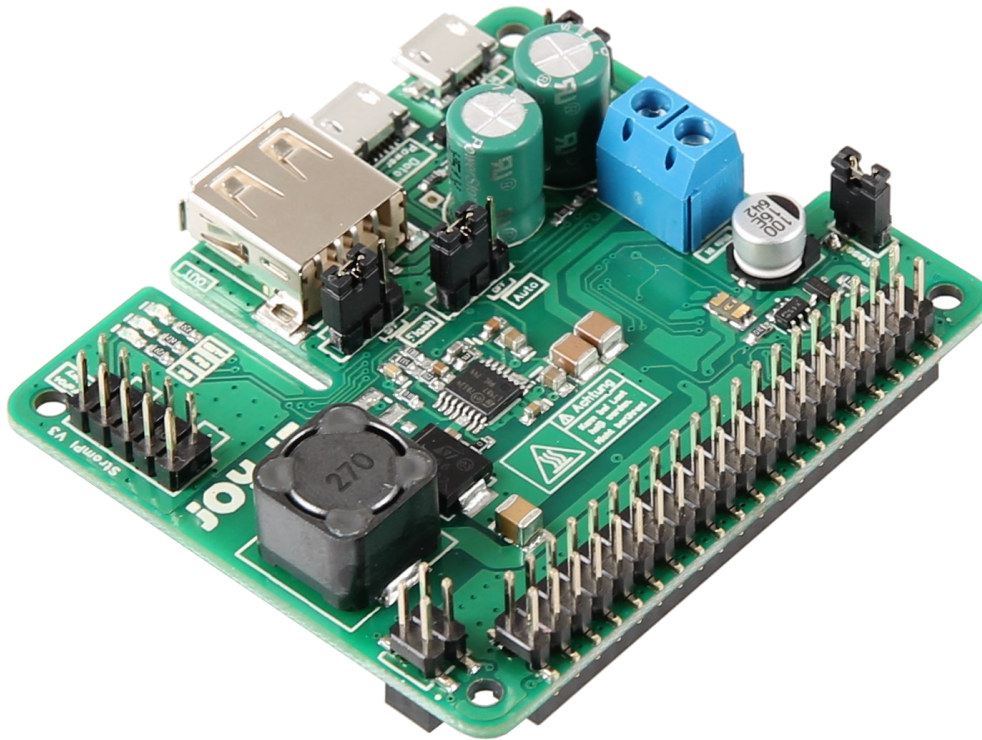# STM32 CUBE IDE INSTALLATION

Quickguide

1. GENERAL INFORMATION

Dear customer,
thank you very much for choosing our product.
In the following, we will introduce you to what to observe while starting up and using this product.
Should you encounter any unexpected problems during use, please do not hesitate to contact us.

In this short manual, we explain how to edit the OpenSource firmware of the StromPi 3 and how to create a firmware binary for flashing.
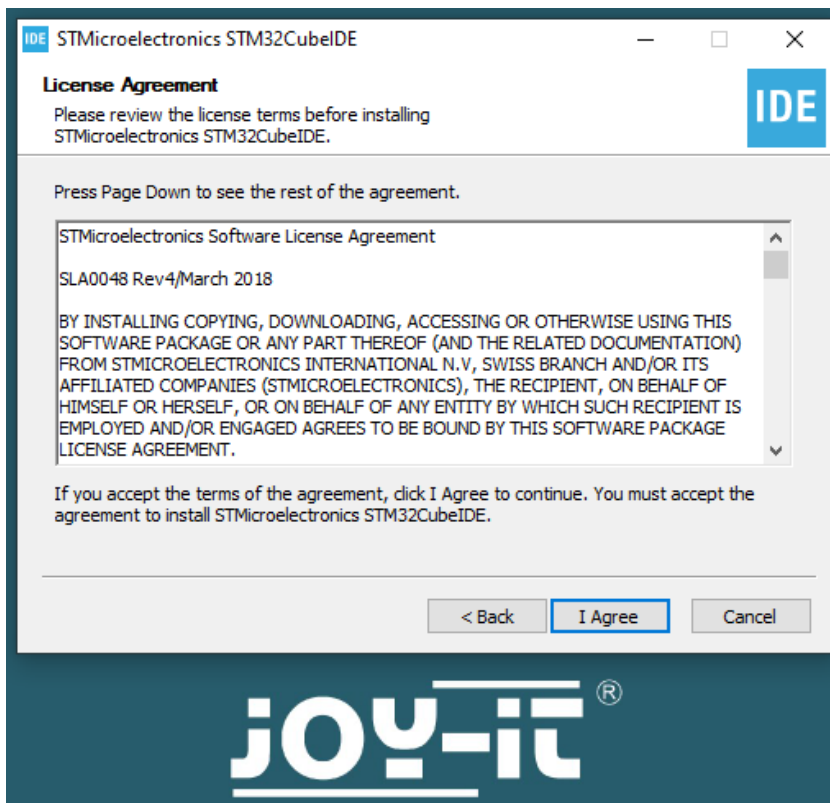
All functions of the StromPi can be read in the main manual of the Strom-Pi 3. You can download it here.
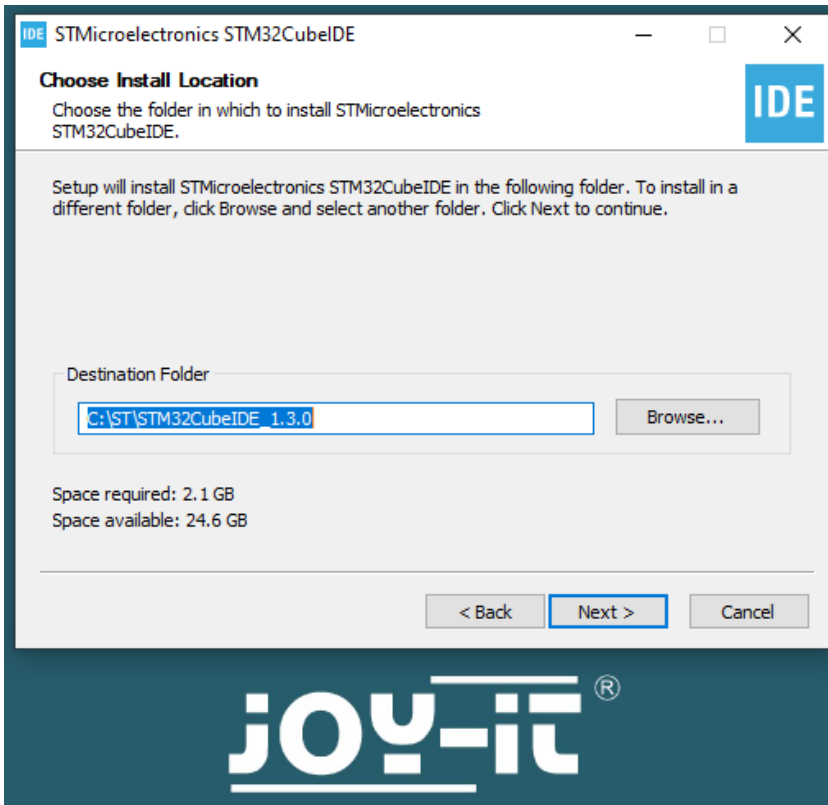
First, download the STM32 Cube IDE 1.12.1 [here](). Then unpack the down-loaded ZIP archive and execute the unzipped file to start the installation of the STM32 Cube IDE.
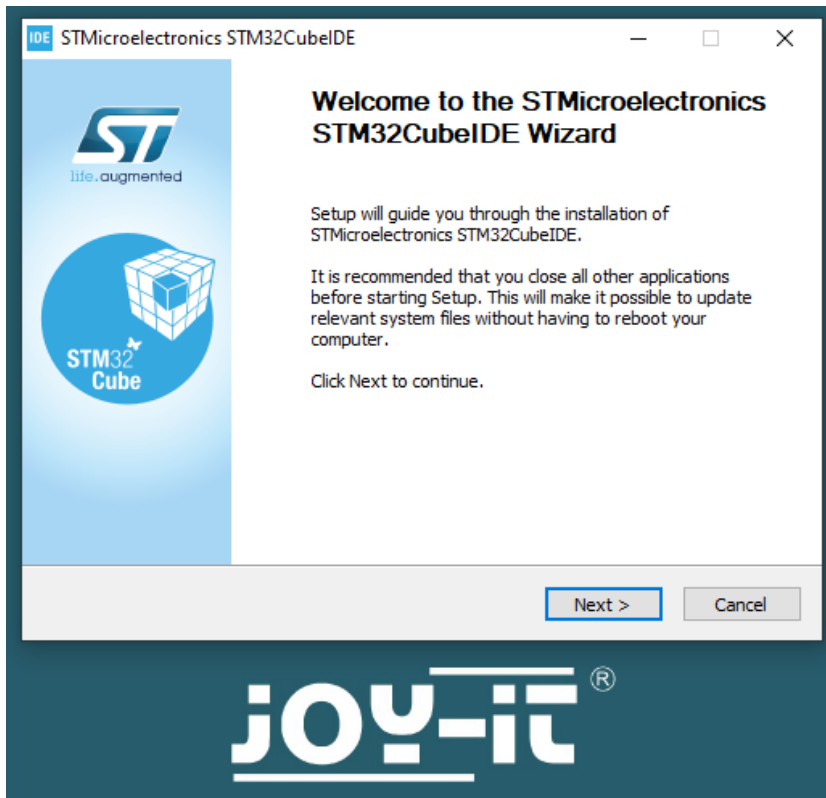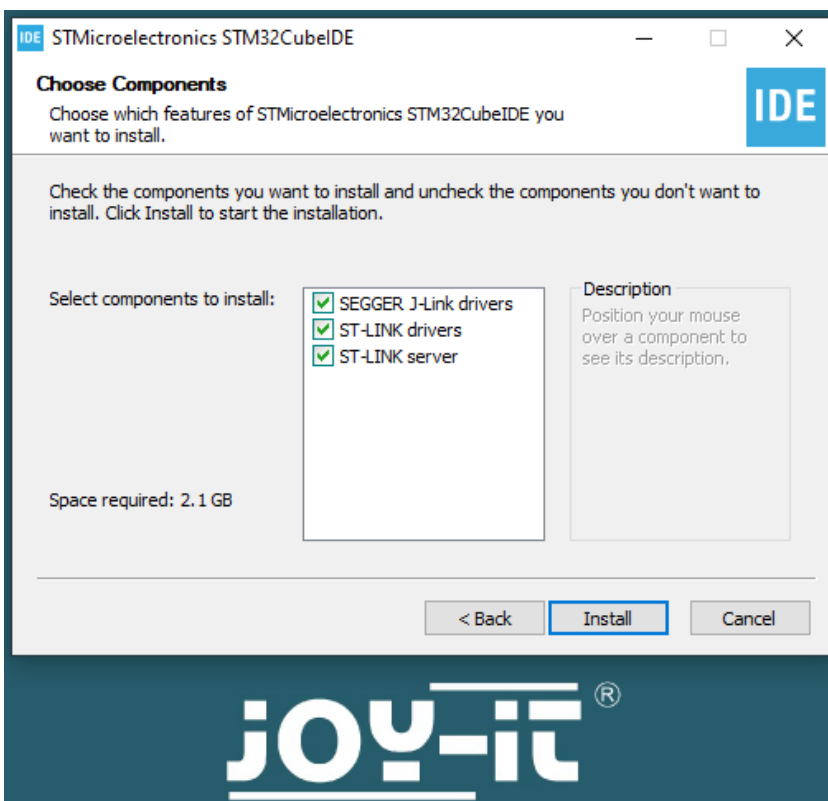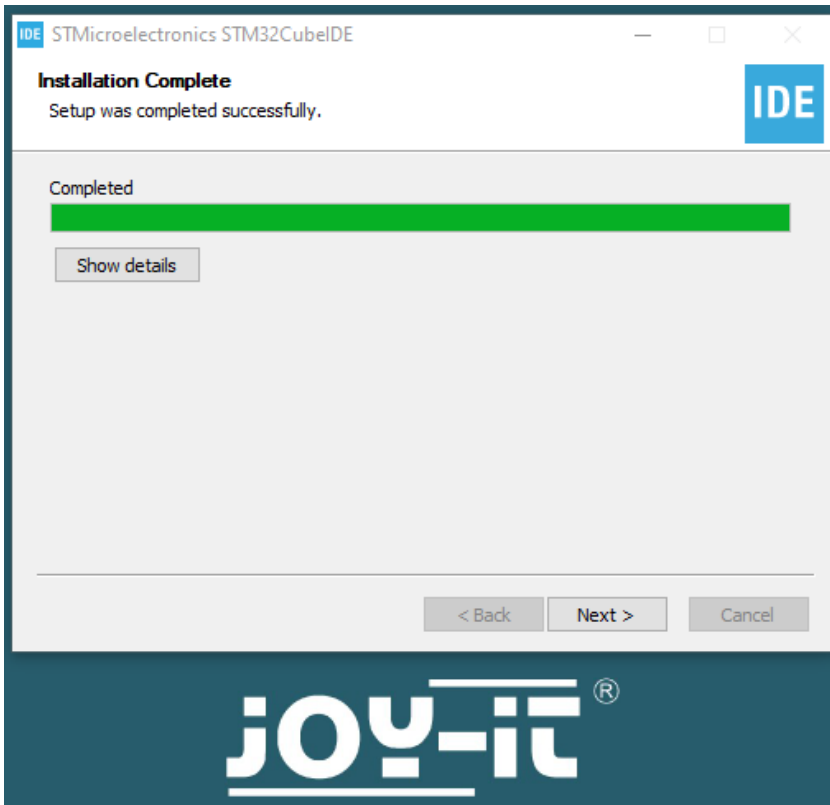

Click on "Next" to continue.

Read the license agreement and confirm that you agree with the terms by clicking "I Agree".

Select an installation directory and click "Next" to continue.
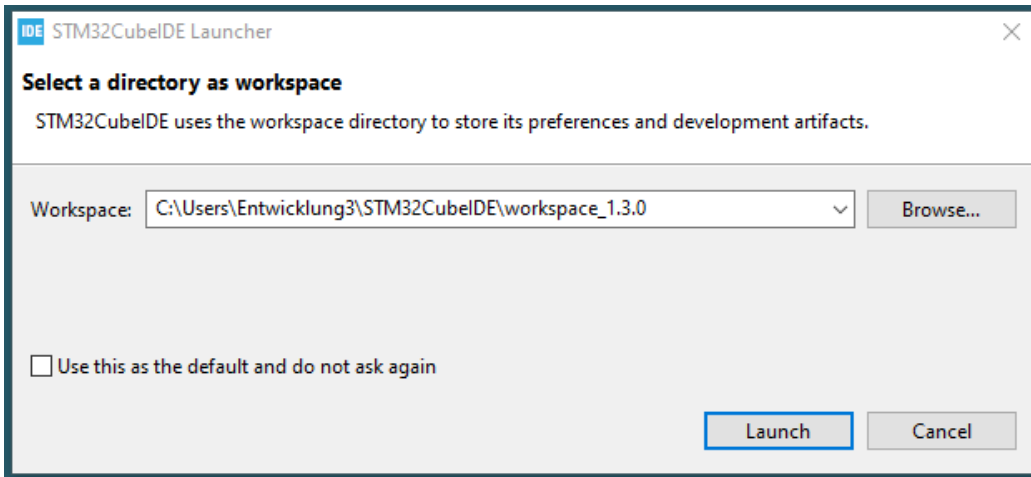

Start the installation with "Install".

Click on "Next" to continue.

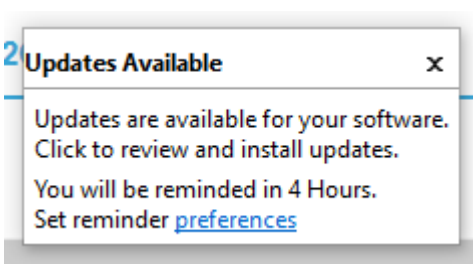Complete the installation by clicking on "Finish".

After the successful installation of the development environment, it is now set up. To do this, start STM32CubeIDE.
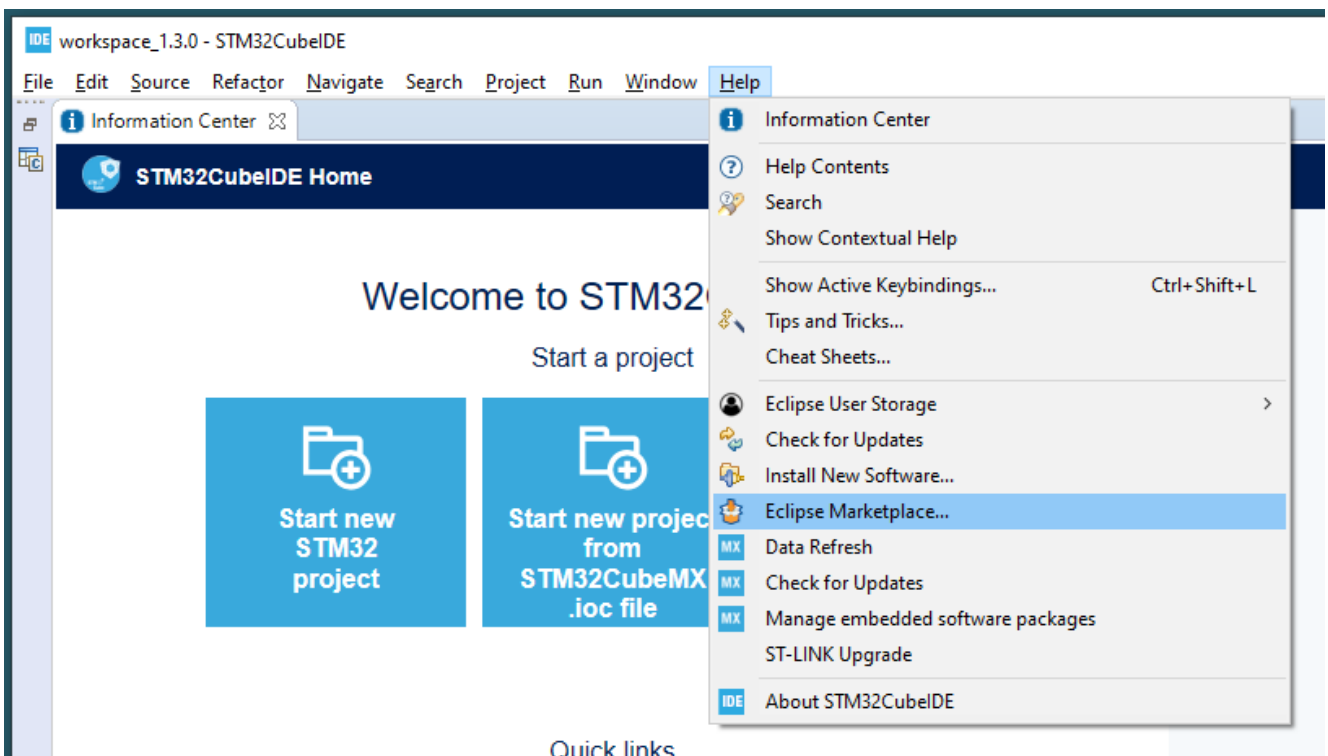

Select a working directory for the development environment and start it by clicking on "Launch".
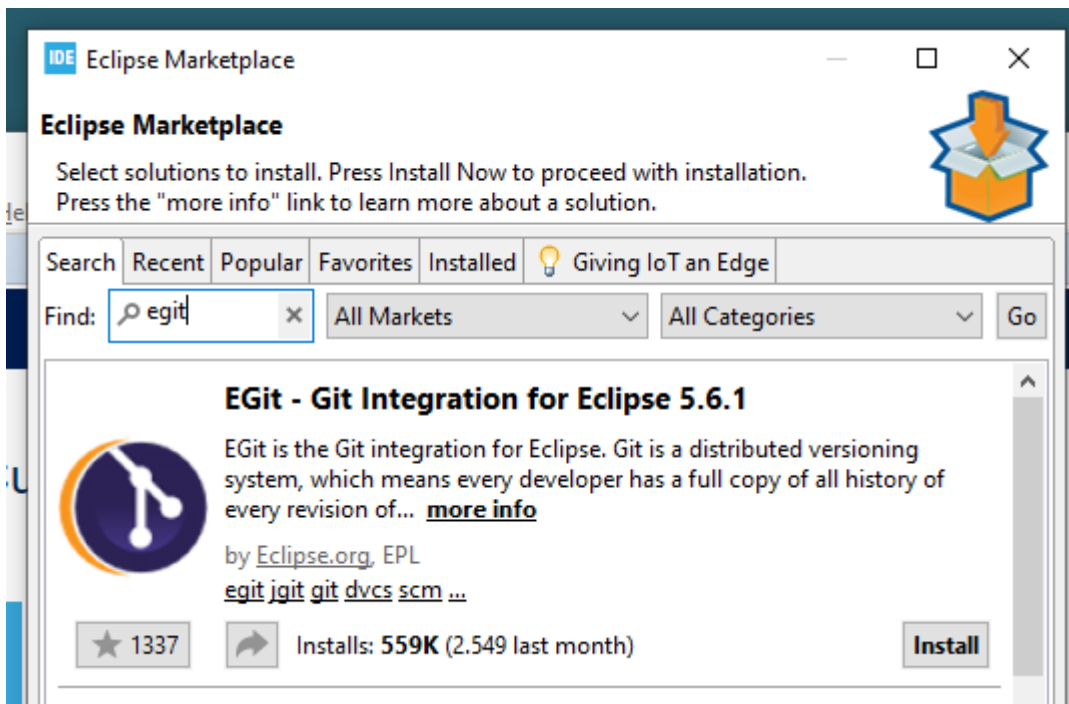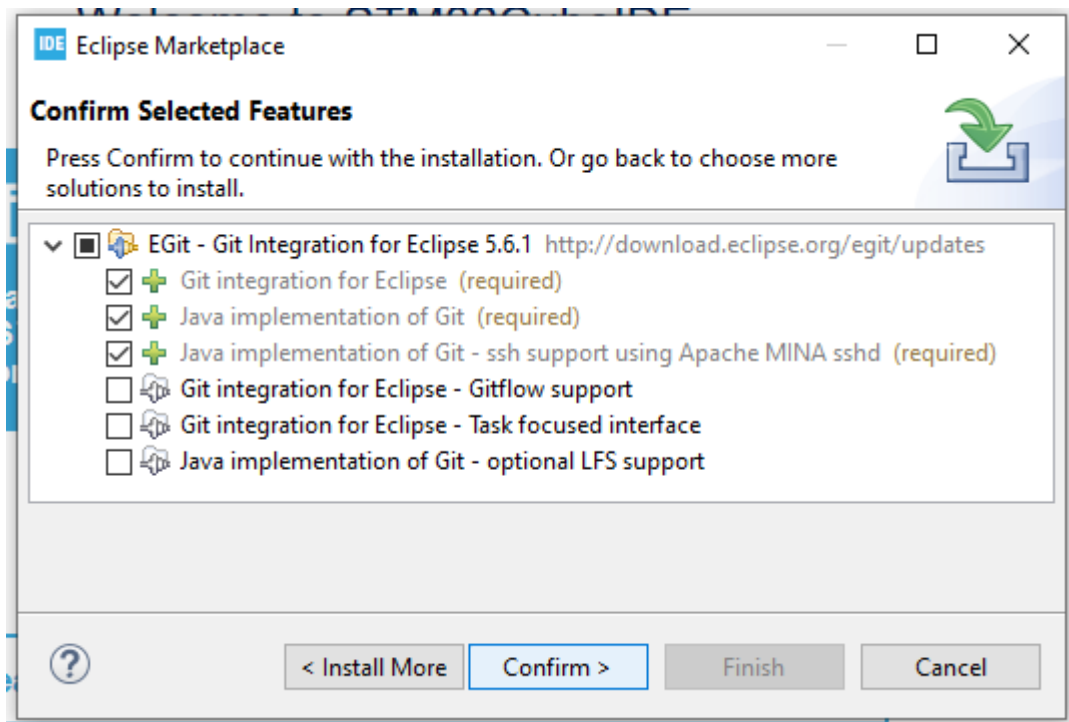Note: Add a firewall rule if necessary.

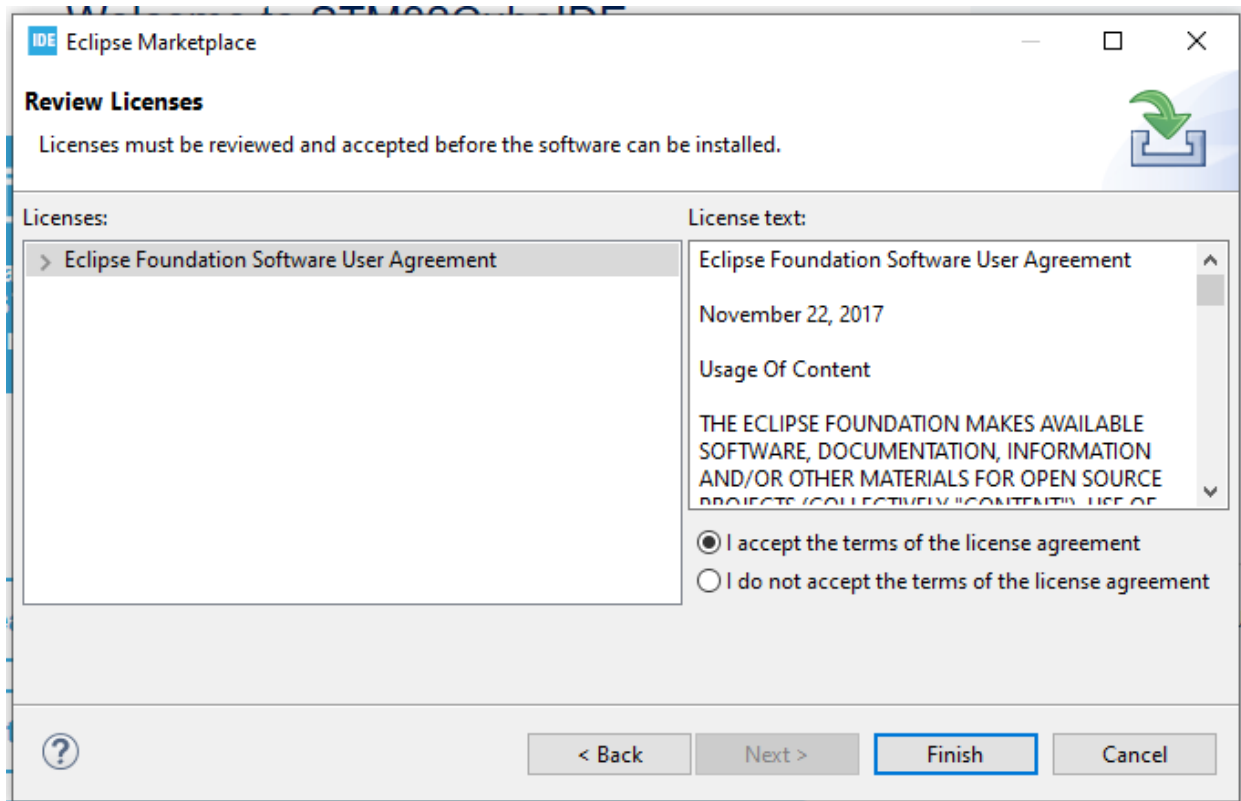If updates are available, install them first.
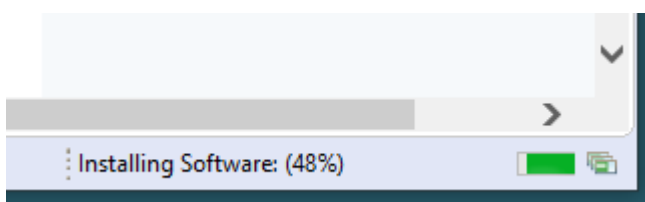

Open > Help > Eclipse Marketplace...

Enter "egit" in the search field and install the search result shown in the screenshot.
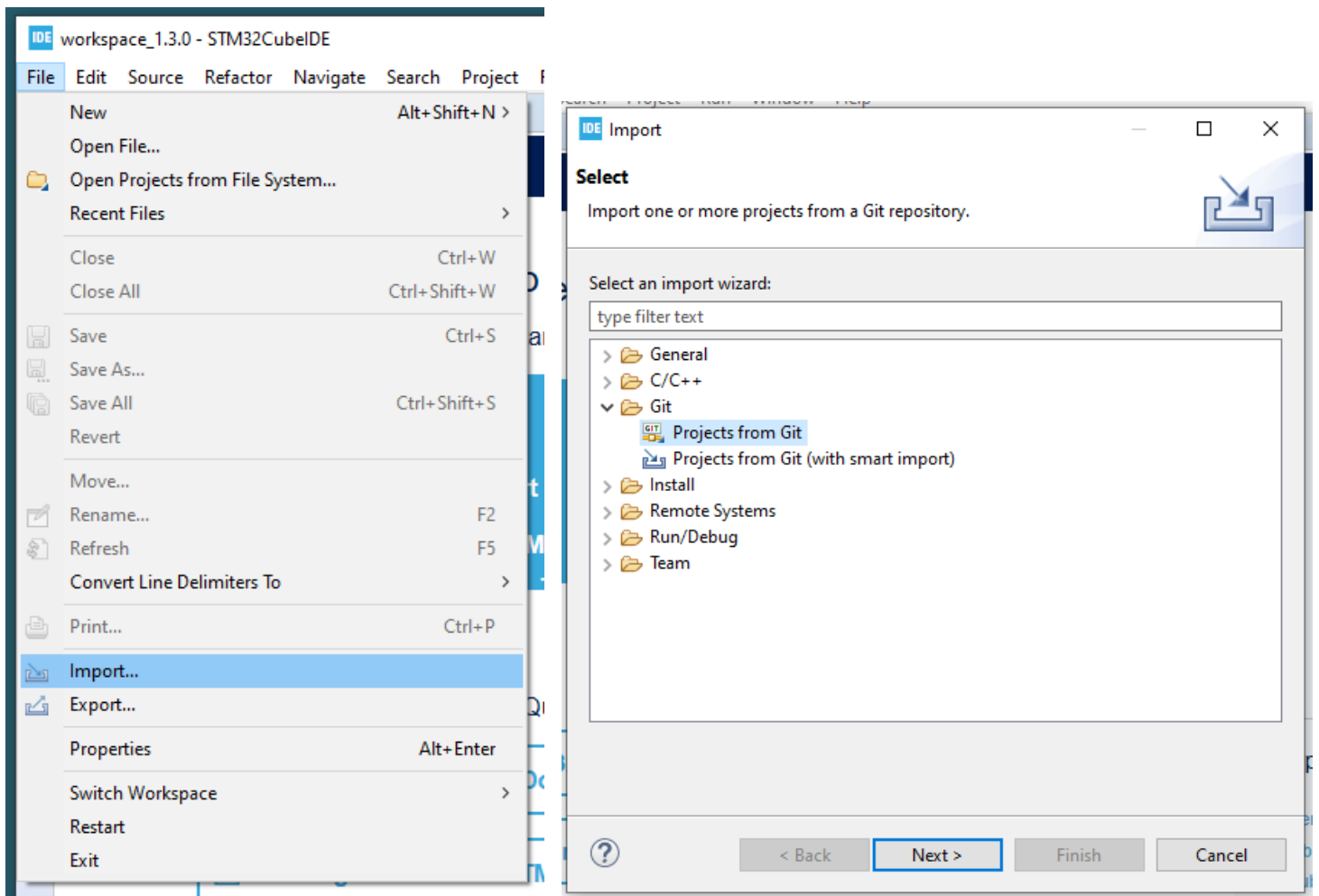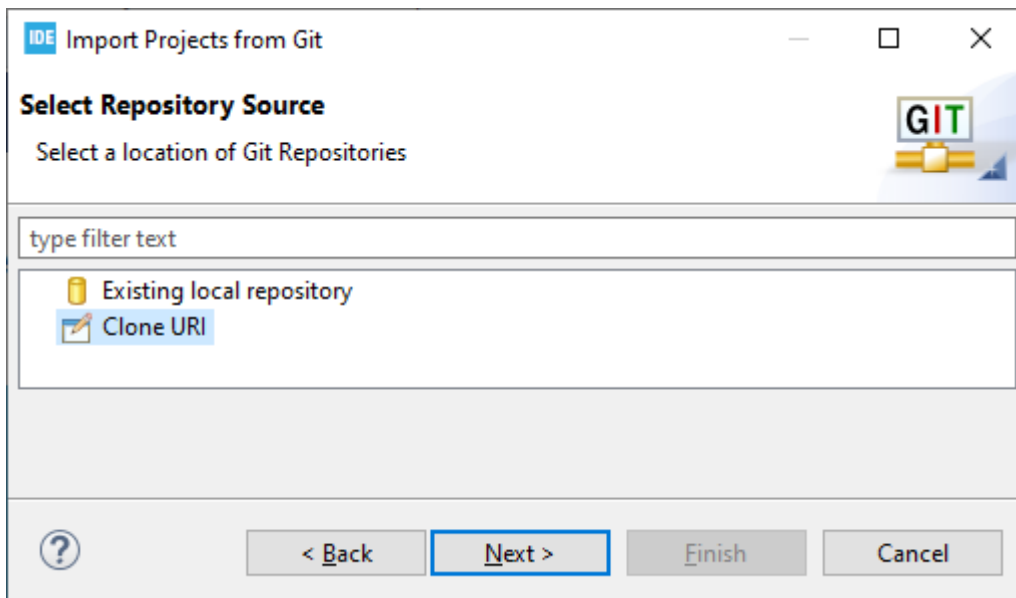

Click on "Confirm".

Read the license agreement and confirm that you agree with the terms with "I accept the terms..." and click "Finish".

Wait until the installation is complete, and then restart the Cube IDE.

Open the import window with > File > Import ..., select "Projects from Git"
and click on "Next".

Select "Clone URl" and click on "Next".

Enter the following GitHub address in the "URl" text box:
https://github.com/joy-it/strompi3
Then click on "Next".
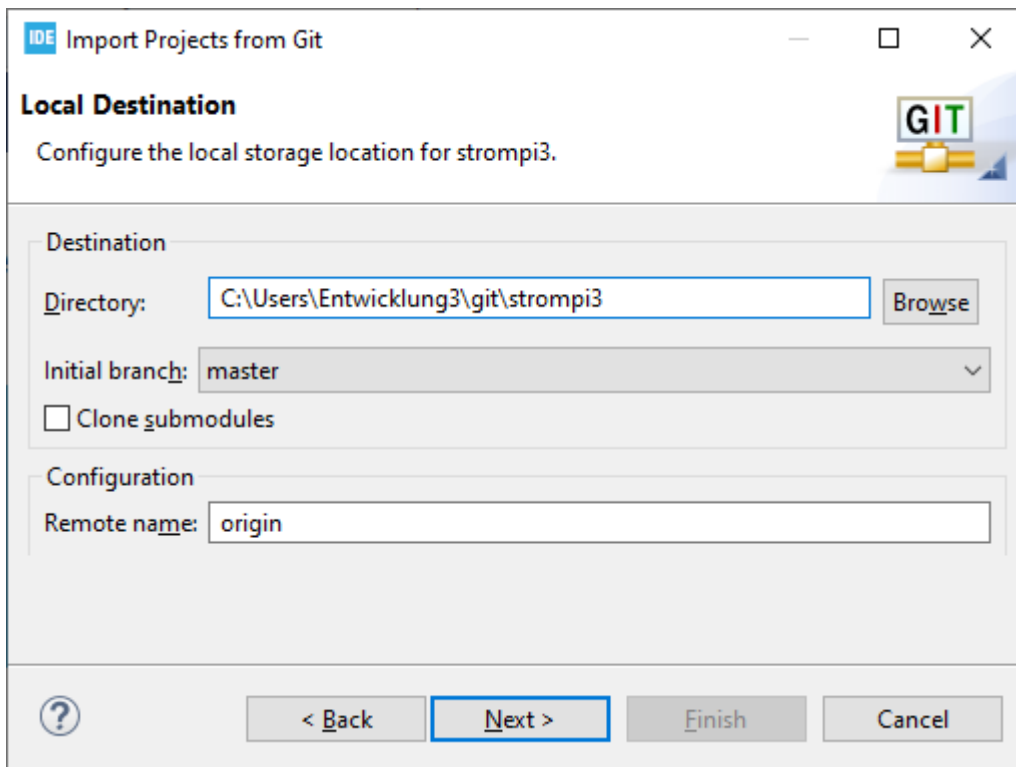
Click on „Next".
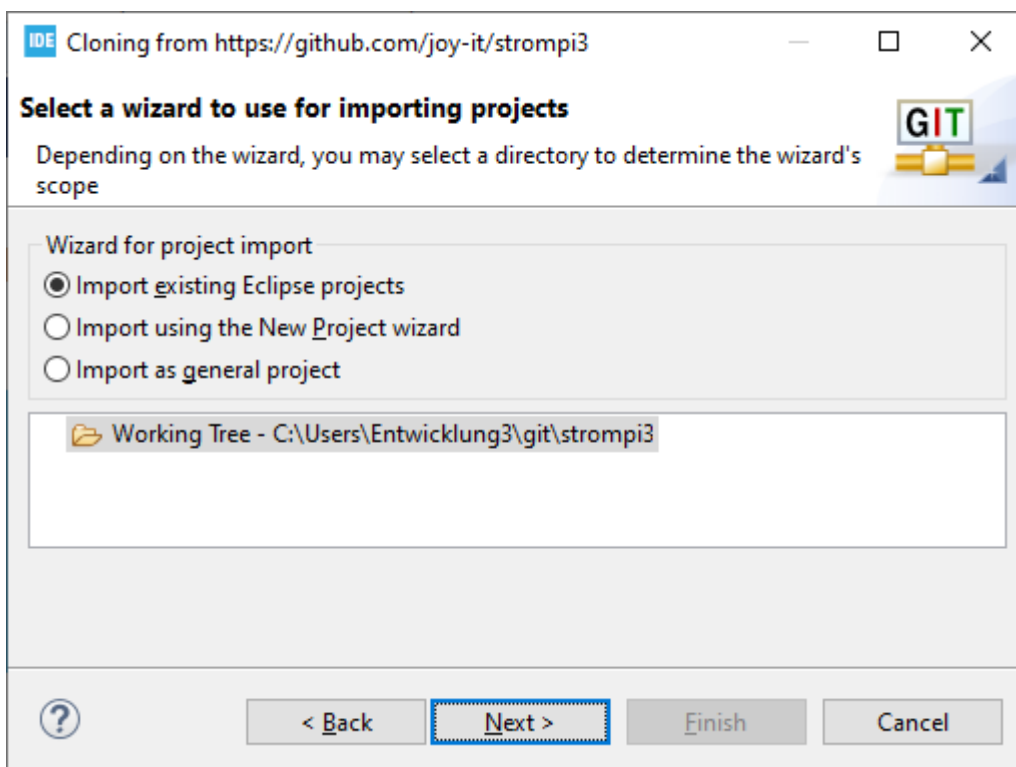
Click on „Next".
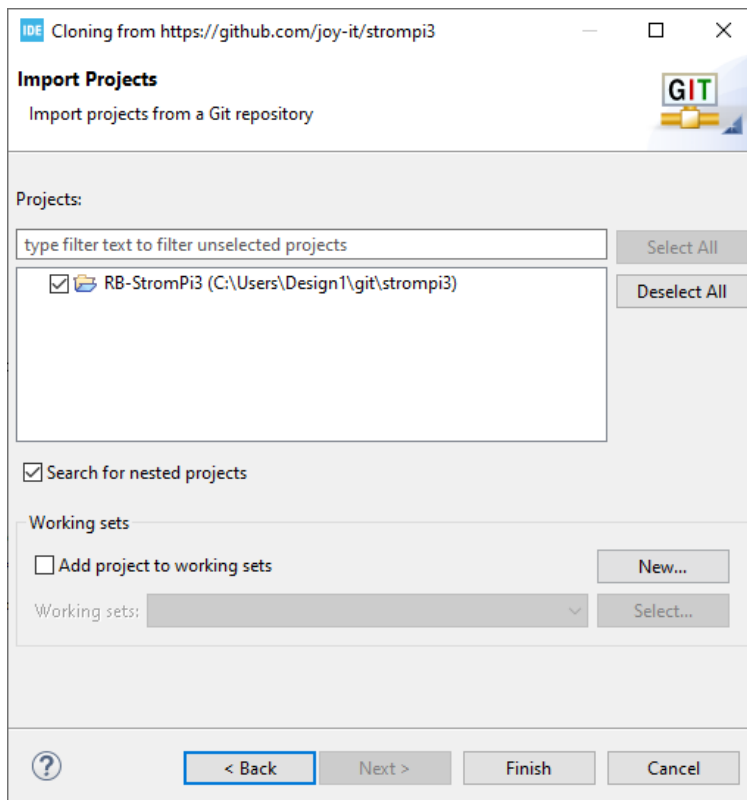
Click on „Next".

Click on „Next".
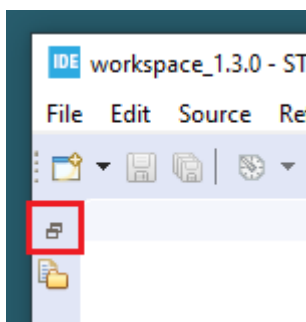
Now click on the marked icon to maximize the minimized project.
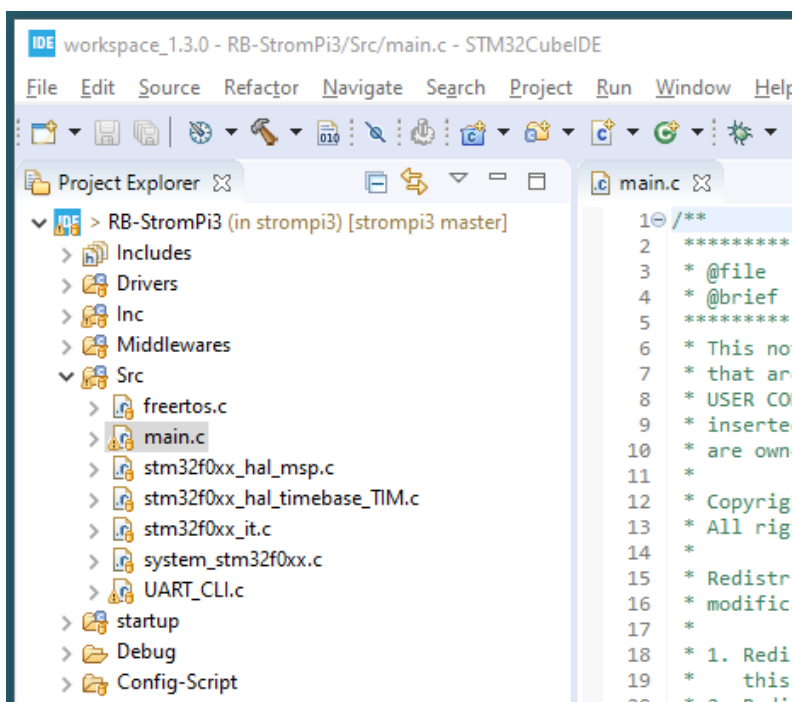
Open the file "main.c". Here it is now possible to make changes to the firmware.

In addition, you need to adjust a setting in the project properties, do the following:

Open the properties of the project.
Go to **C/C++ Build** ->**Settings** under **Tool Settings** go to **MCU GCC Compiler** -> **Miscellaneous**. Add a new flag there called "-fcommon" and apply the settings.
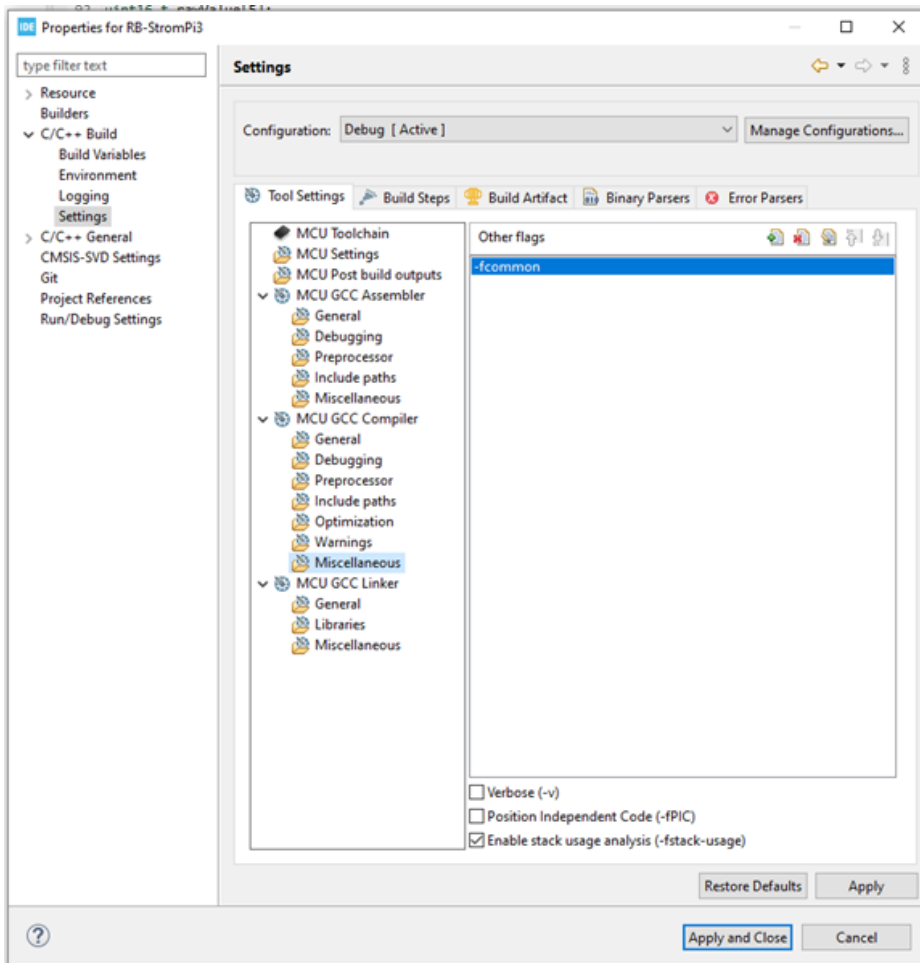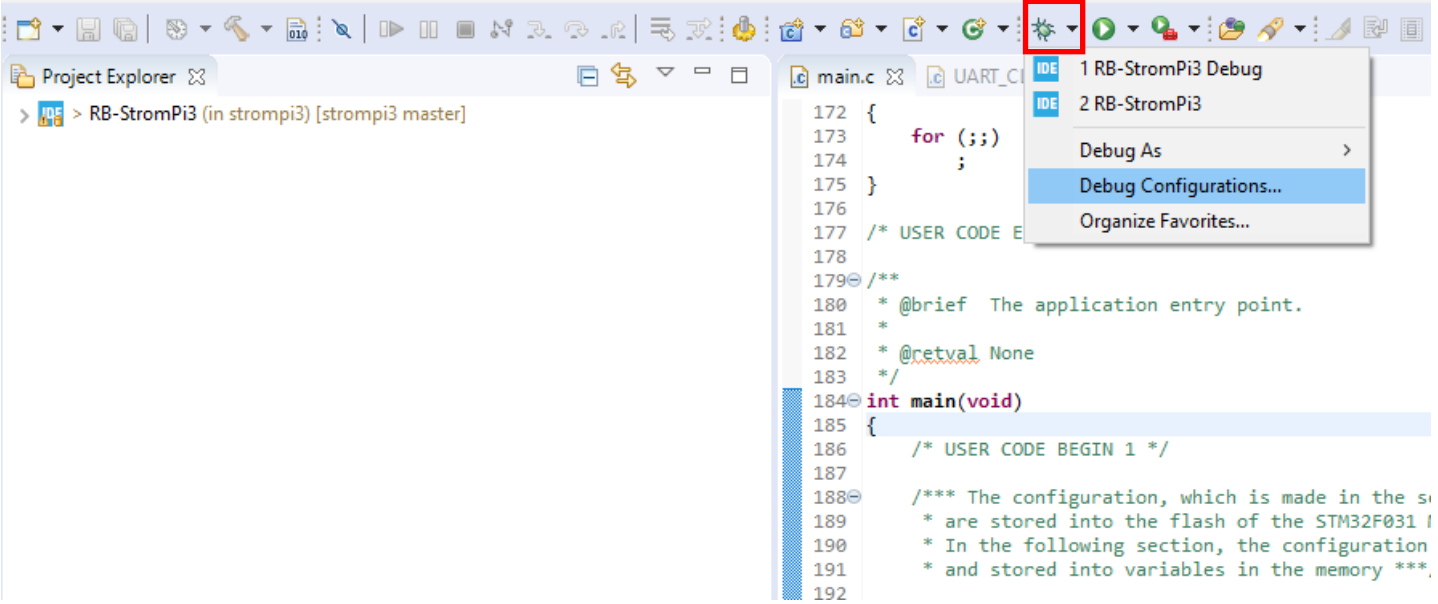
Open the Debug Configurations
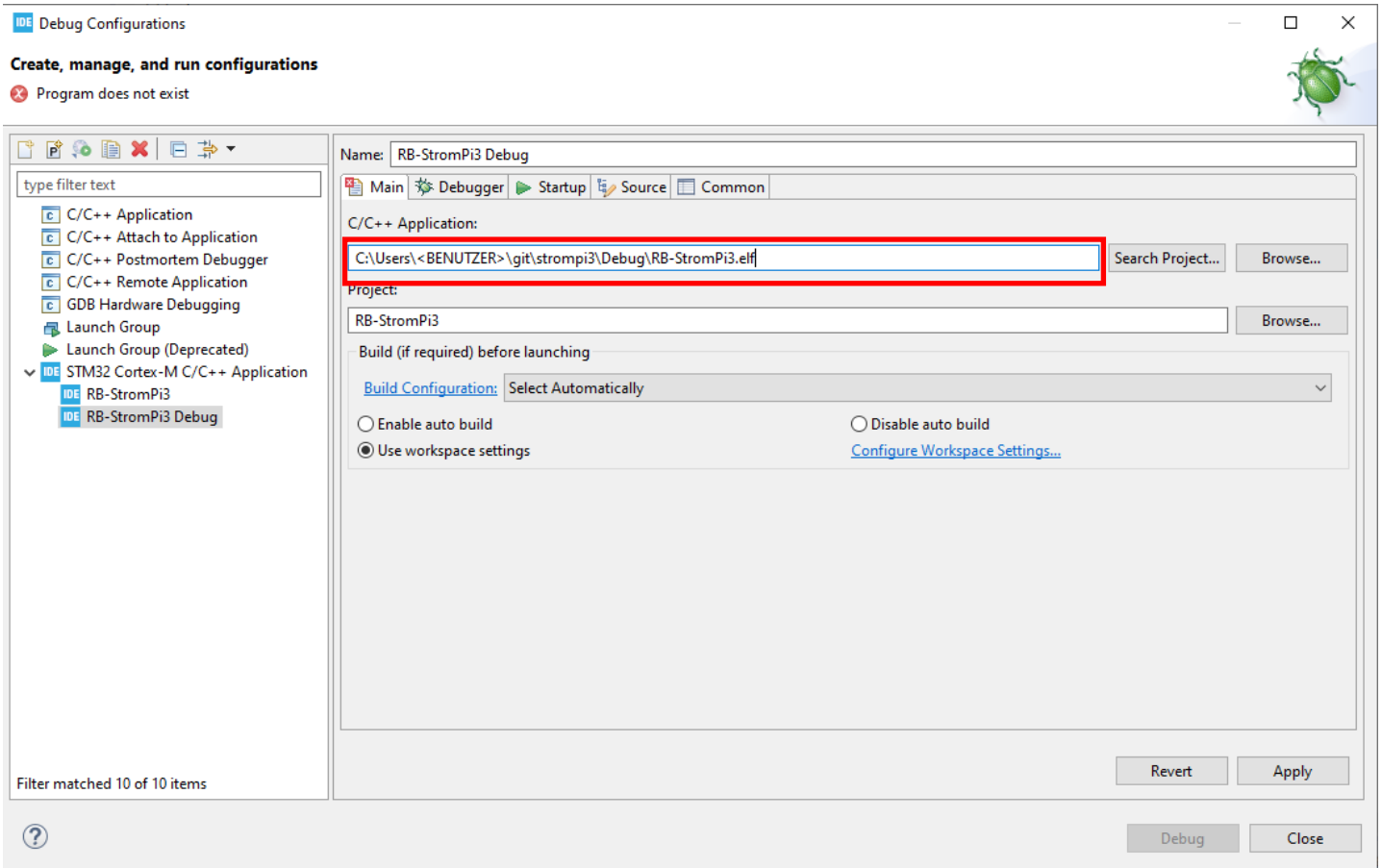
Enter your corresponding file path here
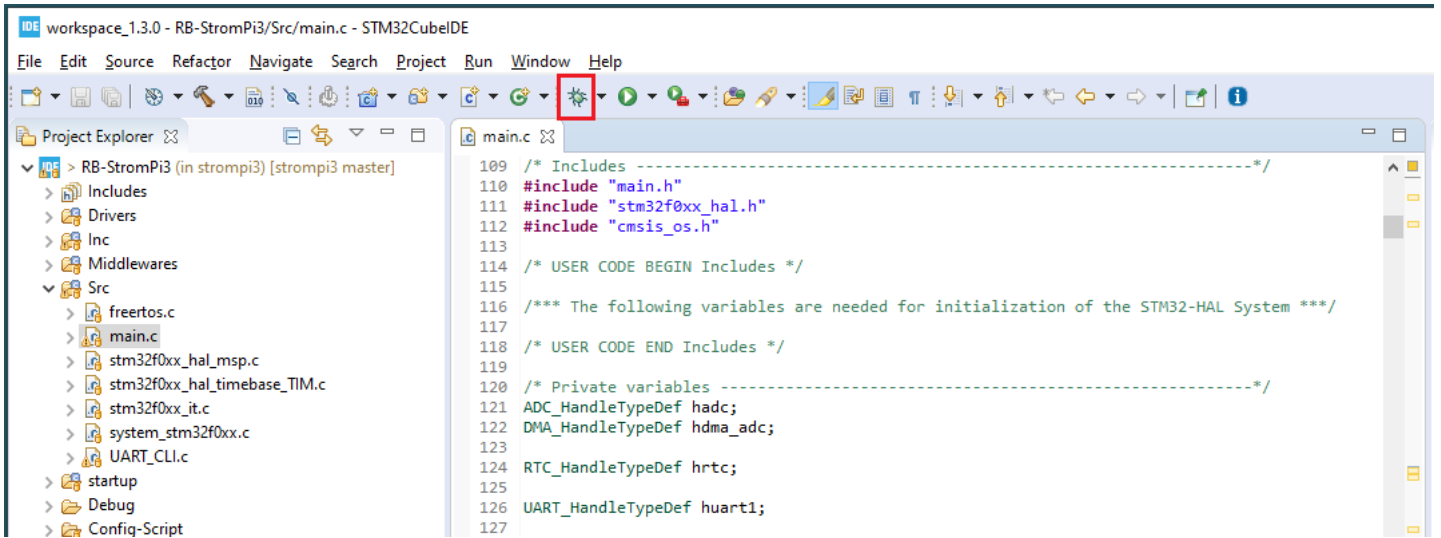
After you have made the desired changes to the firmware, you can start the debugging process by clicking the marked icon. By debugging the modified firmware, bugs can be found faster and the processes within the firmware can be viewed better.

If you have not connected a debugger, the following error message will appear:
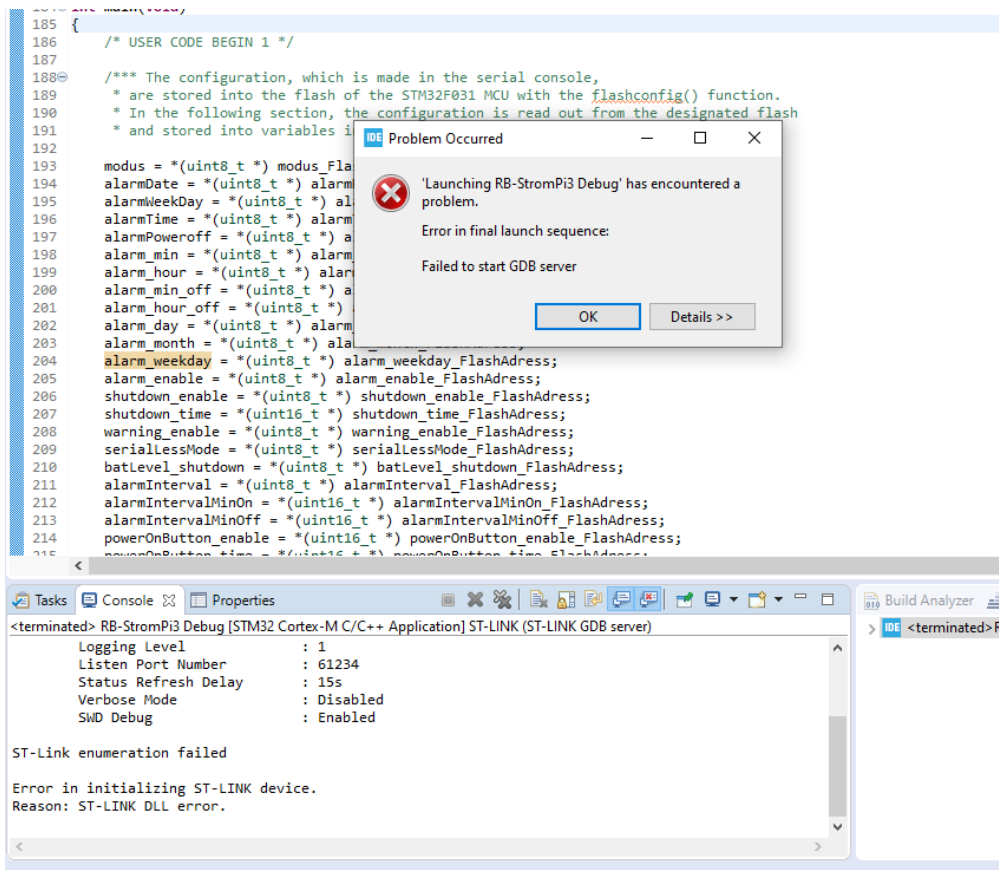
However, the binary file is still created.

By clicking on **Build All**, all files will be compiled and compressed.
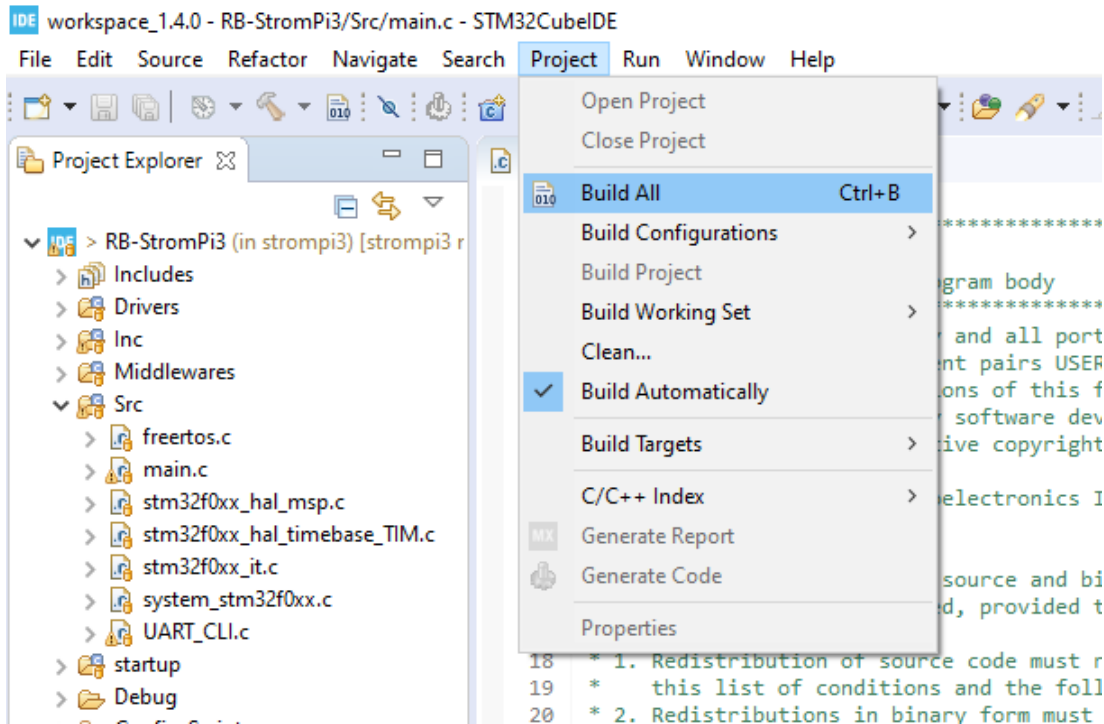
If no errors occur, the created binary file (.bin) is saved under

"C:\Users\<User>\git\strompi3\Debug\RB-StromPi3.bin"

This file can then be transferred to the StromPi 3 according to the Flash instructions.
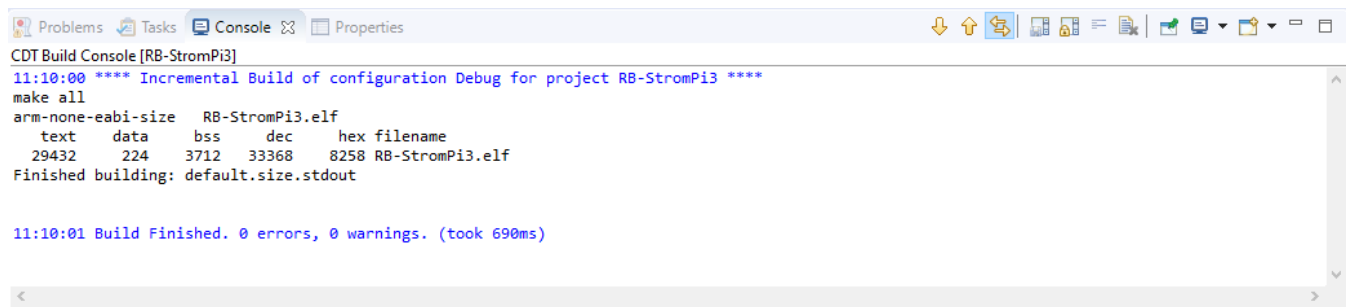
When using a debugger, connect the marked solder pads to the pins of the debugger as shown in the figure.

- ──── = GND
- ──── = SWCLK
- ──── = SWDIO
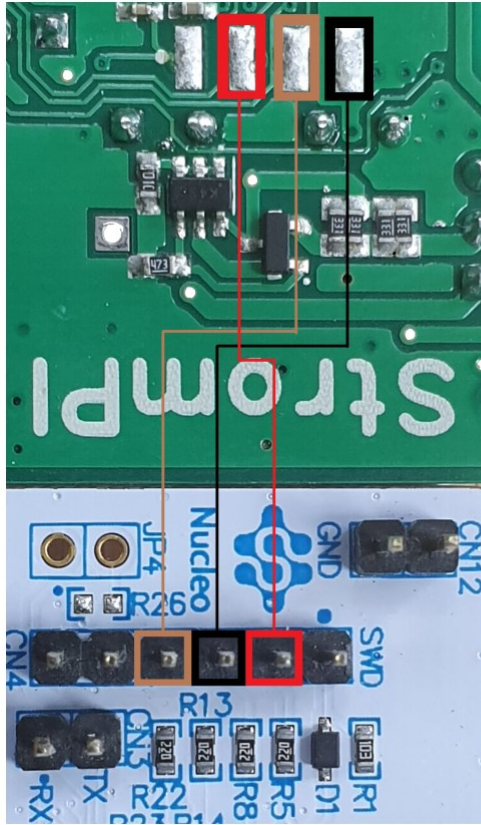
Our information and take-back obligations according to the Electrical and Electronic Equipment Act (ElektroG)

Symbol on electrical and electronic equipment:

This crossed-out dustbin means that electrical and electronic appliances do not belong in the household waste. You must return the old appliances to a collection point.
Before handing over waste batteries and accumulators that are not enclosed by waste equipment must be separated from it.

Return options:
As an end user, you can return your old device (which essentially fulfils the same function as the new device purchased from us) free of charge for disposal when you purchase a new device.
Small appliances with no external dimensions greater than 25 cm can be disposed of in normal household quantities independently of the purchase of a new appliance.

Possibility of return at our company location during opening hours:
SIMAC Electronics GmbH, Pascalstr. 8, D-47506 Neukirchen-Vluyn, Germany

Possibility of return in your area:
We will send you a parcel stamp with which you can return the device to us free of charge. Please contact us by email at Service@joy-it.net or by telephone.

Information on packaging:
If you do not have suitable packaging material or do not wish to use your own, please contact us and we will send you suitable packaging.

6. SUPPORT

If there are still any issues pending or problems arising after your purchase, we will support you by e-mail, telephone and with our ticket support system.

Email: **service@joy-it.net**

Ticket system: http://support.joy-it.net

Telephone: +49 (0)2845 98469-66 (Mon - Thur: 10:00 - 17:00 o'clock,
                                          Fri: 10:00 - 14:30 o'clock)

For further information please visit our website:

www.joy-it.net

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