

W-100C specification



I. INTRODUCTION

The W-100C is a lighting control system specifically designed for nightclubs, KTVs, banquet halls, wedding venues, Party K bars, and leisure clubs. This master controller supports networked operation, offline SD card playback, and Art-Net protocol integration with MADRIX software. It enables real-time scene targeting and visual preview, delivering diverse effects through 2D and 3D layout configurations. Compatible with DMX512 control systems including Tiger Control Console, MA Control Console, King Kong 1024 Control Console, and 192 Control Console, it is widely used in KTVs, bars, banquet halls, exhibition halls, and other venues as a versatile chromatic lighting control system.

2、Specifications parameters

operate mode :	Online, offline, access console, access Madrix	
Parameter characteristics:	Live dotting and preview online	
Load quantity:	Single load 100,000 pixels	
loading regime :	SD card copy storage program	
SD card storage:	Up to 32G, up to 64 files	
working temperature :	-20°C--75°C	
working voltage :	AC (alternating current) 85V...240V	
maximum power :	1W	
II. PE RF	weight :	Weight: 1.1kg Net weight: 0.9kg 1.1kg Net weight: 0.9kg
	size :	Outer box: 31×24.7×6cm Body: 28.5×10.5×4.5cm

ORMANCE FEATURES

1. Load lamps: Support TTL lamps, 512 lamps, RGB/RGBW/RGBBCW lamps with multiple color channels, and eight independent ports can support different channel sequence lamps at the same time.

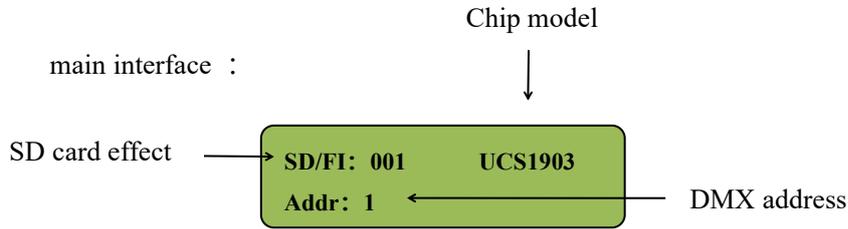
2. Working mode: computer online, SD card offline, cascaded synchronous control, DMX lighting console, MADRIX, jinx and other software supporting Artnet protocol online.

3. Online dot drawing and 3D layout, wireless network transmission through wireless router, and star structure wiring of switch.

4. Built-in counting points and internal control test functions.

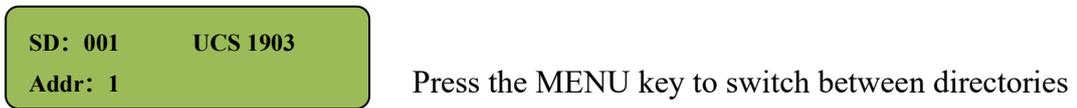
5. Support online fixed parameters, single fixed parameters, and firmware upgrade.
6. Long press OK button to lock the parameters (marked with * on the display).

III. HOW TO USE



IV. Controller button operation

1. After power-on, the startup interface is shown in the figure below.



2、 Chip Settings:

Press the MENU key once to switch to the chip menu (CHIP=UCS1903), and press the up and down keys to switch the chip model; OK key to keep and return to the main interface.



The specific chip model is as follows:

1-UCS1903	2-LB1934A	3-DMX512-800K	4-DMX512-500K	5-DMX512-250K
6-TM1814	7-UCS2904B	8-TM1804	9-TM1914A	10-GS8206
11-P9883S	12-SM16703P	13-SK6812RGBW	14-SK6812RGB	15-WS2811
16-WS2812B	17-TM1923	18-UCS8903	19-UCS8904	20-HW1603
21-UCS5603	22-UCS8603	23-SM16714P		

3、 Speed Settings:

Press the MENU key twice to switch to the Speed menu. Use the up/down keys to adjust the

speed level (1-16). Press OK to lock the setting and return to the main interface. When set to speed 9, the controller plays at 25 frames per second. Press the MENU key twice to switch to the Speed menu. Use the up/down keys to adjust the speed level (1-16). Press OK to confirm and return to the main interface. When set to speed 9, the controller plays at a rate of 25 frames per second.



4、 Brightness Settings:

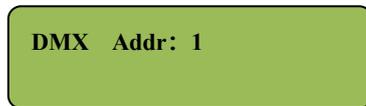
Press the MENU key three times to switch to the Brightness (Bright) menu. Press the up/down keys to switch brightness levels (1%-100%). Press OK to keep and return to the main interface. Long press the up/down keys to quickly select levels.



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5、 DMX address setting:

Press the MENU key four times to switch to the DMX address menu. Use the up/down keys to switch between DMX512 addresses (1-512). Press OK to hold and return to the main interface. Addresses can only be adjusted when ID=1 is set. The control console defaults to ID=1 when plugged in.



Press the MENU key four times to switch to the DMX address menu. Use the up/down keys to switch between DMX512 addresses (1-512). Press OK to hold and return to the main interface. Addresses can only be adjusted when ID=1 is set. The control console defaults to ID=1 when plugged in.

6. File playback mode Settings:

Press the MENU key five times to switch to the File Single Loop menu. Press the up/down keys to switch between file modes (Single loop / LOOP single). Press OK to hold and return to the main interface.

Press the MENU key five times to switch to the File Single Loop menu. Press the up/down keys to switch between file modes (Single loop / LOOP single). Press OK to hold and return to the main interface.



Play Mode: Single

7. Lighting channel setting:

Press the MENU key six times to switch to the RGB/RGBW (channel switch) menu, and press up and down keys to switch between 3-RGB/4-RGBW (three-color and four-color).

Press the MENU key six times to switch to the RGB/RGBW (channel switch) menu, and press the up and down keys to switch between 3-RGB/4-RGBW (three-color and four-color).



Color channel: 3-RGB

RGB: 3, RGBW: 4

8. Test ID Test operation:

Press the MENU key 7 times to switch to the Port Test (port test) menu, press the up and down keys to select port ALL (all ports) 1-8 ports, and press the OK key to enter the test interface;



Port Test: ALL 1-8



Use the up/down keys to select the ALL port, 1-8

Press OK to enter the test state:

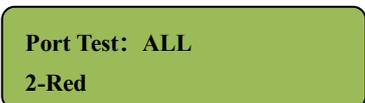


Port Test: ALL
1-P2P 1

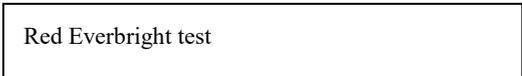


Use the up/down arrow keys to select the number of points, 1-1024 range

Press OK to enter the second test:



Port Test: ALL
2-Red



Red Everbright test

Press OK to enter the third test:

Port Test: ALL
3-Green

Green Everbright test

Press OK to enter the fourth test:

Port Test: ALL
4-Blue

Blue light on test

Press OK to enter the fifth test:

Port Test: ALL
5-White

White constant light test

Press OK to enter the sixth test:

Port Test: ALL
6-Gradient

Color gradient test

Press OK to enter the seventh test:

Port Test: ALL
7-RGB Jump

Color jump test

Press OK to save and exit.

9. Gamma value setting:

Press the MENU key 8 times to switch to the Gamma (gamma) value menu. Press the up and down keys to switch the gamma value size; press the OK key to keep and return to the main interface. ▲ ▼ Press the MENU key 8 times to switch to the Gamma (gamma) value menu. Press the up and down keys to switch the gamma value size; press the OK key to keep and return to the main interface.

Gamma : 2.2

9. Channel selection:

Press the MENU key 9 times to switch to the channel selection menu. Press the up and down keys to switch channels RGB, RBG, BRG, BGR, GRB, GBR; press the OK key to keep and return to the main interface. ▲ ▼ Press the MENU key 9 times to switch to the channel selection menu. Press the up and down keys to switch channels RGB, RBG, BRG, BGR, GRB, GBR; press the OK key to keep and return to the main interface.



10. Start_ID start number setting:

Press the MENU key 10 times to switch to the Start_ID menu (ID=01), switch up and down keys (range is 1-255 numbers); OK key to keep and return to the main interface. ▲ ▼

Press the MENU key 10 times to switch to the Start_ID menu (ID=01), switch up and down keys (range is 1-255 numbers); OK key to keep and return to the main interface.



Note: This application is mainly used for adding switches

11 Parameter Settings: Slave Set (Modify the sub-control parameters-select the ID, modify the parameters of the current ID)

Press the MENU key 11 times to switch to the Slave Set (parameter settings) menu.

Press OK to enter the individual parameter settings interface. Use the up/down keys to switch between corresponding parameters (ID, chip, number of channels, lighting channel). Press OK to retain settings and return to the main interface. The master controller can individually lock any sub-controller.

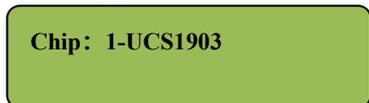


A. ID setting: Press the MENU key 11 times to switch to Slave Set (parameter setting) menu, press OK button to enter the single parameter setting interface, and then enter the ID setting interface, as follows:



Press the up and down keys to switch the ID number, OK to confirm

B. Select the ID, press OK to enter the chip interface, as follows:



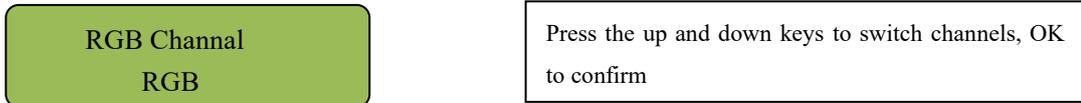
Press the up and down keys to switch the chip model, OK to confirm

C. When the chip model is determined, press OK button to enter the channel switching interface, as follows:

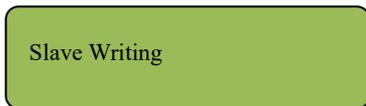


Press the up and down keys to switch between 3 channels/4 channels, OK to confirm

D、 Channel switching is completed. Press OK button to enter the lamp channel switching interface, as follows:



Channel list: RGB, RBG, BRG, BGR, GRB, GBR 6 channels can be adjusted at any time
Press OK to start setting parameters, the interface shows that it is being written, as shown in the figure below:



Write the parameters in 3 seconds and return to the main menu

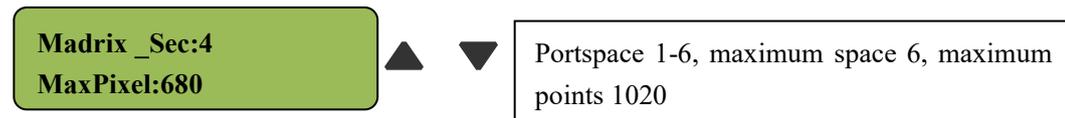
12. Madrix (McJazz) Settings:(to be opened)

Press the MENU key 12 times to switch to the Madrix IP:27 (IP address) menu,

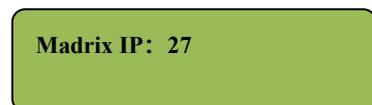


Current network segment recognized by controller: 192.168.2.XX

Press "OK" to enter the next menu: port space setting and port point setting



Press the up and down keys to select the corresponding domain space and port load point number, and press the OK button to confirm. ▲ ▼ Press the up and down keys to select the corresponding domain space and port load point number, and press the OK button to confirm.



After saving, press the "menu" button to continue to select other Settings.

13. DMX512 code parameter setting

Press the MENU key 12 times to switch to write code (or press "MENU" and "▲" at the same time to directly enter the write code interface)

Write LED 3
Writeport:A11

▲ ▼

You can adjust the port by pressing the up and down keys

Press OK to save and go to the next item

Write LED 3
1-TM512AC

▲ ▼

Press the up and down keys to select the lamp chip

Press OK to save and go to the next item

Write LED 3
StartAddr:1

▲ ▼

Press the up and down keys to call the starting address

Press OK to save and go to the next item

Write LED 3
CH-Num:3

▲ ▼

Press the up and down keys to adjust the number of channels

Press OK to write the code

The write code chip is as follows;

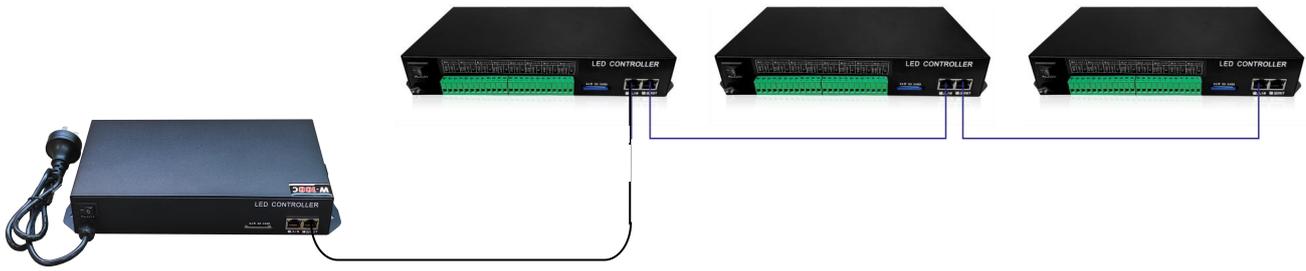
1-TM512AC	2-UCS512C*	3-UCS512D	4-UCS512E	5-SM16500
6-SM17500	7-SM17512	8-SM17522	9-SM18522	10-HI512D4
11-HI512ES	12-GS851X	13-GS852X	14-SM16512	15-UCS512B3

V. Offline playback

1. The main control is offline SD program playback, the sub-control automatically identifies ID or sets sub-control parameters separately, supports parameter lock and unlock,

and supports the main control to set a single sub-control (without pulling the network cable).

Master (W-100C) Automatic identification 01 Automatic identification 02

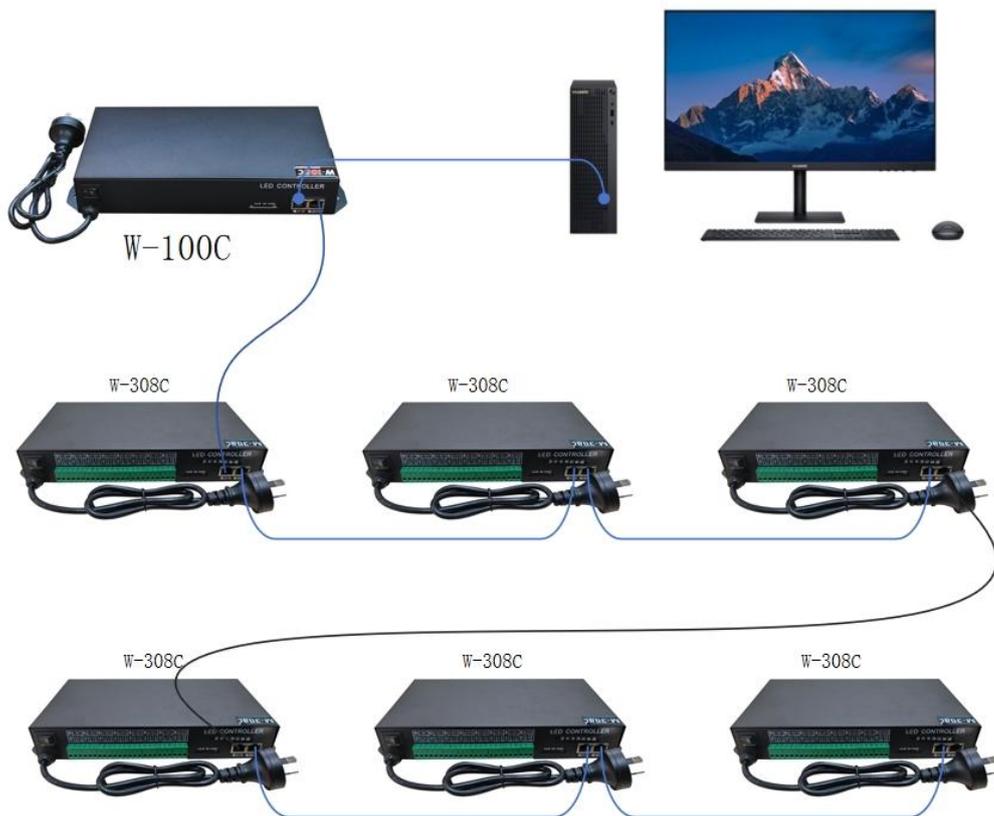


Automatic identification 03

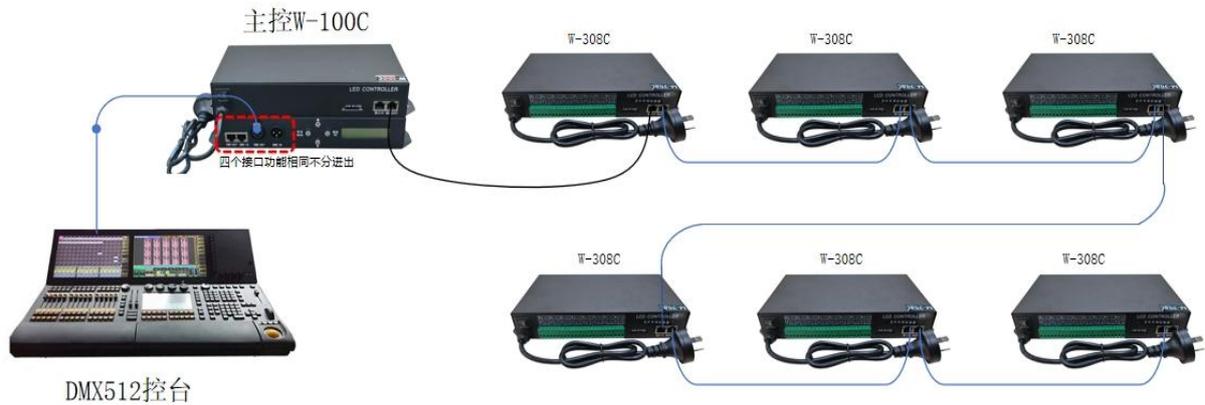
Master (W-100C) Automatic identification 01

Automatic identification 02 Automatic identification 03

6、 Live streaming



VII. Console control:



Step 1: Press the menu in sequence until you reach screen 4. The following is displayed: DMXAddr:

1

Step 2: Press \uparrow and \downarrow keys to add or subtract values. The values represent control addresses.

Step 2: Press the up and down keys to add or subtract values, which represent control addresses.

Step 3: Save the address by clicking OK.

Step 4: Open the console and connect according to the corresponding address. The connection channels are as follows:

W-100C channel list	
classical pathway :	Brightness 0-255,4 values per level, total of 63 levels
second channel :	R Red (0-255)
The third channel:	G Green (0-255)
The fourth channel:	B Blue (0-255)
Fifth channel:	White (0-255) applies only to RGBW fixtures
The sixth channel:	File effect number, 4 values per file, total of 64 files
The seventh channel:	Playback speed (1-16 levels)
Eighth channel:	In reverse, 0-123 is forward, 124-131 is stop, and 132-255 is reverse.
Ninth channel	strobe/flash
Tenth channel base color 01	Red 000-255 components
Channel 11 Base Color 02	Green 000-255 component

9. Online dot setting:

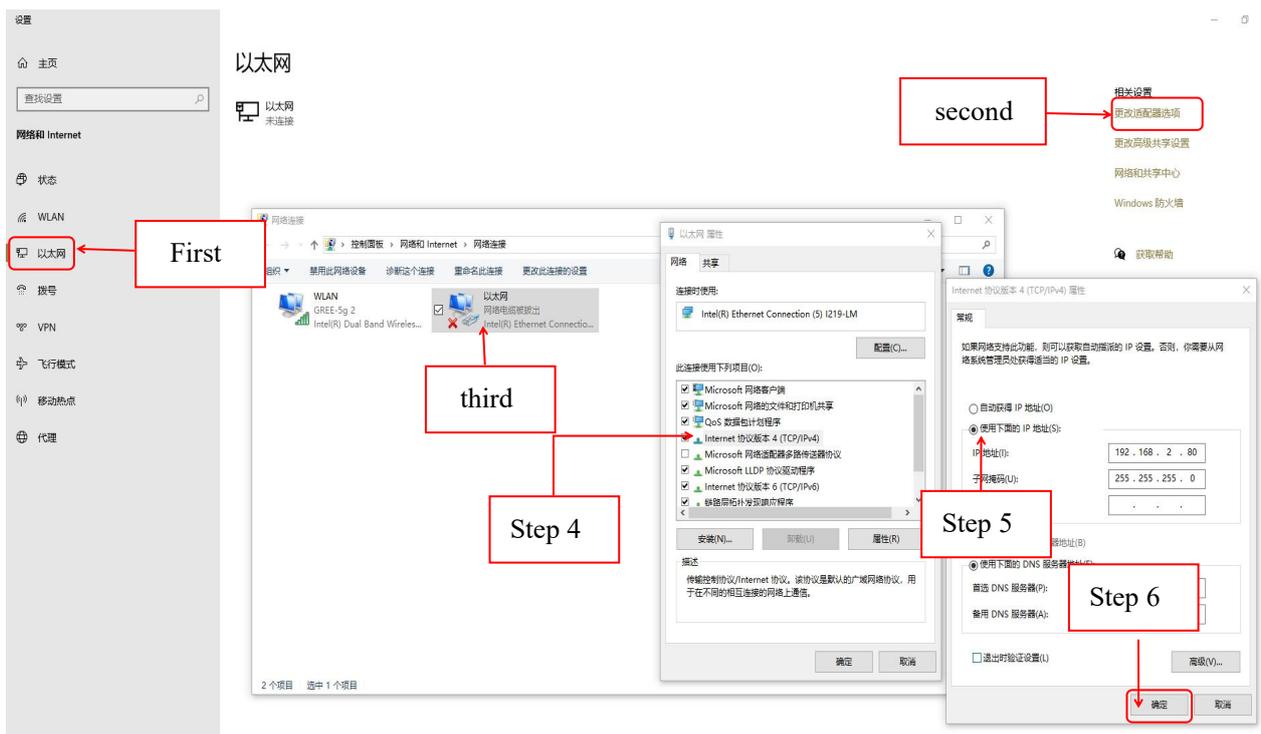
Step 1: Computer Settings

"Network and Internet Settings" --> "Ethernet" --> "Change Adapter Options" --> Double-click "Ethernet"

--> Select Internet Protocol version 4 (TCP/IP) --> Double-click to open--> "Use the following IP address"

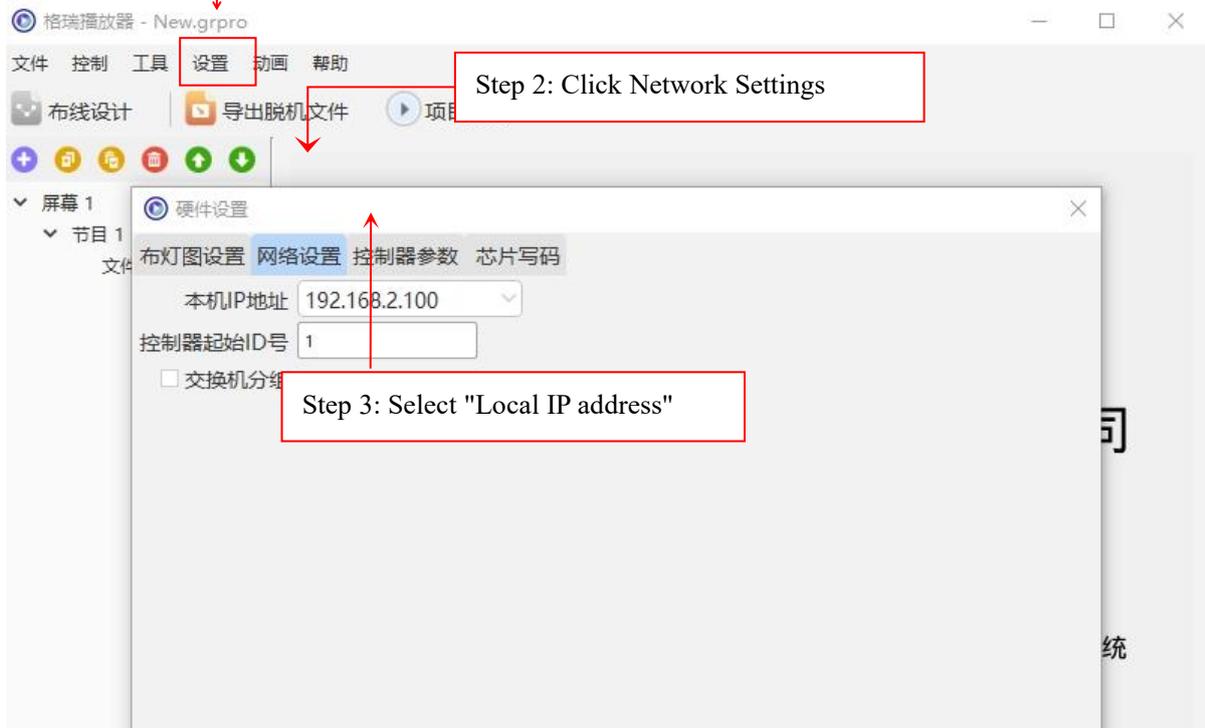
--> Enter the corresponding IP address--> Click OK

The diagram is as follows:



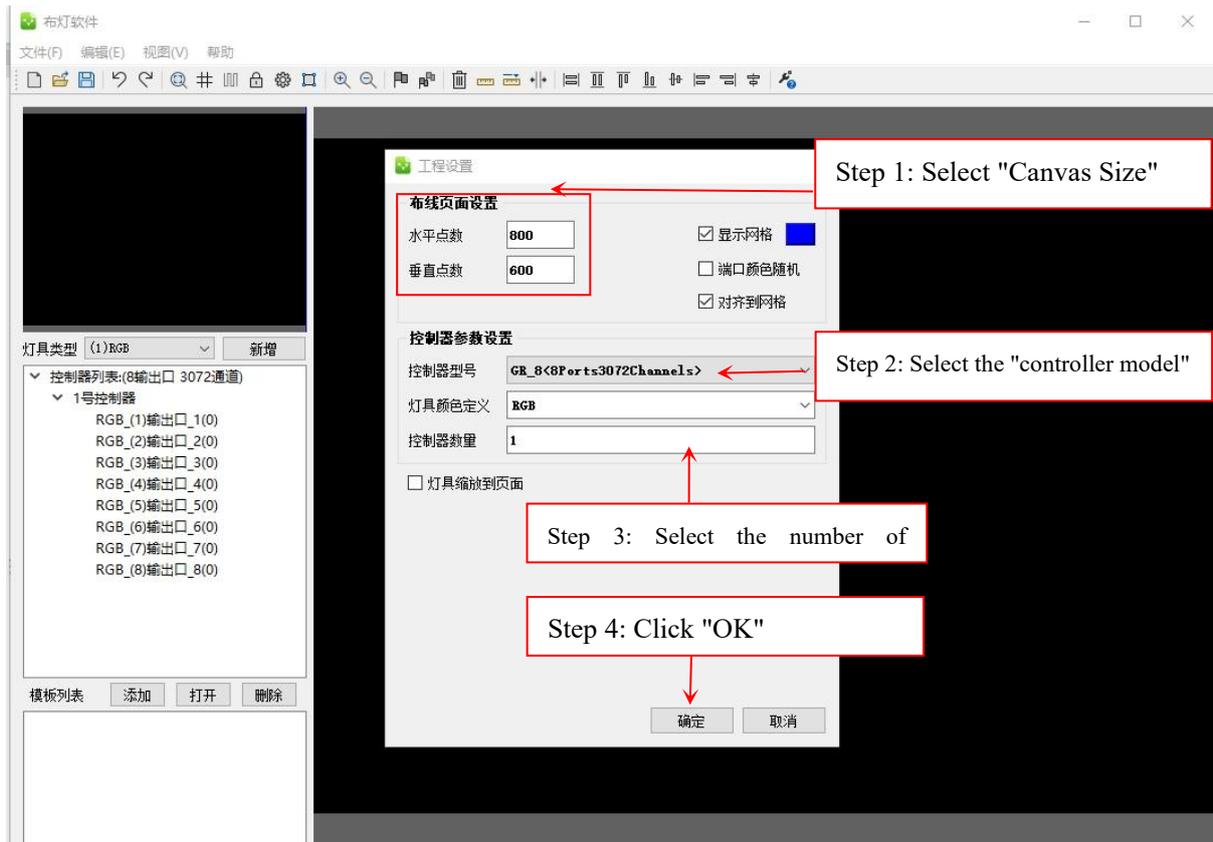
the second step :

Step 1: Click "Settings"

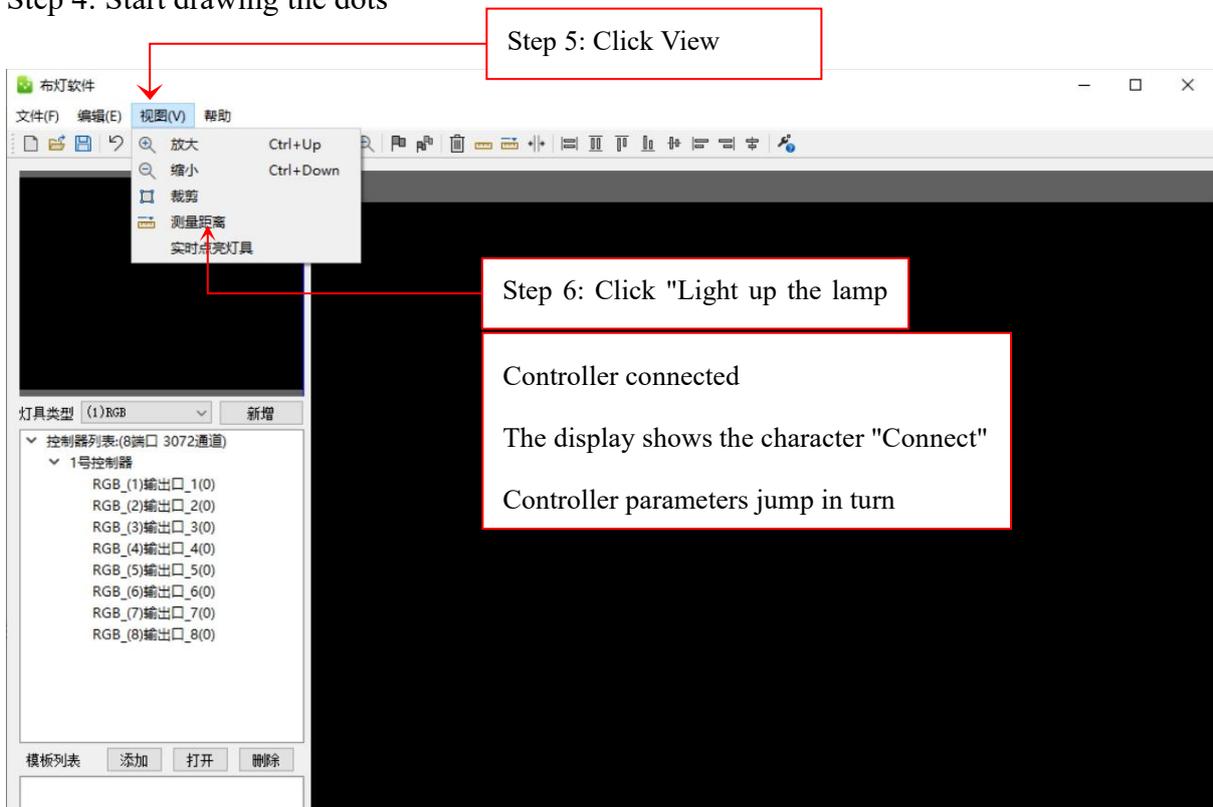


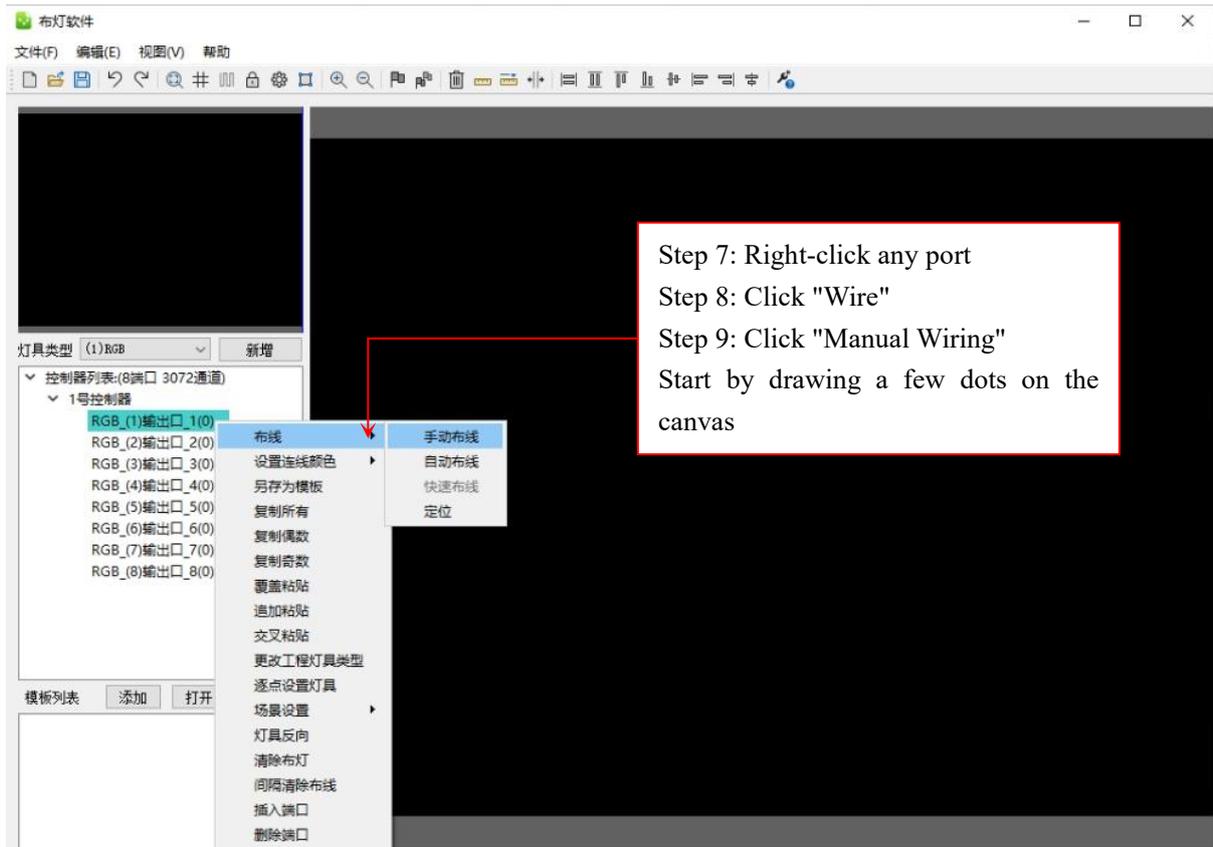
Step 3: Wiring design

Canvas Settings--> Controller Model--> Number of controllers



Step 4: Start drawing the dots





Draw and save the drawing. If you want to generate an offline file, you need to use the offline software.

10、 Support secondary protocol development

protocol : UDP

Default IP:192.168.2.xx

Default port: 33445

Instruction format: hexadecimal

(1) Instruction sending format:

Basic instruction format: header code (CC) + instruction code + length + device ID + information

Command response format: header code (AA) + command code + length + device ID + information

(2) Functional instructions:

A. Search command: CC 01 04 Device ID (1~255)

Device response: AA+01+14+ Device ID (1~255) + 8 bytes (character type) product model +

8 bytes (character type) version number

Example: Search for information about the 8th device

Instruction: CC 01 04 08

Answer: AA 01 14 08 C8 xx

B. Functional instructions: restart

Device reboot command: CC 05 05 ID 00

Device responds to command: AA 05 05 ID 00

CC header code Space Instruction code Space Instruction length Space ID number Space 00

C. Functional instructions: Effect file call

Effect file call instruction: CC 50 05 ID (0 means all devices) Effect serial number (1~255)

Device responds to command: AA 50 05 ID xx

CC header code, Space, Instruction code, Space, Instruction length, Space, ID number, Space, Effect sequence number

Example: How to send the instruction when calling the 10th file of the third controller??

Message sent: CC 50 05 03 0A

Directive response: AA 50 05 03 0A

D. Functional instructions: brightness value call

Brightness call instruction: CC 51 05 ID (0 means all devices) Effect number (1~100% ratio)

Device responds to command: AA 51 05 ID xx

CC 51 05 ID (0 means all devices) Brightness (0~100)

Example: Call the third controller to set the brightness to 75, how to send the instruction??

Instructions sent: CC 51 05 03 4B

Directive response: AA 51 05 03 4B

E. Functional instructions: speed value call

Speed call instruction: CC 52 05 ID (0 means all devices) speed gear (1~15)

Device responds to command: AA 52 05 ID xx

CC 52 05 ID (0 means all devices) speed (0~15)

Example: How to send the command at the speed of 8 when calling the third controller??

Message sent: CC 52 05 03 08

Directive response: AA 52 05 03 08

F. Functional instructions: single mode--loop mode

Mode single-loop call instruction: CC 53 05 ID (0 means all devices) Mode (0 is a single effect loop, 1 is a full effect loop)

Device responds to command: AA 53 05 ID 0/1

Example: How to send the instruction when calling the file loop of the third controller??

Message sent: CC 53 05 03 1

Directive response: AA 53 05 03 1

Hexadecimal notation:

The hexadecimal expression of the file value is: 0---255

figure	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
hexadecimal	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
figure	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
hexadecimal	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F
figure	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
hexadecimal	20	21	22	23	24	25	26	27	28	29	2A	2B	2C	2D	2E	2F
figure	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
hexadecimal	30	31	32	33	34	35	36	37	38	39	3A	3B	3C	3D	3E	3F
figure	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
hexadecimal	40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F
figure	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
hexadecimal	50	51	52	53	54	55	56	57	58	59	5A	5B	5C	5D	5E	5F
figure	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
hexadecimal	60	61	62	63	64	65	66	67	68	69	6A	6B	6C	6D	6E	6F

The same applies elsewhere

figure	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
hexadecimal	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	AA	AB	AC	AD	AE	AF

The same applies elsewhere

figure	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255
hexadecimal	F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	FA	FB	FC	FD	FE	FF