华欧仪器

STM32CubeMX 软件——搭建环境、编译烧写

GF-135 传感器实验箱

HUAOU

2024.01

山东华欧信息技术有限公司

目 录

一、软件安装

1.1 安装 Keil 5

官网下载：http://www2.keil.com/mdk5/

百度网盘：https://pan.baidu.com/s/18t_ta0WWX_f1KCKXfgj_Zw 提取码：gx3r

1.2 安装 JRE

由于 STM32CubeMX 软件是基于 JAVA 环境运行的，所以需要安装 JRE 才能使用，STM32CubeMX 要求 JRE 最低版本是 1.7.0_45。

官网下载：https://www.oracle.com/java/technologies/javase-jre8-downloads.html

百度网盘：下面百度网盘链接中

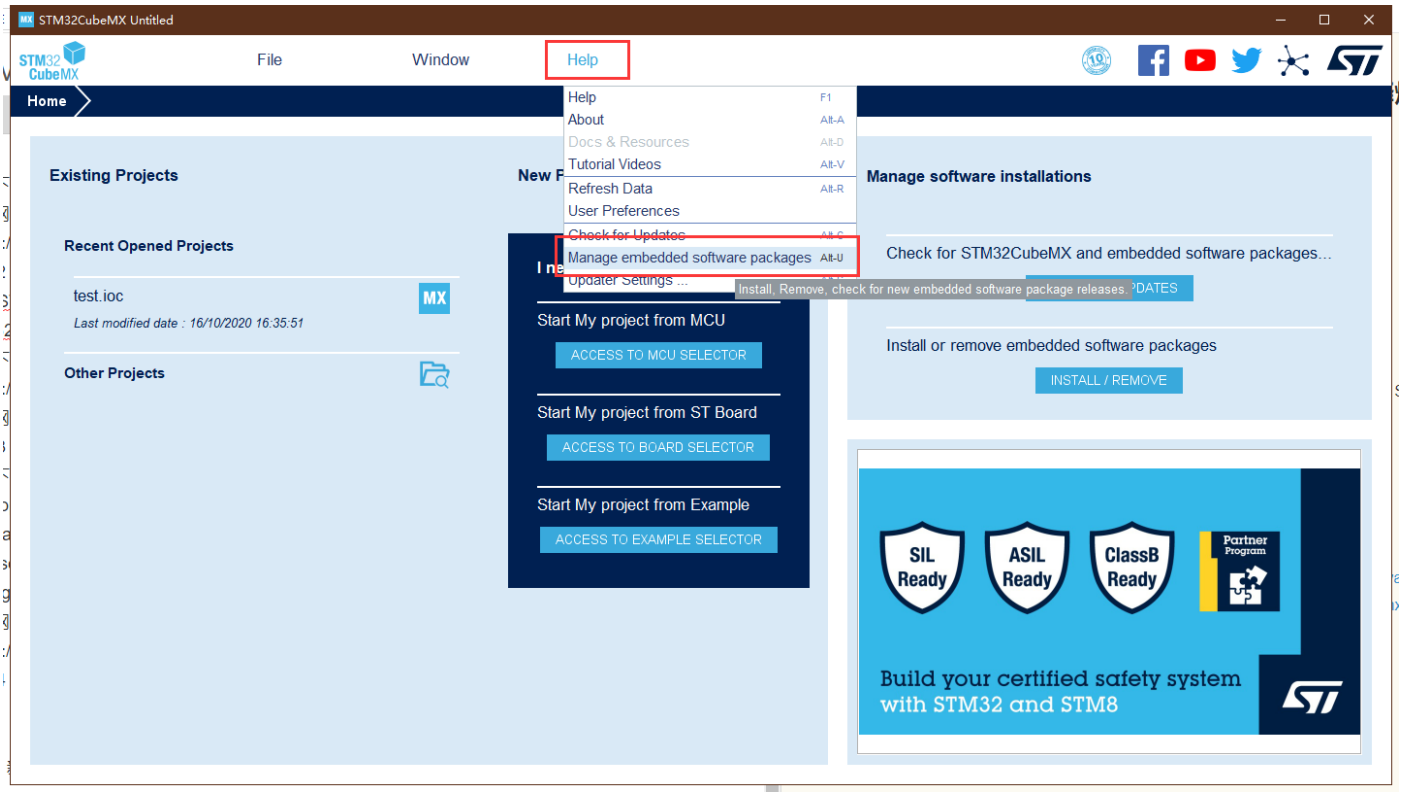
1.3 安装 STM32CubeMX

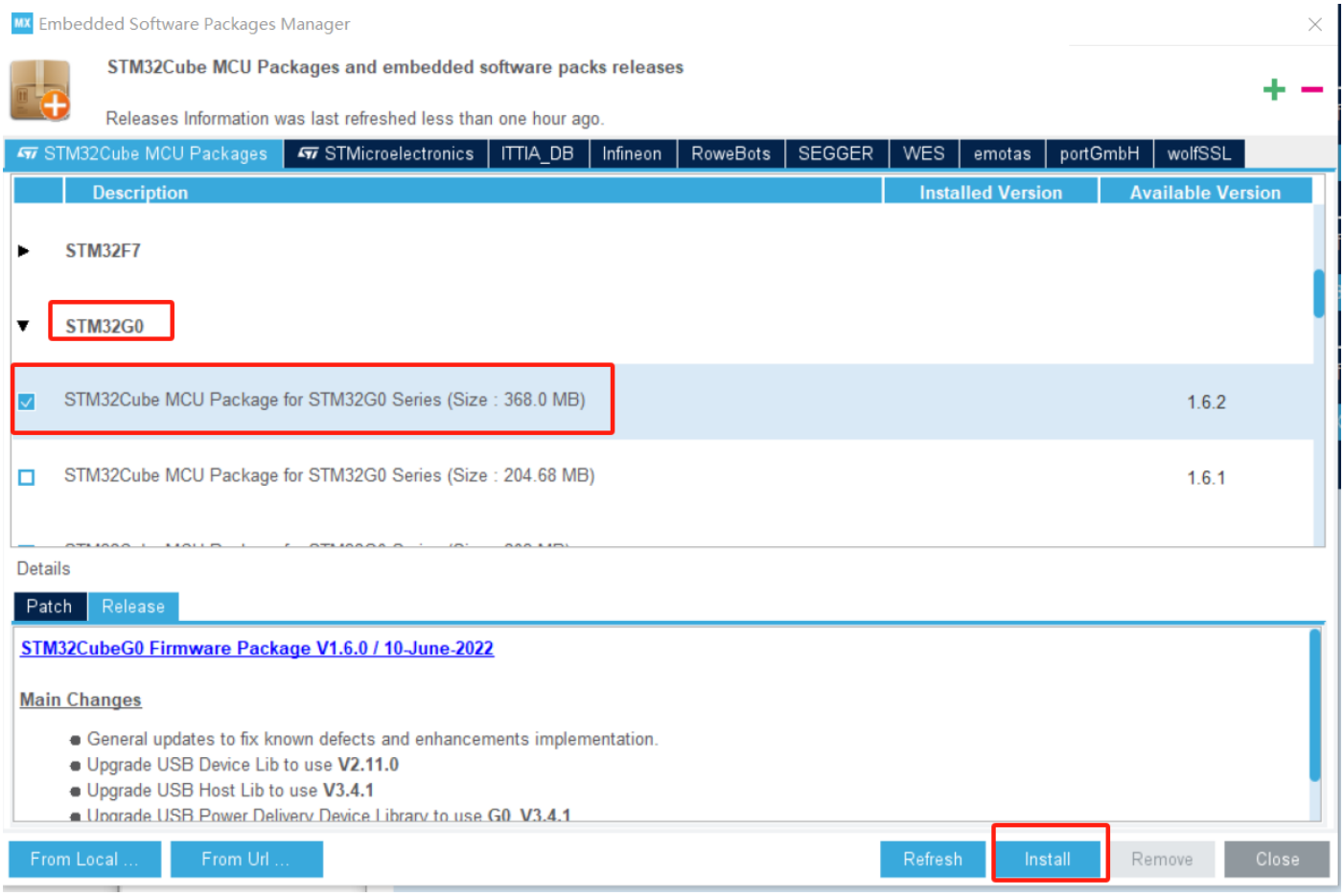
官网下载：https://www.st.com/content/st_com/en/products/development-tools/software-development-tools/stm32-software-development-tools/stm32-configurators-and-code-generators/stm32cubemx.html

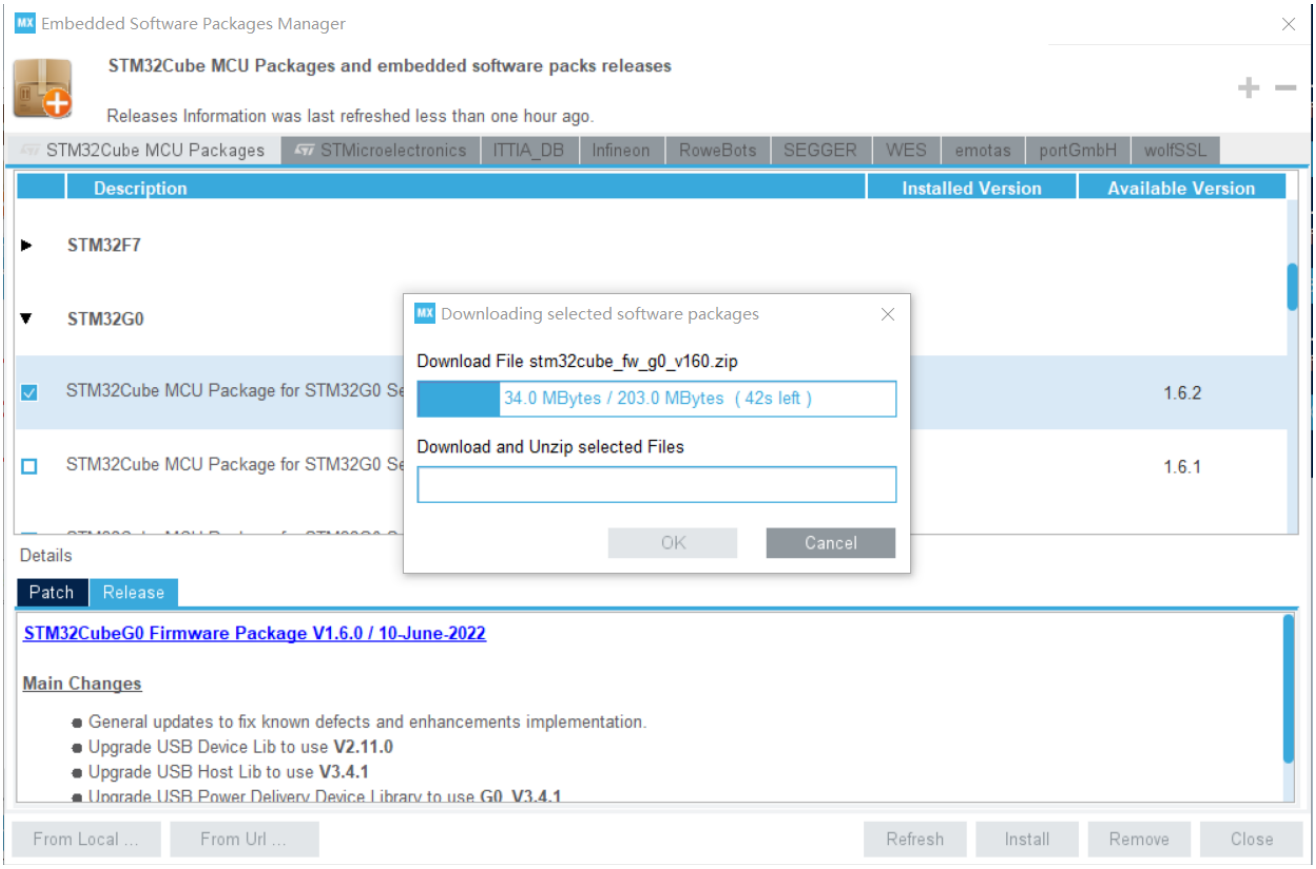
百度网盘：https://pan.baidu.com/s/1r0liWTVxgUoxzg6yWd6YPA 提取码：cl6e

（原文链接：https://blog.csdn.net/qq_36347513/article/details/109260851）

1.4 安装 STM32 库（固件支持包）

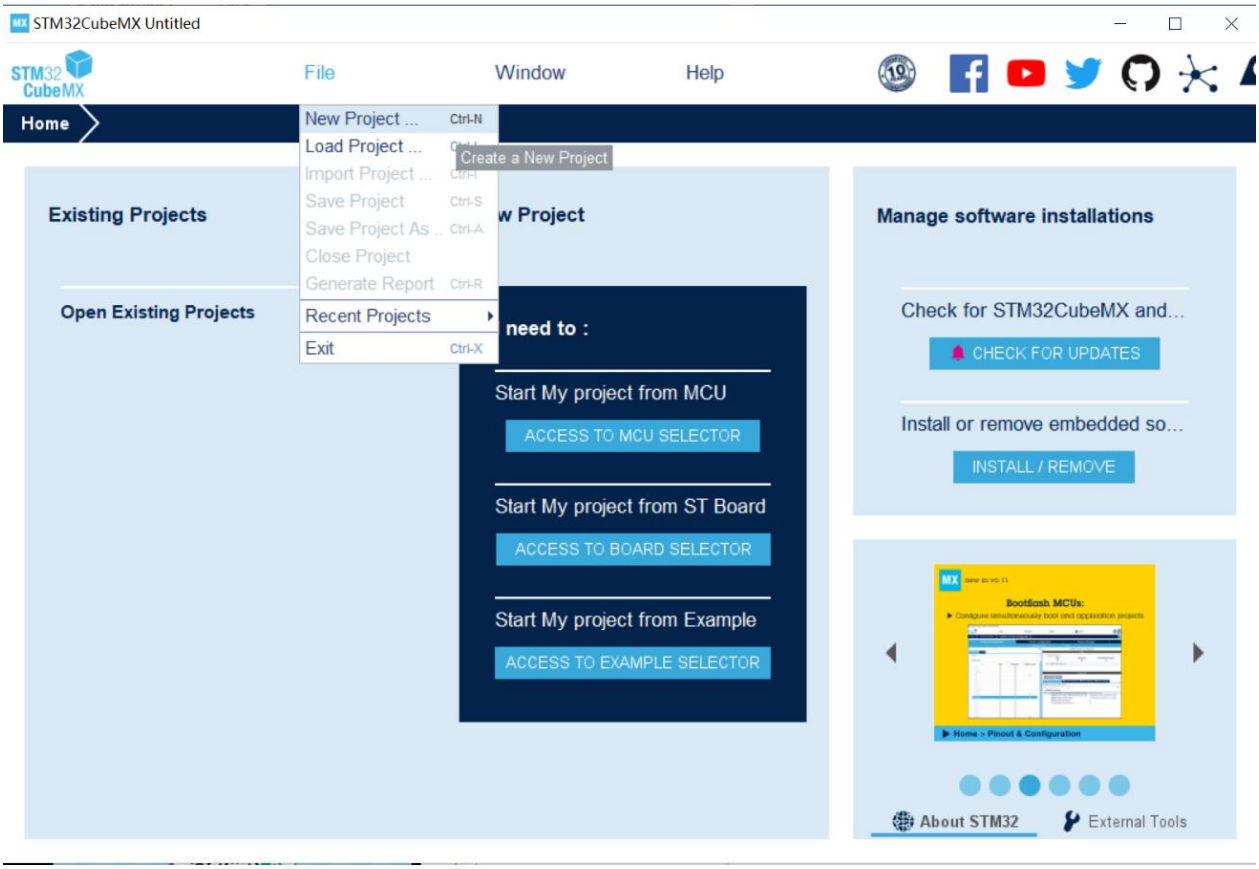



Embedded Software Packages Manager
STM32Cube MCU Packages and embedded software packs releases
Releases Information was last refreshed less than one hour ago.
STM32Cube MCU Packages
STMicroelectronics
ITTIA_DB
Infineon
RoweBots
SEGGER
WES
emotas
portGmbH
wolfSSL
Description
Installed Version
Available Version
STM32F7
STM32G0
STM32Cube MCU Package for STM32G0 Series (Size : 368.0 MB)
1.6.2
STM32Cube MCU Package for STM32G0 Series (Size : 204.68 MB)
1.6.1
Details
Patch
Release
STM32CubeG0 Firmware Package V1.6.0 / 10-June-2022
Main Changes
General updates to fix known defects and enhancements implementation.
Upgrade USB Device Lib to use V2.11.0
Upgrade USB Host Lib to use V3.4.1
From Local ...
From Url ...
Refresh
Install
Remove
Close

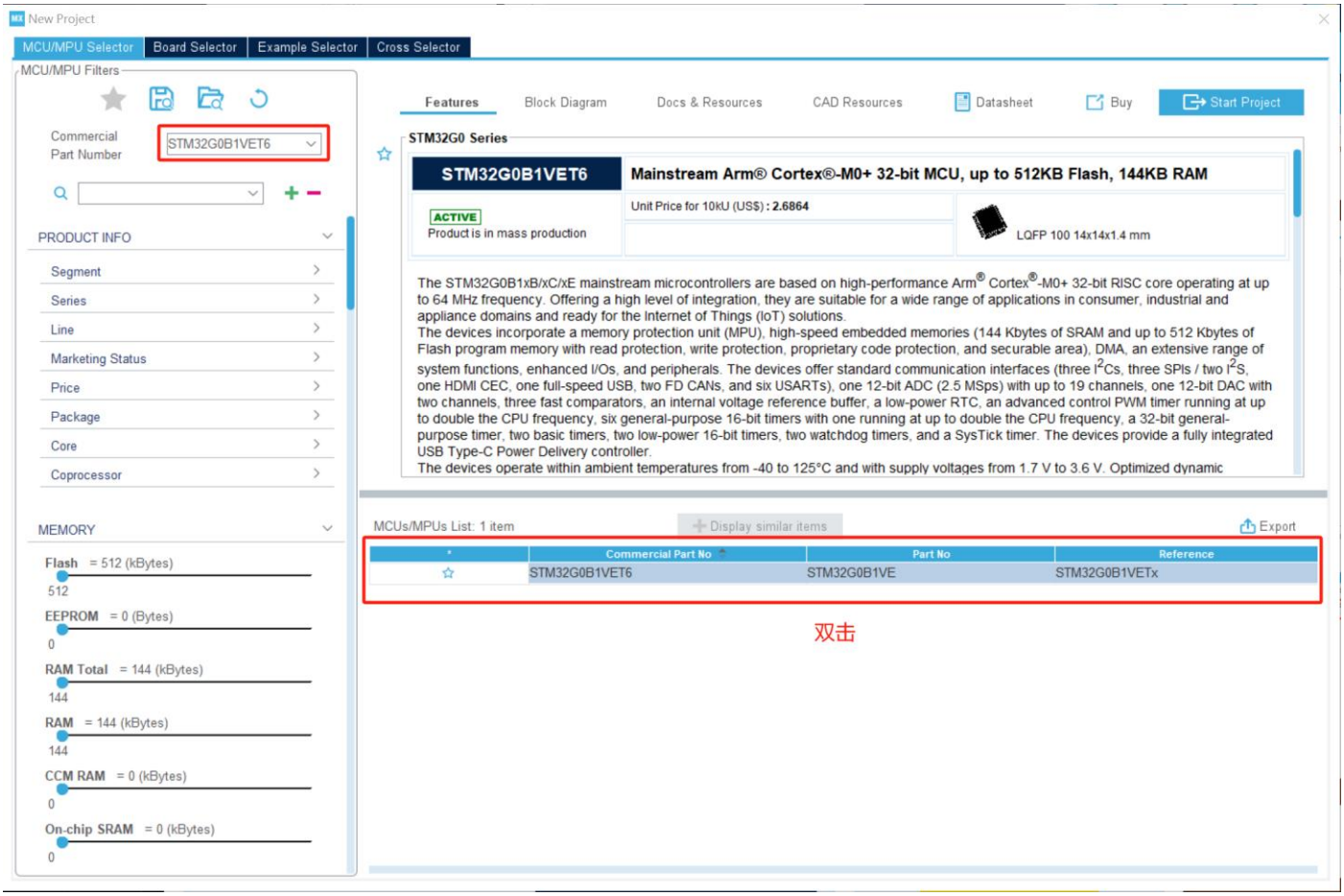

Embedded Software Packages Manager
STM32Cube MCU Packages and embedded software packs releases
Releases Information was last refreshed less than one hour ago.
Downloading selected software packages
Download File stm32cube_fw_g0_v160.zip
34.0 MBytes / 203.0 MBytes (42s left)
Download and Unzip selected Files
OK
Cancel
STM32F7
STM32G0
1.6.2
1.6.1
Details
Patch
Release
STM32CubeG0 Firmware Package V1.6.0 / 10-June-2022
Main Changes
General updates to fix known defects and enhancements implementation.
Upgrade USB Device Lib to use V2.11.0
Upgrade USB Host Lib to use V3.4.1
From Local ...
From Url ...
Refresh
Install
Remove
Close

二、新建工程

1. 打开 STM32CubeMX 软件，点击“新建工程”

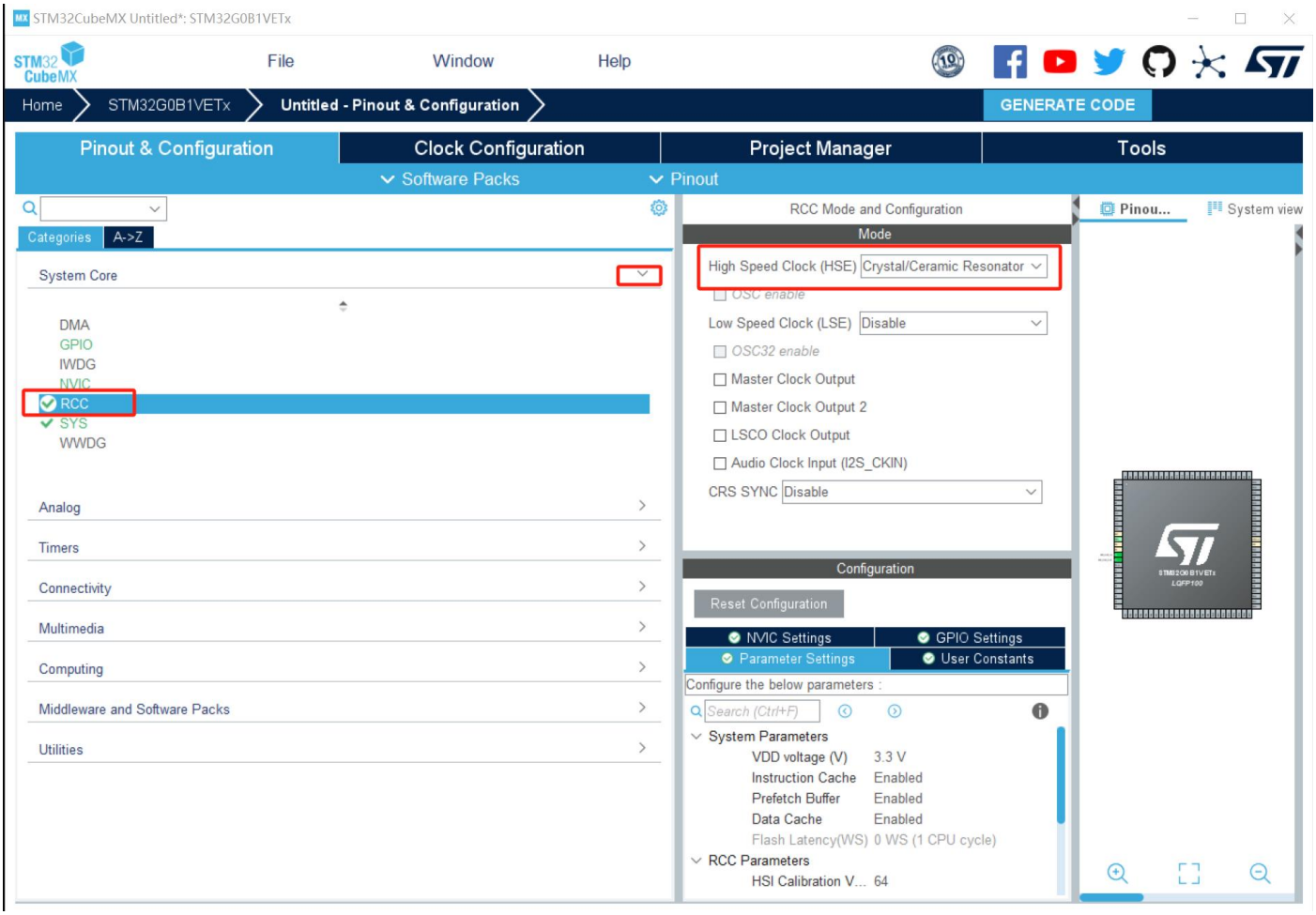


2. 选择 MCU 和封装



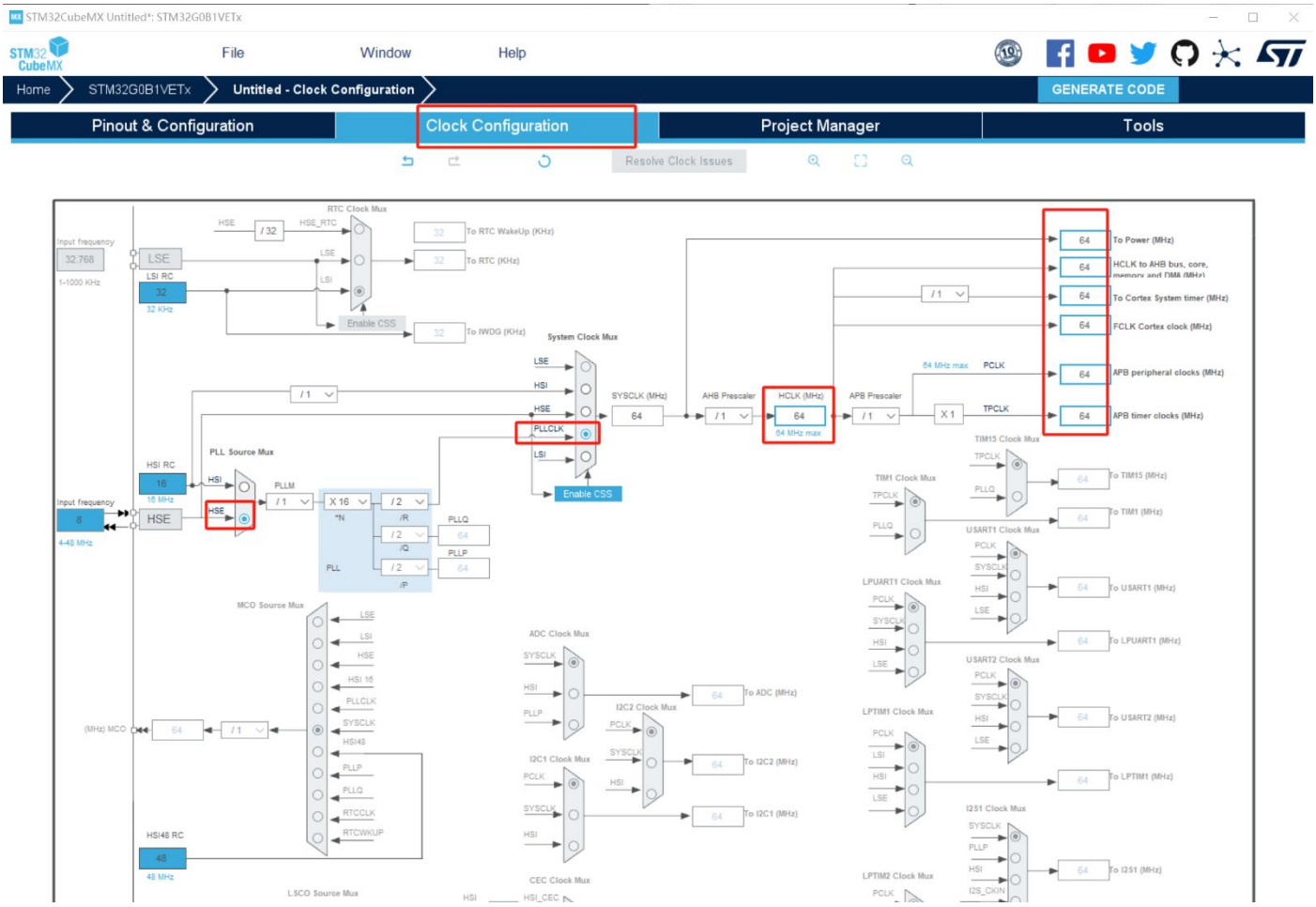
3. 配置时钟

RCC 设置，选择 HSE(外部高速时钟) 为 Crystal/Ceramic Resonator(晶振/陶瓷谐振器)



选择 Clock Configuration，配置系统时钟 SYSCLK 为 64MHz

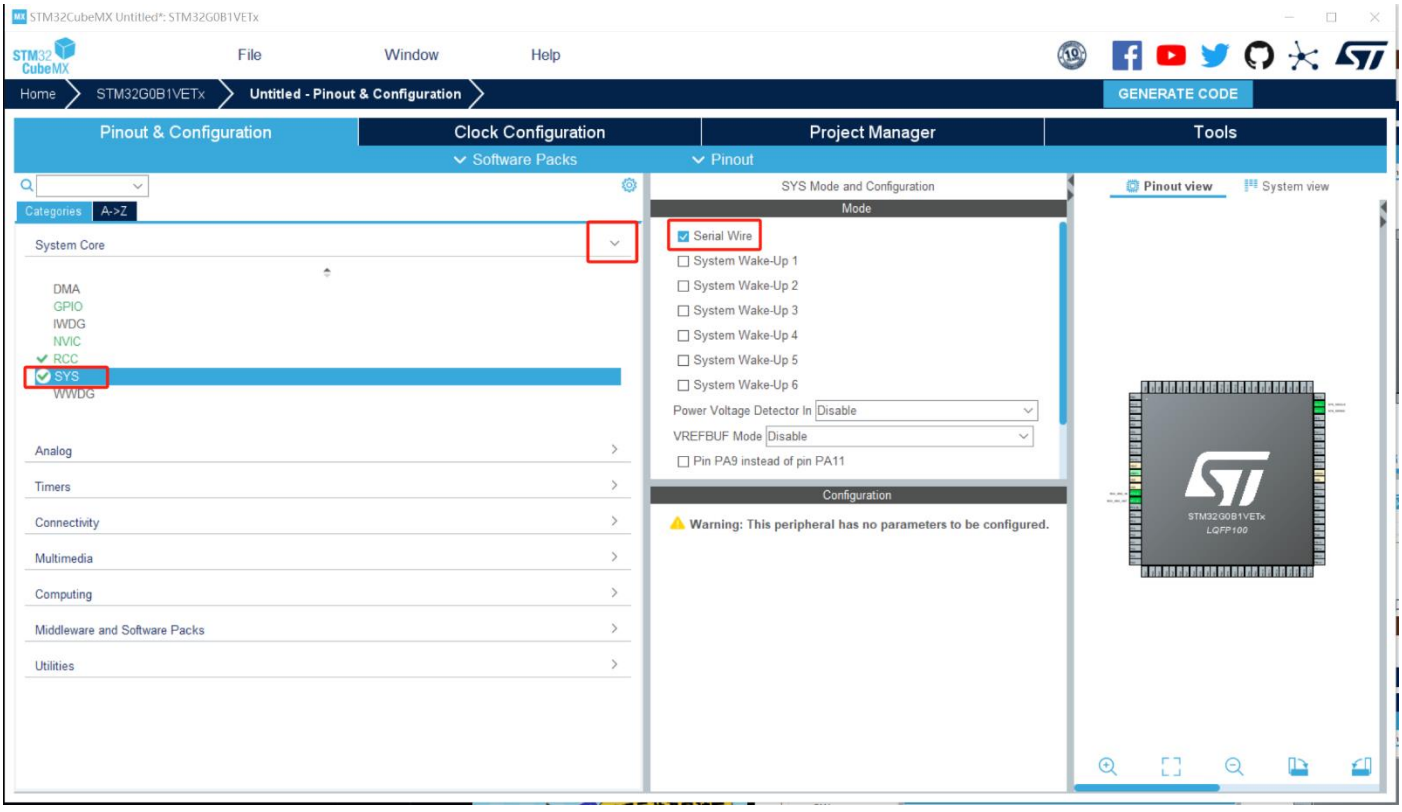
修改 HCLK 的值为 64 后，输入回车，软件会自动修改所有配置



4. 配置调试模式

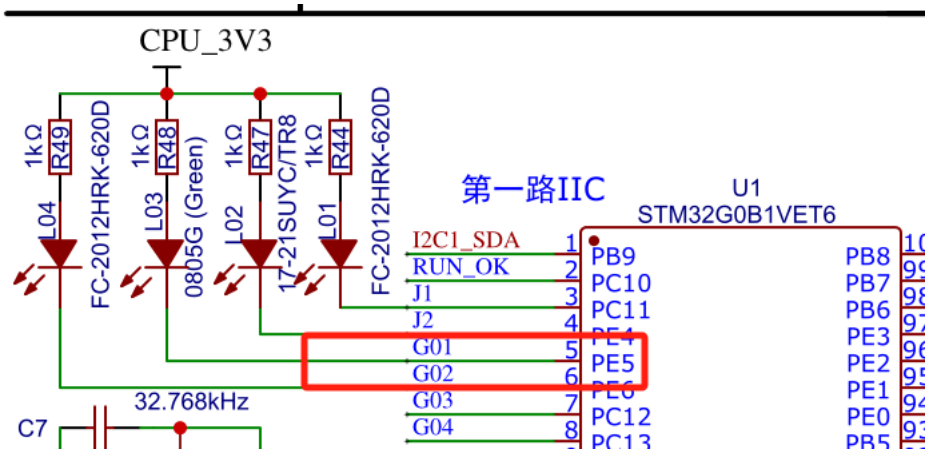
非常重要的一步，否则会造成第一次烧录程序后续无法识别调试器

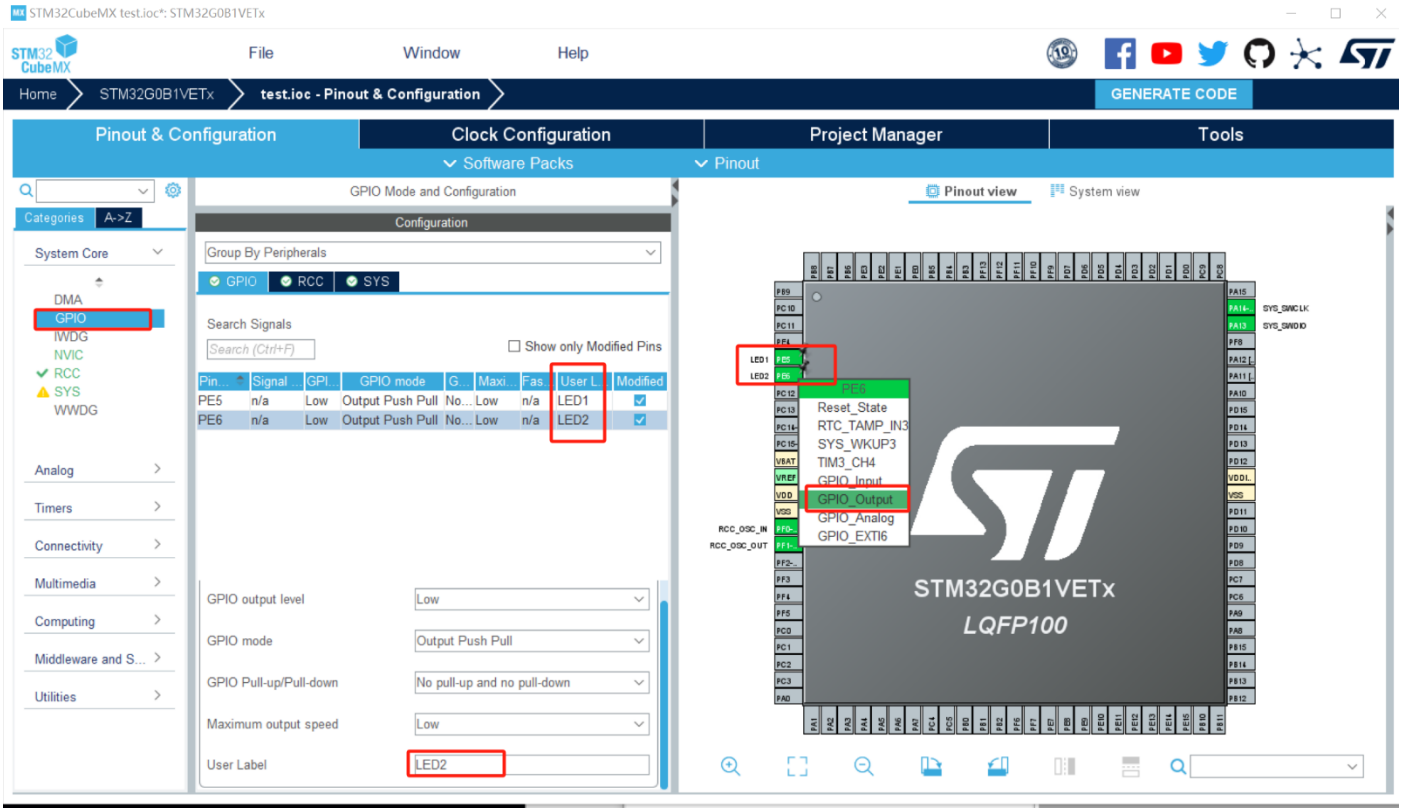
SYS 设置，选择 Debug 为 Serial Wire



5. 配置 GPIO

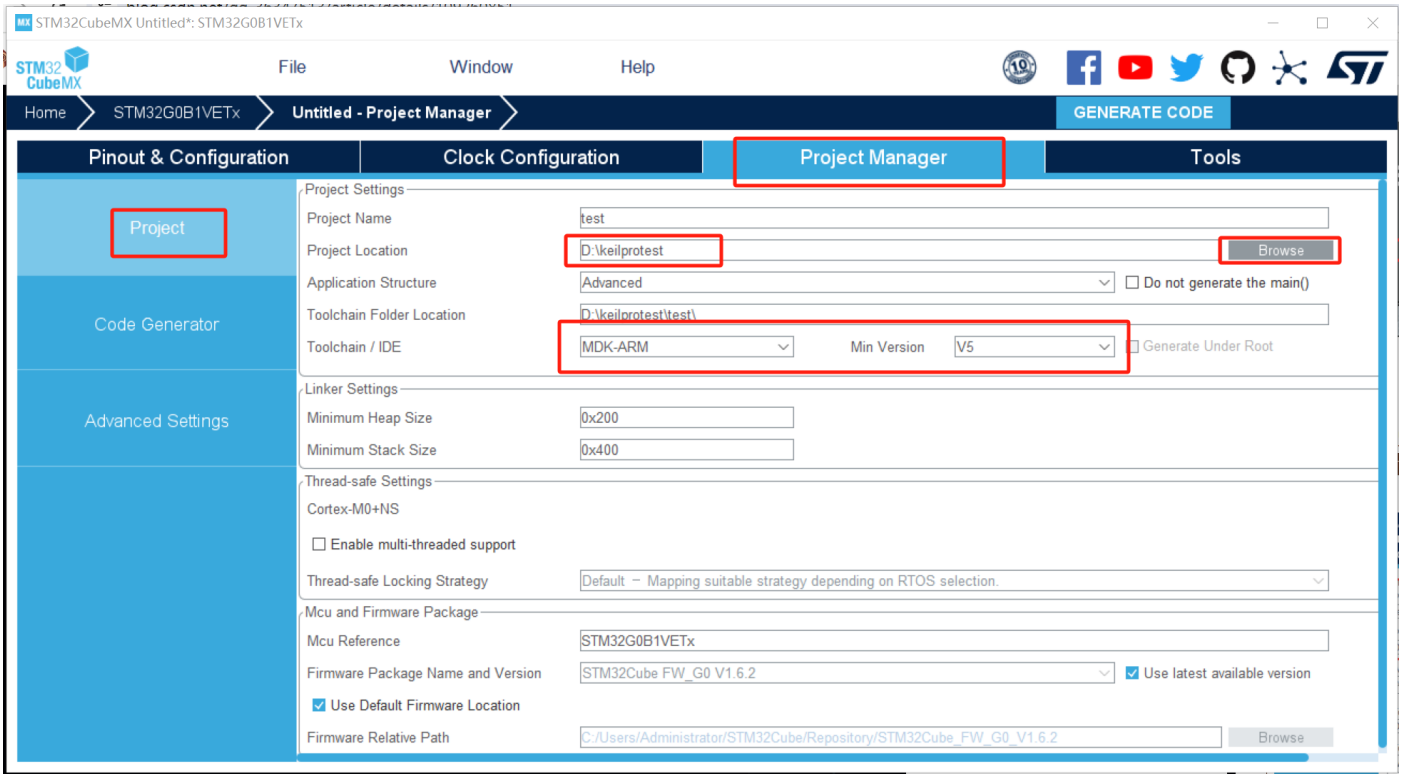
GPIO 设置，在右边图中找到 LED 灯对应引脚，选择 GPIO_Output，输出低电平点亮，可以添加自定义标签

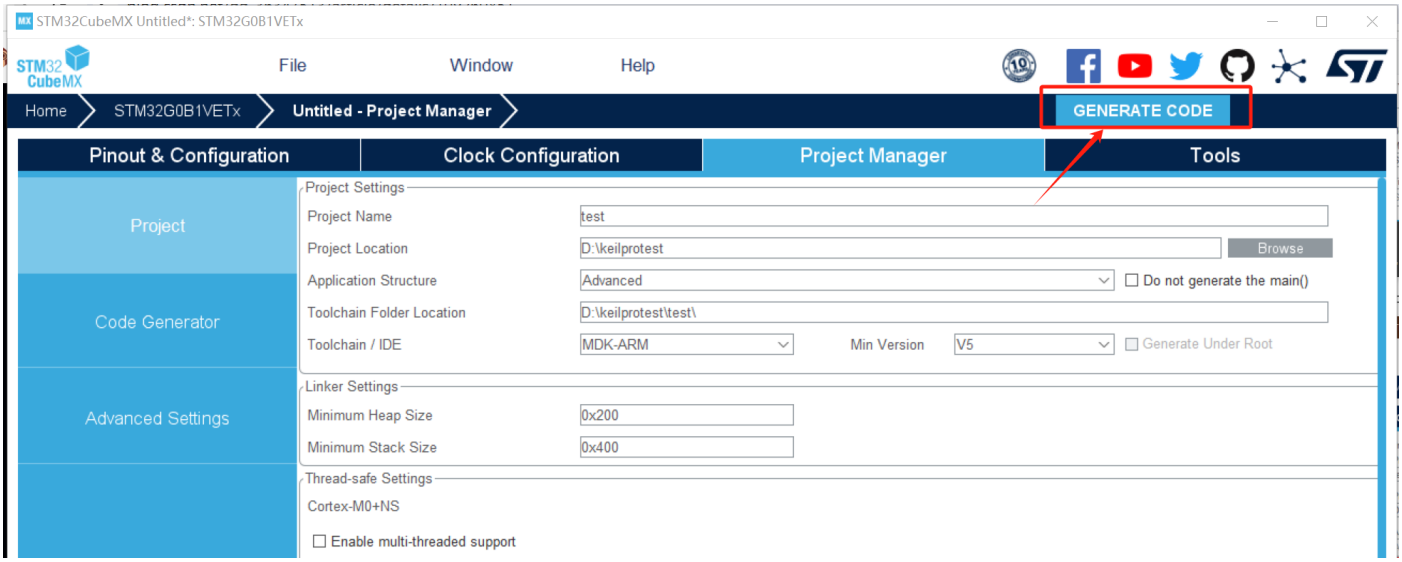




6. 生成代码

输入项目名和项目路径，选择应用的 IDE 开发环境 MDK-ARM V5





三、编译

打开 Keil，点击按钮进行编译

选择调试器和方式

点击按钮进行烧写