

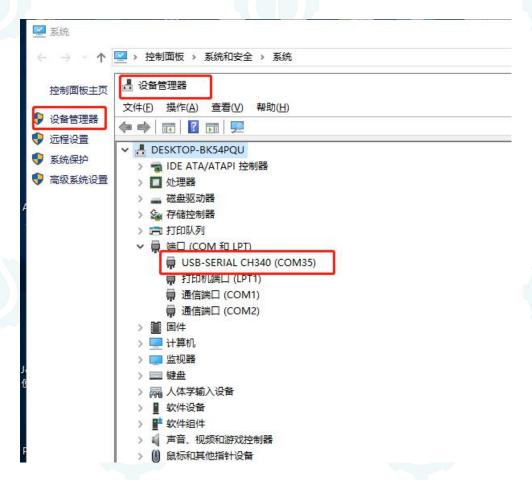
ESP832 开发板环境配置

第一步:连接主板与计算机

连接初始状态: 蓝色 PWR 灯常亮

状态检测: 打开电脑设备管理器,查看端口是否被识别,识别到 CH340 串口即为正常连接

(COM 号每台电脑不同,通常是除1和2以外的数字)



第二步: 打开 Arduino IDE

(默认已安装 Arduino 编译环境(Arduino IDE 软甲),如需软件安装指导,可点击如下

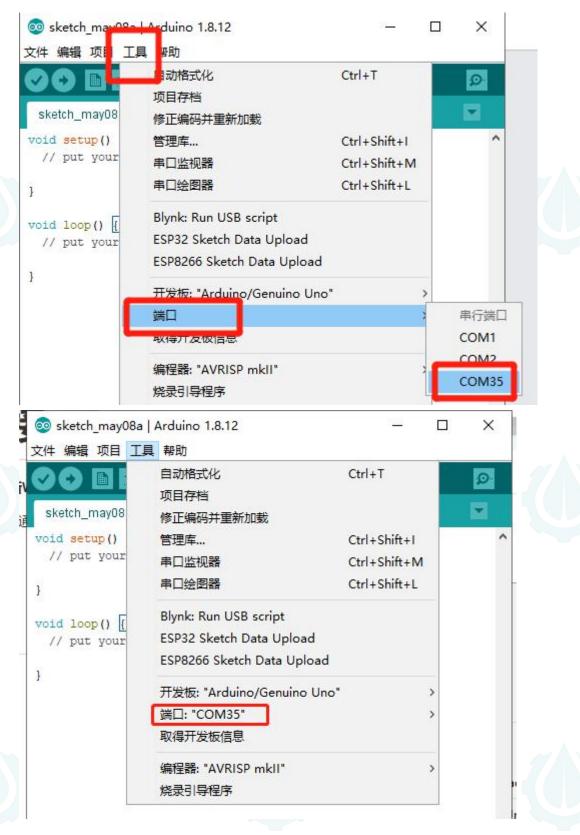
链接:

http://wiki.ywrobot.net/index.php?title=Arduino%E5%85%A5%E9%97%A8%E6%9

5%99%E7%A8%8B)

检查一下 IDE 的端口选项是否有在设备管理器中查看到的 COM 号,有的话点击选择





第三步:安装开发板

初始下载的 Arduino IDE 只有最基本的开发板信息,需要自己安装

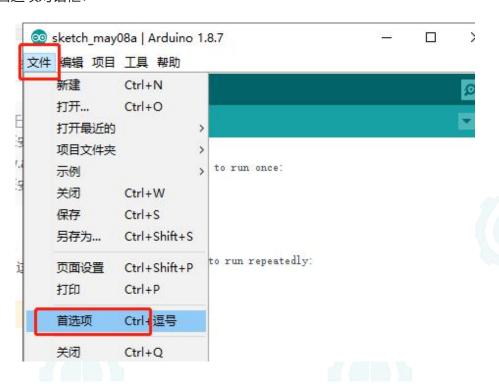
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打开首选项对话框:



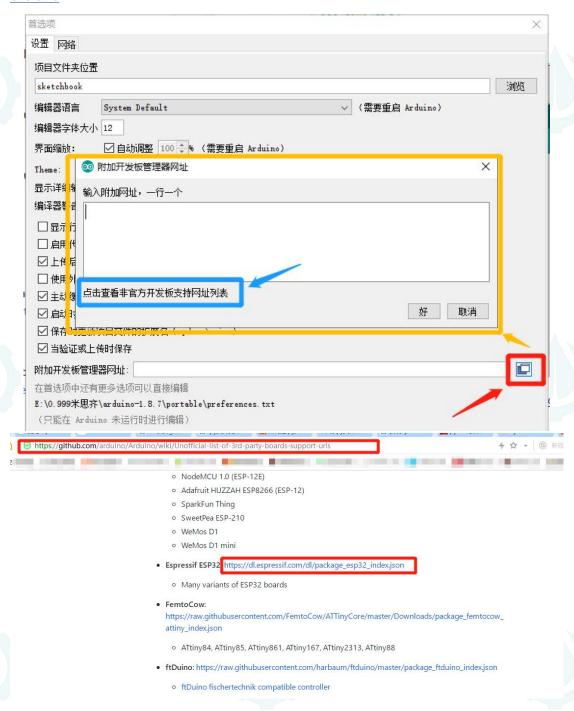
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打开首选项对话框"附加开发板管理器网址",点击蓝色框内链接:

https://github.com/arduino/Arduino/wiki/Unofficial-list-of-3rd-party-boards-supp

ort-urls



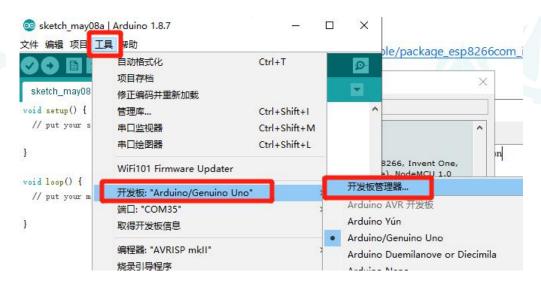
复制地址:https://dl.espressif.com/dl/package esp32 index.json

填入后点击"好",保存首选项设置





打开开发板管理器,搜索 esp32 并点击安装











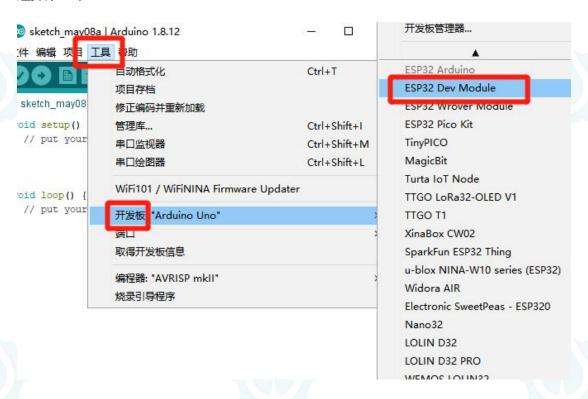






再打开开发板信息就可以看到安装的 esp32 板子型号

选择第一个: ESP32 dev Module



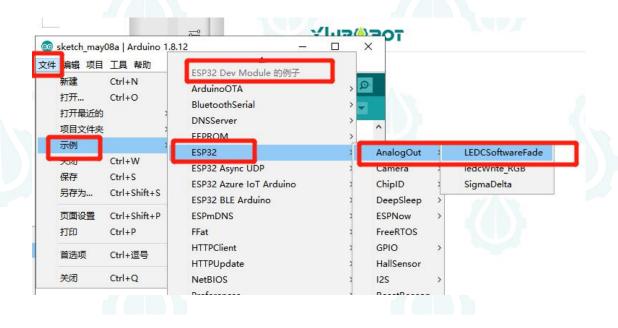
等待一会后点击工具菜单可以看到板子型号以及端口号





第四步: 写入程序

打开案例程序进行测试



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修改 LED_PIN 引脚号

```
// use first channel of 16 channels (started from zero)
#define LEDC_CHANNEL_0 0

// use 13 bit precission for LEDC timer
#define LEDC_TIMER_13_BIT 13

// use 5000 Hz as a LEDC base frequency
#define LEDC_BASE_FREQ 5000

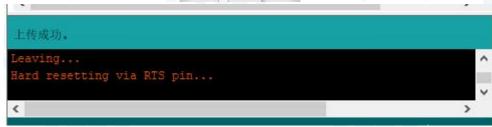
// fade LED_PIN (replace with D_BUILTIN constant for built-in LF
#define LED_PIN 2

int brightness = 0; // how bright the LED is
int fadeAmount = 5; // how many points to fade the LED by

// Arduino like analogWrite
```

点击上传,观察现象,

```
© LEDCSoftwareFade | Arduino 1.8.12
                                                                       ×
文件 编辑 项目 工具 帮助
     7
                                                                      Ø
  LEDCSon vareFade §
 This example code is in the public domain.
// use first channel of 16 channels (started from zero)
#define LEDC_CHANNEL_0
 // use 13 bit precission for LEDC timer
#define LEDC_TIMER_13_BIT 13
// use 5000 Hz as a LEDC base frequency
#define LEDC BASE FREQ
// fade LED PIN (replace with LED_BUILTIN constant for built-in LF
#define LED_PIN
int brightness = 0;    // how bright the LED is
int fadeAmount = 5;    // how many points to fade the LED by
// Arduino like analogWrite
108 APP/1.5MB SPIFFS), 240MHz (WiFi/BT), QIO, 80MHz, 4MB (32Mb), 115200, None 在
```





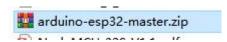
其他问题

Arduino IDE 开发板管理可能偶尔会存在国内下载困难的情况,此时可以关闭 Arduino IDE, 打开国外网络环境进行下载。

如果没有外网条件,可以过一段时间再试或通过如下方式进行环境安装

打开链接: https://github.com/espressif/arduino-esp32

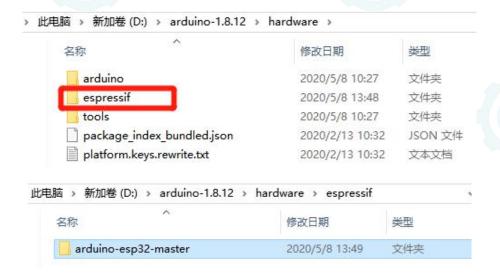
从 github 上下载 arduino-esp32 压缩文件



打开 Arduino IDE 安装路径, 打开 hardware 文件夹

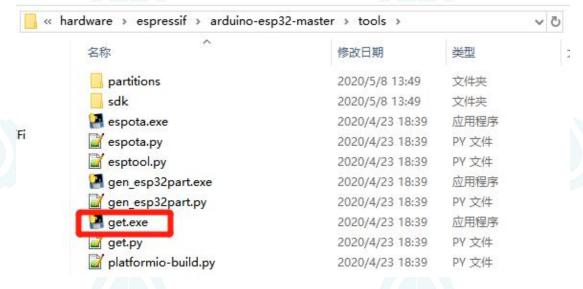


在 hardware 下建立一个文件夹 espressif, 然后将 arduino-esp32 解压到这个目录下





在 espressif\arduino-esp32-master\tools 路径下找到 get.exe 文件, 双击



弹出如下对话框,等待一会后出现如下提示,即安装成功

```
    Notarduino-1.8.12\hardware\espressif\arduino-esp32-master\tools\getexe
    System: Vindows, Info: Vindows-10-10. 0. 17763
    Platform: i636-mingw32
    Downloading xtensa-esp32-elf-win32-1. 22. 0-80-g6c4433a-5. 2. 0. zip
```

```
D:\arduino-1.8.12\hardware\espressif\arduino-esp32-master\tools\get.exe

System: Windows, Info: Windows-10-10.0.17763

Platform: i686-mingw32

Downloading xtensa-esp32-elf-win32-1.22.0-80-g6c4433a-5.2.0.zip

Done

Extracting xtensa-esp32-elf-win32-1.22.0-80-g6c4433a-5.2.0.zip

Downloading esptool-2.6.1-windows.zip

Done

Extracting esptool-2.6.1-windows.zip

Downloading mkspiffs-0.2.3-arduino-esp32-win32.zip
```