T5-4.7 & T5-4.7 Plus 编程指南

发行版本 *master*

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Contents

CHAPTER 1

快速入门

本文档旨在指导用户搭建 T5-4.7 和 T5-4.7 Plus 硬件开发的软件环境。

1.1 安装准备

请先完成工具的安装，具体步骤见下：

	
arduino	platformio

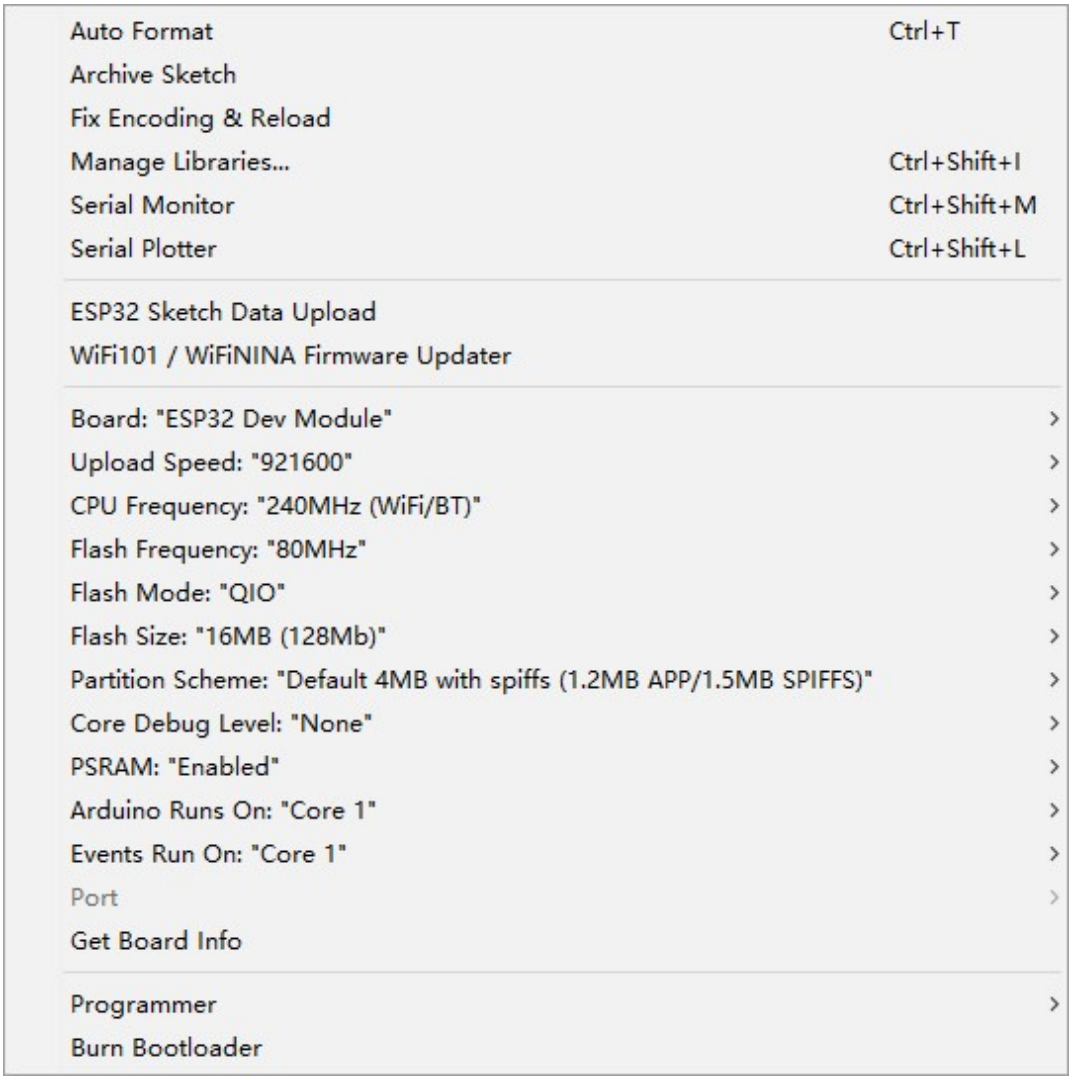
1.2 安装依赖库

使用“下载 ZIP”按钮从 github 下载 zip 文件并使用 IDEA 安装它 (`Sketch` -> `Include Library` -> `Add .ZIP Library...`).

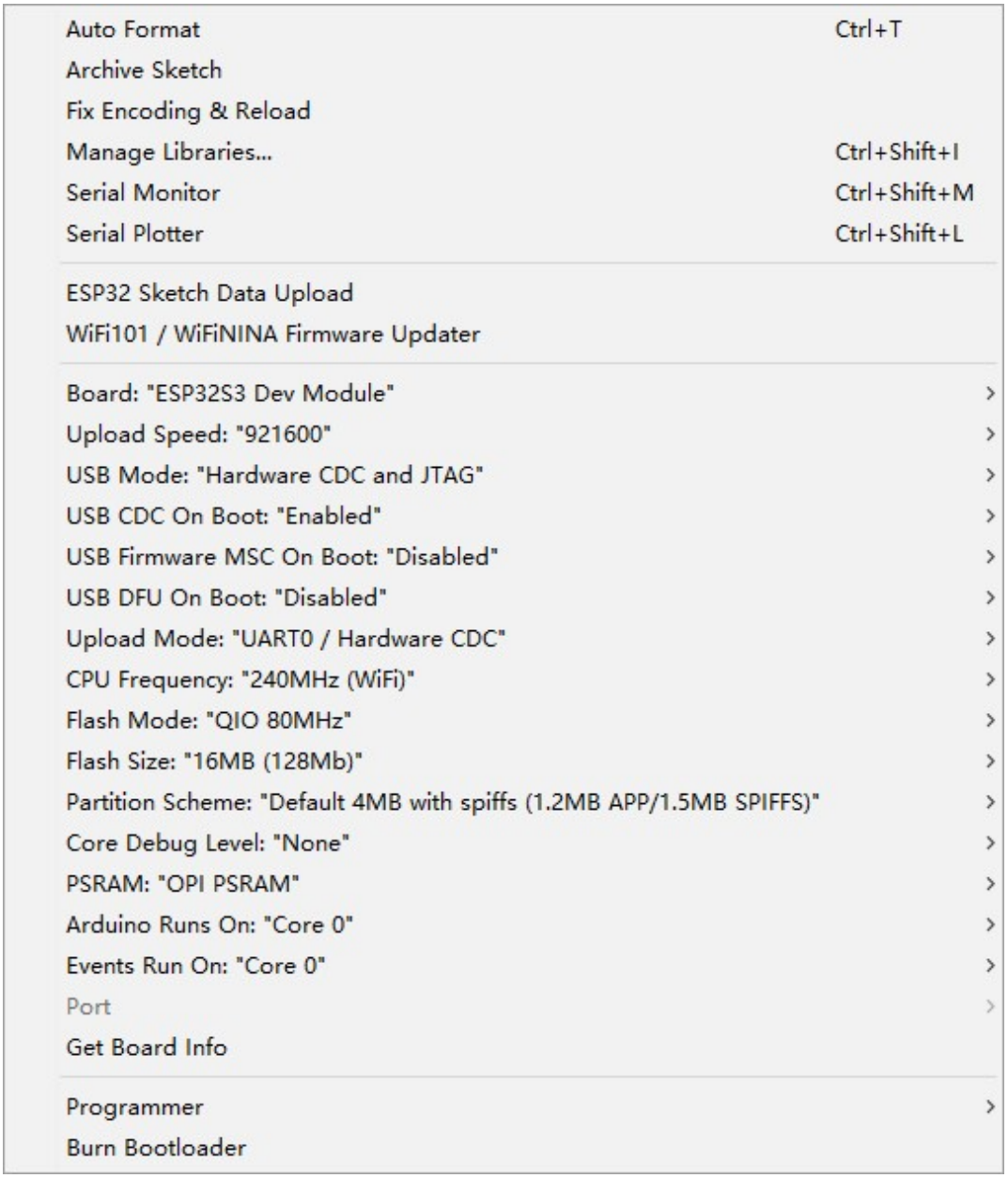
- PCF8563_Library
- LilyGoEPD47

1.3 Arduino 编译配置

- T5-4.7



- T5-4.7-Plus



1.4 原理图

- T5-4.7 Schematic (pdf)
- T5-4.7 Plus Schematic (pdf)

1.5 数据手册

- ESP32 (Datasheet)
- ESP32-WROVER-E (Datasheet)
- ESP32-S3 (Datasheet)
- ESP32-S3-WROOM-1 (Datasheet)
- ED047TC1 (Datasheet)
- PCF8563 (Datasheet)

CHAPTER 2

工具

2.1 fontconvert

Prerequisite you need to install python3 and install *freetype-py* using pip The approximate process is like this:

```
sudo apt install python3-pip
python3 -m pip install freetype-py
```

The previous is the prerequisite for implementation, and then you need to store the font file you want to convert in the same path as fontconvert.py. This is just for more convenient operation. You can also fill in the font path.

Then just follow the command below to convert the font.

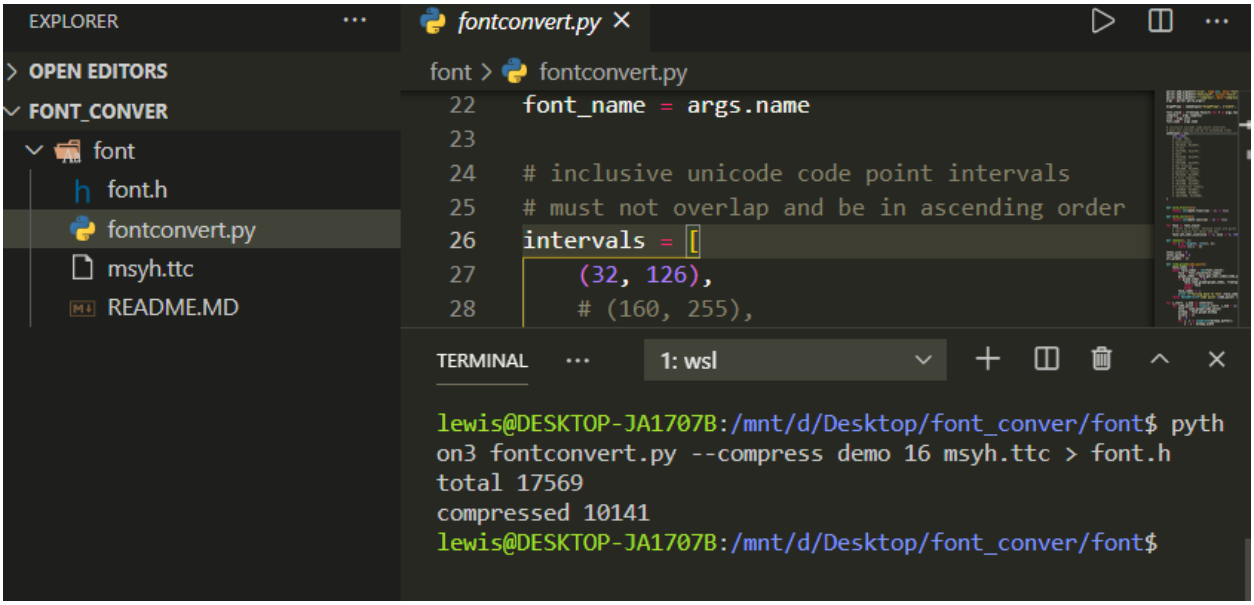
```
python3 fontconvert.py --compress demo 16 msyh.ttc > font.h
```

Explanation of specific parameters:

```
python3 fontconvert.py --compress [generated font name] [font size] [font file path] >
↪ [generated font file]
```

Of course, this only demonstrates the generation of standard ascii codes. If you need other fonts, you only need to fill in the unicode encoding of the font to be generated in the *fontconvert.py intervals* list.

Please make sure that the unicode encoding in the fontconvert.py intervals list is included in your font file, otherwise please comment other encodings and only keep the 32,126 range!



2.2 imgconvert

1. Prerequisites

```
python3 -m pip install pillow
```

2. Instructions

```
imgconvert.py [-h] [-i INPUTFILE] [-n NAME] [-o OUTPUTFILE]
```

3. examples:

```
python imgconvert.py -i demo.png  -n demo -o demo.h
```