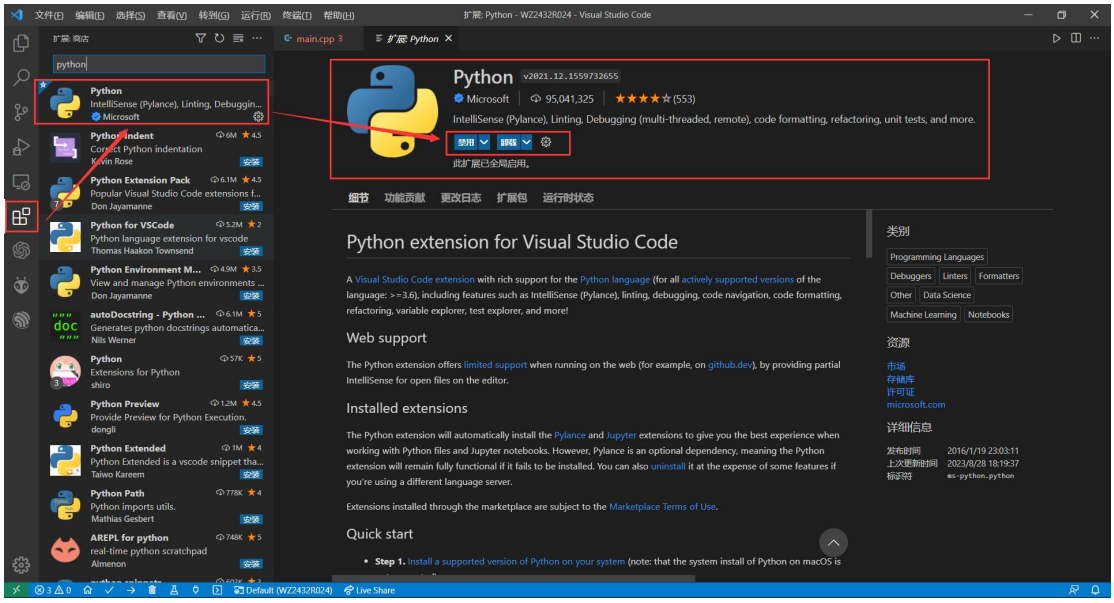
PlatformIO

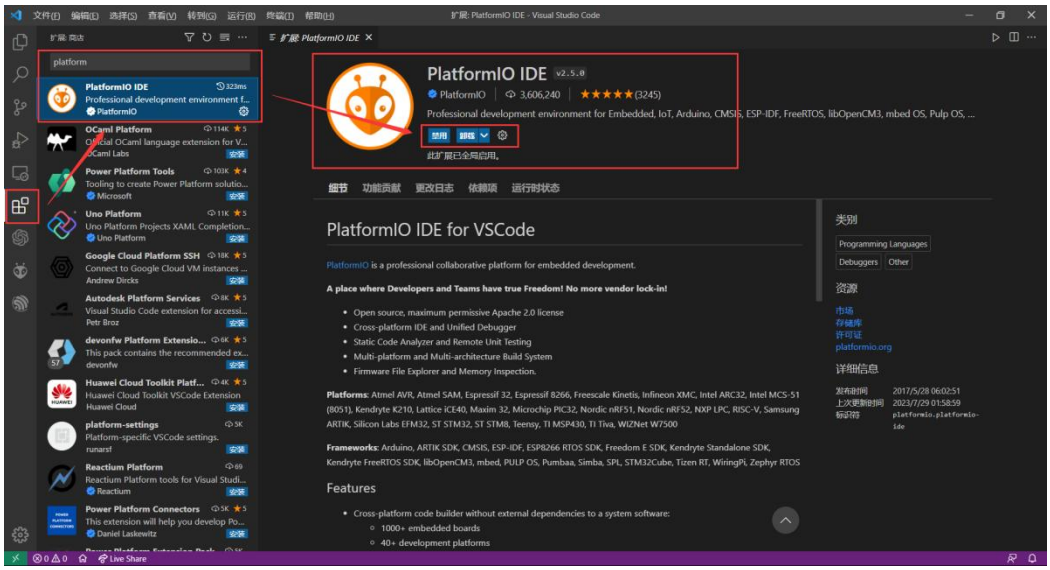
WZ8048C070

Take the WZ8048C070 as an example

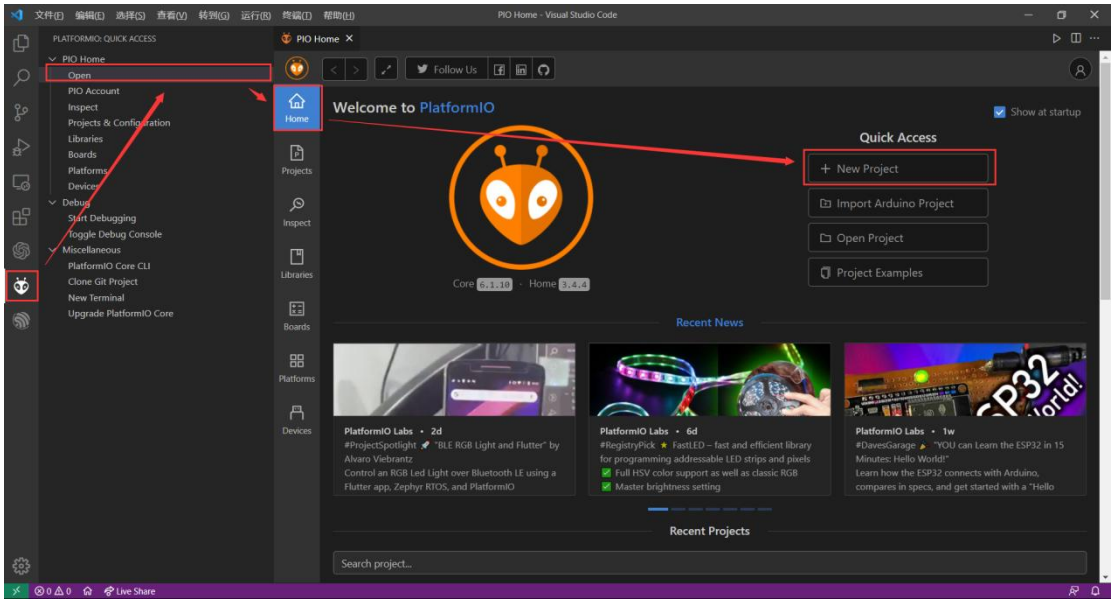
First open the VScode to check if the python is installed

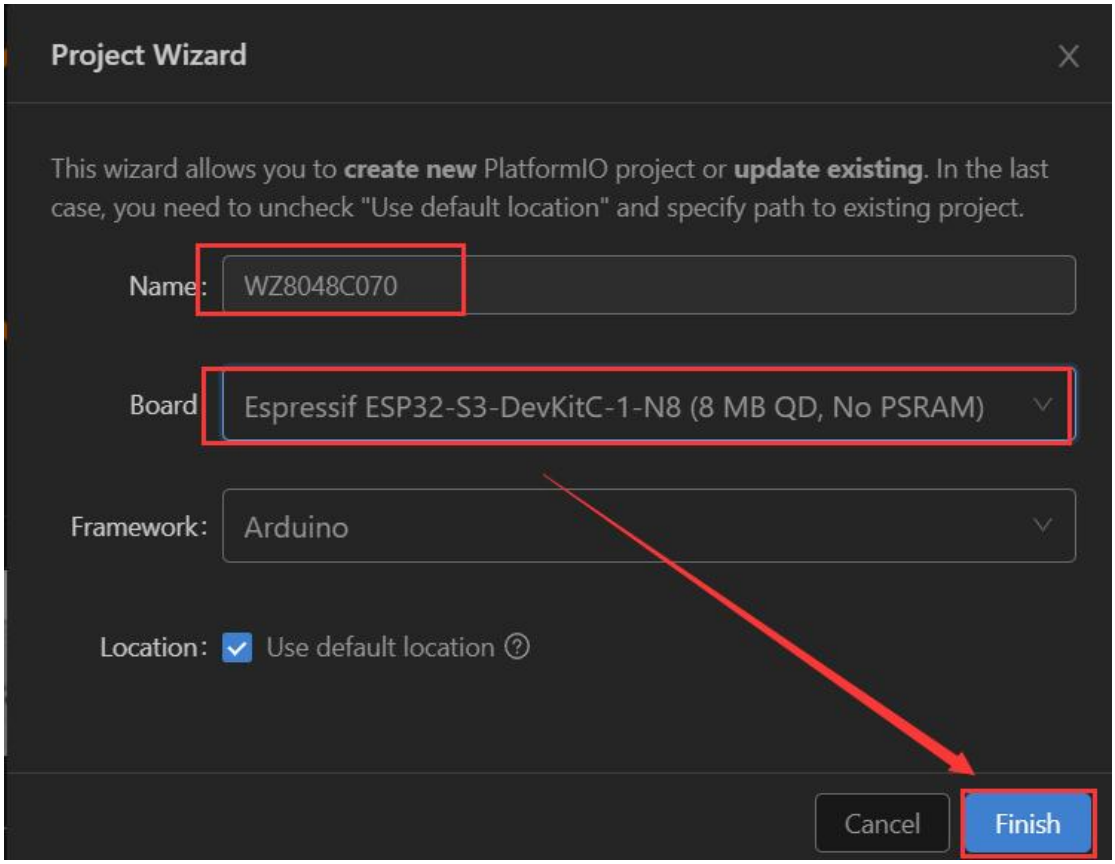


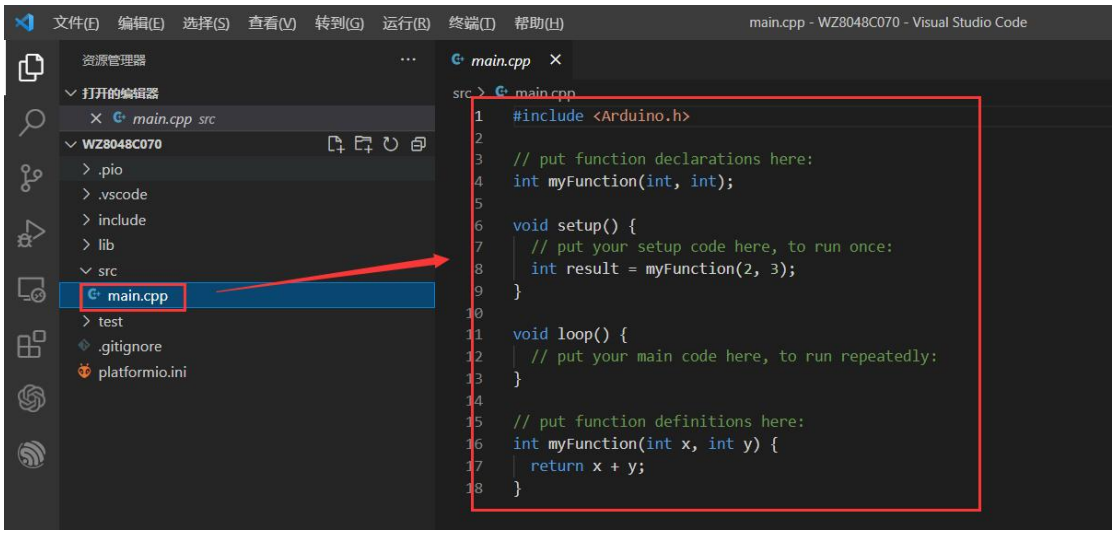
Open the VScode to download the PlatformIO



Create new projects





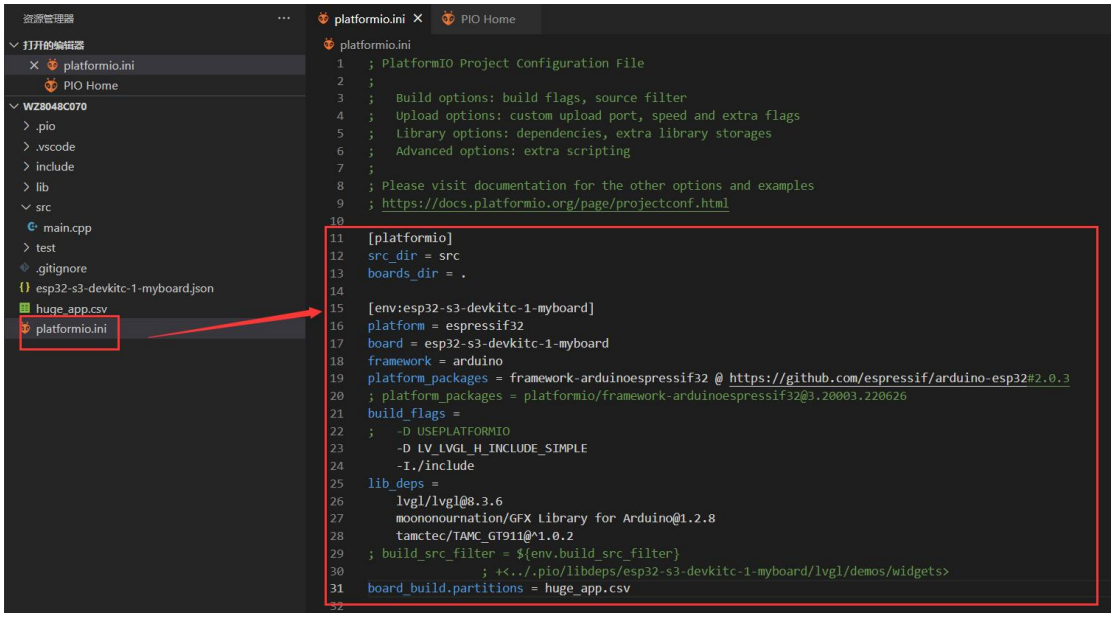


First, place the following picture file into the project directory

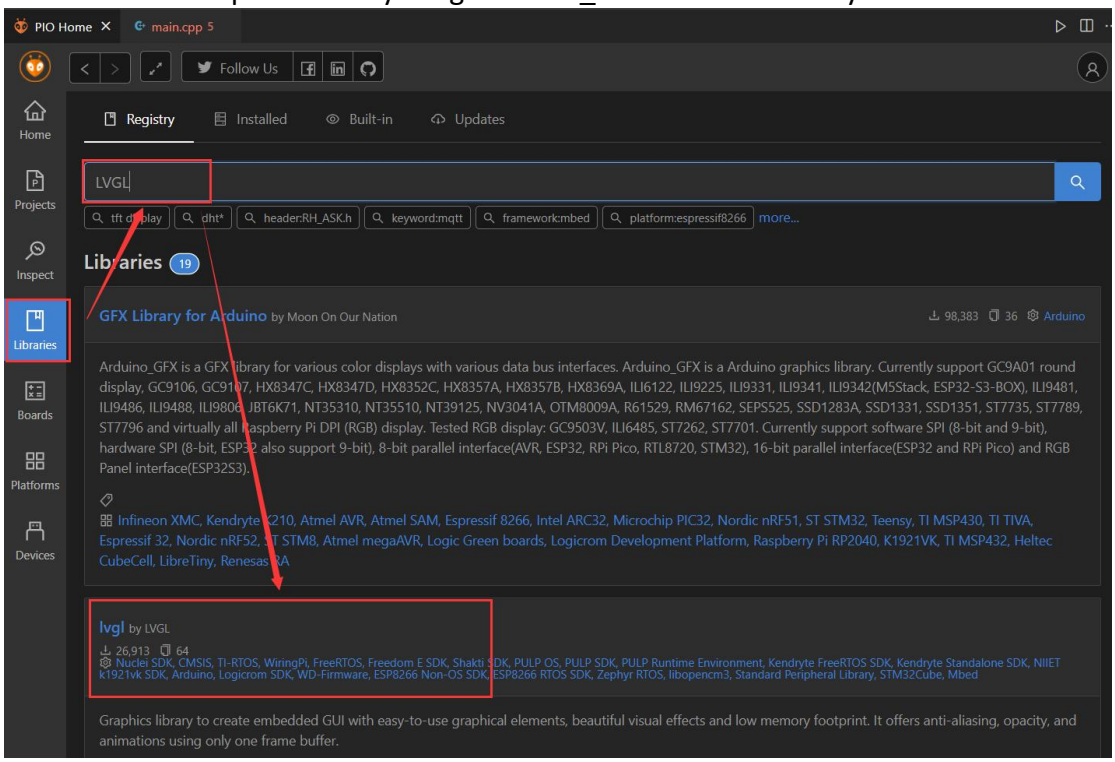
Add the following code to the platformio.ini file

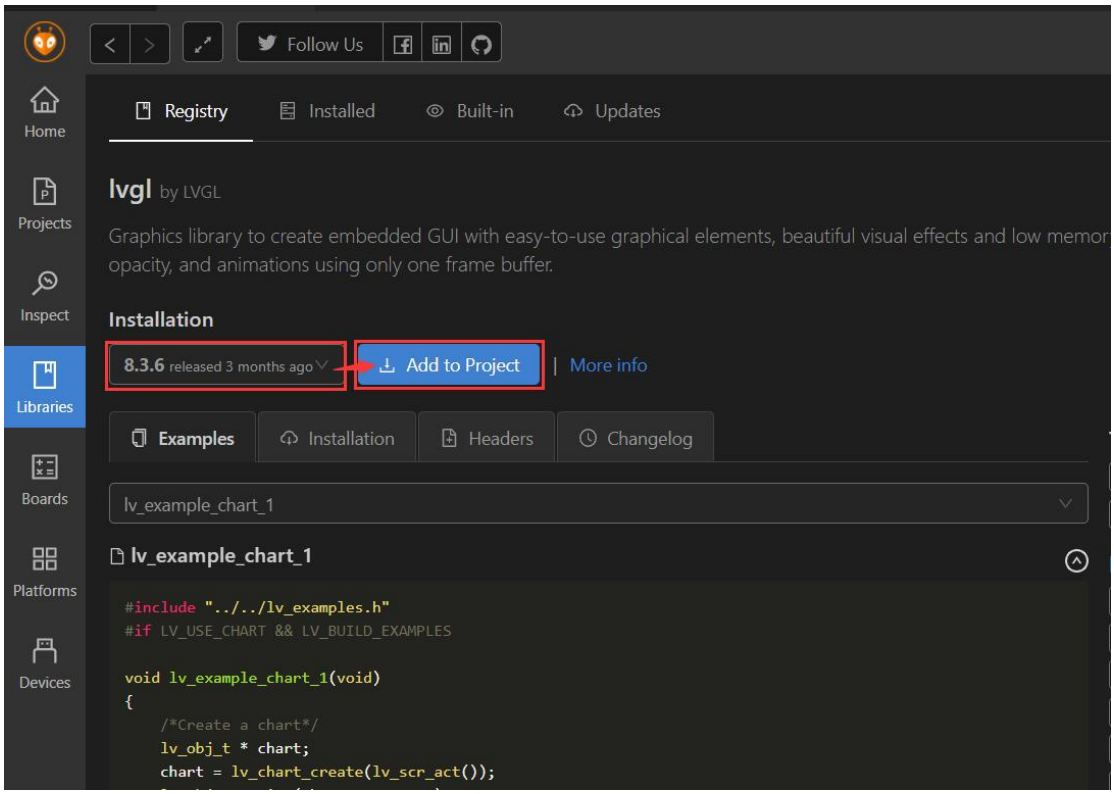
```
[platformio]
src_dir = src
boards_dir = .

[env:esp32-s3-devkitc-1-myboard]
platform = espressif32
board = esp32-s3-devkitc-1-myboard
framework = arduino
platform_packages = framework-arduinoespressif32 @
https://github.com/espressif/arduino-esp32#2.0.3
; platform_packages = platformio/framework-arduinoespressif32@3.20003.220626
build_flags =
;   -D USEPLATFORMIO
    -D LV_LVGL_H_INCLUDE_SIMPLE
    -I./include
lib_deps =
```

```
    lvgl/lvgl@8.3.6
    moononournation/GFX Library for Arduino@1.2.8
    tamctec/TAMC_GT911@^1.0.2
; build_src_filter = ${env.build_src_filter}
                ; +<../.pio/libdeps/esp32-s3-devkitc-1-myboard/lvgl/demos/widgets>
board_build.partitions = huge_app.csv
```



Download the required library（lvgl、TAMC_GT911、GFX Library for Arduino）

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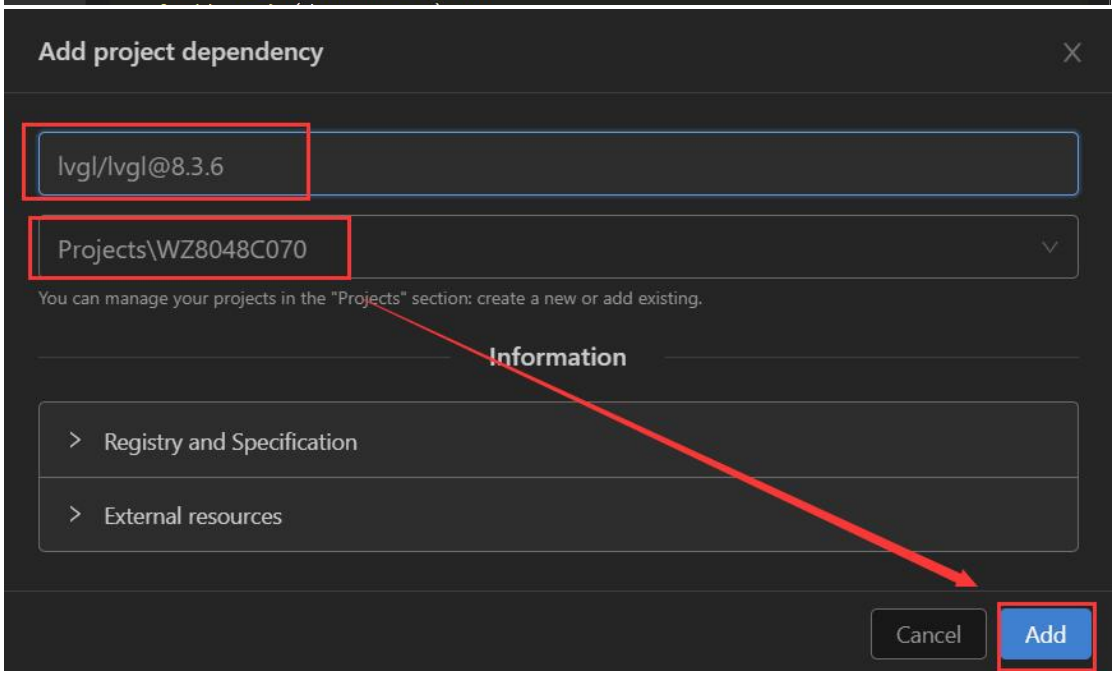
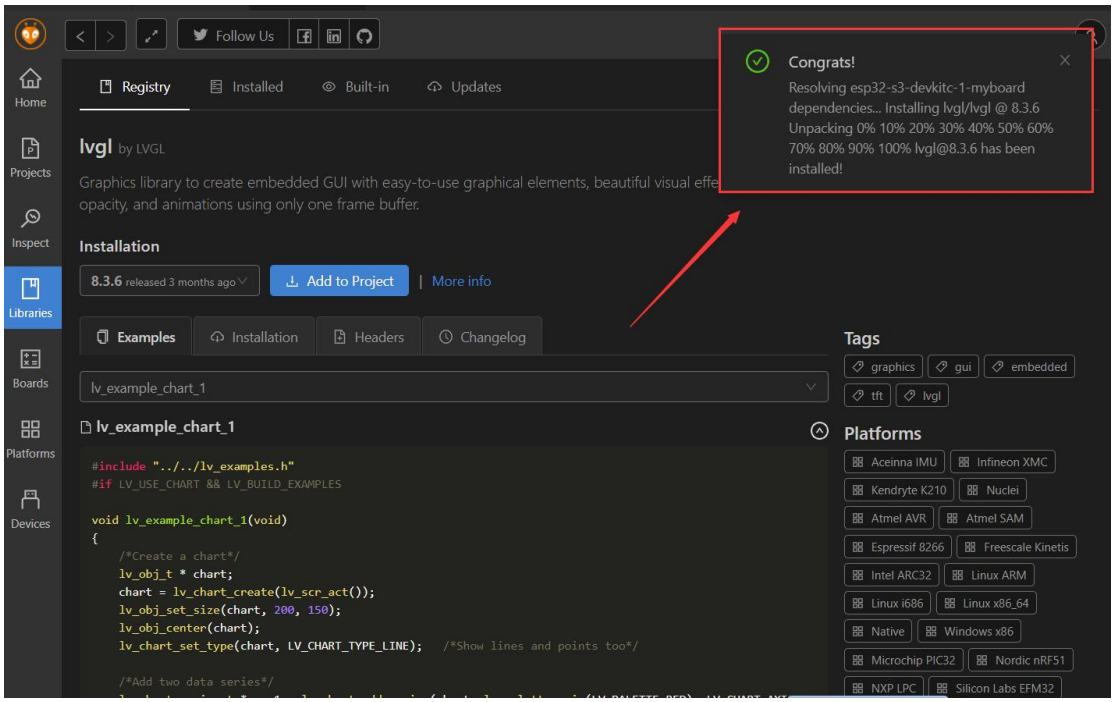
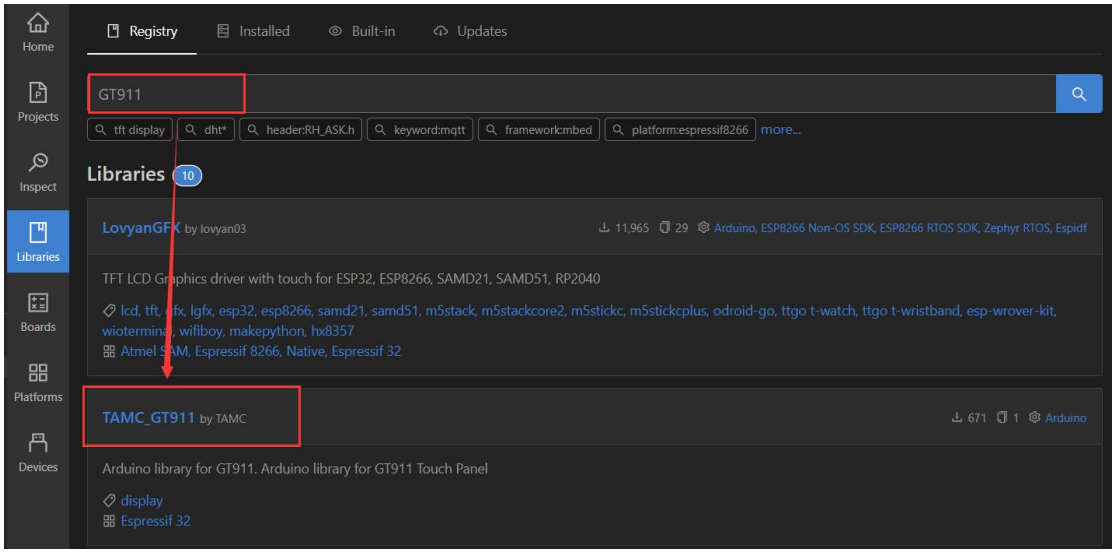
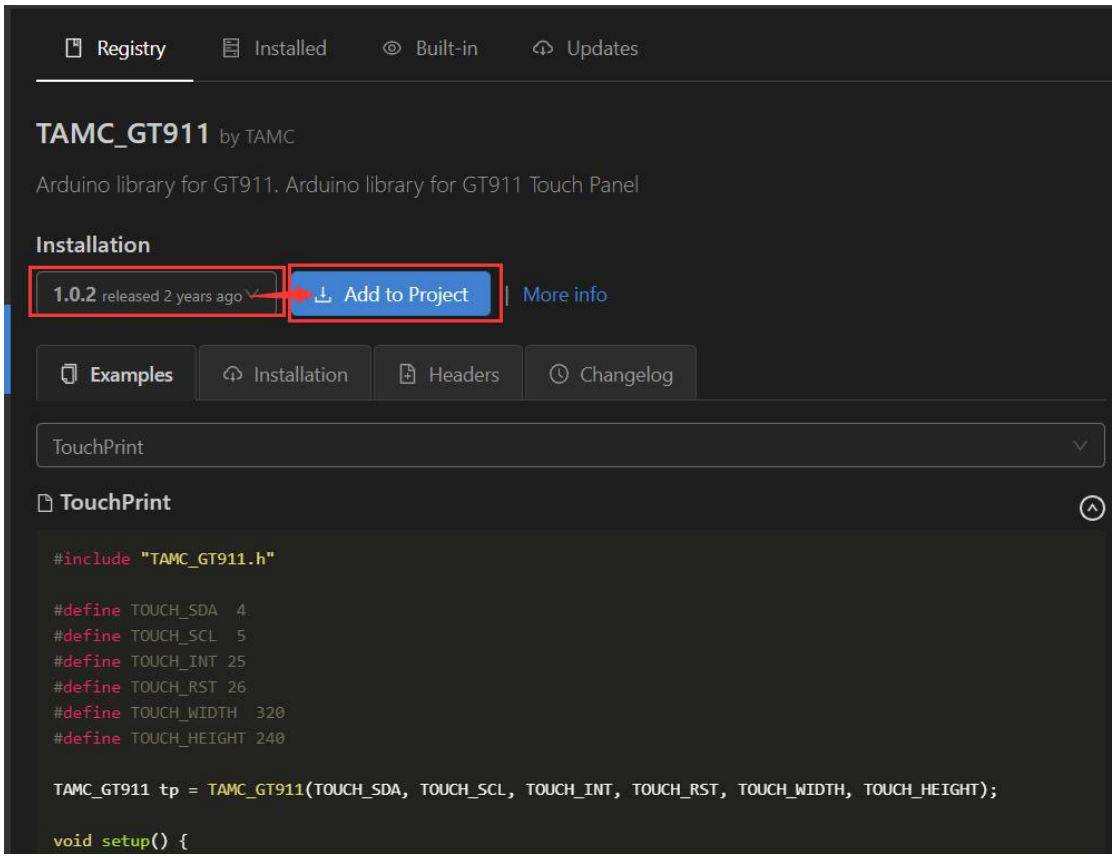
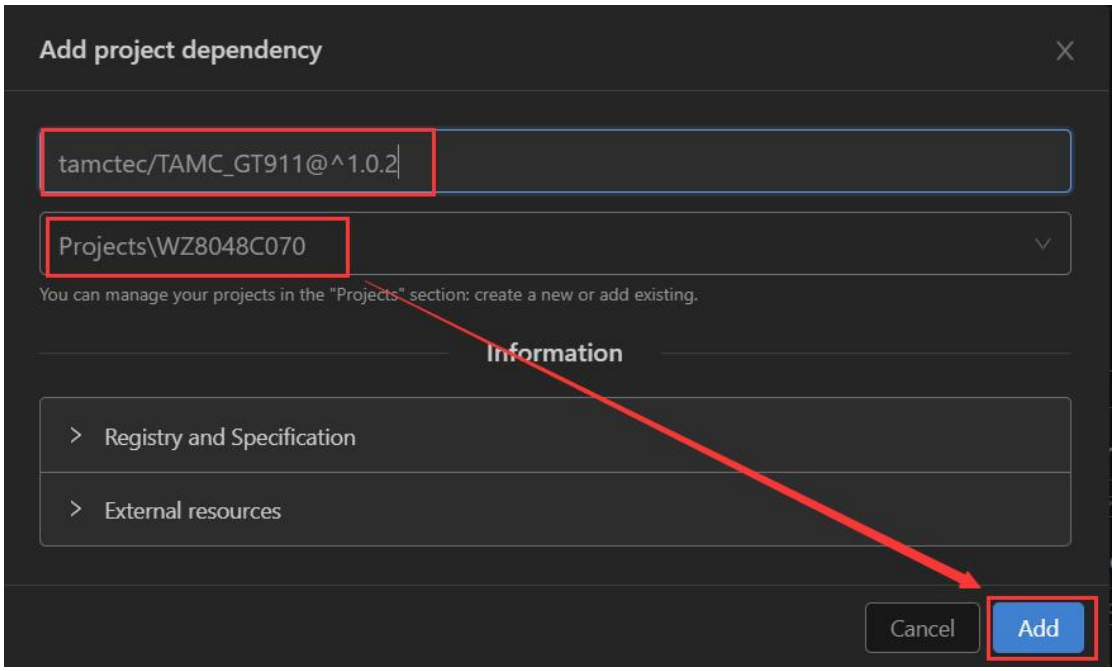
Home
Projects
Inspect
Libraries
Boards
Platforms
Devices
Registry
Installed
Built-in
Updates
lvgl by LVGL
Graphics library to create embedded GUI with easy-to-use graphical elements, beautiful visual effects and low memor
opacity, and animations using only one frame buffer.
Installation
8.3.6 released 3 months ago
Add to Project
More info
Examples
Installation
Headers
Changelog
lv_example_chart_1
lv_example_chart_1
#include "../../lv_examples.h"
#if LV_USE_CHART && LV_BUILD_EXAMPLES
void lv_example_chart_1(void)
{
/*Create a chart*/
lv_obj_t * chart;
chart = lv_chart_create(lv_scr_act());


Add project dependency
lvgl/lvgl@8.3.6
Projects\WZ8048C070
You can manage your projects in the "Projects" section: create a new or add existing.
Information
Registry and Specification
External resources
Cancel
Add


Follow Us
Home
Projects
Inspect
Libraries
Boards
Platforms
Devices
Registry
Installed
Built-in
Updates
Congrats!
Resolving esp32-s3-devkitc-1-myboard dependencies... Installing lvgl/lvgl @ 8.3.6
Unpacking 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% lvgl@8.3.6 has been installed!
lvgl by LVGL
Graphics library to create embedded GUI with easy-to-use graphical elements, beautiful visual effe
opacity, and animations using only one frame buffer.
Installation
8.3.6 released 3 months ago
Add to Project
More info
Examples
Installation
Headers
Changelog
lv_example_chart_1
lv_example_chart_1
#include "../../lv_examples.h"
#if LV_USE_CHART && LV_BUILD_EXAMPLES
void lv_example_chart_1(void)
{
/*Create a chart*/
lv_obj_t * chart;
chart = lv_chart_create(lv_scr_act());
lv_obj_set_size(chart, 200, 150);
lv_obj_center(chart);
lv_chart_set_type(chart, LV_CHART_TYPE_LINE); /*Show lines and points too*/
/*Add two data series*/
Tags
graphics
gui
embedded
tft
lvgl
Platforms
Aceinna IMU
Infineon XMC
Kendryte K210
Nuclei
Atmel AVR
Atmel SAM
Espressif 8266
Freescale Kinetis
Intel ARC32
Linux ARM
Linux i686
Linux x86_64
Native
Windows x86
Microchip PIC32
Nordic nRF51
NXP LPC
Silicon Labs EFM32


Home
Projects
Inspect
Libraries
Boards
Platforms
Devices
Registry
Installed
Built-in
Updates
GT911
tft display
dht*
header:RH_ASK.h
keyword:mqtt
framework:mbed
platform:espressif8266
more...
Libraries 10
LovyanGFX by lovyan03
11,965 29 Arduino, ESP8266 Non-OS SDK, ESP8266 RTOS SDK, Zephyr RTOS, Espidf
TFT LCD Graphics driver with touch for ESP32, ESP8266, SAMD21, SAMD51, RP2040
lcd, tft, gfx, lgfx, esp32, esp8266, samd21, samd51, m5stack, m5stackcore2, m5stickc, m5stickcplus, odroid-go, ttgo t-watch, ttgo t-wristband, esp-wrover-kit, wioterminal, wifiboy, makepython, hx8357
Atmel SAM, Espressif 8266, Native, Espressif 32
TAMC_GT911 by TAMC
671 1 Arduino
Arduino library for GT911. Arduino library for GT911 Touch Panel
display
Espressif 32


Registry
Installed
Built-in
Updates
TAMC_GT911 by TAMC
Arduino library for GT911. Arduino library for GT911 Touch Panel
Installation
1.0.2 released 2 years ago
Add to Project
More info
Examples
Installation
Headers
Changelog
TouchPrint
TouchPrint
#include "TAMC_GT911.h"
#define TOUCH_SDA 4
#define TOUCH_SCL 5
#define TOUCH_INT 25
#define TOUCH_RST 26
#define TOUCH_WIDTH 320
#define TOUCH_HEIGHT 240
TAMC_GT911 tp = TAMC_GT911(TOUCH_SDA, TOUCH_SCL, TOUCH_INT, TOUCH_RST, TOUCH_WIDTH, TOUCH_HEIGHT);
void setup() {


Add project dependency
tamctec/TAMC_GT911@^1.0.2
Projects\WZ8048C070
You can manage your projects in the "Projects" section: create a new or add existing.
Information
Registry and Specification
External resources
Cancel
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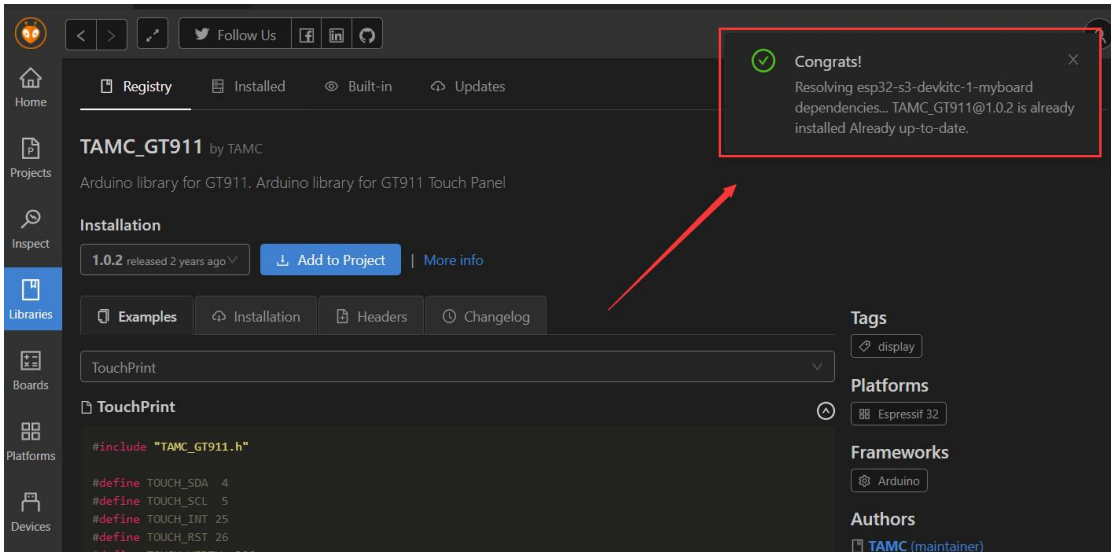
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Home
Projects
Inspect
Libraries
Boards
Platforms
Devices
Registry
Installed
Built-in
Updates
Congrats!
Resolving esp32-s3-devkitc-1-myboard dependencies... TAMC_GT911@1.0.2 is already installed Already up-to-date.
TAMC_GT911 by TAMC
Arduino library for GT911. Arduino library for GT911 Touch Panel
Installation
1.0.2 released 2 years ago
Add to Project
More info
Examples
Installation
Headers
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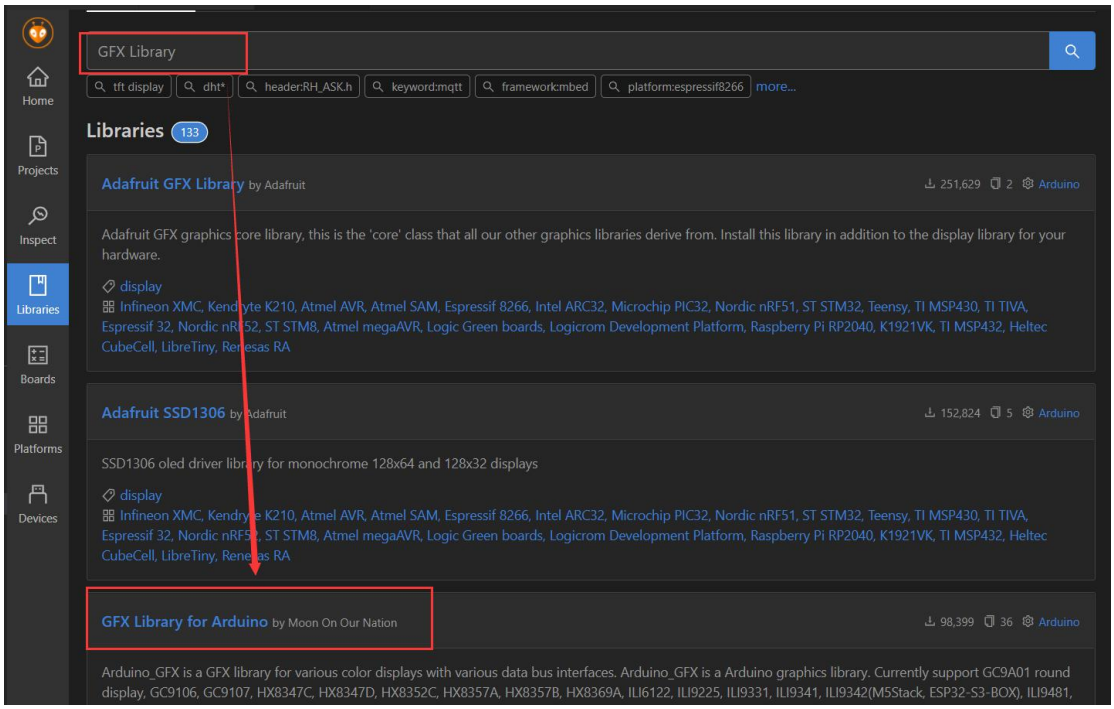
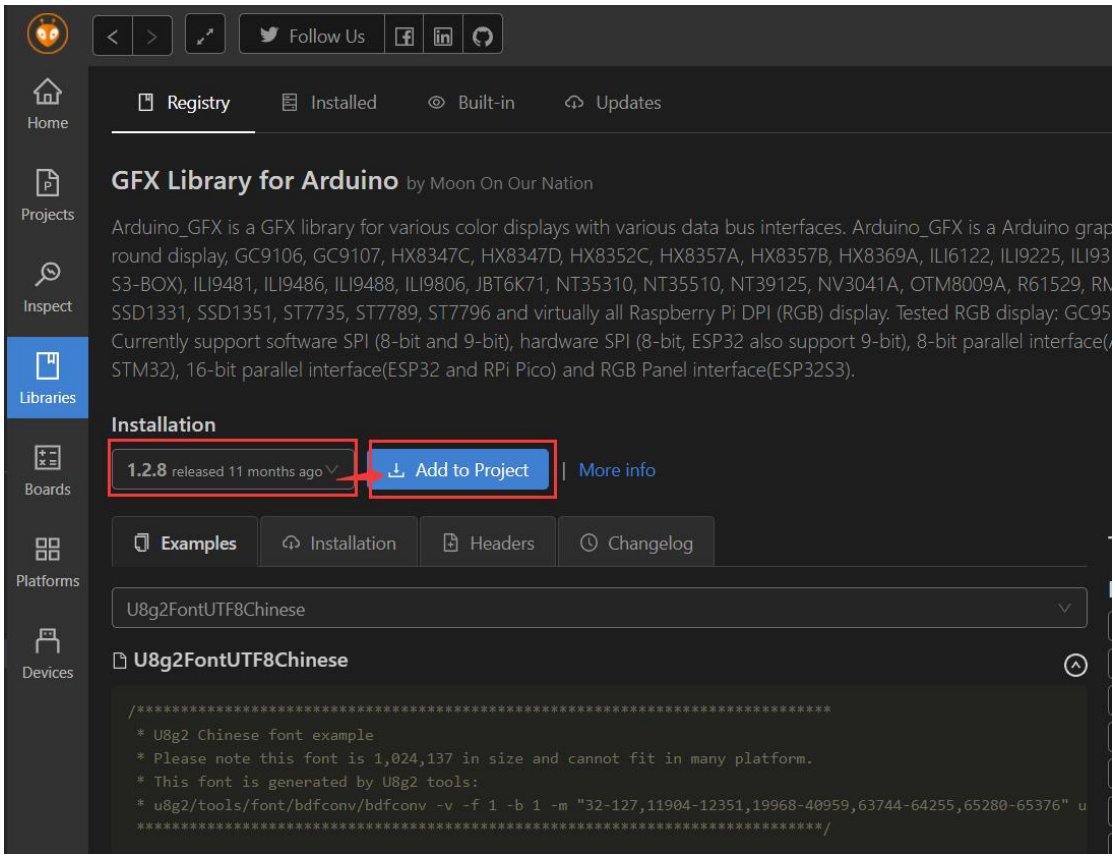
TouchPrint
TouchPrint
#include "TAMC_GT911.h"
#define TOUCH_SDA 4
#define TOUCH_SCL 5
#define TOUCH_INT 25
#define TOUCH_RST 26
Tags
display
Platforms
Espressif 32
Frameworks
Arduino
Authors
TAMC (maintainer)


GFX Library
tft display
dht*
header:RH_ASK.h
keyword:mqtt
framework:mbed
platform:espressif8266
more...
Libraries 133
Adafruit GFX Library by Adafruit
251,629 2 Arduino
Adafruit GFX graphics core library, this is the 'core' class that all our other graphics libraries derive from. Install this library in addition to the display library for your hardware.
display
Infineon XMC, Kendryte K210, Atmel AVR, Atmel SAM, Espressif 8266, Intel ARC32, Microchip PIC32, Nordic nRF51, ST STM32, Teensy, TI MSP430, TI TIVA, Espressif 32, Nordic nRF52, ST STM8, Atmel megaAVR, Logic Green boards, Logicrom Development Platform, Raspberry Pi RP2040, K1921VK, TI MSP432, Heltec CubeCell, LibreTiny, Renesas RA
Adafruit SSD1306 by Adafruit
152,824 5 Arduino
SSD1306 oled driver library for monochrome 128x64 and 128x32 displays
display
Infineon XMC, Kendryte K210, Atmel AVR, Atmel SAM, Espressif 8266, Intel ARC32, Microchip PIC32, Nordic nRF51, ST STM32, Teensy, TI MSP430, TI TIVA, Espressif 32, Nordic nRF52, ST STM8, Atmel megaAVR, Logic Green boards, Logicrom Development Platform, Raspberry Pi RP2040, K1921VK, TI MSP432, Heltec CubeCell, LibreTiny, Renesas RA
GFX Library for Arduino by Moon On Our Nation
98,399 36 Arduino
Arduino_GFX is a GFX library for various color displays with various data bus interfaces. Arduino_GFX is a Arduino graphics library. Currently support GC9A01 round display, GC9106, GC9107, HX8347C, HX8347D, HX8352C, HX8357A, HX8357B, HX8369A, ILI6122, ILI9225, ILI9331, ILI9341, ILI9342(M5Stack, ESP32-S3-BOX), ILI9481,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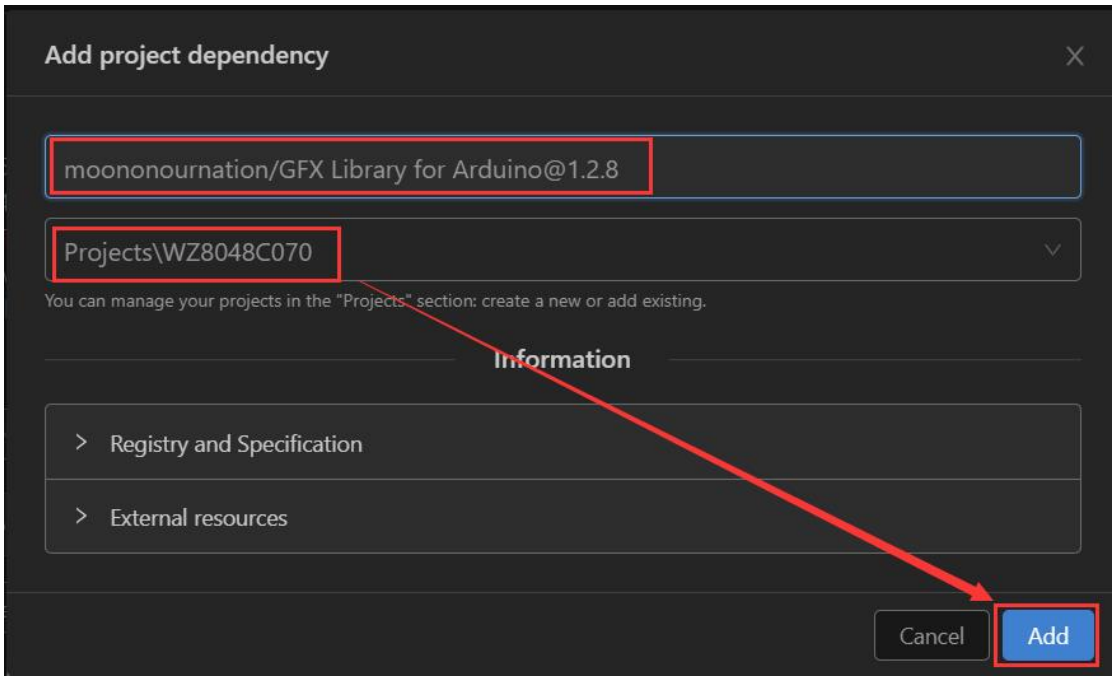
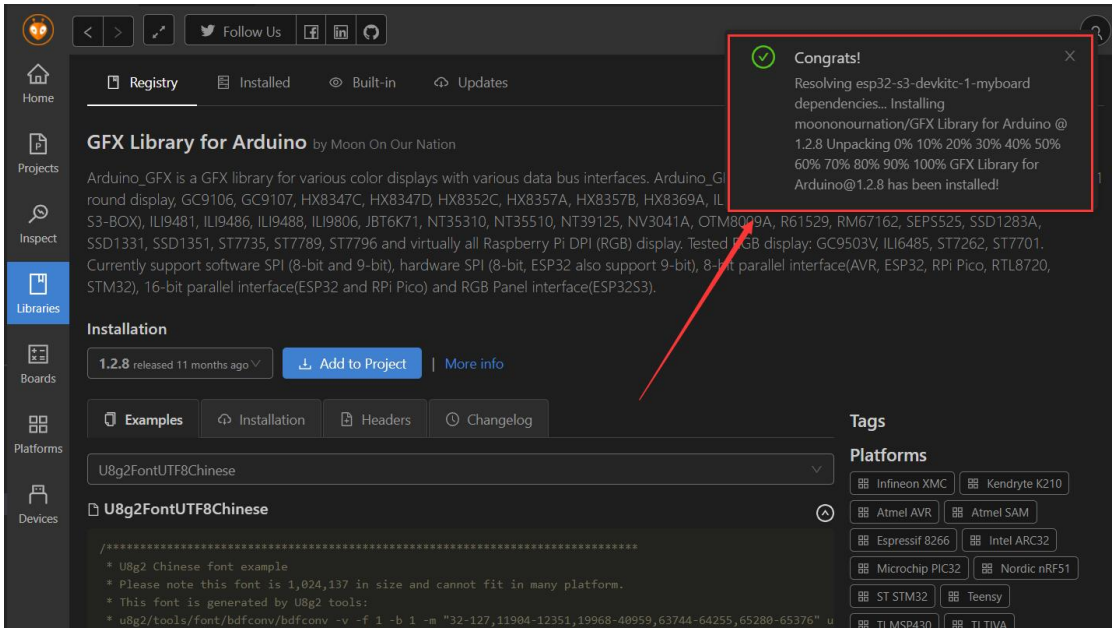
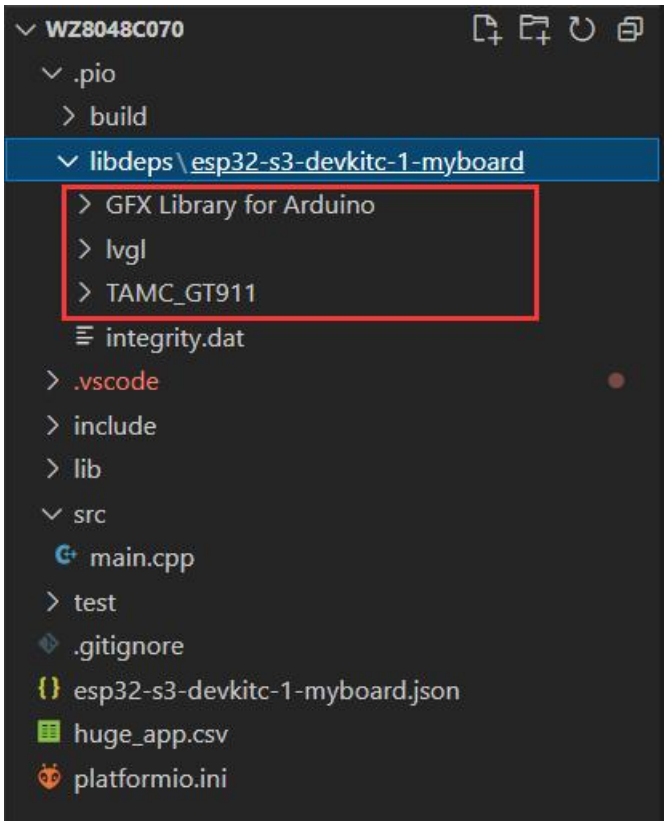
Home
Projects
Inspect
Libraries
Boards
Platforms
Devices
Registry
Installed
Built-in
Updates
GFX Library for Arduino by Moon On Our Nation
Arduino_GFX is a GFX library for various color displays with various data bus interfaces. Arduino_GFX is a Arduino grap
round display, GC9106, GC9107, HX8347C, HX8347D, HX8352C, HX8357A, HX8357B, HX8369A, ILI6122, ILI9225, ILI93
S3-BOX), ILI9481, ILI9486, ILI9488, ILI9806, JBT6K71, NT35310, NT35510, NT39125, NV3041A, OTM8009A, R61529, RM
SSD1331, SSD1351, ST7735, ST7789, ST7796 and virtually all Raspberry Pi DPI (RGB) display. Tested RGB display: GC95
Currently support software SPI (8-bit and 9-bit), hardware SPI (8-bit, ESP32 also support 9-bit), 8-bit parallel interface(
STM32), 16-bit parallel interface(ESP32 and RPi Pico) and RGB Panel interface(ESP32S3).
Installation
1.2.8 released 11 months ago
Add to Project
More info
Examples
Installation
Headers
Changelog
U8g2FontUTF8Chinese
U8g2FontUTF8Chinese
/***
* U8g2 Chinese font example
* Please note this font is 1,024,137 in size and cannot fit in many platform.
* This font is generated by U8g2 tools:
* u8g2/tools/font/bdfconv/bdfconv -v -f 1 -b 1 -m "32-127,11904-12351,19968-40959,63744-64255,65280-65376" u
***/

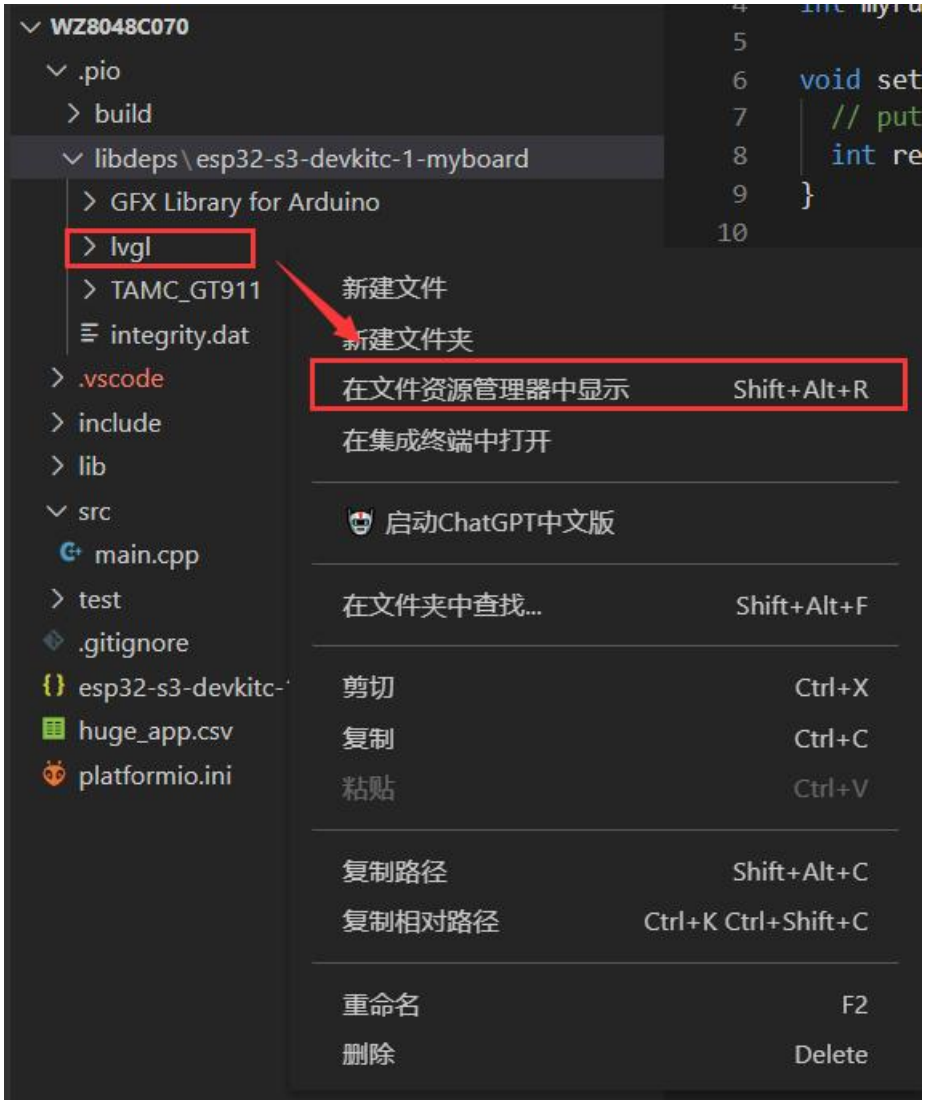

Add project dependency
moononournation/GFX Library for Arduino@1.2.8
Projects\WZ8048C070
You can manage your projects in the "Projects" section: create a new or add existing.
Information
Registry and Specification
External resources
Cancel
Add

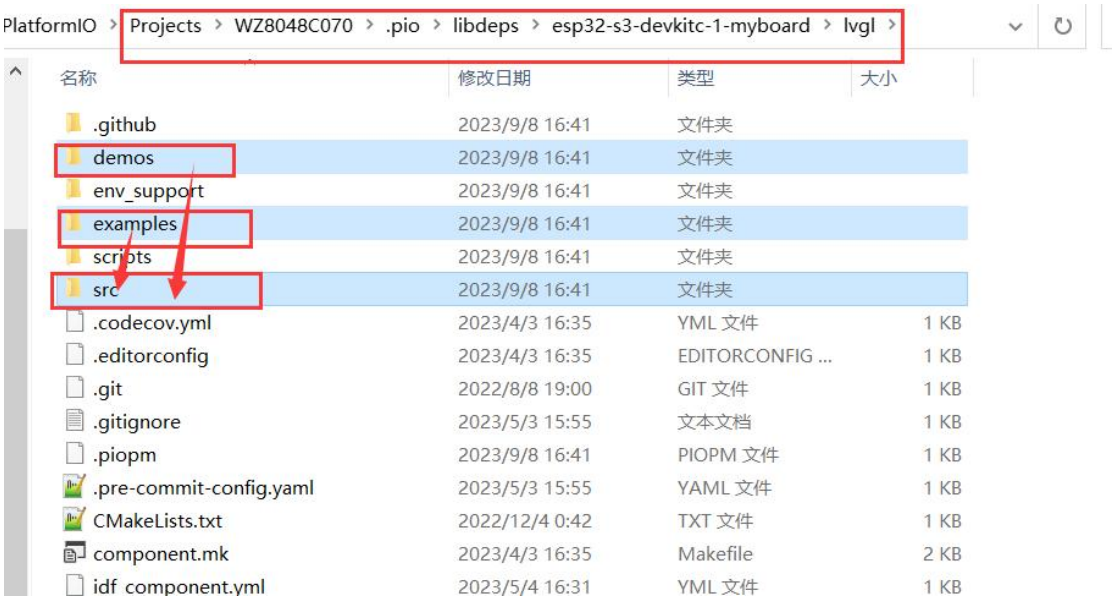


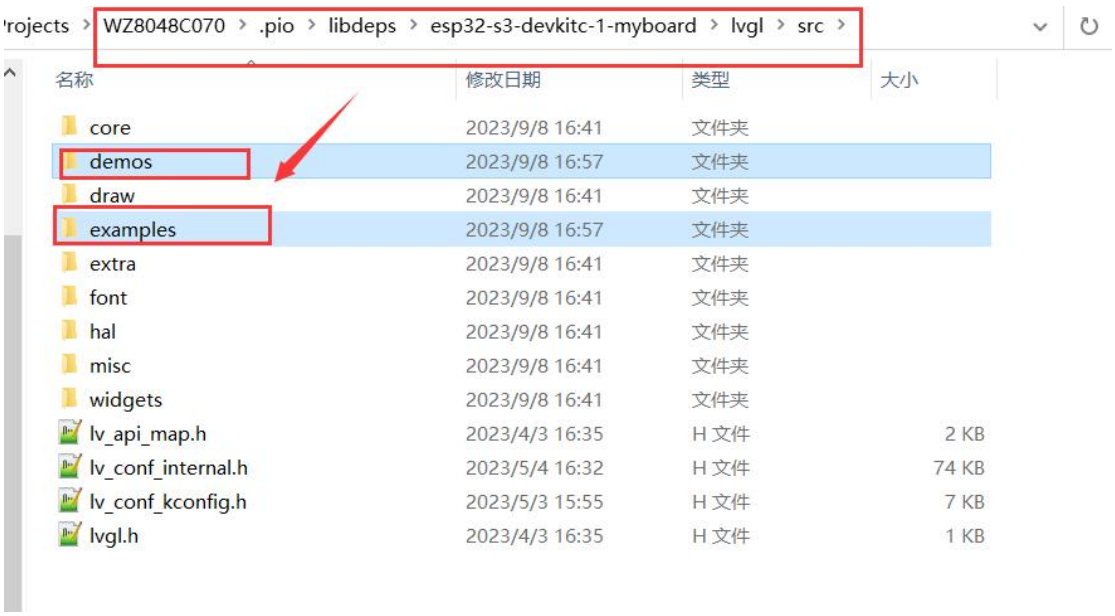
We can see that the library has been added successfully!



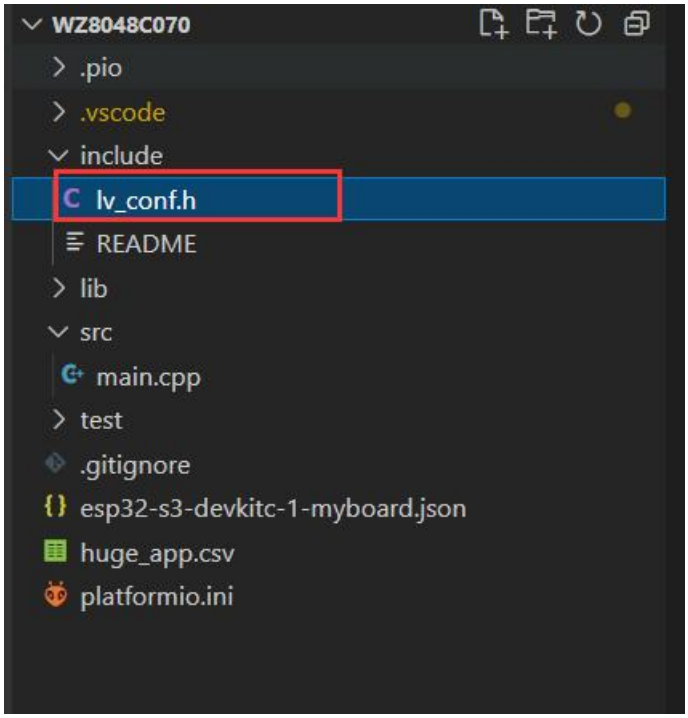
Next, we want to configure the lvgl library, right-click to open the folder directory, and put the demo and examples folders into the src folder!


WZ8048C070
.pio
build
libdeps \ esp32-s3-devkitc-1-myboard
GFX Library for Arduino
lvgl
TAMC_GT911
integrity.dat
.vscode
include
lib
src
main.cpp
test
.gitignore
esp32-s3-devkitc-
huge_app.csv
platformio.ini
新建文件
新建文件夹
在文件资源管理器中显示 Shift+Alt+R
在集成终端中打开
启动ChatGPT中文版
在文件夹中查找... Shift+Alt+F
剪切 Ctrl+X
复制 Ctrl+C
粘贴 Ctrl+V
复制路径 Shift+Alt+C
复制相对路径 Ctrl+K Ctrl+Shift+C
重命名 F2
删除 Delete
5
6 void set
7 // put
8 int re
9 }
10

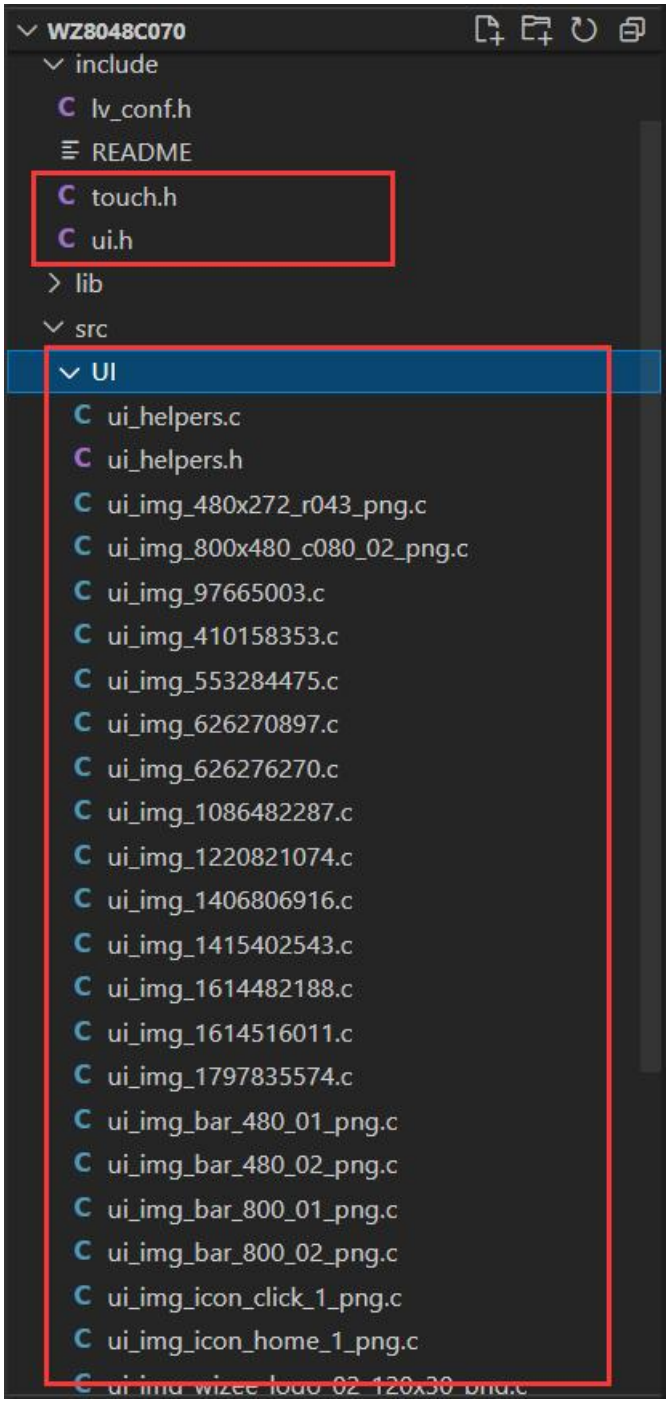

PlatformIO › Projects › WZ8048C070 › .pio › libdeps › esp32-s3-devkitc-1-myboard › lvgl ›
名称 修改日期 类型 大小
.github 2023/9/8 16:41 文件夹
demos 2023/9/8 16:41 文件夹
env_support 2023/9/8 16:41 文件夹
examples 2023/9/8 16:41 文件夹
scripts 2023/9/8 16:41 文件夹
src 2023/9/8 16:41 文件夹
.codecov.yml 2023/4/3 16:35 YML 文件 1 KB
.editorconfig 2023/4/3 16:35 EDITORCONFIG ... 1 KB
.git 2022/8/8 19:00 GIT 文件 1 KB
.gitignore 2023/5/3 15:55 文本文档 1 KB
.piopm 2023/9/8 16:41 PIOPM 文件 1 KB
.pre-commit-config.yaml 2023/5/3 15:55 YAML 文件 1 KB
CMakeLists.txt 2022/12/4 0:42 TXT 文件 1 KB
component.mk 2023/4/3 16:35 Makefile 2 KB
idf_component.yml 2023/5/4 16:31 YML 文件 1 KB



Place the lv_conf.h file under the /include directory

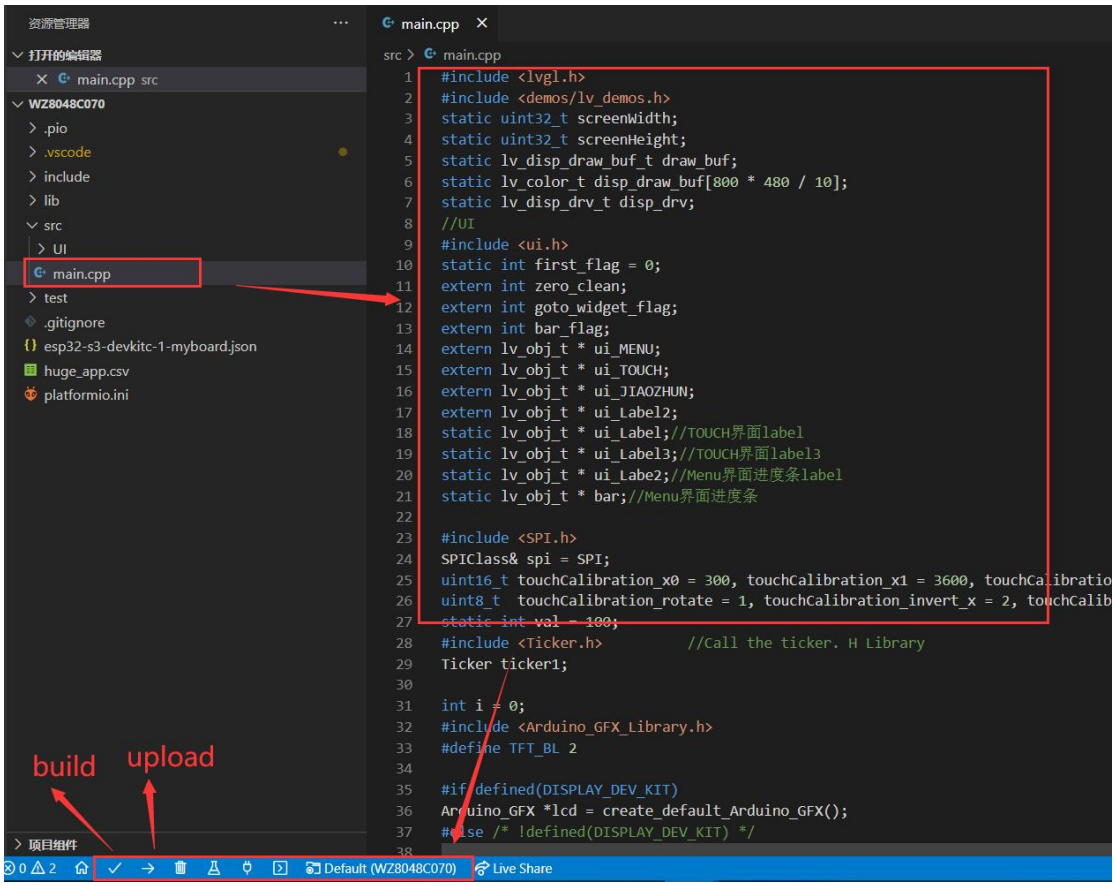


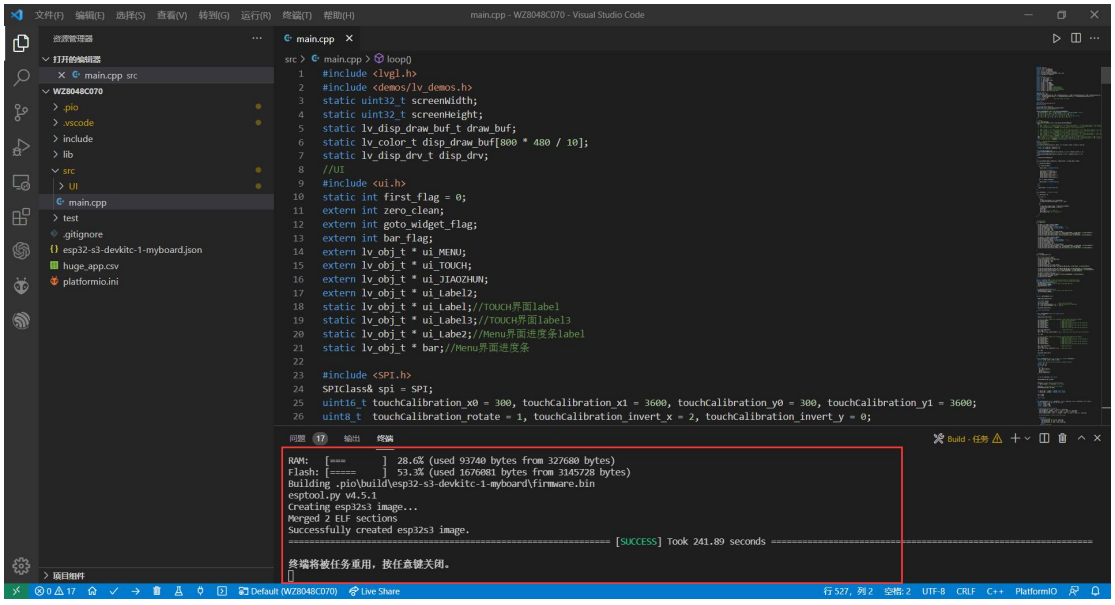
Next, let's configure our own UI files (the UI files are generated from the SquareLine Studio)



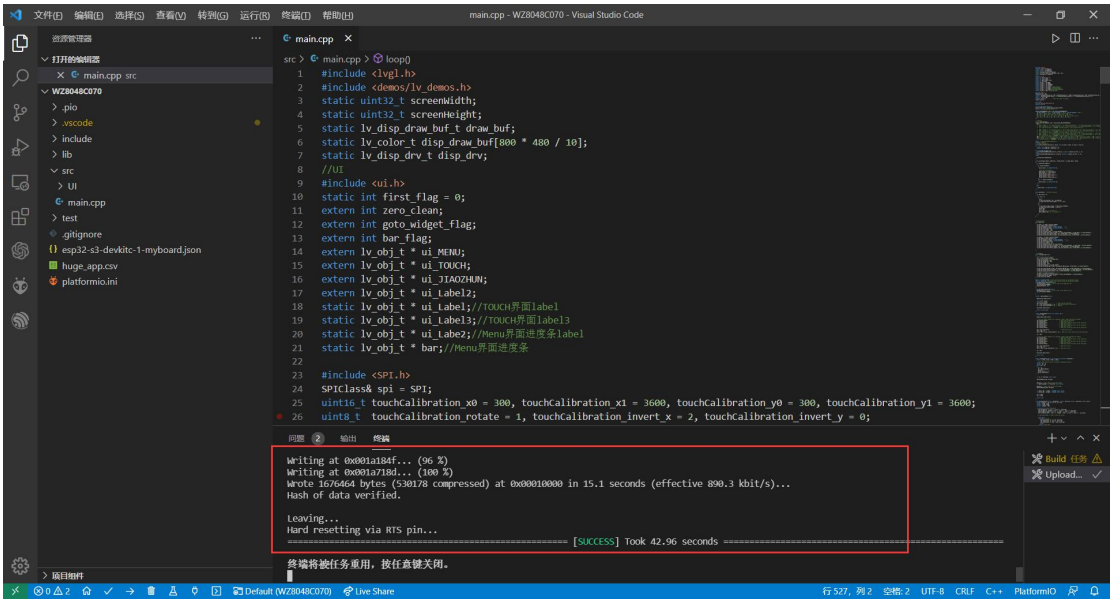
In the UI folder that will be generated. The c file is placed in the /src folder, and in the generated UI folder. Place the h file in the /include folder

At this time, we will complete all the configuration, write the code and start compiling the program





Next we began to burn the program, finished!


文件(F) 编辑(E) 选择(S) 查看(V) 转到(G) 运行(R) 终端(T) 帮助(H)
main.cpp - WZ8048C070 - Visual Studio Code
资源管理器
打开的编辑器
main.cpp src
WZ8048C070
.pio
.vscode
include
lib
src
UI
main.cpp
test
.gitignore
esp32-s3-devkitc-1-myboard.json
huge_app.csv
platformio.ini
项目组件
main.cpp
src > main.cpp > loop()
#include <lvgl.h>
#include <demos/lv_demos.h>
static uint32_t screenWidth;
static uint32_t screenHeight;
static lv_disp_draw_buf_t draw_buf;
static lv_color_t disp_draw_buf[800 * 480 / 10];
static lv_disp_drv_t disp_drv;
//UI
#include <ui.h>
static int first_flag = 0;
extern int zero_clean;
extern int goto_widget_flag;
extern int bar_flag;
extern lv_obj_t * ui_MENU;
extern lv_obj_t * ui_TOUCH;
extern lv_obj_t * ui_JIAOZHUN;
extern lv_obj_t * ui_Label2;
static lv_obj_t * ui_Label1;//TOUCH界面label
static lv_obj_t * ui_Label3;//TOUCH界面label3
static lv_obj_t * ui_Label2;//Menu界面进度条label
static lv_obj_t * bar;//Menu界面进度条
#include <SPI.h>
SPIClass& spi = SPI;
uint16_t touchCalibration_x0 = 300, touchCalibration_x1 = 3600, touchCalibration_y0 = 300, touchCalibration_y1 = 3600;
uint8_t touchCalibration_rotate = 1, touchCalibration_invert_x = 2, touchCalibration_invert_y = 0;
问题 2
输出
终端
Writing at 0x001a184f... (96 %)
Writing at 0x001a718d... (100 %)
Wrote 1676464 bytes (530178 compressed) at 0x00010000 in 15.1 seconds (effective 890.3 kbit/s)...
Hash of data verified.
Leaving...
Hard resetting via RTS pin...
[SUCCESS] Took 42.96 seconds
终端将被任务重用，按任意键关闭。
Build 任务
Upload...
Default (WZ8048C070)
Live Share
行 527，列 2
空格: 2
UTF-8
CRLF
C++
PlatformIO