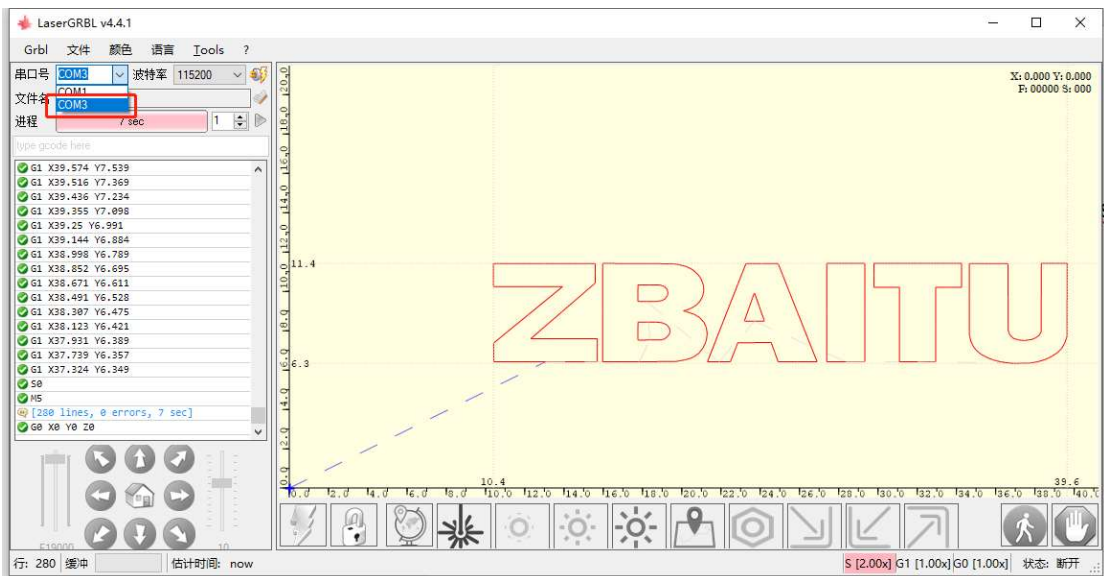
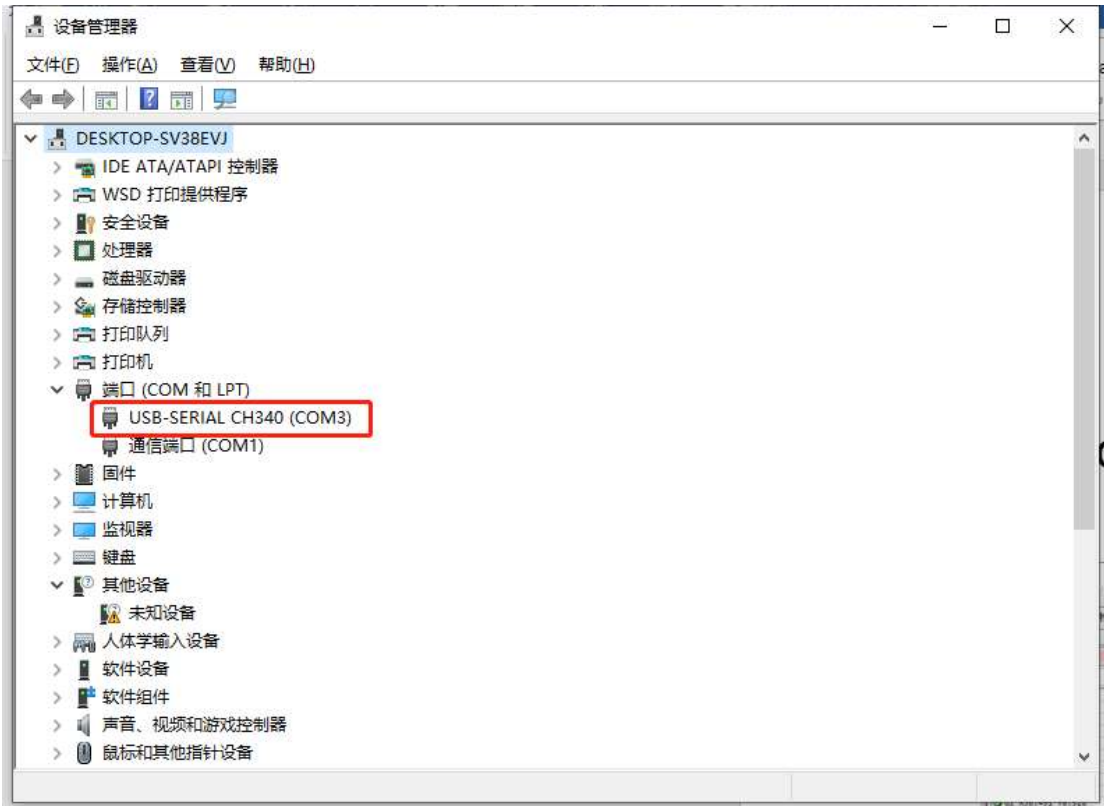


Firmware Download Step

1. Check COM Port



2. Modify COM Port in flash.dat

名称	修改日期	类型	大小
boot_app0.bin	2020/8/4 11:34	BIN 文件	8 KB
bootloader_qio_80m.bin	2020/8/4 11:34	BIN 文件	19 KB
esptool.exe	2020/8/4 12:24	应用程序	3,410 KB
firmware.bin	2021/9/9 18:01	BIN 文件	1,801 KB
flash.bat	2021/9/9 16:35	Windows 批处理...	1 KB
partitions.bin	2020/9/13 22:03	BIN 文件	3 KB
spiffs.bin	2021/7/28 20:04	BIN 文件	192 KB
XBoard.nc	2021/9/9 18:11	GCode file for la...	2 KB
指令.txt	2020/9/10 19:50	文本文档	1 KB

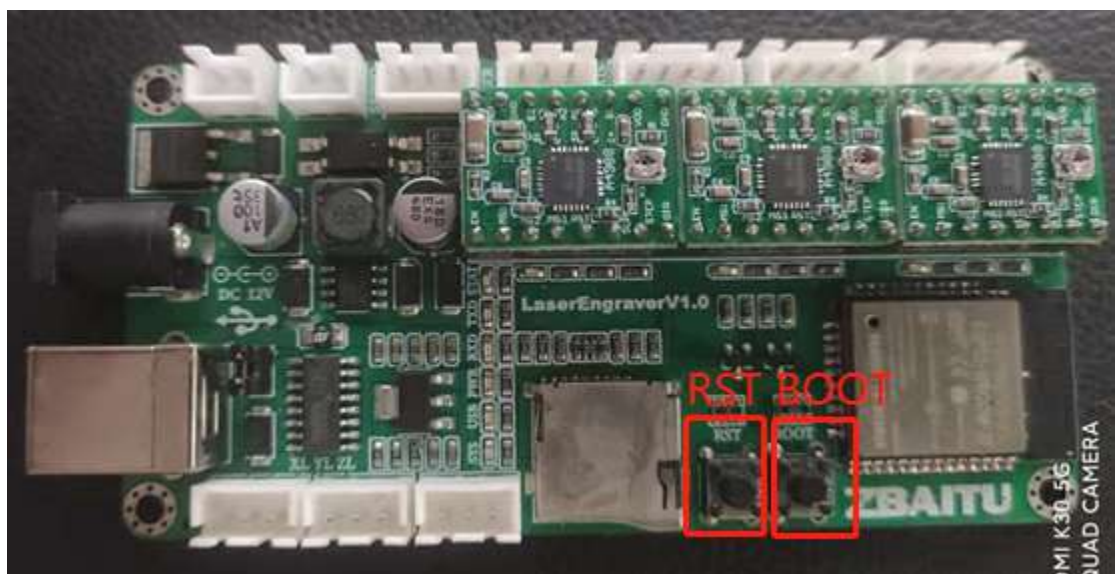
```
esptool.exe --chip esp32 ^
port COM3 --baud 921600 ^
before default_reset ^
--after hard_reset write flash -z ^
--flash_mode dio --flash_freq 80m ^
--flash_size detect 0xe00 boot_app0.bin ^
0x1000 bootloader_qio_80m.bin ^
0x10000 firmware.bin ^
0x8000 partitions.bin ^
0x003d0000 spiffs.bin
pause
```

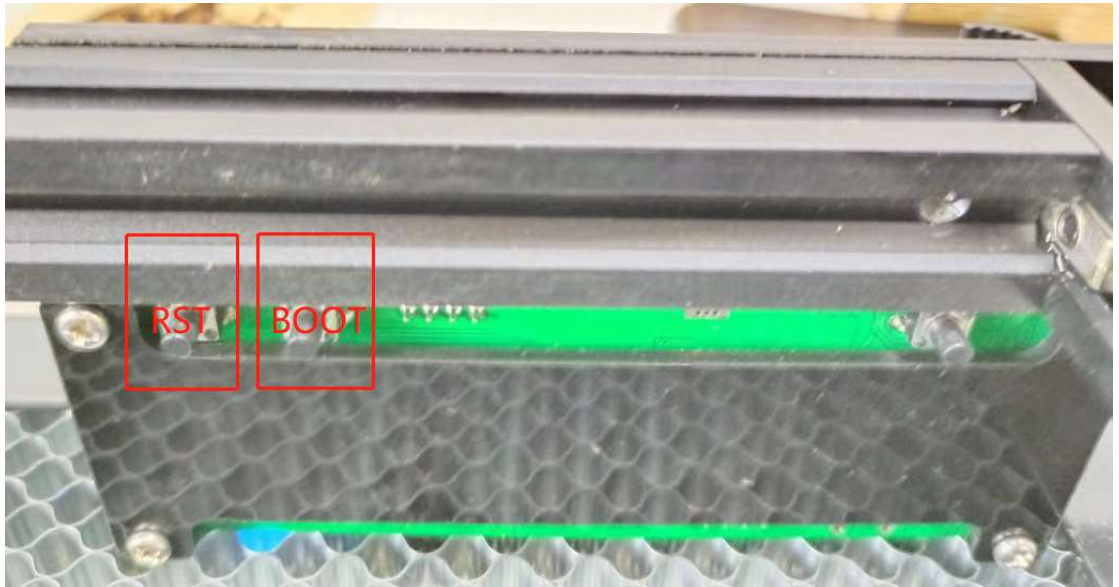
3. Double click flash.dat, start Connecting Mainboard

```
C:\Windows\system32\cmd.exe
E:\Project\LaserEngraver\Crb1_Esp32_XBoard_bin>esptool.exe --chip esp32 --port COM3 --baud 921600 --before default_reset
--after hard_reset write_flash -z --flash_mode dio --flash_freq 80m --flash_size detect 0xe000 boot_app0.bin 0x1000 boot
loader_qio_80m.bin 0x10000 firmware.bin 0x8000 partitions.bin 0x003d0000 spiffs.bin
esptool.py v2.6
Serial port COM3
Connecting.....
```

4. Mainboard Enable Download and Start

- a) Press Down [BOOT] key and hold
- b) Press Down [RST] key and hold
- c) Release [BOOT]& [RST] key





d) Download Started

```
C:\Windows\system32\cmd.exe
E:\ZBT_Project\Grbl_Esp32_Bin_V1.5b>copy E:\ZBT_Project\Grbl_Esp32\pio\build\release\firmware.bin E:\ZBT_Project\Grbl_Esp32_Bin
已复制 1 个文件。
E:\ZBT_Project\Grbl_Esp32_Bin_V1.5b>esptool.exe --chip esp32 --port COM6 --baud 921600 --before default_reset --after hard_reset write_flash -z --flash_mode dio --flash_freq 80m --flash_size detect 0xe000 boot_app0.bin 0x1000 bootloader_qio_30m.bin 0x10000 firmware.bin 0x8000 partitions.bin 0x003d0000 spiffs.bin
esptool.py v2.6
Serial port COM6
Connecting.....
Chip is ESP32D0WDQ6 (revision 1)
Features: WiFi, BT, Dual Core, 240MHz, VRef calibration in efuse, Coding Scheme None
MAC: 08:3a:f2:92:1b:94
Uploading stub...
Running stub...
Stub running...
Changing baud rate to 921600
Changed.
Configuring flash size...
Auto-detected Flash size: 4MB
Compressed 8192 bytes to 47...
Wrote 8192 bytes (47 compressed) at 0x0000e000 in 0.0 seconds (effective 9362.3 kbit/s)...
Hash of data verified.
Compressed 18608 bytes to 12030...
Wrote 18608 bytes (12030 compressed) at 0x00001000 in 0.2 seconds (effective 960.4 kbit/s)...
Hash of data verified.
Compressed 1843152 bytes to 1080091...
Writing at 0x0002c000... (12 %)
```

5. Download finished, click [RST] key.

```
C:\Windows\system32\cmd.exe
Features: WiFi, BT, Dual Core, 240MHz, VRef calibration in efuse, Coding Scheme None
MAC: 08:3a:f2:92:1b:94
Uploading stub...
Running stub...
Stub running...
Changing baud rate to 921600
Changed.
Configuring flash size...
Auto-detected Flash size: 4MB
Compressed 8192 bytes to 47...
Wrote 8192 bytes (47 compressed) at 0x0000e000 in 0.0 seconds (effective 9362.3 kbit/s)...
Hash of data verified.
Compressed 18608 bytes to 12030...
Wrote 18608 bytes (12030 compressed) at 0x00001000 in 0.2 seconds (effective 960.4 kbit/s)...
Hash of data verified.
Compressed 1843152 bytes to 1080091...
Wrote 1843152 bytes (1080091 compressed) at 0x00010000 in 19.4 seconds (effective 759.7 kbit/s)...
Hash of data verified.
Compressed 3072 bytes to 129...
Wrote 3072 bytes (129 compressed) at 0x00008000 in 0.0 seconds (effective 3071.9 kbit/s)...
Hash of data verified.
Compressed 196608 bytes to 112016...
Wrote 196608 bytes (112016 compressed) at 0x003d0000 in 1.9 seconds (effective 846.5 kbit/s)...
Hash of data verified.

Leaving..
Hard resetting via RTS pin...

E:\ZBT_Project\Grbl_Esp32_Bin_V1.5b>pause
请按任意键继续. . .
```