

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

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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

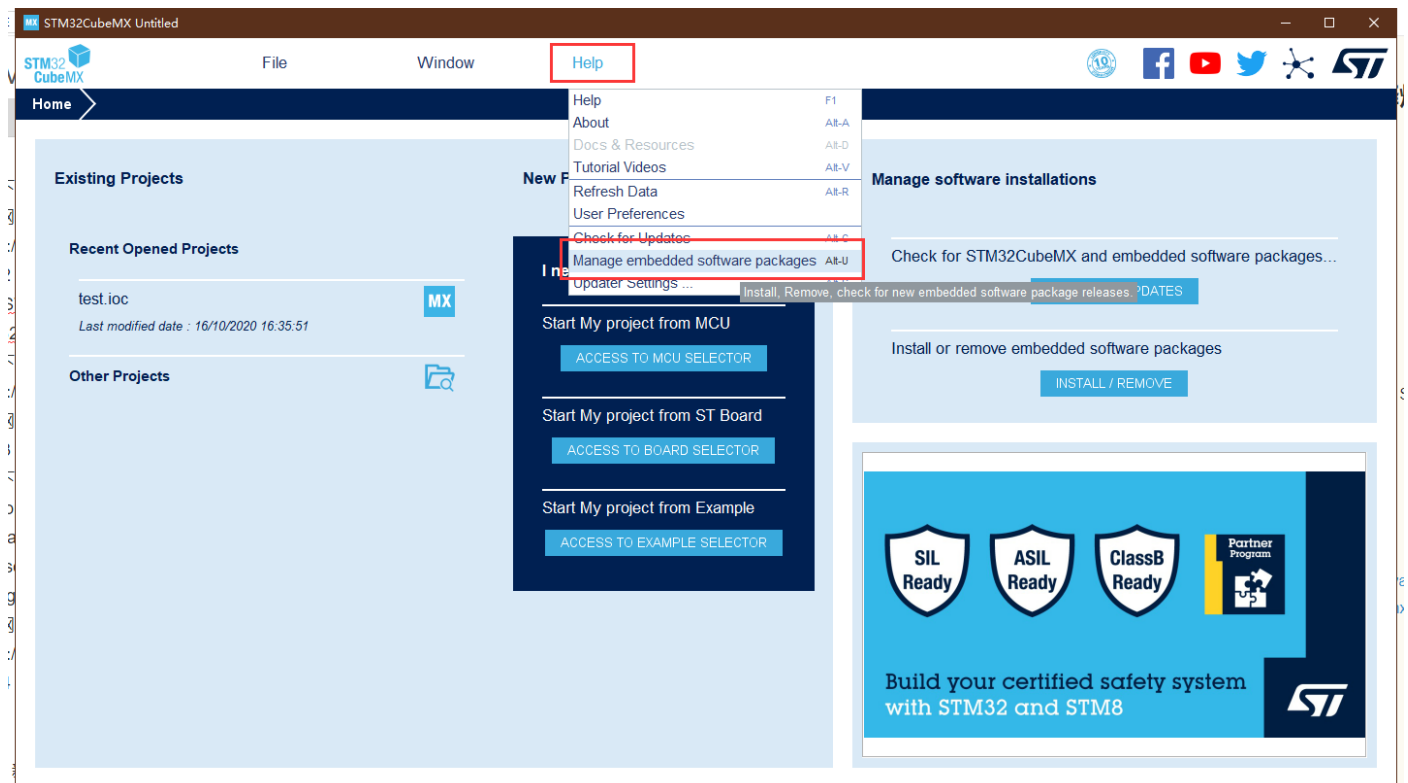
1.3 安装 STM32CubeMX

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)



MX 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
STMMicroelectronics
ITIA_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
- Upgrade USB Power Delivery Device Library to use G0_V3.4.1

From Local ...
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From Local ...
From Url ...
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MX Downloading selected software packages

Download File stm32cube_fw_g0_v160.zip

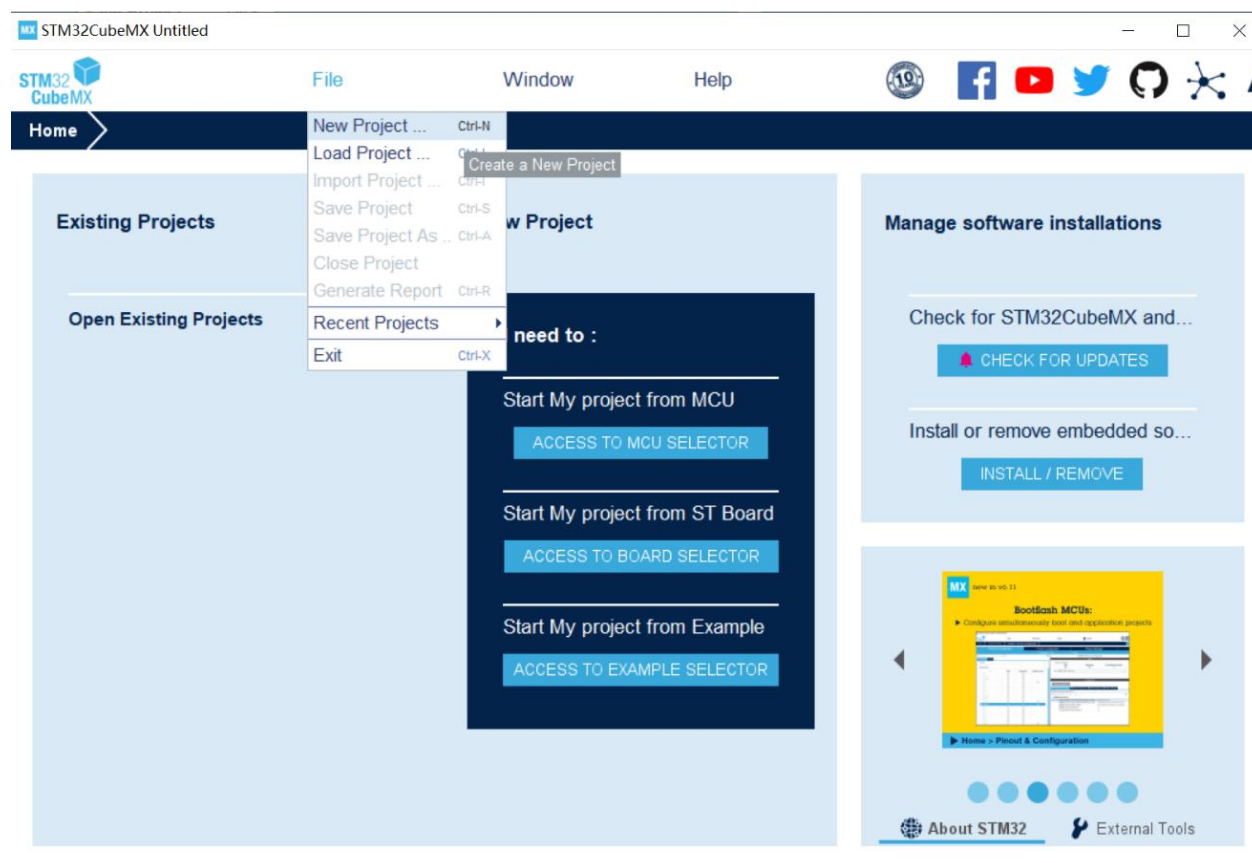
34.0 MBytes / 203.0 MBytes (42s left)

Download and Unzip selected Files

OK
Cancel

二、新建工程

1. 打开 STM32CubeMX 软件，点击“新建工程”



2. 选择 MCU 和封装

New Project

MCU/MPU Selector Board Selector Example Selector Cross Selector

MCU/MPU Filters

Commercial Part Number: STM32G0B1VET6

PRODUCT INFO

- Segment
- Series
- Line
- Marketing Status
- Price
- Package
- Core
- Coprocessor

MEMORY

- Flash = 512 (kBytes)
- EEPROM = 0 (Bytes)
- RAM Total = 144 (kBytes)
- RAM = 144 (kBytes)
- CCM RAM = 0 (kBytes)
- On-chip SRAM = 0 (kBytes)

Features

Block Diagram Docs & Resources CAD Resources Datasheet Buy Start Project

STM32G0 Series

STM32G0B1VET6 Mainstream Arm® Cortex®-M0+ 32-bit MCU, up to 512KB Flash, 144KB RAM

ACTIVE Product is in mass production

Unit Price for 10kU (US\$): 2.6864

LQFP 100 14x14x1.4 mm

The STM32G0B1xB/xC/xE mainstream microcontrollers are based on high-performance Arm® Cortex®-M0+ 32-bit RISC core operating at up to 64 MHz frequency. Offering a high level of integration, they are suitable for a wide range of applications in consumer, industrial and appliance domains and ready for the Internet of Things (IoT) solutions. The devices incorporate a memory protection unit (MPU), high-speed embedded memories (144 Kbytes of SRAM and up to 512 Kbytes of Flash program memory with read protection, write protection, proprietary code protection, and securable area), DMA, an extensive range of system functions, enhanced I/Os, and peripherals. The devices offer standard communication interfaces (three I²Cs, three SPIs / two I²S, one HDMI CEC, one full-speed USB, two FD CANs, and six USARTs), one 12-bit ADC (2.5 MSps) with up to 19 channels, one 12-bit DAC with two channels, three fast comparators, an internal voltage reference buffer, a low-power RTC, an advanced control PWM timer running at up to double the CPU frequency, six general-purpose 16-bit timers with one running at up to double the CPU frequency, a 32-bit general-purpose timer, two basic timers, two low-power 16-bit timers, two watchdog timers, and a SysTick timer. The devices provide a fully integrated USB Type-C Power Delivery controller. The devices operate within ambient temperatures from -40 to 125°C and with supply voltages from 1.7 V to 3.6 V. Optimized dynamic

MCUs/MPUs List: 1 item

Display similar items

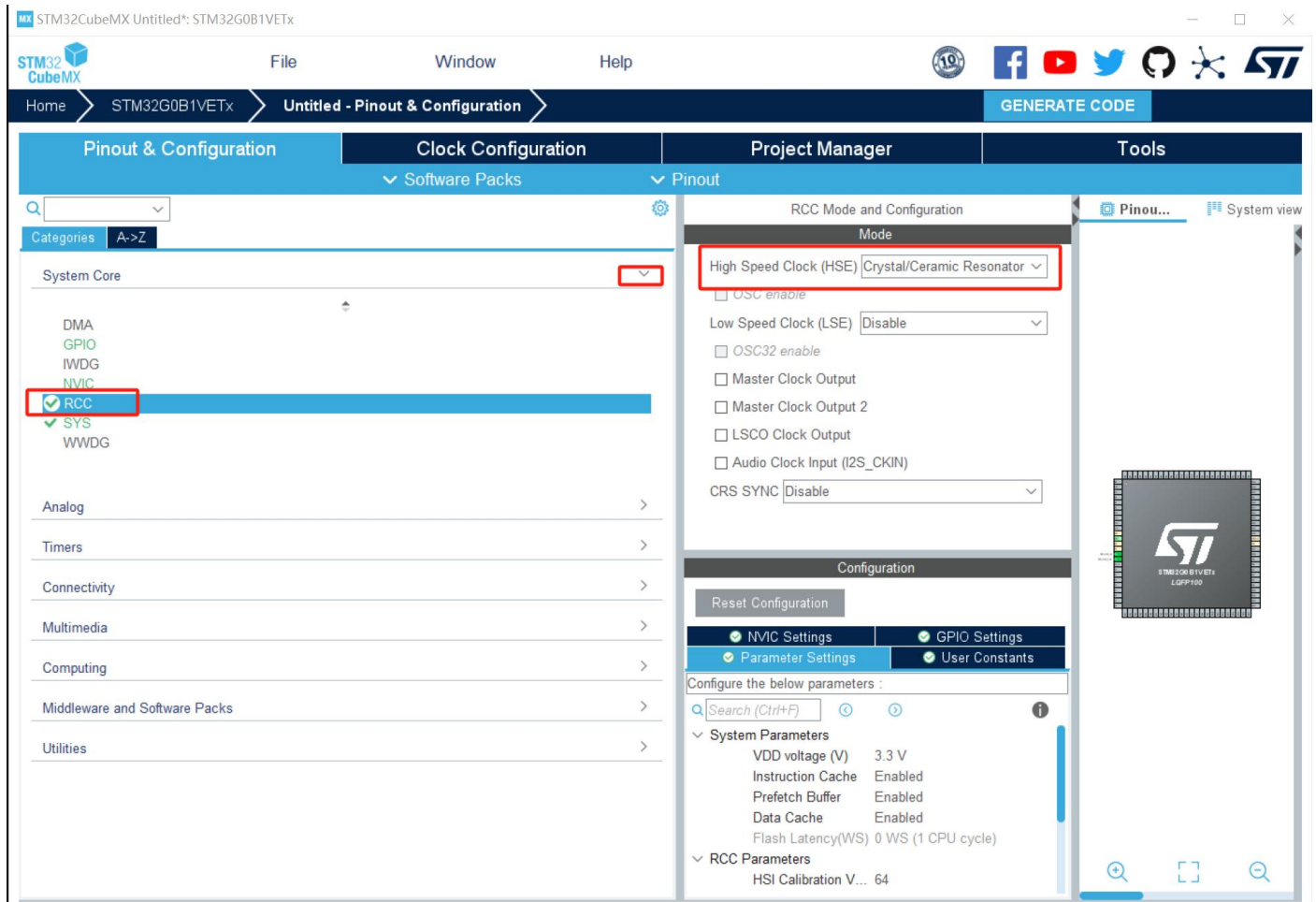
Export

*	Commercial Part No.	Part No.	Reference
☆	STM32G0B1VET6	STM32G0B1VE	STM32G0B1VETx

双击

3. 配置时钟

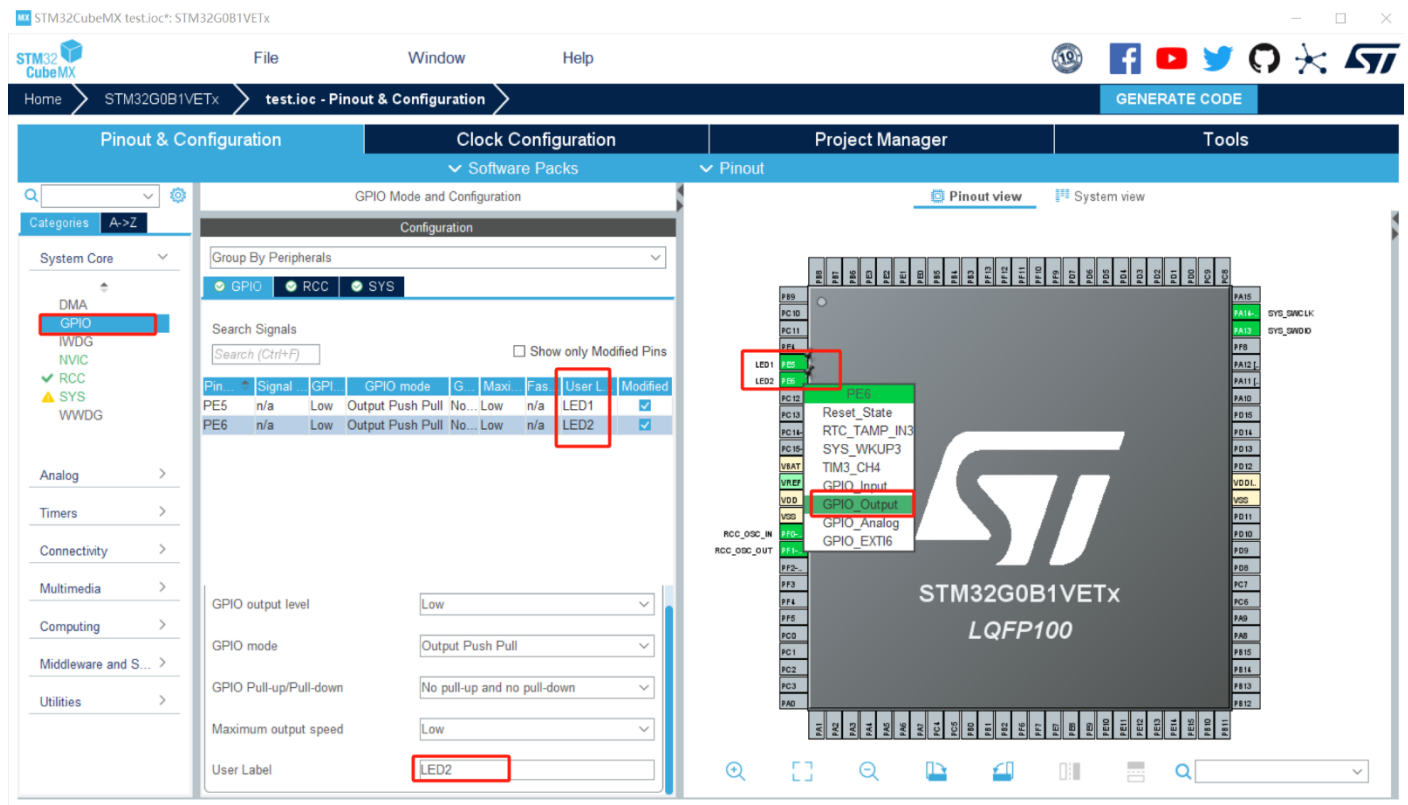
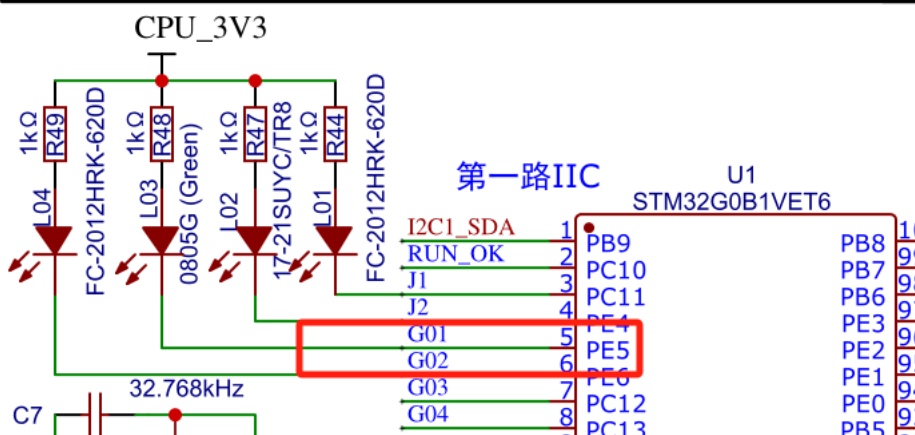
RCC 设置，选择 HSE(外部高速时钟) 为 Crystal/Ceramic Resonator(晶振/陶瓷谐振器)



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

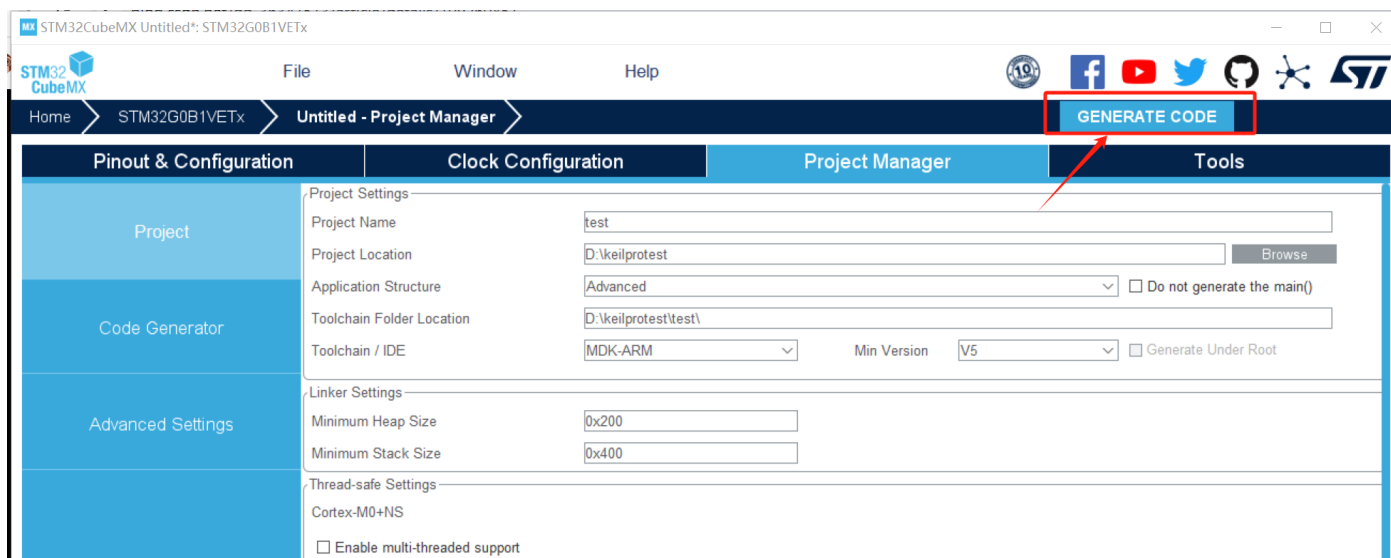
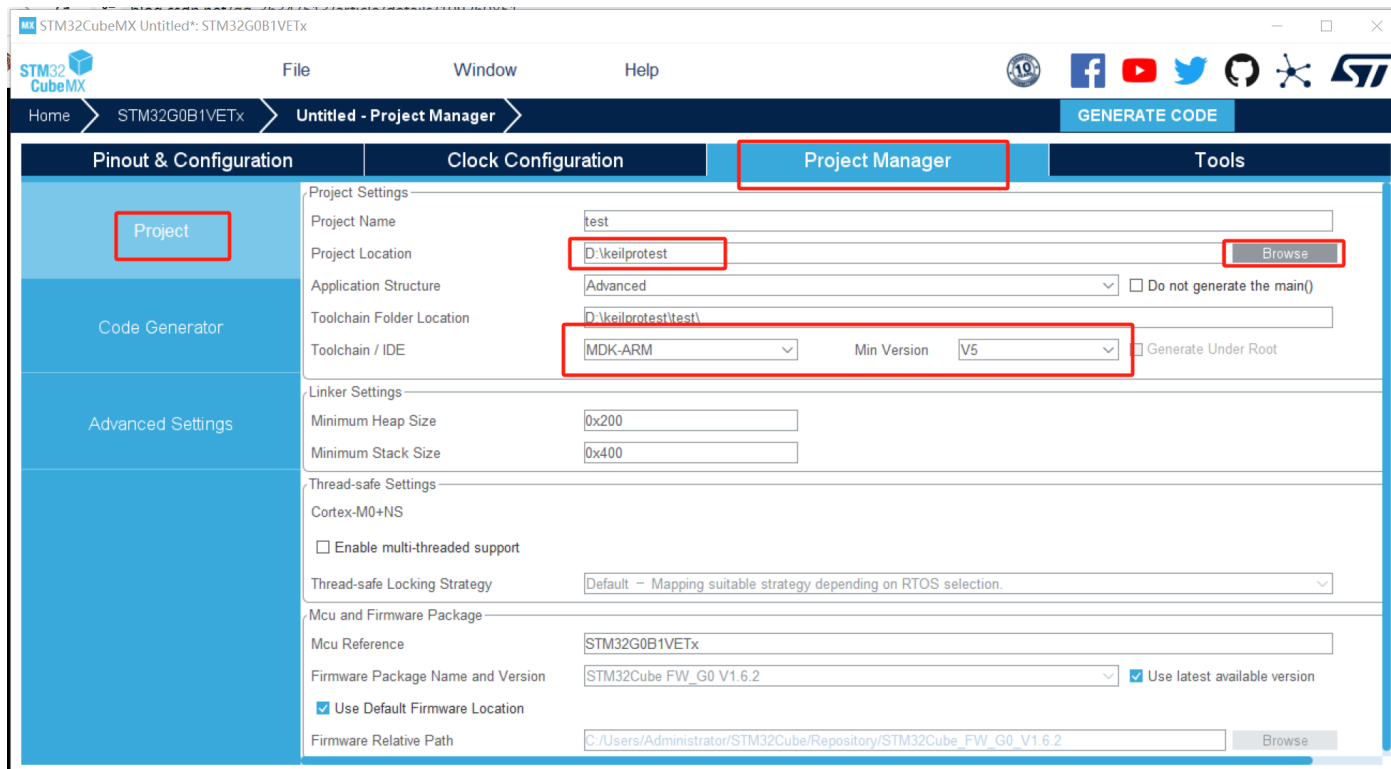
5. 配置 GPIO

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

