ML-H803TC
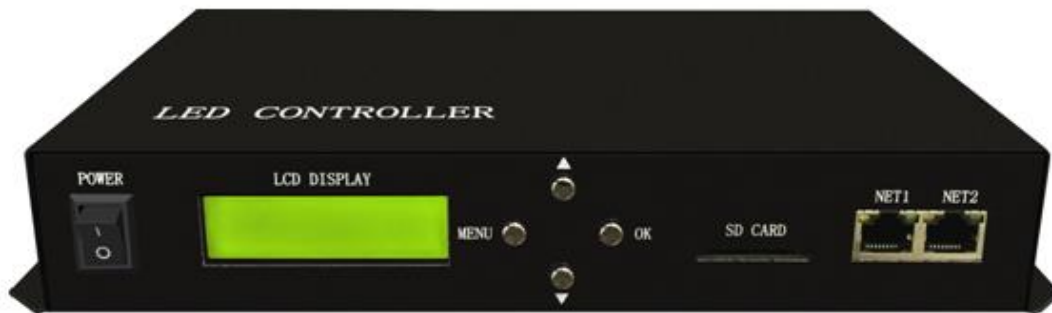

1. Features

(1). ML-H803TC can work with PC(online), SD card(offline) or DMX console.

(2). ML-H803TC drives maximum 170000 pixels, 2 ports control maximum 255 slave controllers.

(3). Slave controller is H802RA or ML-H801RC.

(4). By combining ML-H803TC with H802RA, you can set address for DMX512 chips.

(5). ML-H803TC transmits signal based on Ethernet Protocol. Max transmission distance from ML-H803TC to slave controller is 100 meters.

(6). Use four buttons to switch files, set play mode, speed and brightness.

(7). SD card supports FAT32, FAT16 format, maximum capacity is 64G bytes, stores up to 64 DAT files.

(8).Support Encryption of power-up times.

2. Supported Driver Chips

LPD6803, LPD8806, LPD6812, LPD6813, LPD1882, LPD1889, LPD1883, LPD1886, DMX512, HDMX, APA102, P9813, LD1510, LD1512, LD1530, LD1532, UCS6909, UCS6912, UCS1903, UCS1909, UCS1912, WS2801, WS2803, WS2811, WS2812, DZ2809, SM16716, TLS3001, TLS3002, TM1812, TM1809, TM1804, TM1803, TM1914, TM1926, TM1829, TM1906, INK1003, BS0825, BS0815, BS0901, LY6620, DM412, DM413, DM114, DM115, DM13C, DM134, DM135, DM136, 74HC595, 6B595, MBI6023, MBI6024, MBI5001, MBI5168, MBI5016, MBI5026, MBI5027, TB62726, TB62706, ST2221A, ST2221C, XLT5026, ZQL9712, ZQL9712HV, etc.

Note: ML-H803TC supports more than the chips listed above(some chips have the same sequence diagram, for example: UCS512, WS2821 and DMX512 have the same protocol, ML-H803TC supports them all).

3. Basic Workflow
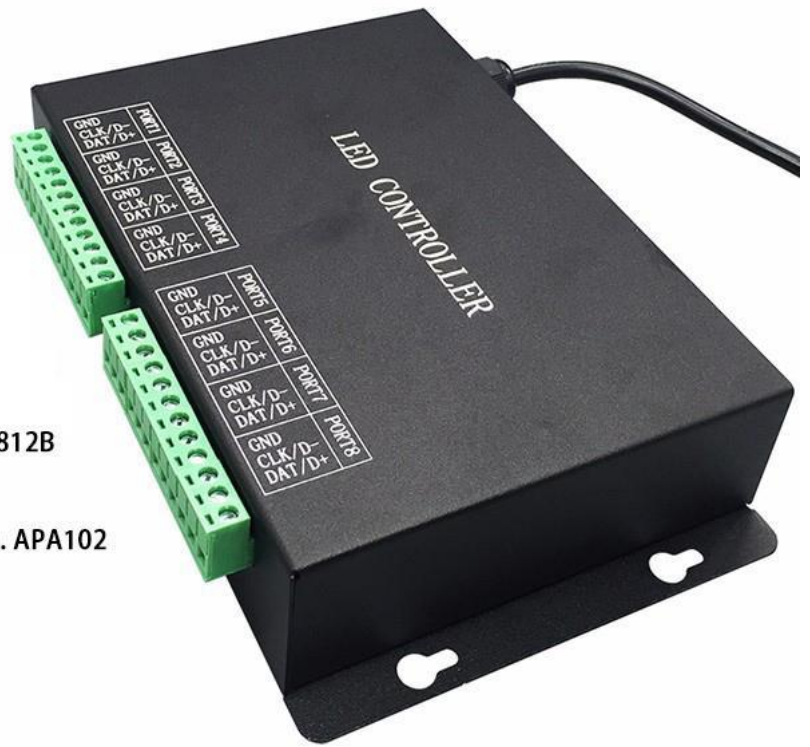
Work with SD card(offline)

Step1. Connect lights, slave controller and ML-H803TC like the following image.(I didn't draw power supply)

you can only use NET1.

SD card

8 ports slave controller (H801RC)

crossover network cable

leds
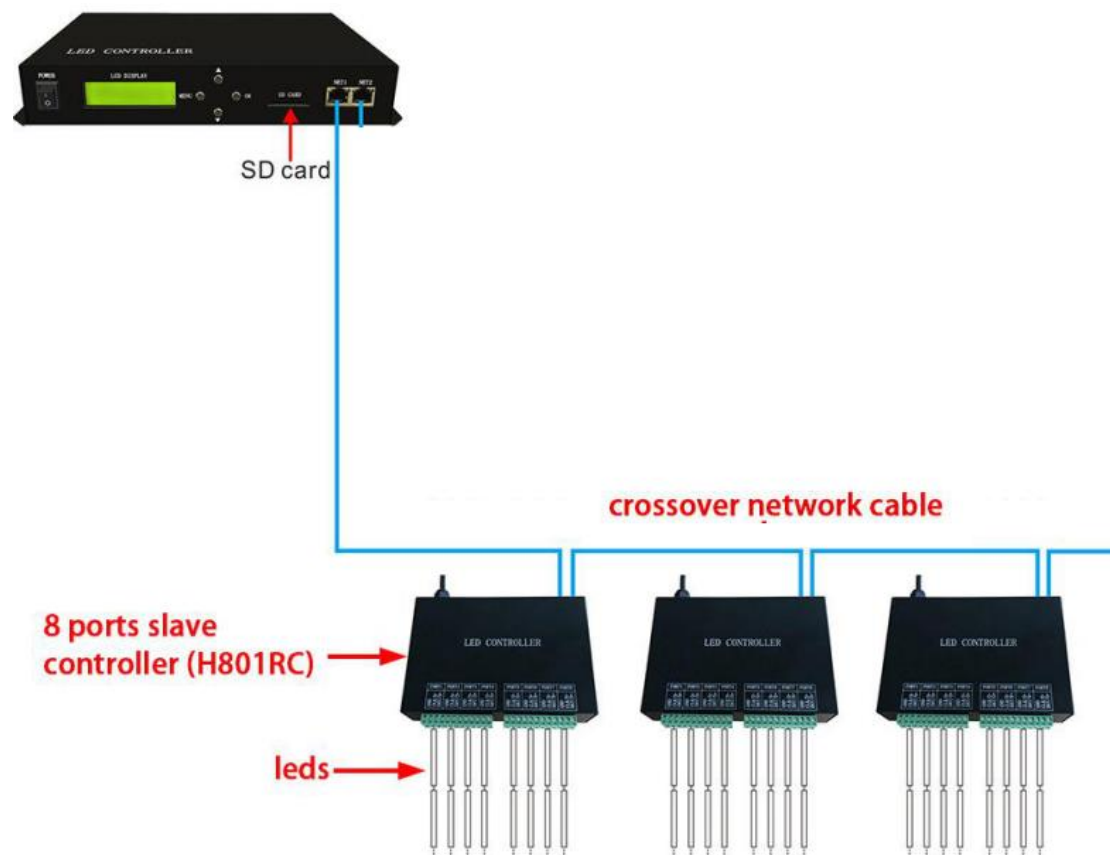
For example:

if you want to control WS2812B strip, just connect GND, DI on strip to GND, DAT on slave controller.

GND, D-, D+ : for DMX512 chips

GND, DAT : for single line chips e.g. WS2812B

GND, CLK, DAT : for double line chips e.g. APA102

Step2. Download and Install LED Build Software

In this mode, you will need LED Build Software.

LED Build Software

Download: https://drive.google.com/open?id=0B1gzqyV6hfOgUDZ

BVl84SmRDV28

LED Build Software Tutorial Video:

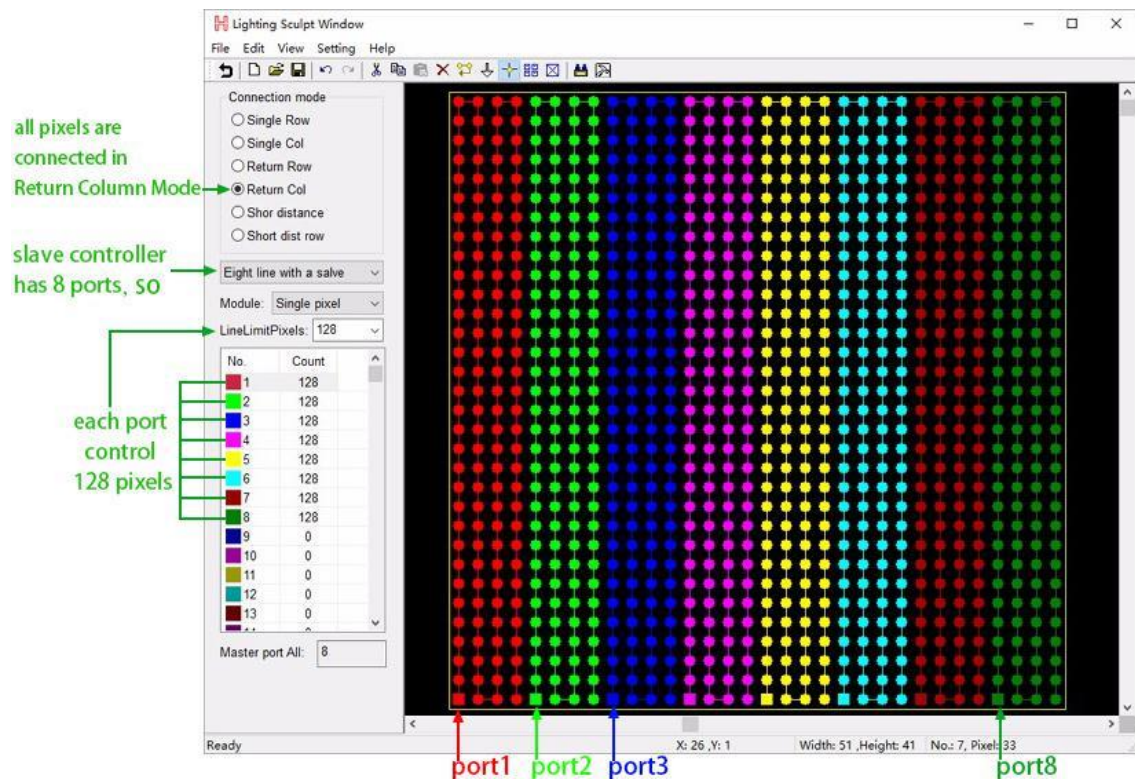https://drive.google.com/open?id=0B1gzqyV6hfOgUnFjeG9EM3VR

ZjA
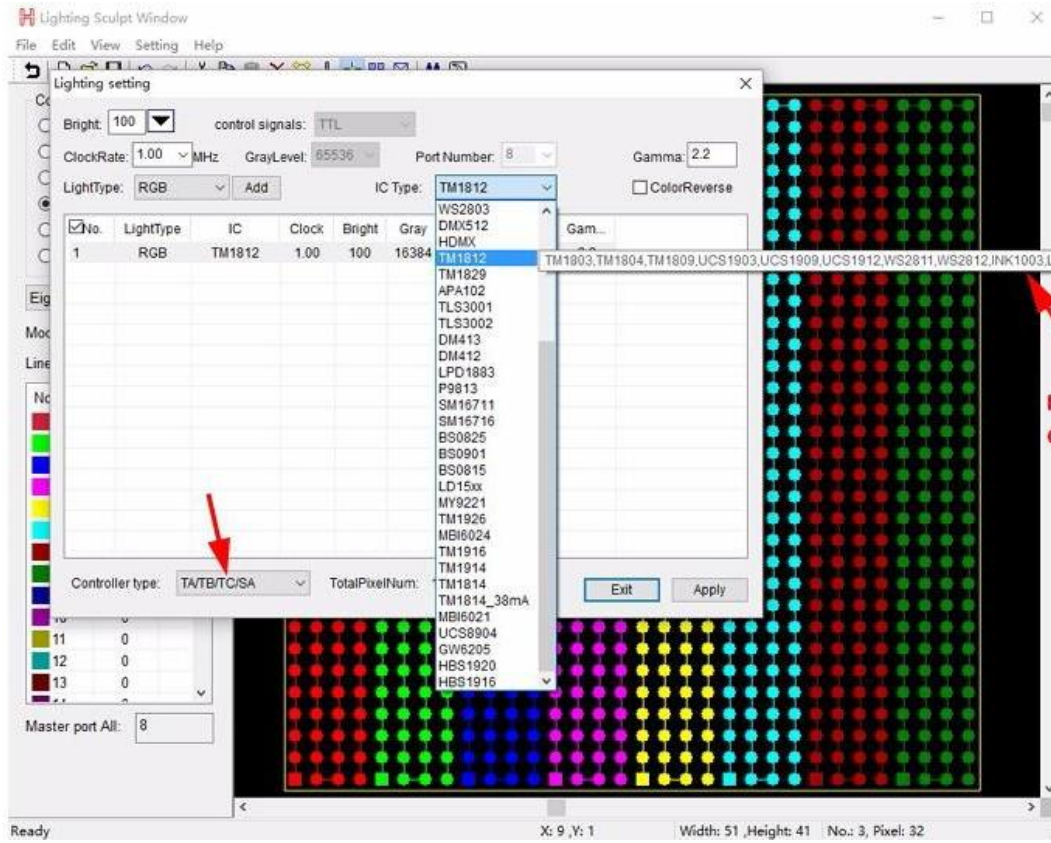
Step3. Program in LED Build Software

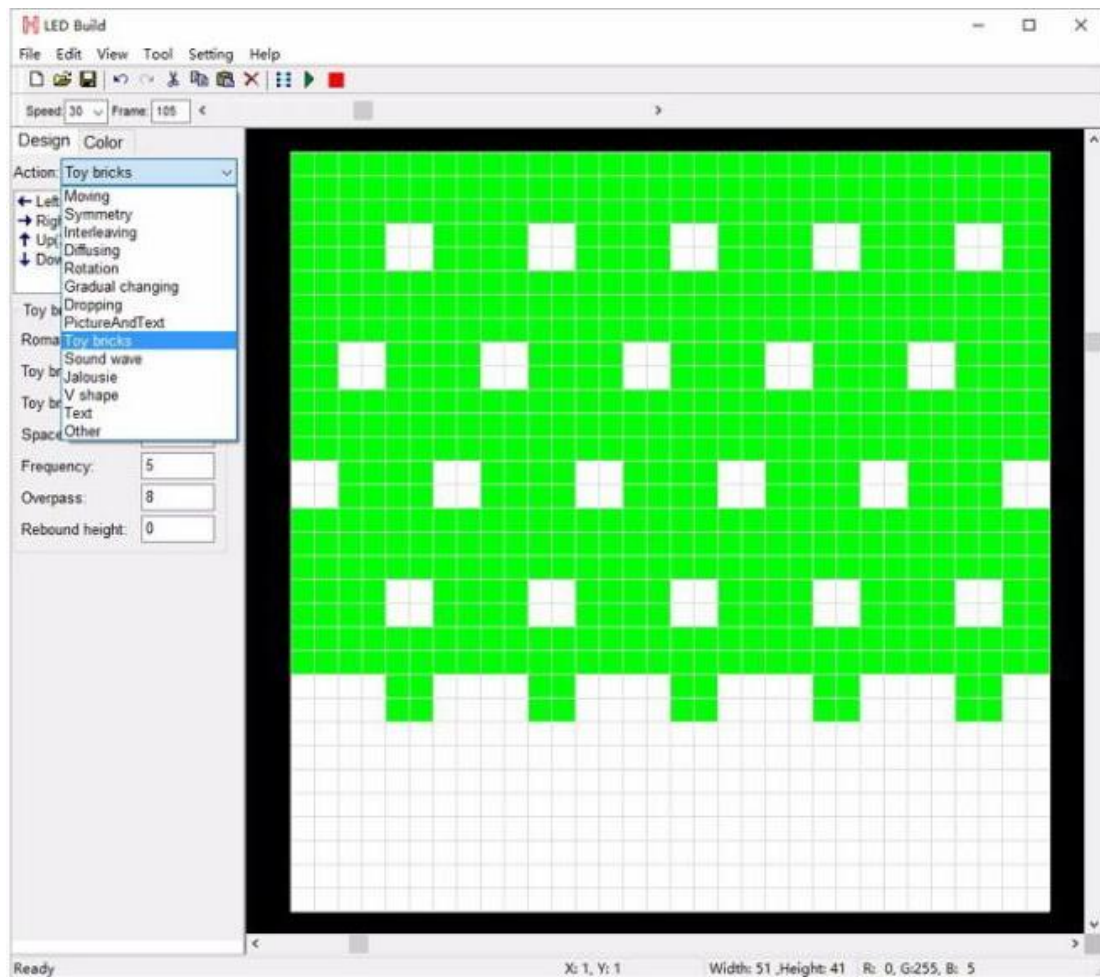Basic software workflow

1. Place Pixels

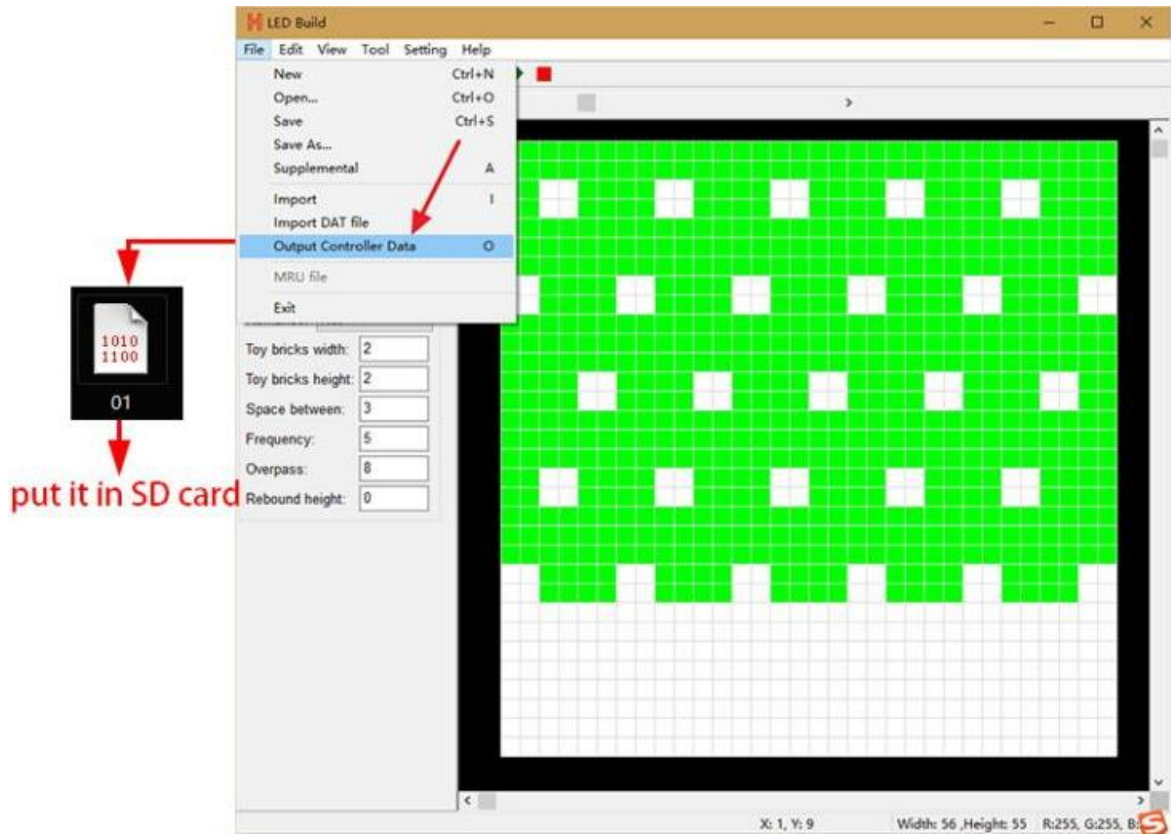**For example there are 1 slave controller(ML-H801RC) connected to ML-H803TC**

2. Light Setting

3. Make Effects

4. Output controller data and put it into SD card

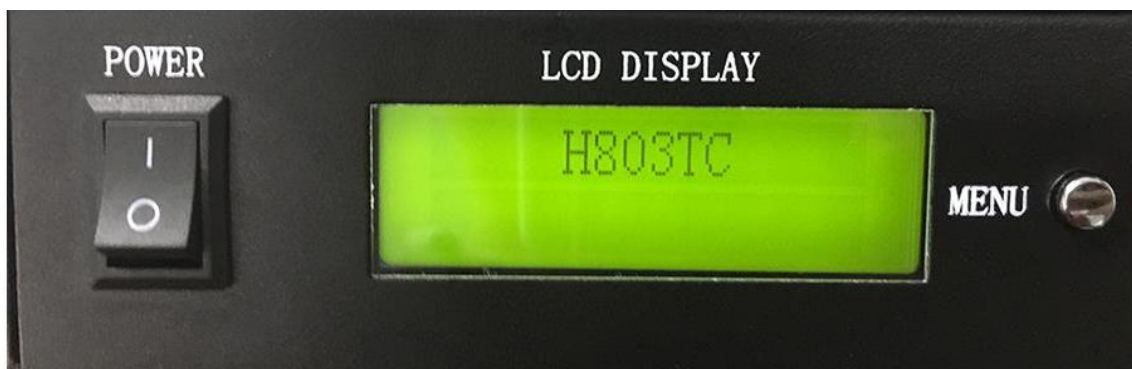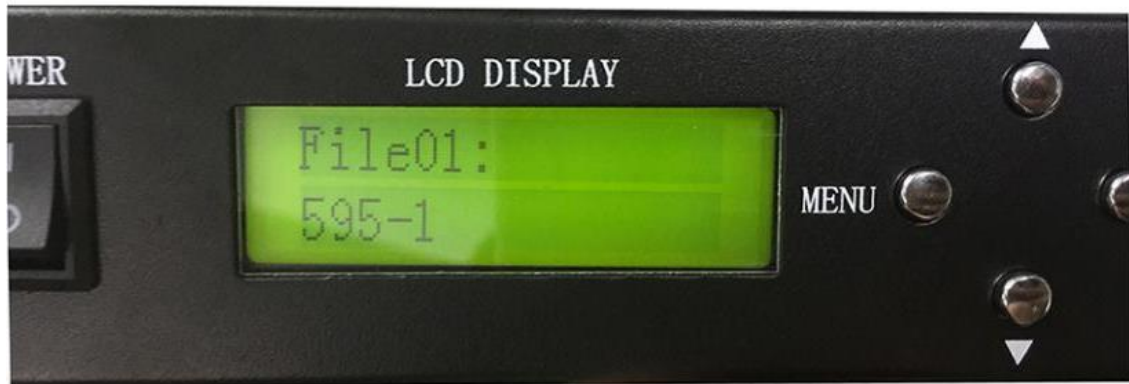For more details of software operation, please refer to the video post above.

Step4. Configure ML-H803TC with 4 buttons

Power ML-H803TC on

Long press "MENU" button to switch to English

Switch files

Set Playback Mode, press "OK" to save
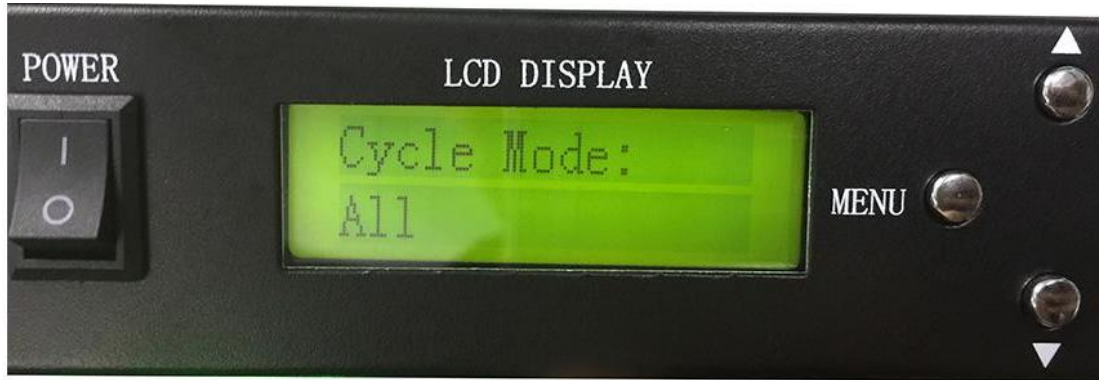
Set speed, press "OK" to save

Set brightness

Set DMX Address for ML-H803TC

This function is used when ML-H803TC is connected to DMX console

Contain GND,D-,D+

DMX512 Console

SD card
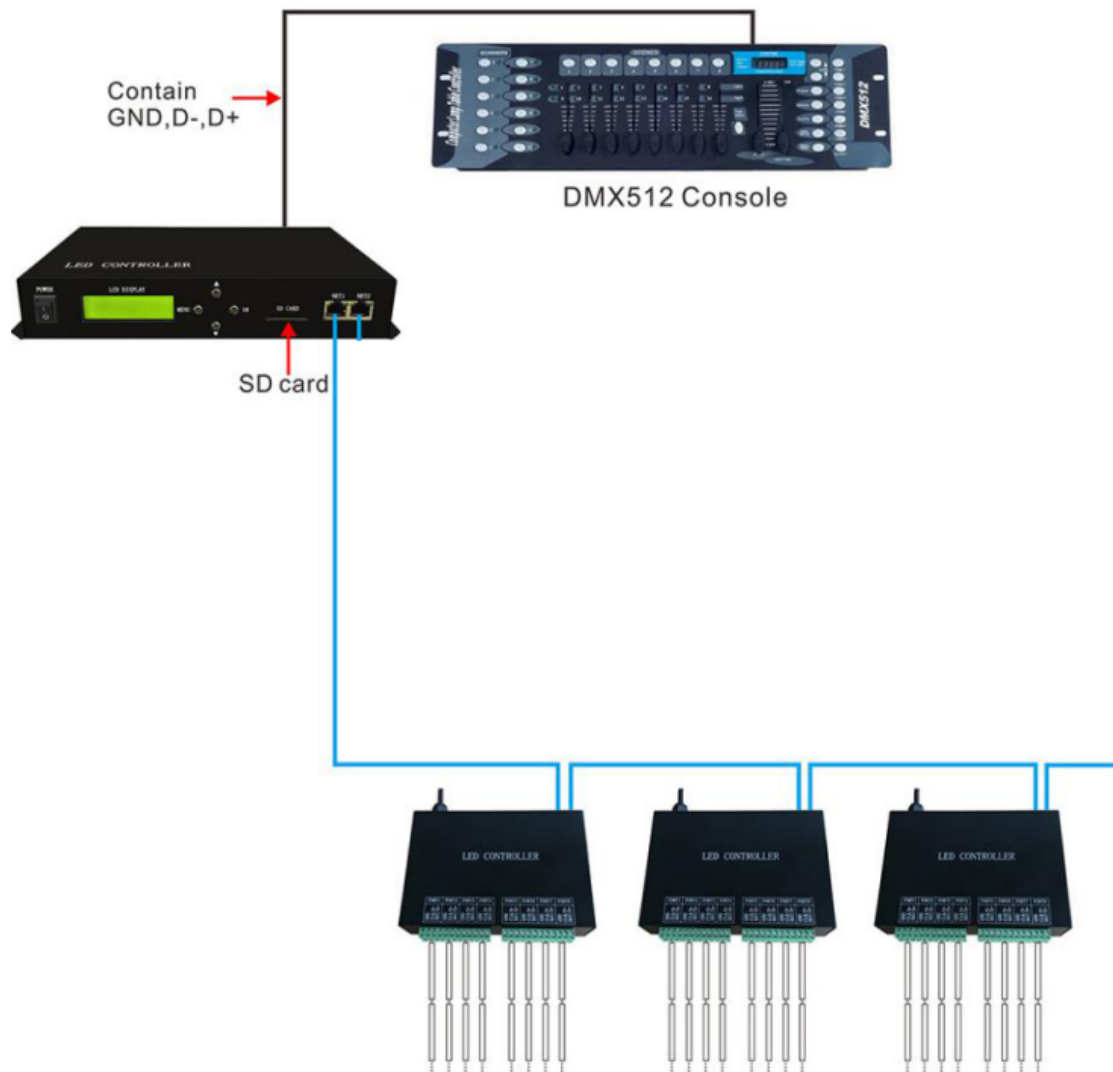
For example:

If DMX Address is 1, you can use channel 1,2,3 on DMX Console to switch files, change speed and brightness.

If DMX Address is 3, you can use channel 3,4,5 on DMX Console to switch files, change speed and brightness.

In a word, the DMX Address is the starting channel on DMX Console.

Press "OK" to start addressing.

Work with PC(online)

Step1. Connect lights, slave controllers and ML-H803TC like the following image.

crossover network cable

without SD card

8 ports slave
controller

pixels
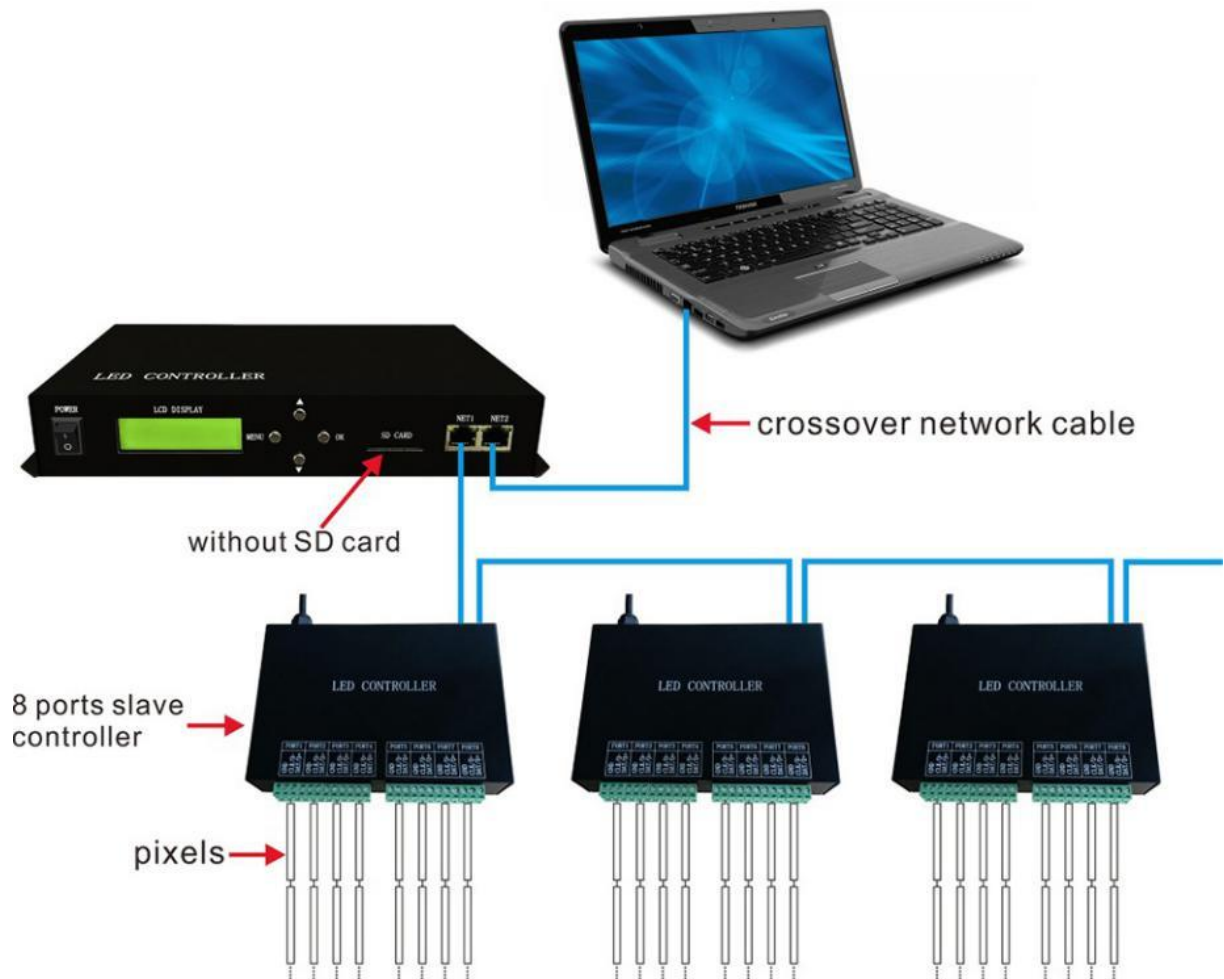
Step2. Download and Install LED Studio Software

In this mode, you will need LED Studio Software.

LED Studio download link:

https://drive.google.com/open?id=0B1gzqyV6hfOgWFpuM3BoN1V

aTGs

Step3. NET2 Setting

In online mode, NET2 transmits data received from PC to NET1.

Network Port 2 connects the computer through the network cable, and Network Port 1 connects the decentralized control. Network Port 1 forwards the data received by Network Port 2, which can realize the computer control.

Step4. Allocate an IP address for ML-H803TC

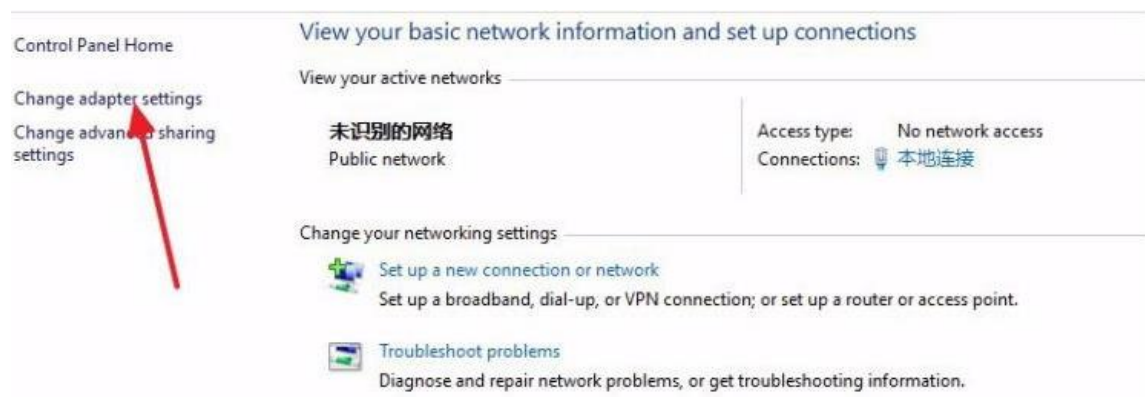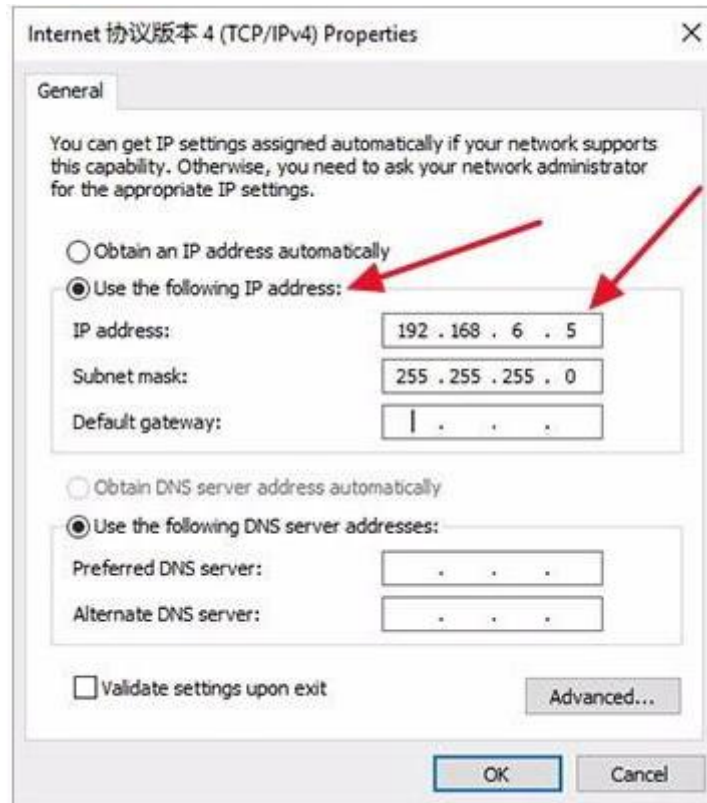← → ↑ 🖳 > Control Panel > Network and Internet > Network Connections

File   Edit   View   Tools   Advanced   Help

Organize ▾   Disable this network device   Diagnose this connection   Rename this connection   View status of this connection   C

VPN连接
Disconnected
WAN Miniport (PPTP)

本地连接
未识别的网络
Qualcom...

- 🛡 Disable
- **Status**
- Diagnose
- 🛡 Bridge Connections
- Create Shortcut
- 🛡 Delete
- 🛡 Rename
- 🛡 Properties

🖳 本地连接 Properties   ✕

Networking

Connect using:

🖳 Qualcomm Atheros AR8151 PCI-E Gigabit Ethernet Contro

[Configure...]   ①

This connection uses the following items:

☑ 🖳 QoS 数据包计划程序
☑ 🖳 Internet 协议版本 6 (TCP/IPv6)
☑ 🖳 链路层拓扑发现映射器 I/O 驱动程序
☐ 🖳 Microsoft 网络适配器多路传送协议
☑ 🖳 Internet 协议版本 4 (TCP/IPv4)
☑ 🖳 Microsoft LLDP 协议驱动程序
☑ 🖳 链路层拓扑发现响应程序

②

[Install...]   [Uninstall]   [Properties]

Description

传输控制协议/Internet 协议。该协议是默认的广域网
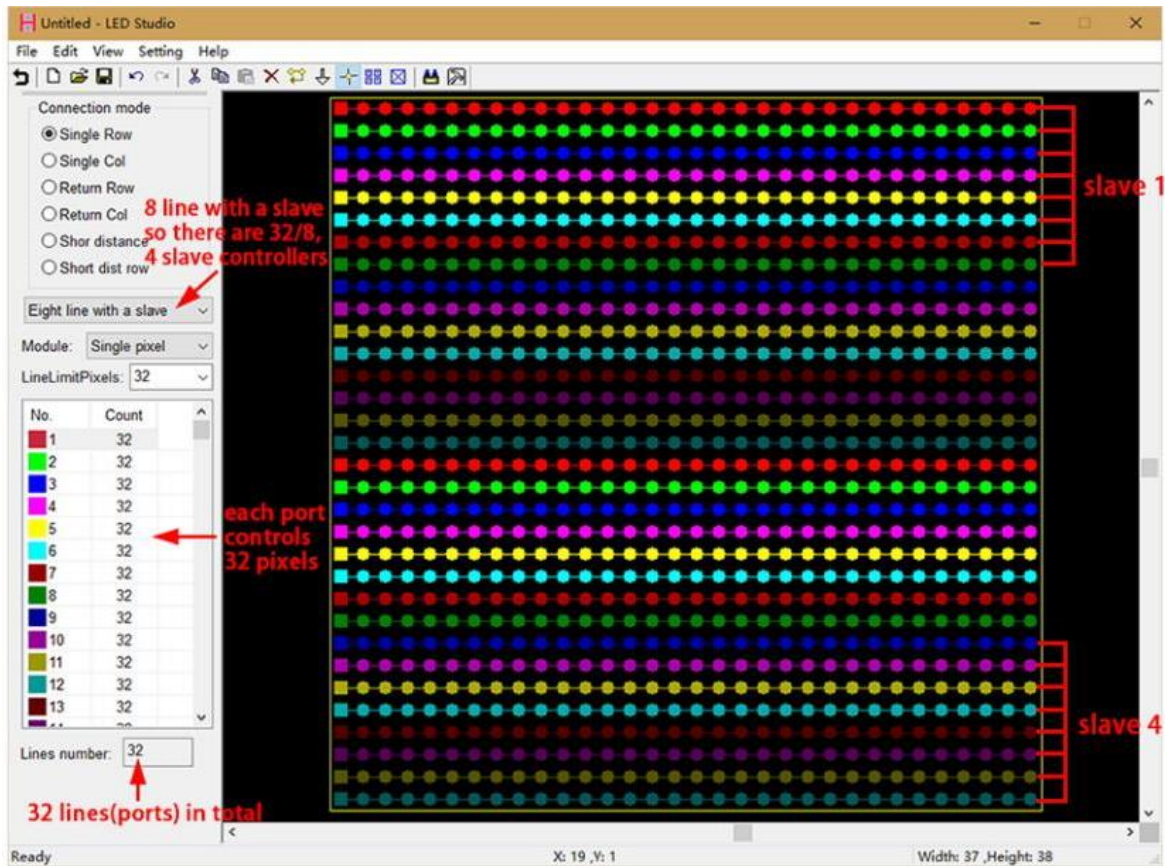协议，用于在不同的相互连接的网络上通信。

[OK]   [Cancel]

Step5. Program in LED Studio Software

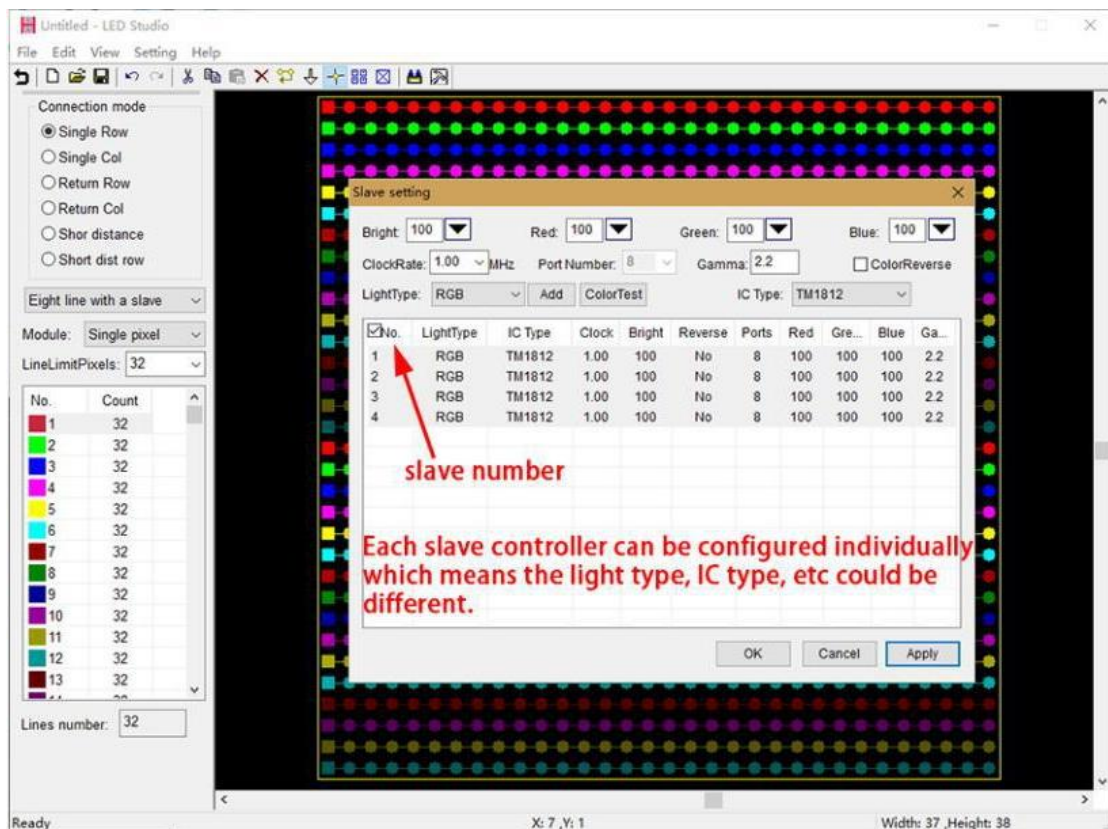**Basic software workflow**

1. Place Pixels

For example there are 4 slave controllers(ML-H801RC) connected to ML-H803TC, 8 ports of ML-H801RC are all connected to leds.

In LED Studio

8 line with a slave so there are 32/8, 4 slave controllers

each port controls 32 pixels

32 lines(ports) in total

2. Slave Setting

slave number

Each slave controller can be configured individually which means the light type, IC type, etc could be different.

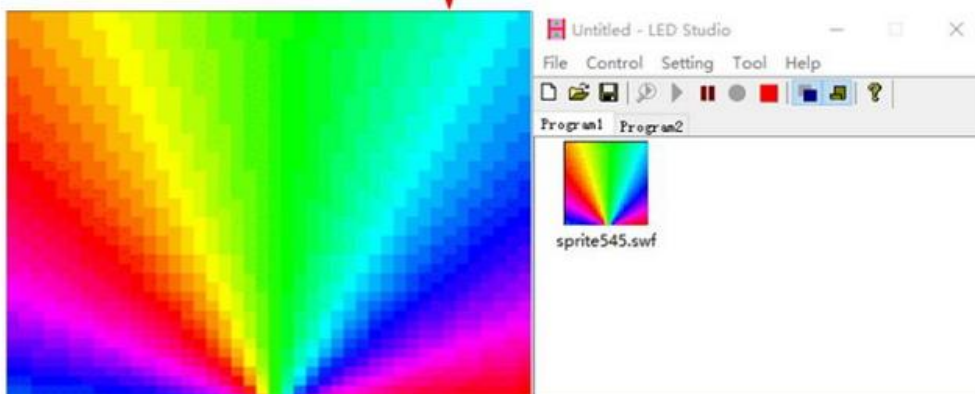**Note: many chips share one option, for example:**
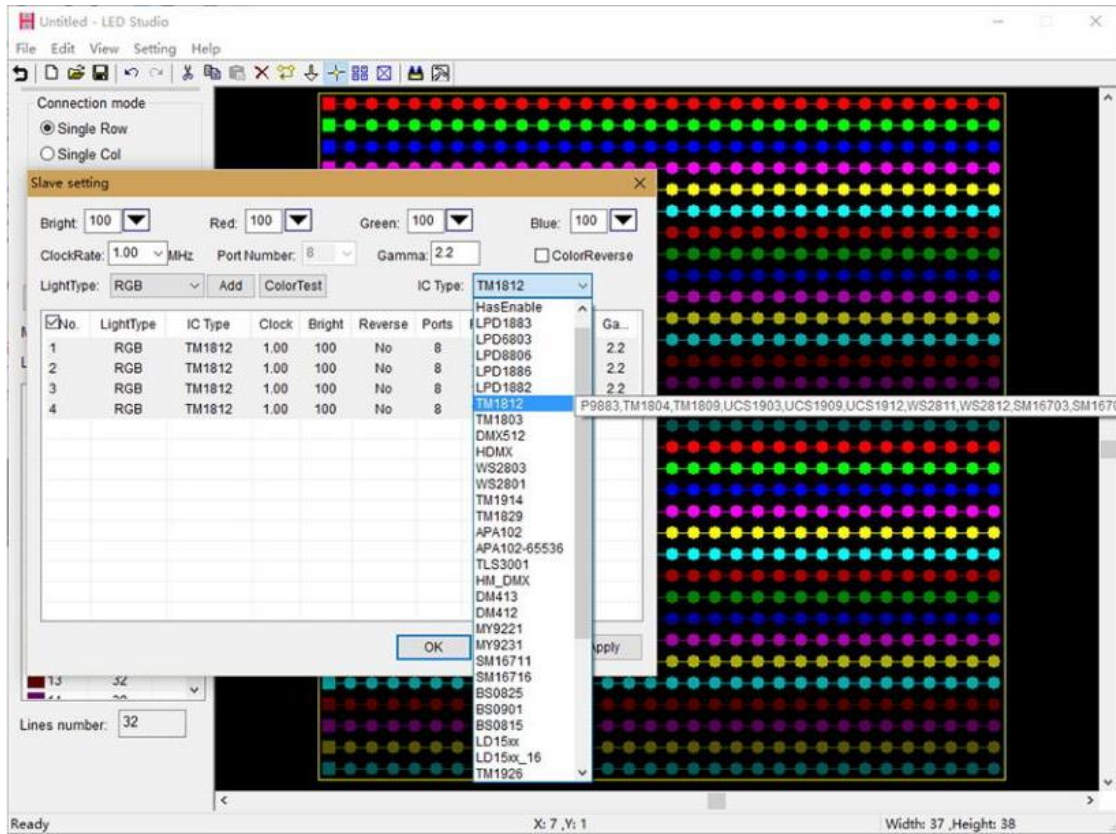
3. Multi-Net Setting

4. Make Effects

play window
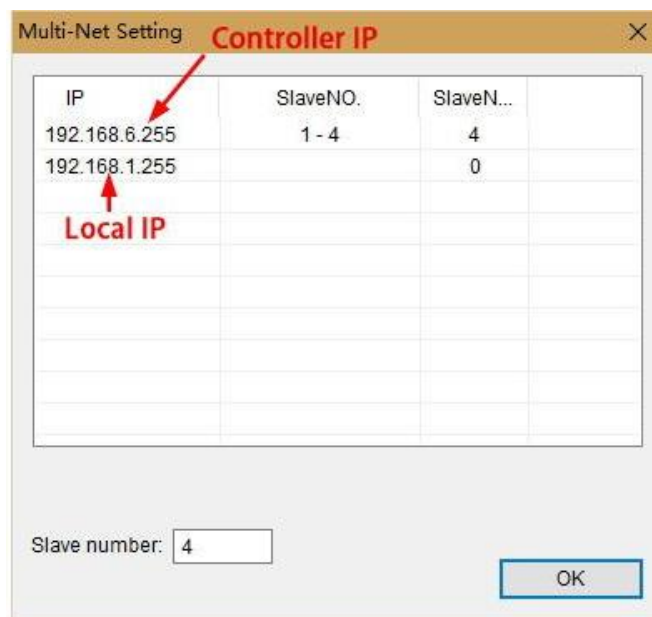
you can create all these kinds of windows
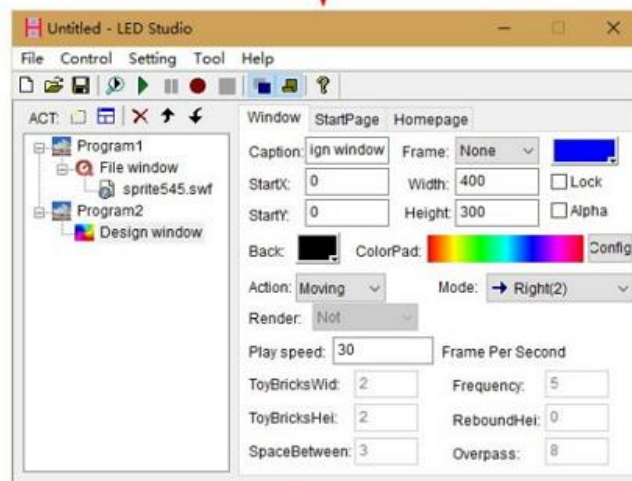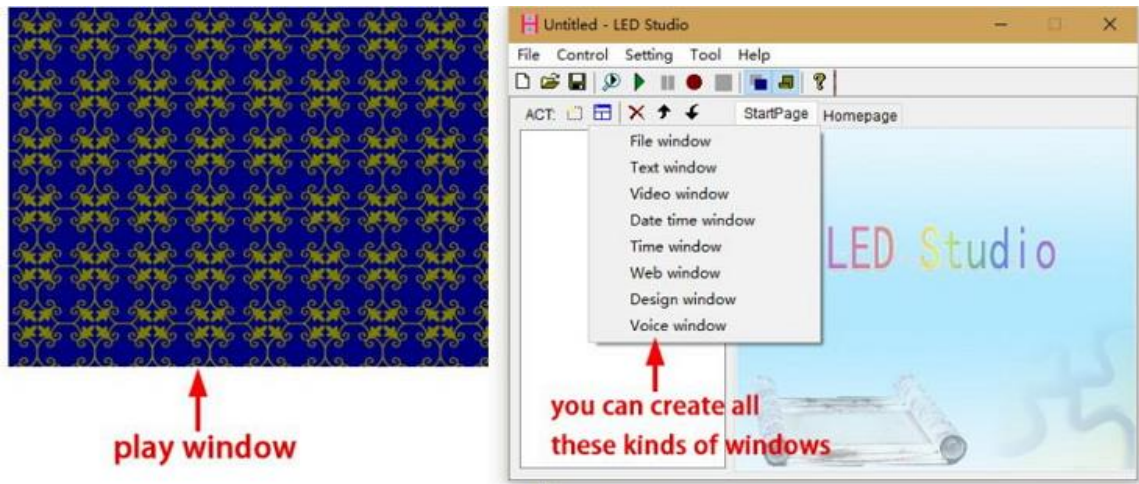
4. Control DMX512 chip lights

ML-H803TC can control ML-H801RC, H802RA two kinds of slave

controllers(they all support DMX512 protocol),

but by using ML-H803TC + H802RA, you can set DMX address for

DMX512 chips.
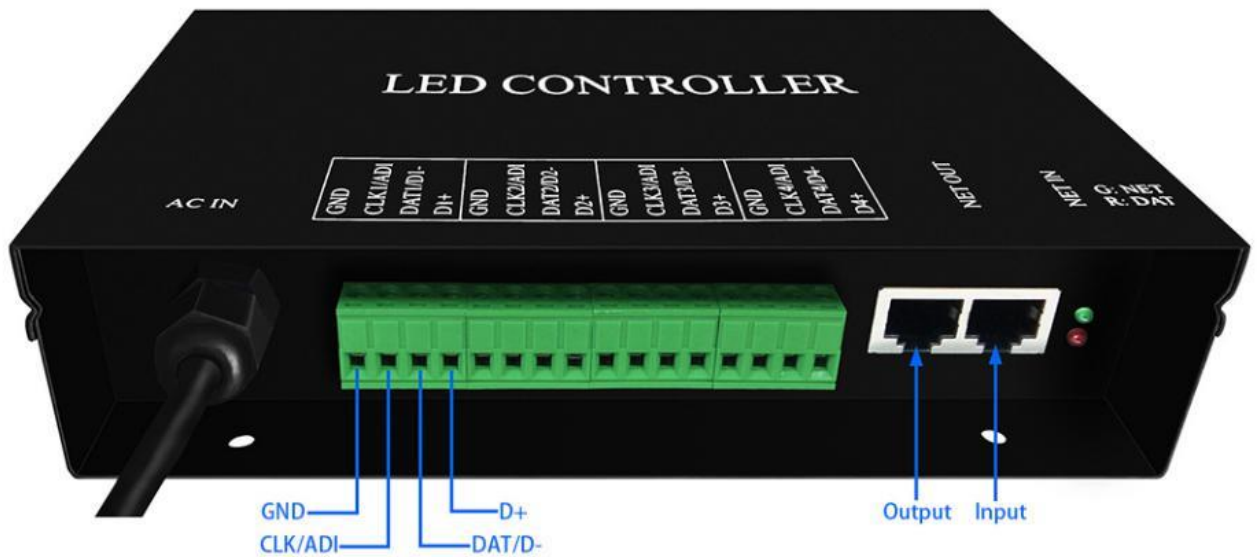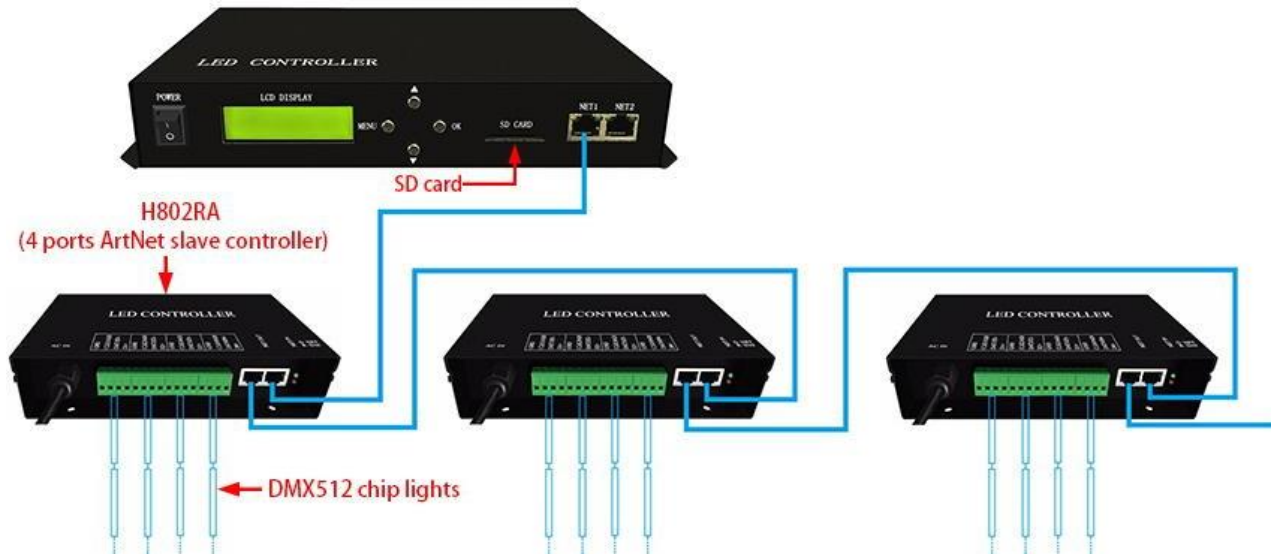
Take TM512 strip for example:

Step1. Set them up

SD Card

other 3 ports are the same

address line

12V		12V
PI		PO
A	TM512 strip	A
B		B
GND		GND	• • • Line 1
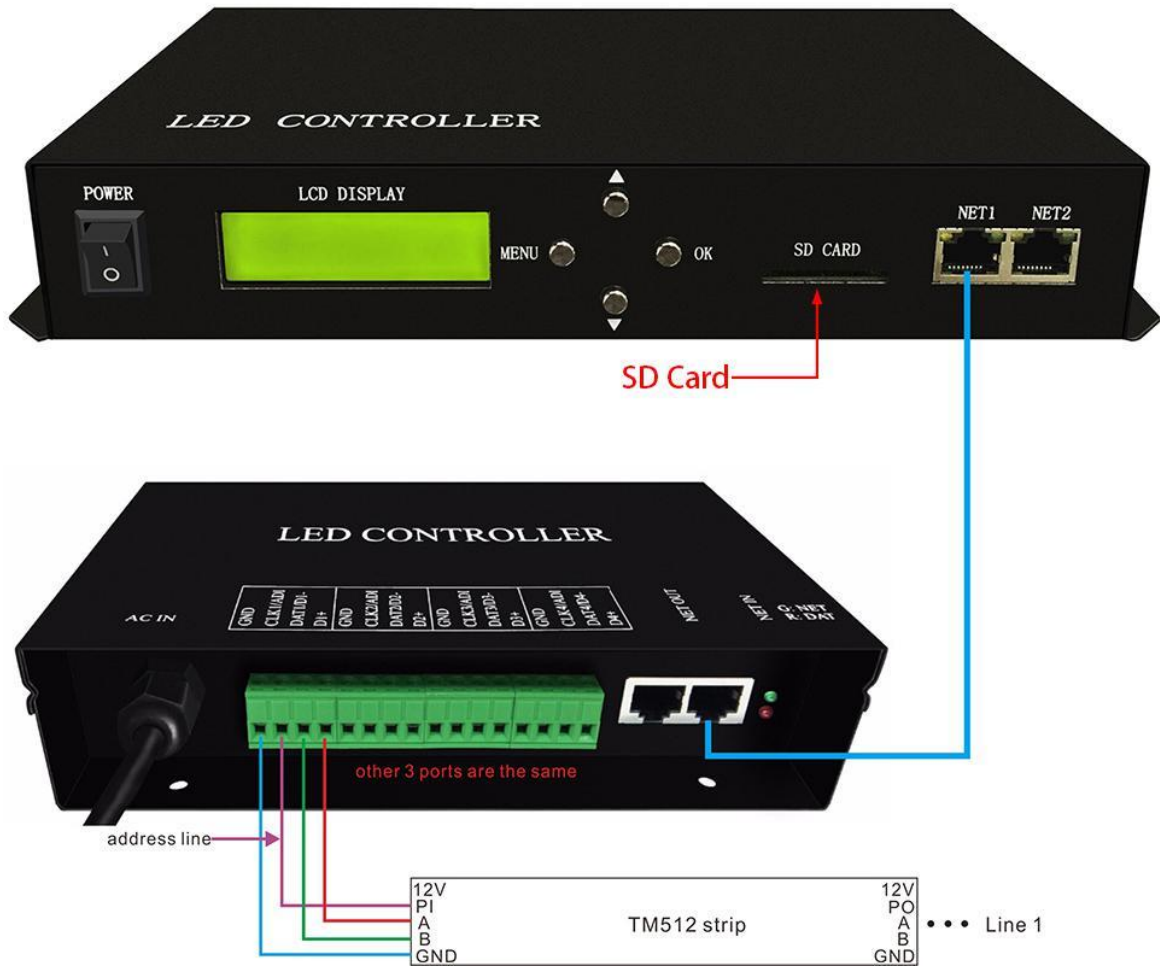
Step2. Set address with four buttons

POWER LCD DISPLAY MENU

DMX Address:1
SET->Addressing

Choose chip:

POWER LCD DISPLAY MENU OK

DMX IC Type:
TM512,UCS512

POWER LCD DISPLAY MENU OK

DMX IC Type:
H860,H861

POWER LCD DISPLAY MENU OK

DMX IC Type:
SM-DMX512AP

POWER LCD DISPLAY MENU OK

DMX IC Type:
SM1651X

POWER LCD DISPLAY MENU OK

DMX IC Type:
H862

POWER LCD DISPLAY MENU OK

DMX IC Type:
UCS512C

POWER LCD DISPLAY MENU

DMX IC Type:
H801DMX

Set channel number of each chip occupies


```
        LCD DISPLAY
    Chip channels:3
    SET->SetAddress
```

Set starting address


```
    LCD DISPLAY
    Address:1
    SET->SetAddress
```

Addressing


```
        LCD DISPLAY
    Address:1
    Addressing...
```
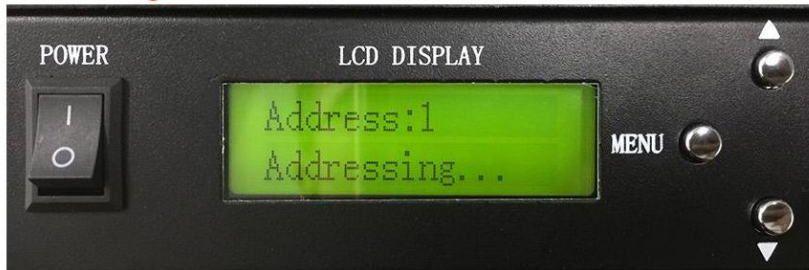
5. 803TC Cloud Control or LAN Control

ML-H803TC LAN Control


```
    LCD DISPLAY
    Net2 Send Sync:
    Net2 to Net1
```

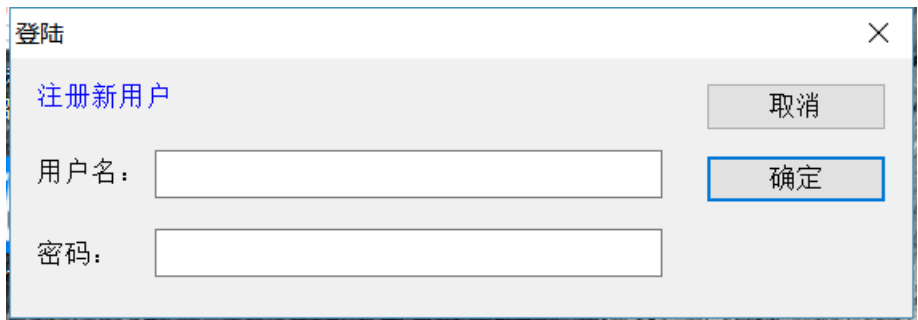When multiple 803TC ports 2 are connected to the same router to achieve multiple 803TC synchronization, the first 803TC is set to send synchronization of ports 2 to achieve multiple 803TC synchronization.

<h2 style="color:red; text-align:center">ML-H803TC Cloud Control</h2>

When this mode is set up, the network port 2 connects the router which can be connected to the network, and the network port 1 connects the sub-control. The remote cloud control can be carried out through software LED CLOUD or mobile phone APP. Each 803TC has its own ID code, which requires binding devices when using cloud control.
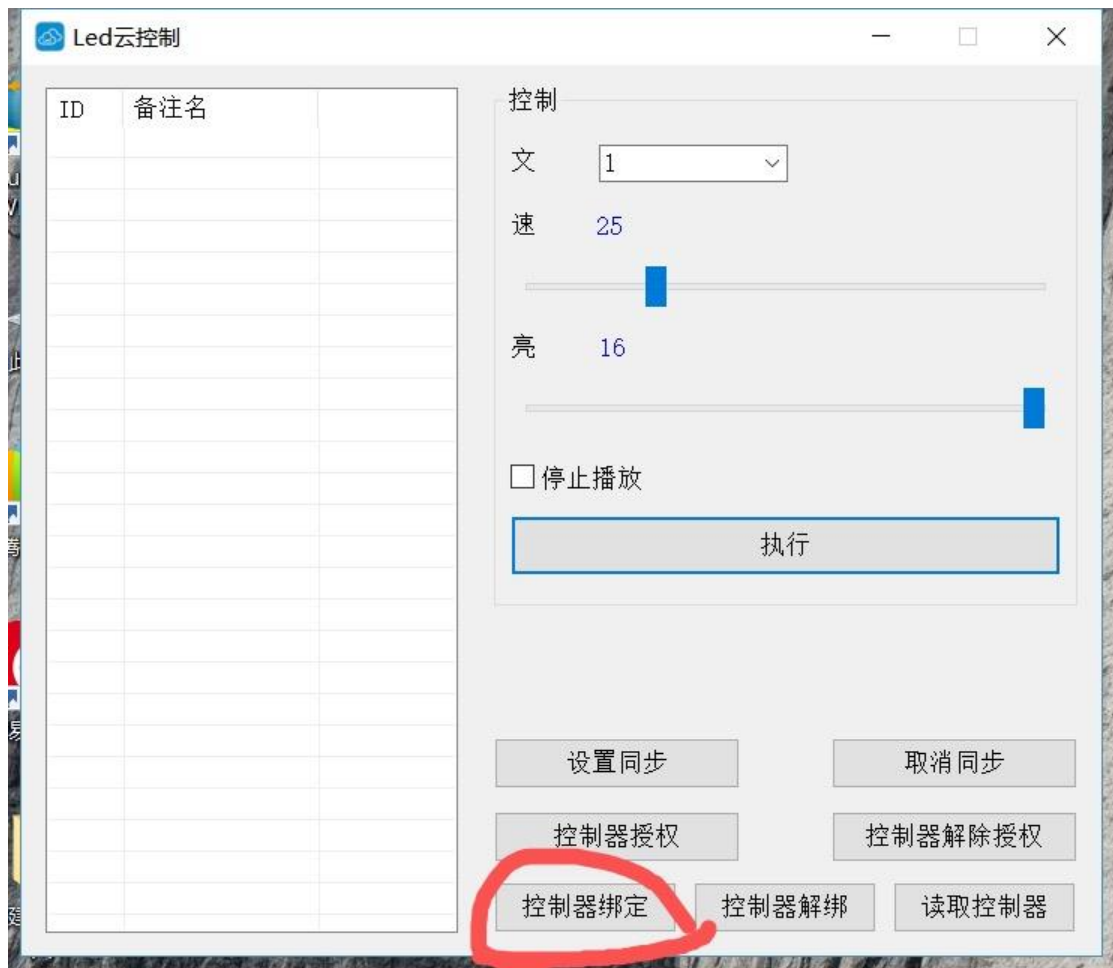
803TC cloud control. When 803TC's gateway 2 is connected to a networked router, open the LED CLOUD software, and no account can be registered.

The login interface is shown in the following figure. Click on the controller binding and enter the ID number of 803TC you are using. Note: The ID of each 803TC is different. If other users want to use LED CLOUD to control 803TC after binding, they need to authorize the first binding user.

ID	备注名	

After binding the controller, the device you bind will appear on the left. If you bind more than one controller, it will display more than one controller ID. You can switch files, brightness and speed by clicking.

6.

Input Voltage: Customized

Power Consumption: 1W

Drive Pixels Number: 170000

Weight: 1.1KG