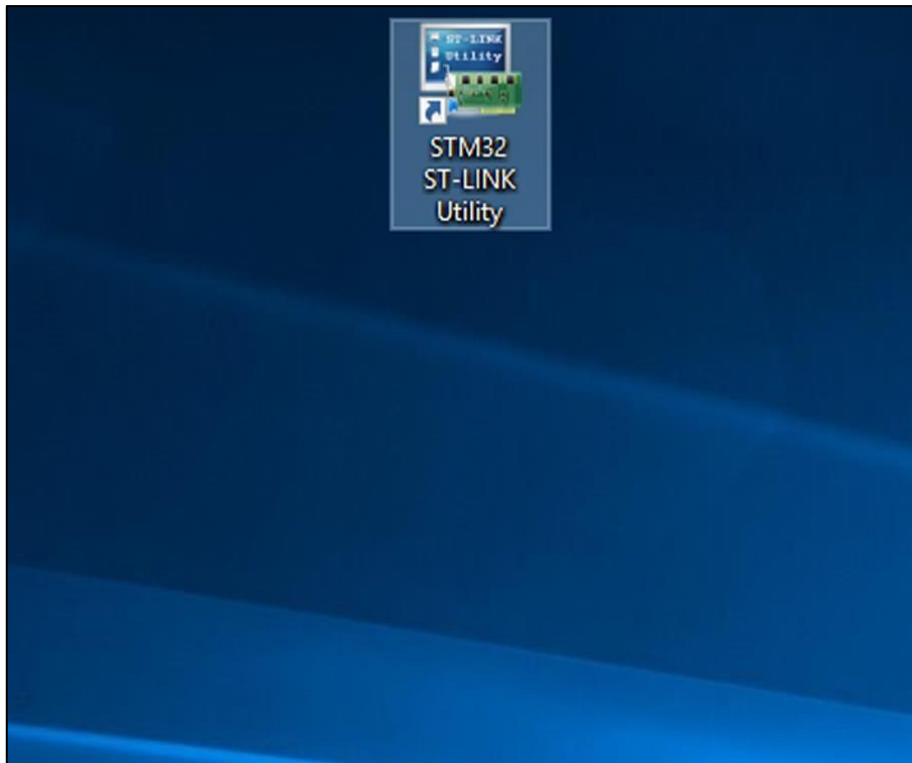


The STM32 ST-LINK Utility Setup Executable is located on the supplied USB memory stick as shown above.

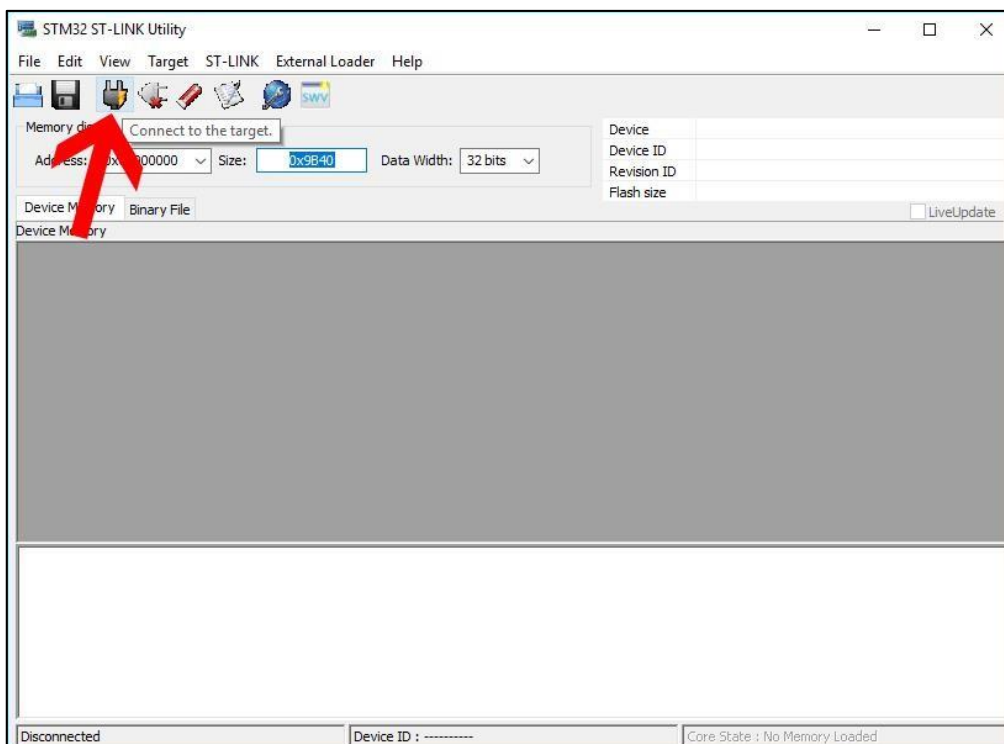
Follow the instructions on the wizard to install the Program.

Alternatively you can download the software via the official Website.

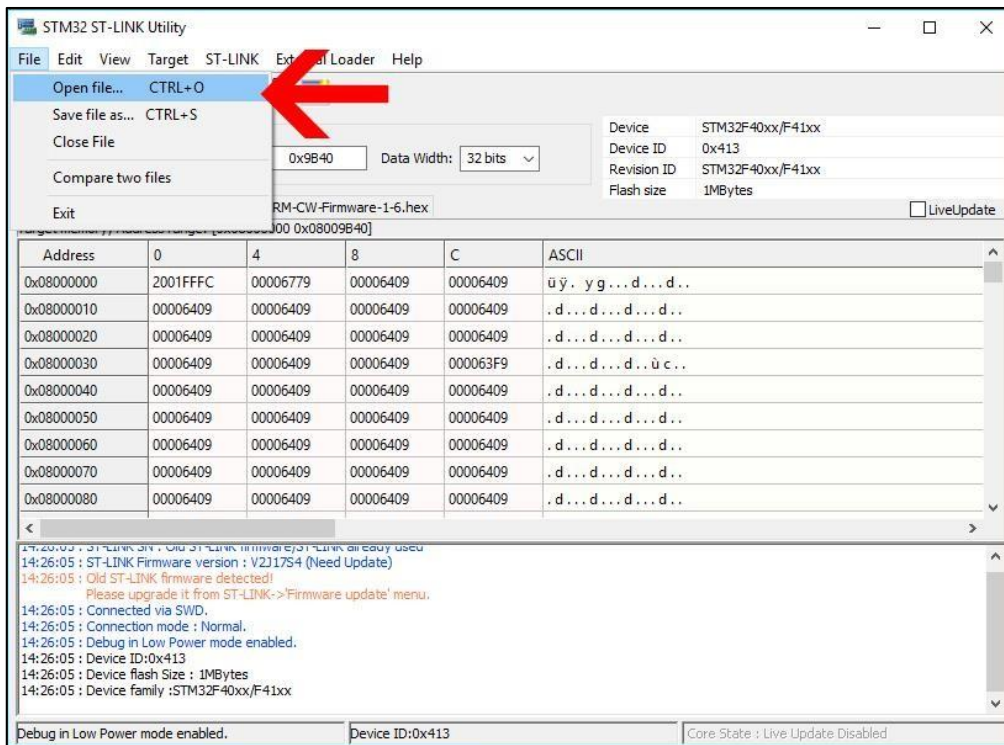
<http://www.st.com/en/development-tools/stsw-link004.html>



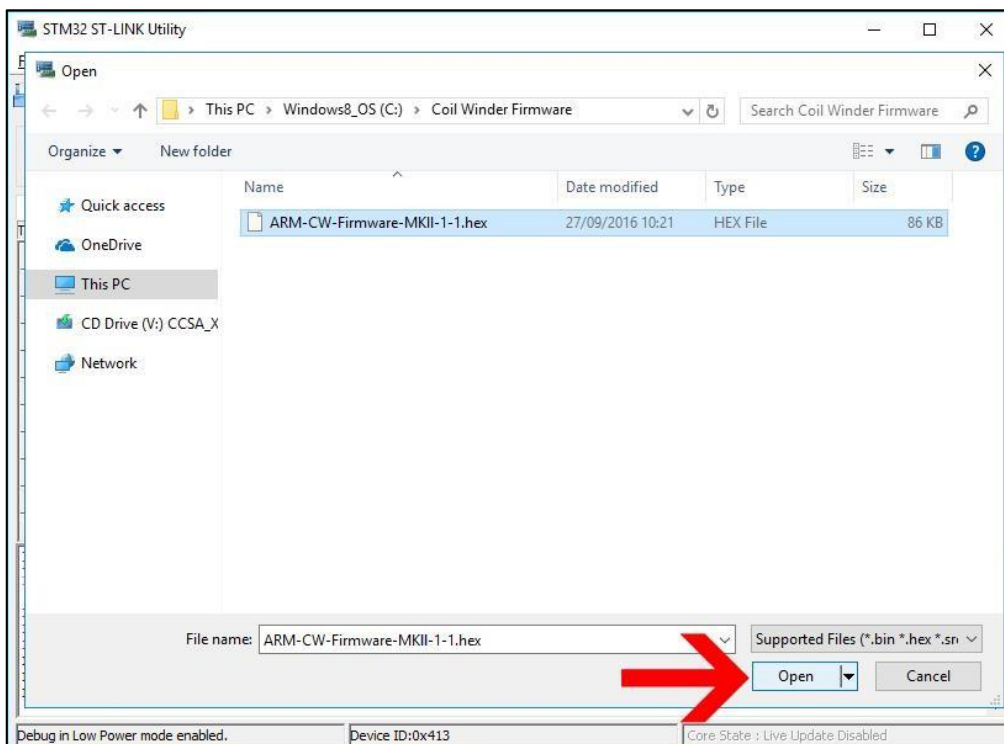
Once installed run the program.



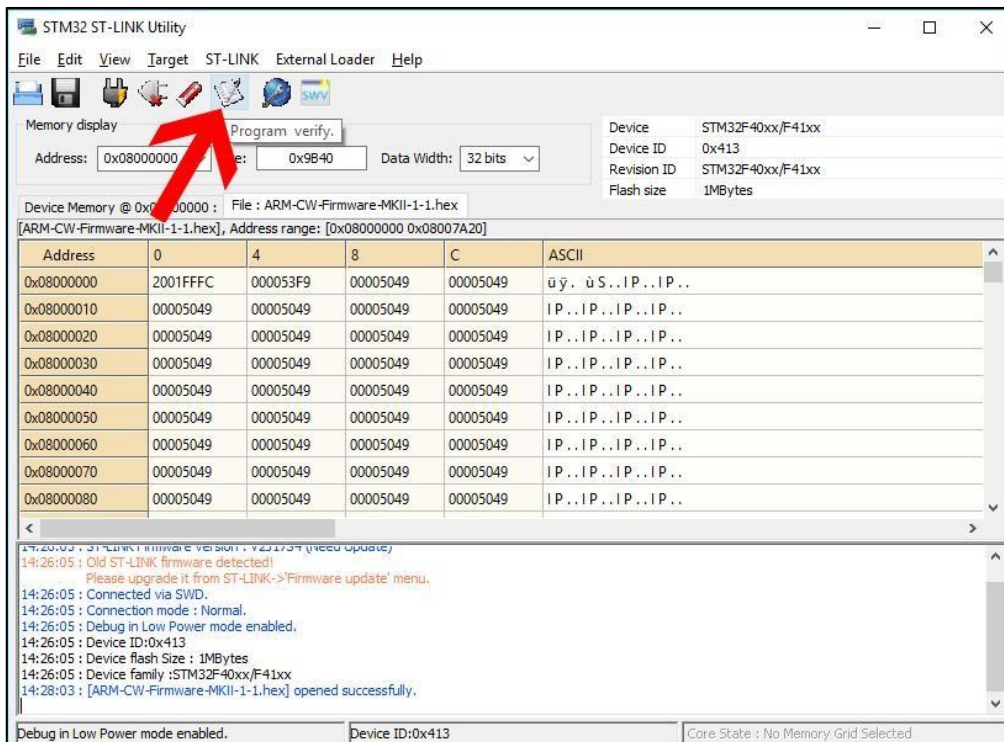
Ensure your JTAG Programmer is connected to your PC and click the Connect button.



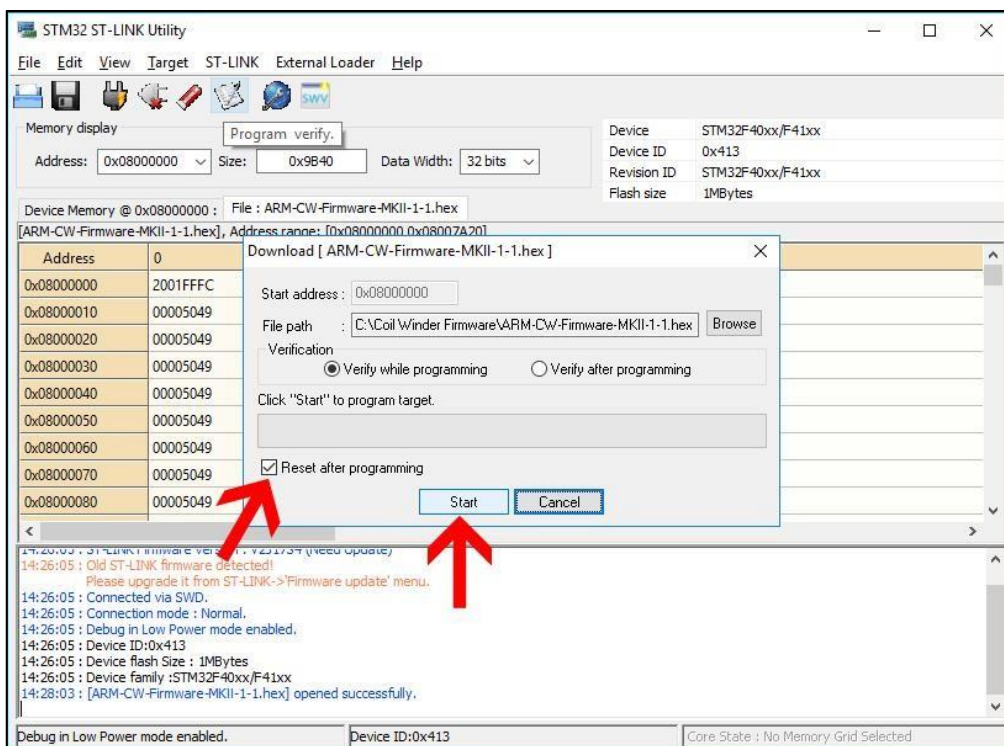
Along the top bar click “File” then select “Open file...” from the sub menu.



Locate the latest firmware file and click open.



Now click the Program Verify button.



Check the "Reset after programming" checkbox and click the start button.

The screenshot shows the STM32 ST-LINK Utility window. At the top, there is a menu bar (File, Edit, View, Target, ST-LINK, External Loader, Help) and a toolbar. Below the toolbar, the 'Memory display' section shows 'Address: 0x08000000', 'Size: 0x7A20', and 'Data Width: 32 bits'. To the right, device information is displayed: Device: STM32F40xx/F41xx, Device ID: 0x413, Revision ID: STM32F40xx/F41xx, and Flash size: 1MBytes. The main area shows 'Device Memory @ 0x08000000' with a file 'ARM-CW-Firmware-MKII-1-1.hex' and a 'LiveUpdate' checkbox. Below this is a table of memory data:

Address	0	4	8	C	ASCII
0x08000000	2001FFFC	000053F9	00005049	00005049	ü ý . ù S . I P . . I P . .
0x08000010	00005049	00005049	00005049	00005049	I P . . I P . . I P . . I P . .
0x08000020	00005049	00005049	00005049	00005049	I P . . I P . . I P . . I P . .
0x08000030	00005049	00005049	00005049	00005049	I P . . I P . . I P . . I P . .
0x08000040	00005049	00005049	00005049	00005049	I P . . I P . . I P . . I P . .
0x08000050	00005049	00005049	00005049	00005049	I P . . I P . . I P . . I P . .
0x08000060	00005049	00005049	00005049	00005049	I P . . I P . . I P . . I P . .
0x08000070	00005049	00005049	00005049	00005049	I P . . I P . . I P . . I P . .
0x08000080	00005049	00005049	00005049	00005049	I P . . I P . . I P . . I P . .

Below the table is a log window with the following messages:

```

Please upgrade to the latest version of ST-LINK Utility from the firmware update menu.
14:26:05 : Connected via SWD.
14:26:05 : Connection mode : Normal.
14:26:05 : Debug in Low Power mode enabled.
14:26:05 : Device ID:0x413
14:26:05 : Device flash Size : 1MBytes
14:26:05 : Device family :STM32F40xx/F41xx
14:28:03 : [ARM-CW-Firmware-MKII-1-1.hex] opened successfully.
14:29:45 : Memory programmed in 4s and 219ms.
14:29:45 : Verification...OK
  
```

A red arrow points to the 'Verification...OK' message. At the bottom of the window, the status bar shows 'Debug in Low Power mode enabled.', 'Device ID:0x413', and 'Core State : Live Update Disabled'.

Once complete you should see a verification...OK message in your log and now your Coil winder has the latest Firmware.

Now re-assemble the coil winder following the beginning steps in reverse.