

Setup STM environment

This document will contain the following points:

- Download software
- Create start project LED blink

1. Download software

At the beginning, we need to install and setup next software:

- [STM32CubeIDE](#) and [STM32CubeMX](#)(installation process is the same)

First, follow the link to the software website (click on the name above):

The screenshot shows the STM32CubeIDE product page. At the top, there's a navigation bar with links like 'Careers', 'Sample & buy', 'Support & community', and language options. Below this is a secondary navigation bar with 'Products', 'Tools & software', 'Applications', 'Solutions', 'ST Developer Zone', and 'About us'. A search bar and shopping cart icon are on the right. The main content area has a breadcrumb trail: 'Development tools > Software development tools > STM32 software development tools > STM32 IDEs > STM32CubeIDE'. The product name 'STM32CubeIDE' is prominently displayed with a green 'ACTIVE' tag. Below it, the text 'Integrated Development Environment for STM32' is shown. Two buttons are visible: 'Get Software' (highlighted with a red box) and 'Download databrief'. A 'Save to myST' button is also present. At the bottom of this section, there are tabs for 'Overview', 'Documentation', and 'Tools & Software'.

Product overview

Description All features Get Software Featured Products Featured Videos Recommended for you

Description

STM32CubeIDE is an all-in-one multi-OS development tool, which is part of the STM32Cube software ecosystem.

This screenshot shows the 'Get Software' section of the STM32CubeIDE product page. It features a table with columns for 'Part Number', 'General Description', 'Latest version', 'Download', and 'All versions'. There are five rows of software packages listed. Below the table, a note states: 'STMicroelectronics recommends always keeping your software up to date'. The page also includes the same top navigation bar as the previous screenshot.

Get Software

	Part Number	General Description	Latest version	Download	All versions
+	STM32CubeIDE-DEB	STM32CubeIDE Debian Linux Installer	2.0.0	Get latest	Select version
+	STM32CubeIDE-Lnx	STM32CubeIDE Generic Linux Installer	2.0.0	Get latest	Select version
+	STM32CubeIDE-Mac	STM32CubeIDE macOS Installer	2.0.0	Get latest	Select version
+	STM32CubeIDE-RPM	STM32CubeIDE RPM Linux Installer	2.0.0	Get latest	Select version
+	STM32CubeIDE-Win	STM32CubeIDE Windows Installer	2.0.0	Get latest	Select version

STMicroelectronics recommends always keeping your software up to date

Featured Products

After selecting of version, accept license agreement (after that ST will send a link to your e-mail. Installer will be downloaded via that link).

Run the downloaded installer and follow its instructions.

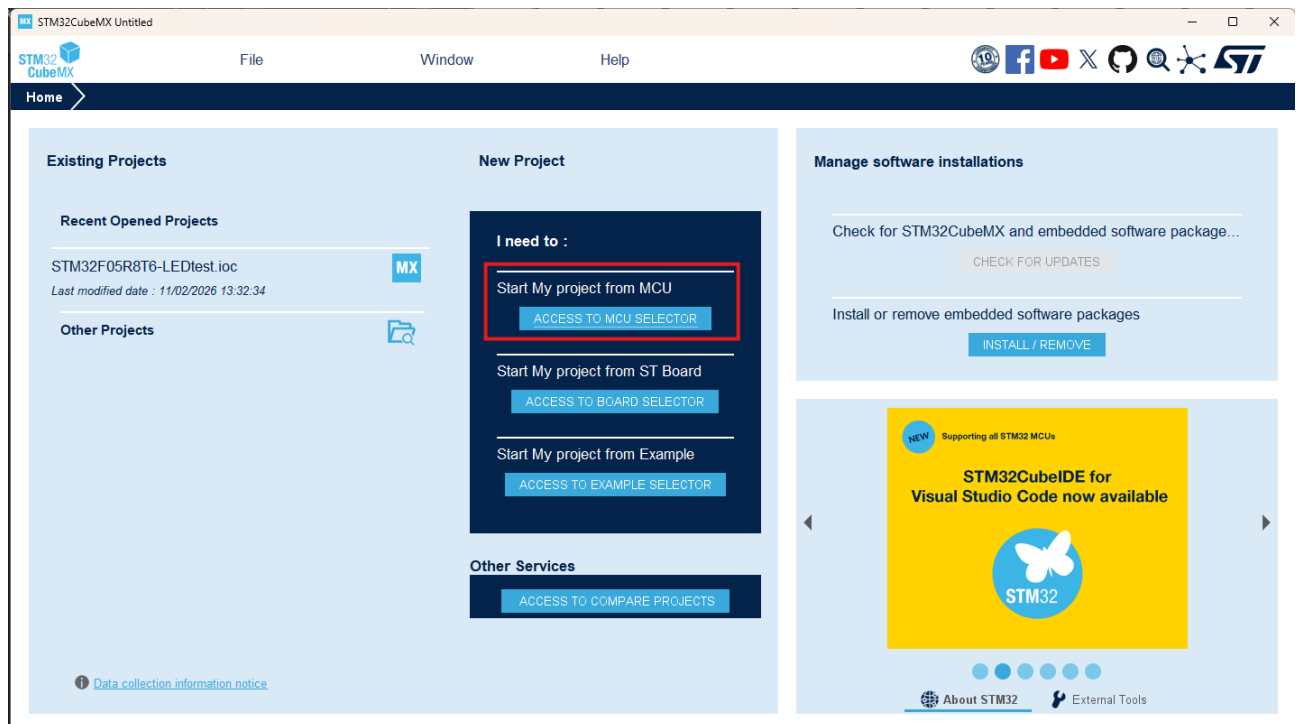
- Keil

1. Fill the required fields in form
2. If Ukraine is not available from the “Country/Region” selection,
3. select Poland.
4. Download MDK*.exe.
5. Run the downloaded installer and follow its instructions.

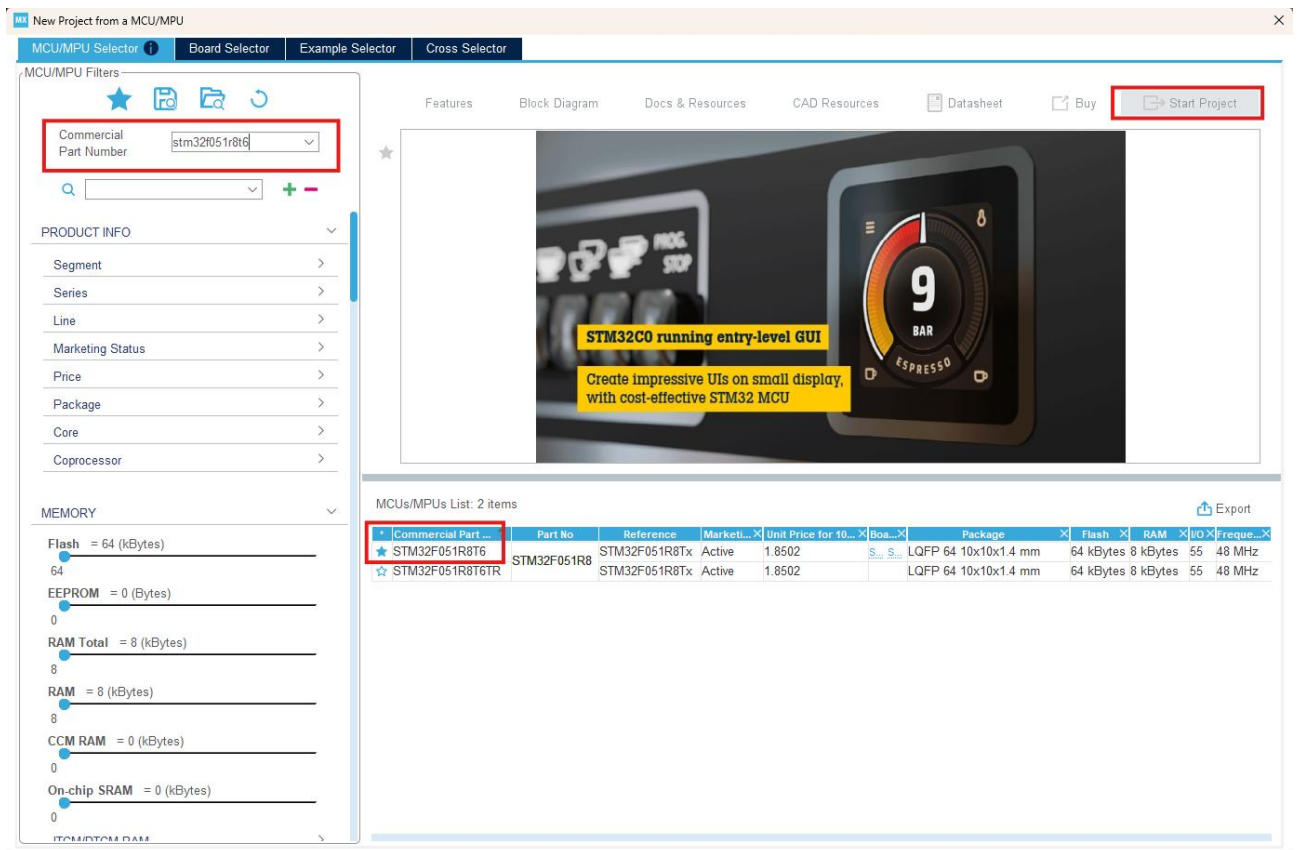
2. Start project (LED blink)

To do this, we need to open CubeMX and follow these steps:

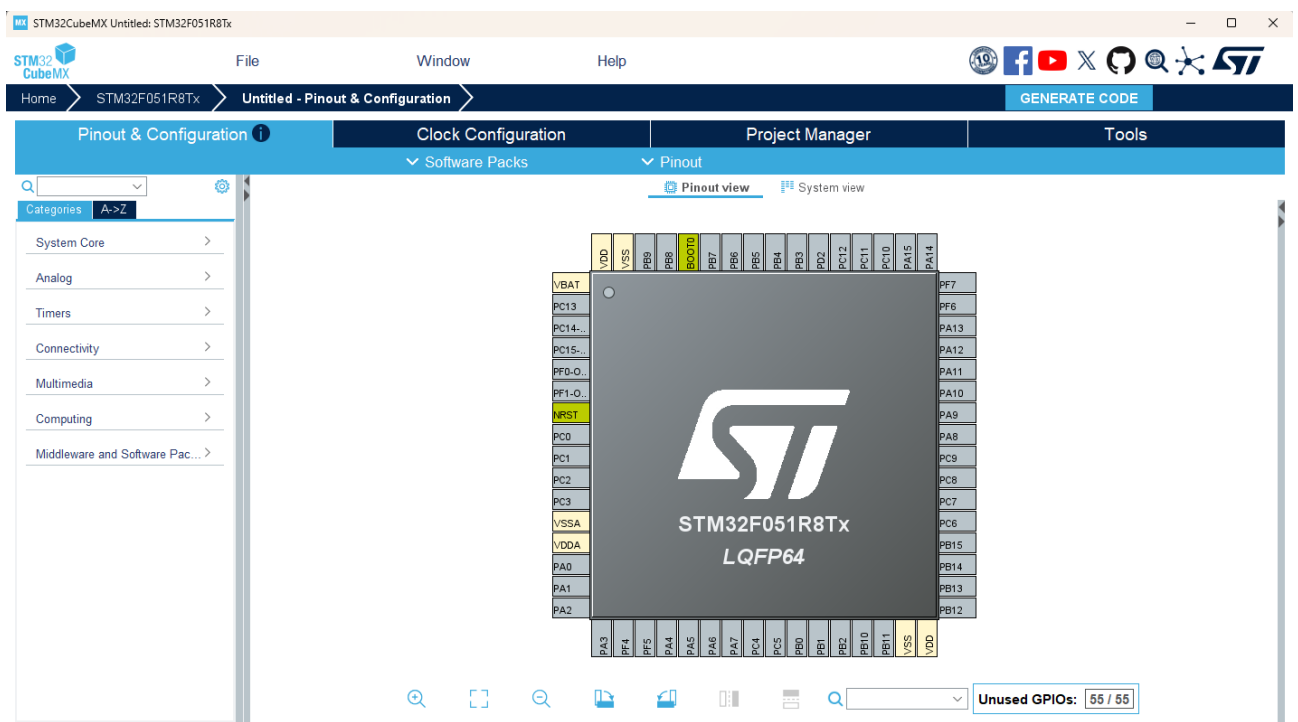
- Select “Start My project from MCU”



Next, we search for our microcontroller (in our case, it will be STM32F051R8T6), select it, and click "Start Project."

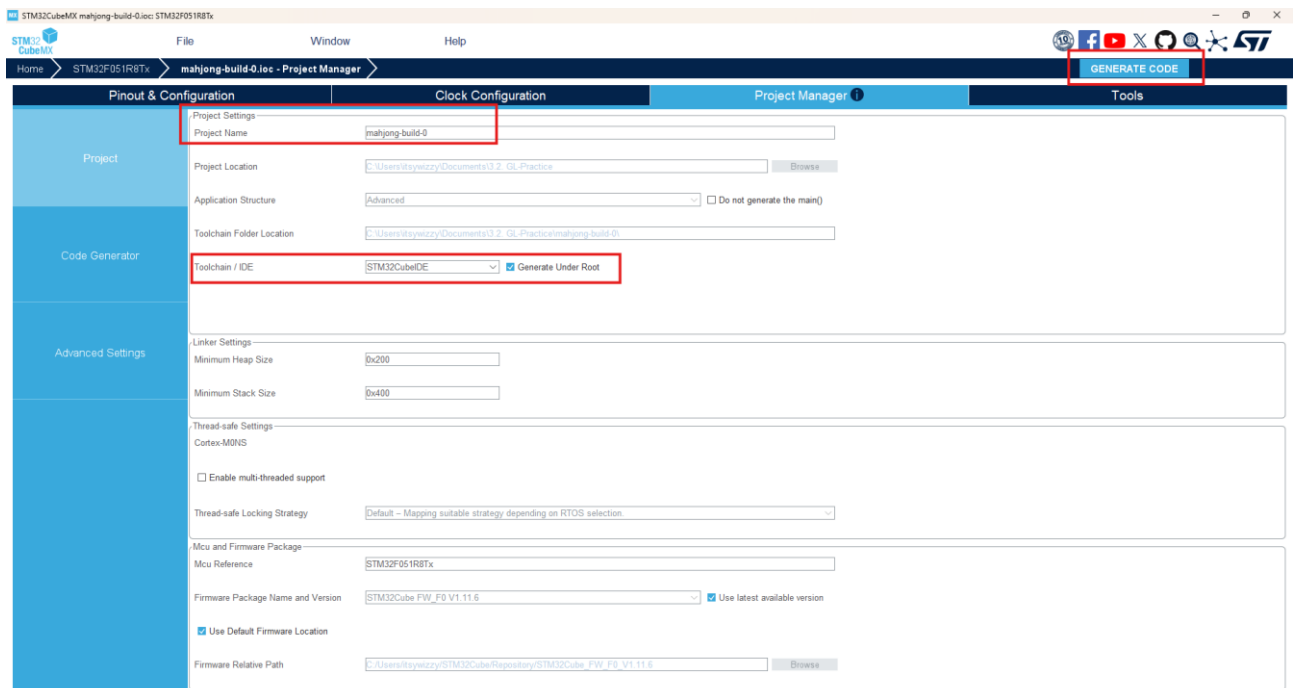


After loading, we will see the following:



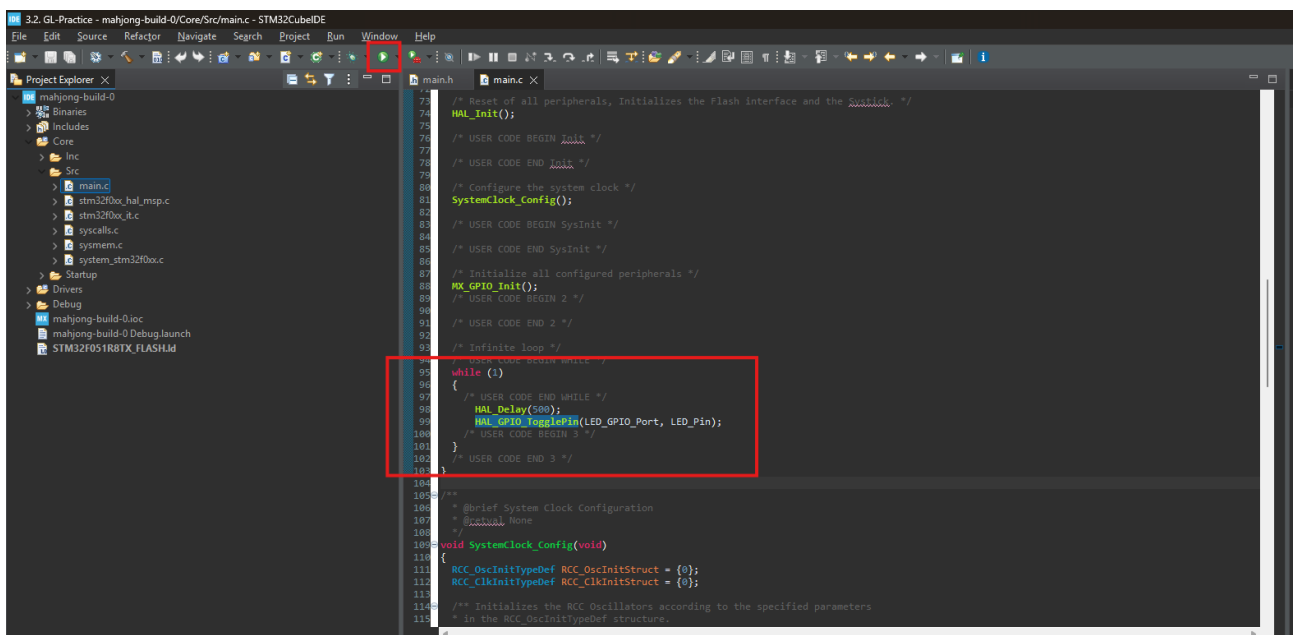
According to the datasheet, the pins for the LED are connected as follows:

- User LD3: Green user LED connected to the I/O PC9 of the STM32F051R8T6.
- User LD4: Blue user LED connected to the I/O PC8 of the STM32F051R8T6.



After pressing “Generate code”, we can configure code in STM32CubeIDE.

- Adding code for blinking LED:



After all this, press “Run” and wait for the microcontroller to be flashed (and don't forget to connect the board before doing this).