



1m Rotating motors Madrix mapping

This effect is based on 24pcs 1m rotating motors,
1pc CL-404R. Controller one port can connect 6pcs
1m rotating motors, total 4ports.

1. Controller Setting(use network cable to connect controller with computer)



Controller setting, first step you need to long press “UP” and “DOWN” together then choose ART-NET. Long press “MENU” to save the setting. The controller screen will show “????”, this means still not connect with the matrix.

1. Controller Setting



Step1: Screen shows"????"
that means in Artnet
mode(connect software)



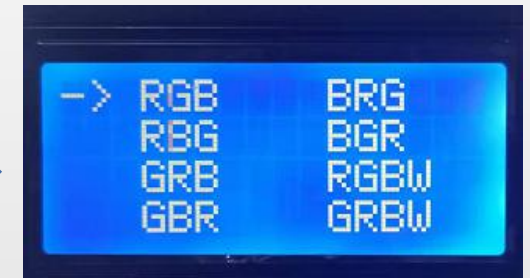
Step 2: Long press"MENU", click "Down" choose "IC select",
click "SET",choose "DMX". press "SET" return to last
interface.



Step 3: Then click "Down" choose "Pixel", click
"SET",choose "1-Univ", press"SET" return to last
interface.



Step 4: click"Down" choose
"Channels",click"SET",choose "RGB".
Final long press"MENU" to saving the settings.

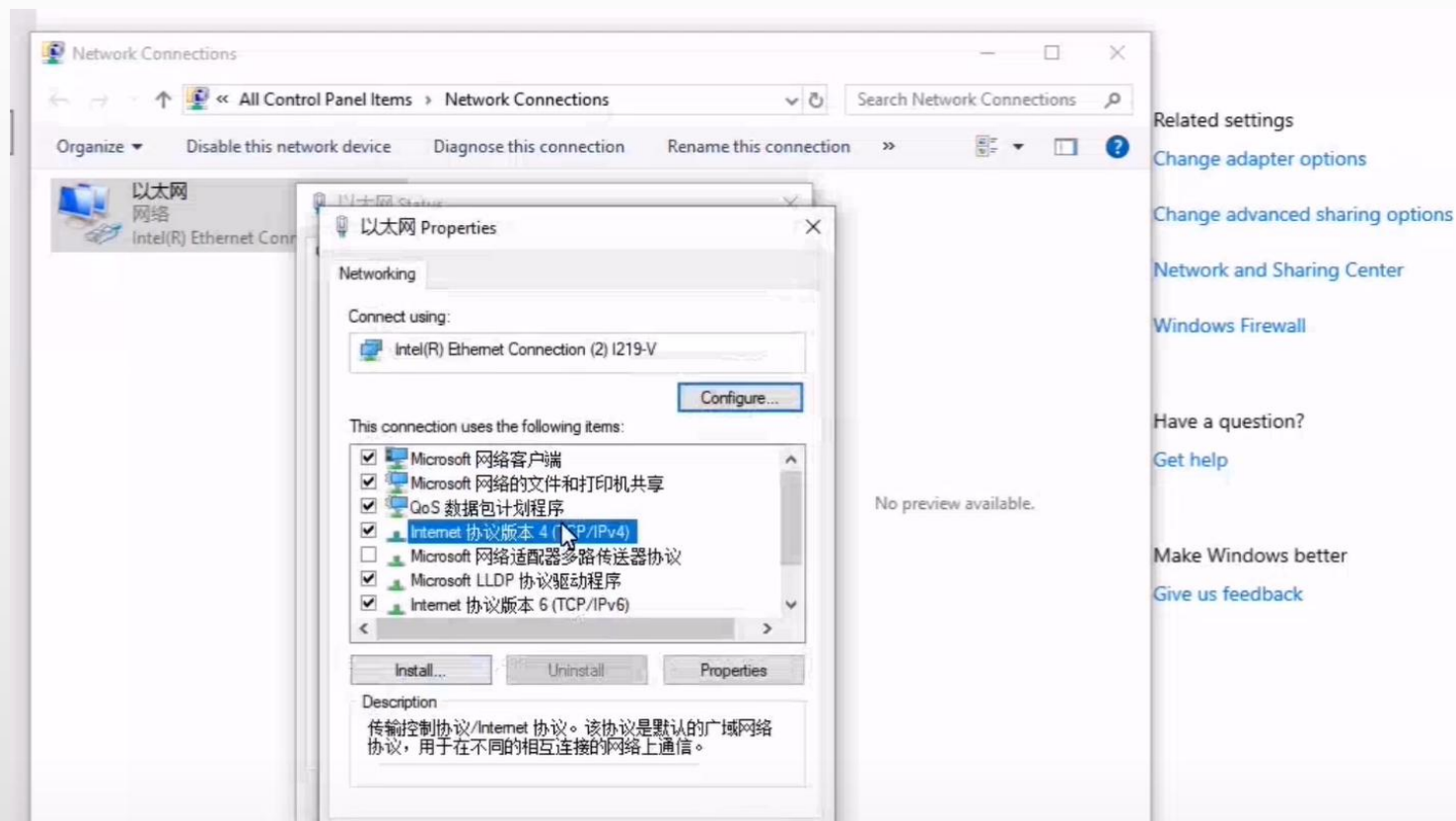
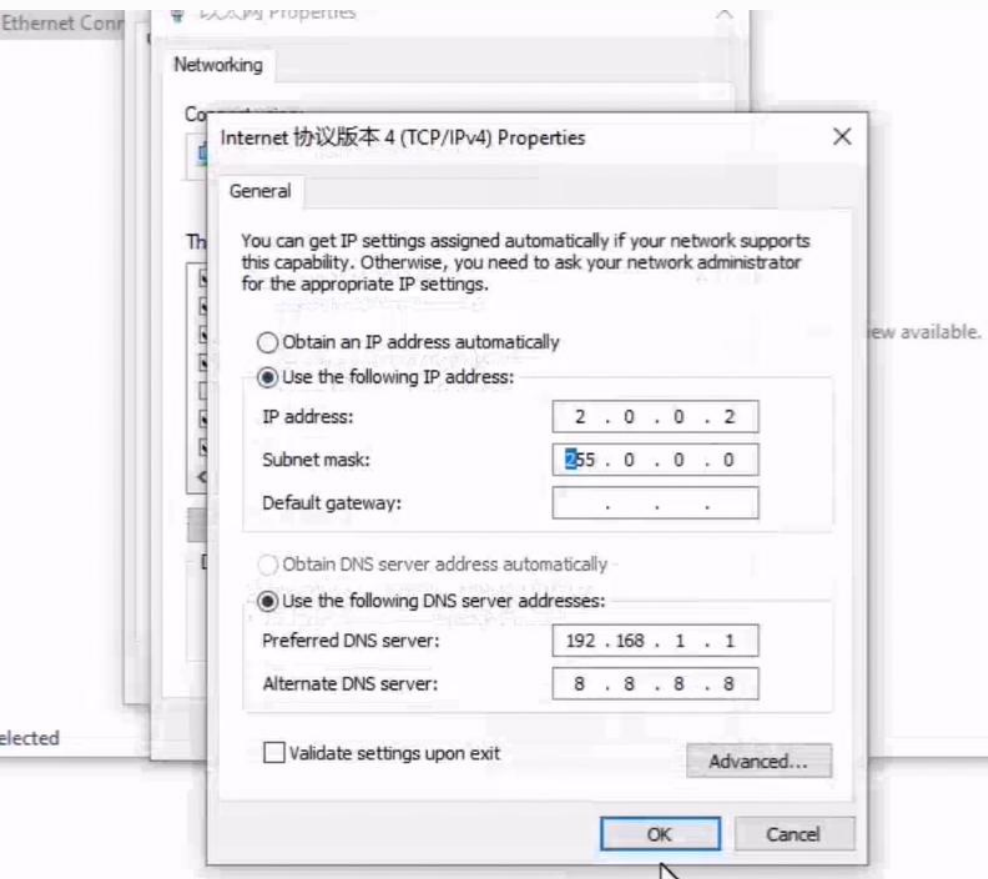


2. Computer IP setting

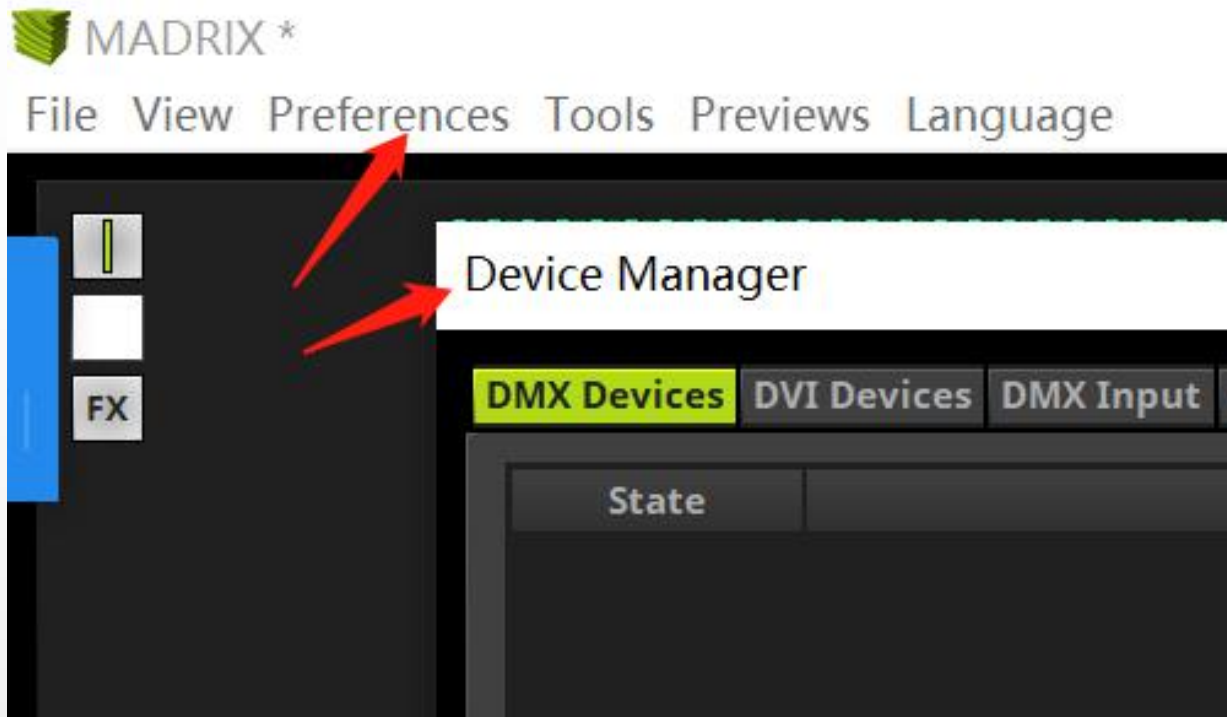
Computer Internet 4 Properties

IP address: 2.0.0.2

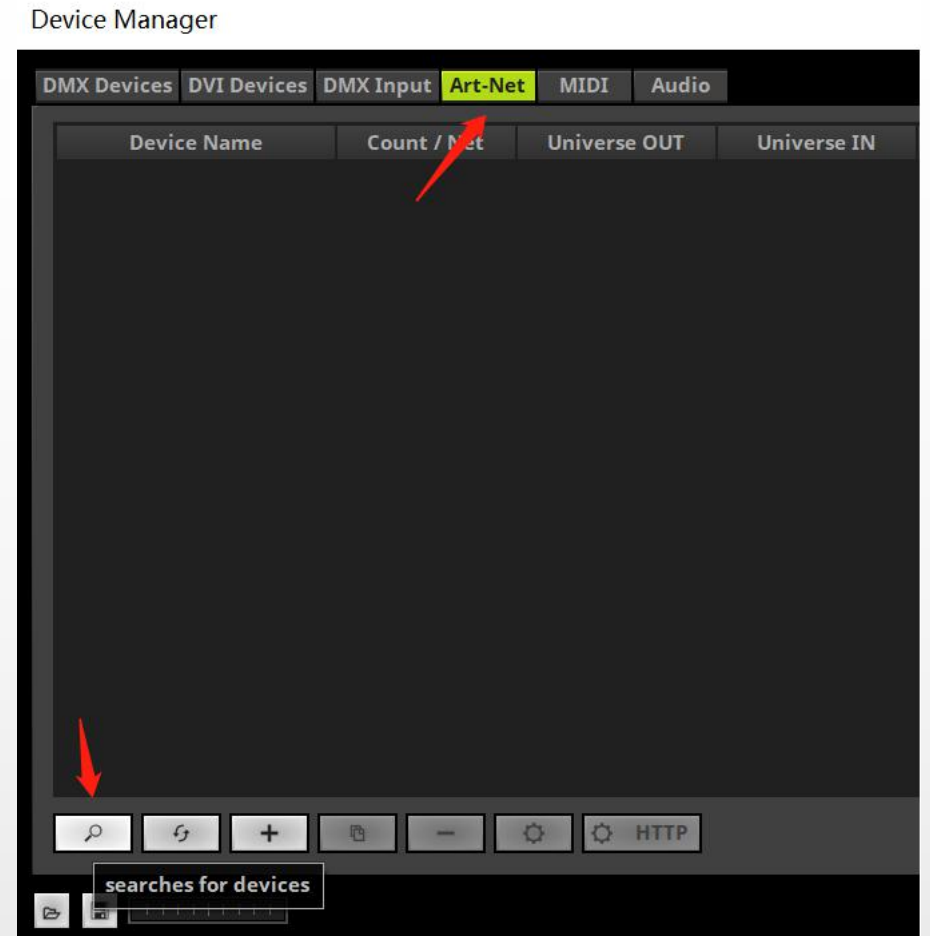
Subnet mask: 255.0.0.0

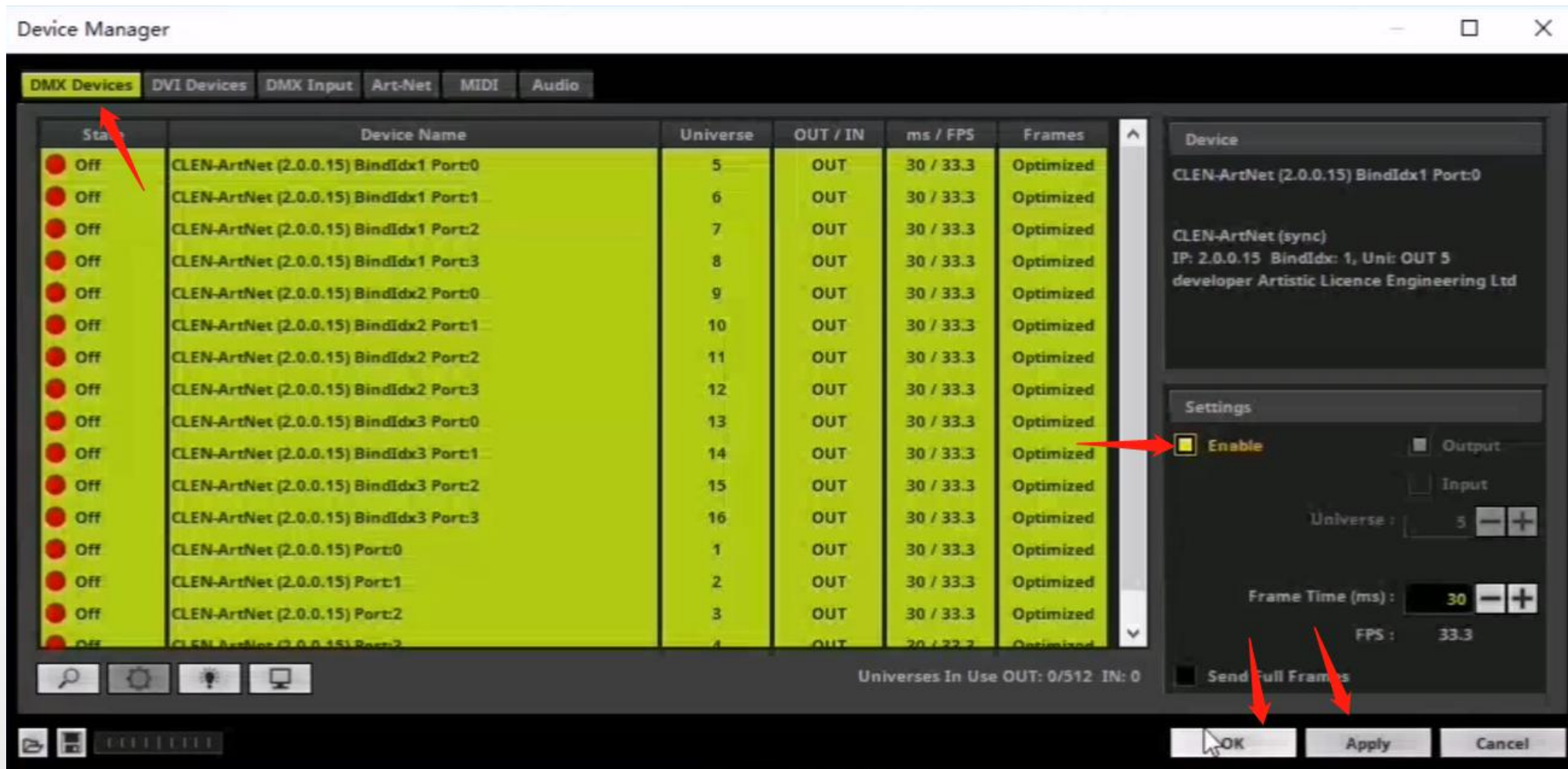


3. Madrix setting



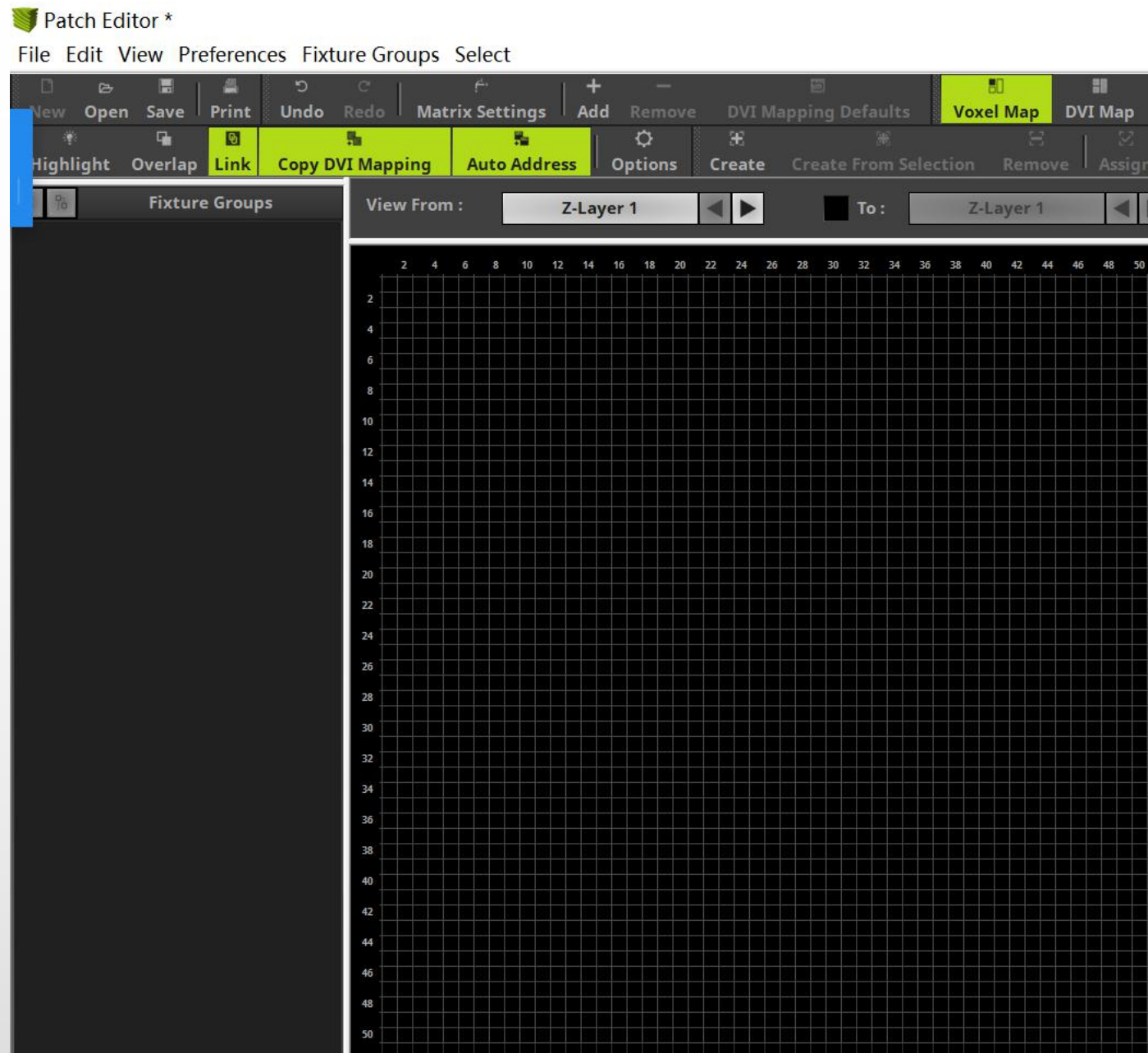
Click Preferences, choose Device Manager
Then click Art-Net, searches for devices, wait 10seconds,
you can find the controller IP.





After search for devices, then click “DMX devices”, Enable it, click apply and ok. When the controller connect Madrix successfully, controller screen will show “>>>>”.

Click Preferences,
patch Editor
long press shift and
click all the pixel, delete
all the pixel first.

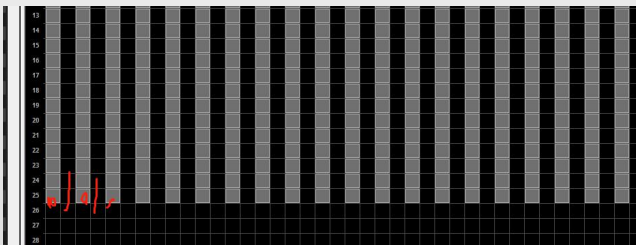


4. Madrix mapping

Count X: 24 (one 404R controller have 4ports, one port control 6pcs 1m motors, total $4\text{ports} \times 6 = 24\text{pcs}$ 1m motors)

Count Y:25 (1m tube is 24pixel, add 1pixel for rotating, so 1pc motors is 25pixel)

Offset X: 1 (this is not important, just to give distance to each line, then you can mapping the effect more easier)



Add Fixtures

Fixture

Protocol : DMX

Product : !generic RGB Light 1 pixel

Start Fixture ID : 1

Placement

Rotation : Original

Count X / Y / Z : 24 25 1

☐ Merge Fixtures

Offset X / Y / Z : 1 0 0

Start Position X / Y / Z : 1 1 1

Addressing

Start Corner : Top Left

Main Orientation : Vertical

Snake Mode : ☐

☐ Apply Fixture Rotation

Z-Order : Front To Back

Snake Mode Z : ☐ Flip H ☐ Flip V

DMX Start Universe : 1

DMX Start Channel : 1 ☒ Apply To Each Universe

Fixture Count Limit Per Universe : 150

Fixture Preview

Addressing Preview

Add

Close

Main Orientation: Vertical

Fixture Count Limit Per
Universe:150

(150 that means each universe
use 150pixel, controller one port
is 1 universe, pixel calculate:
6pcs(one port connect motors
quantity)*25(1m pixel)=150pixels

DMX start Universe:1

(404R controller 4 ports is 1-
4universe total)

If you have second 404R led
controller, then start universe
should be 5.

Add Fixtures

Fixture

Protocol : DMX

Product : !generic RGB Light 1 pixel

Start Fixture ID : 1

Placement

Rotation : Original

Count X / Y / Z : 24 25 1

☐ Merge Fixtures

Offset X / Y / Z : 1 0 0

Start Position X / Y / Z : 1 1 1

Addressing

Start Corner : Top Left

Main Orientation : Vertical

☐ Snake Mode

☐ Apply Fixture Rotation

Z-Order : Front To Back


Snake Mode Z : ☐ Flip H ☐ Flip V

DMX Start Universe : 1

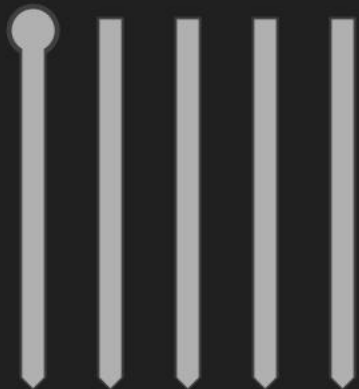
DMX Start Channel : 1 ☒ Apply To Each Universe

Fixture Count Limit Per Universe : 150

Fixture Preview



Addressing Preview

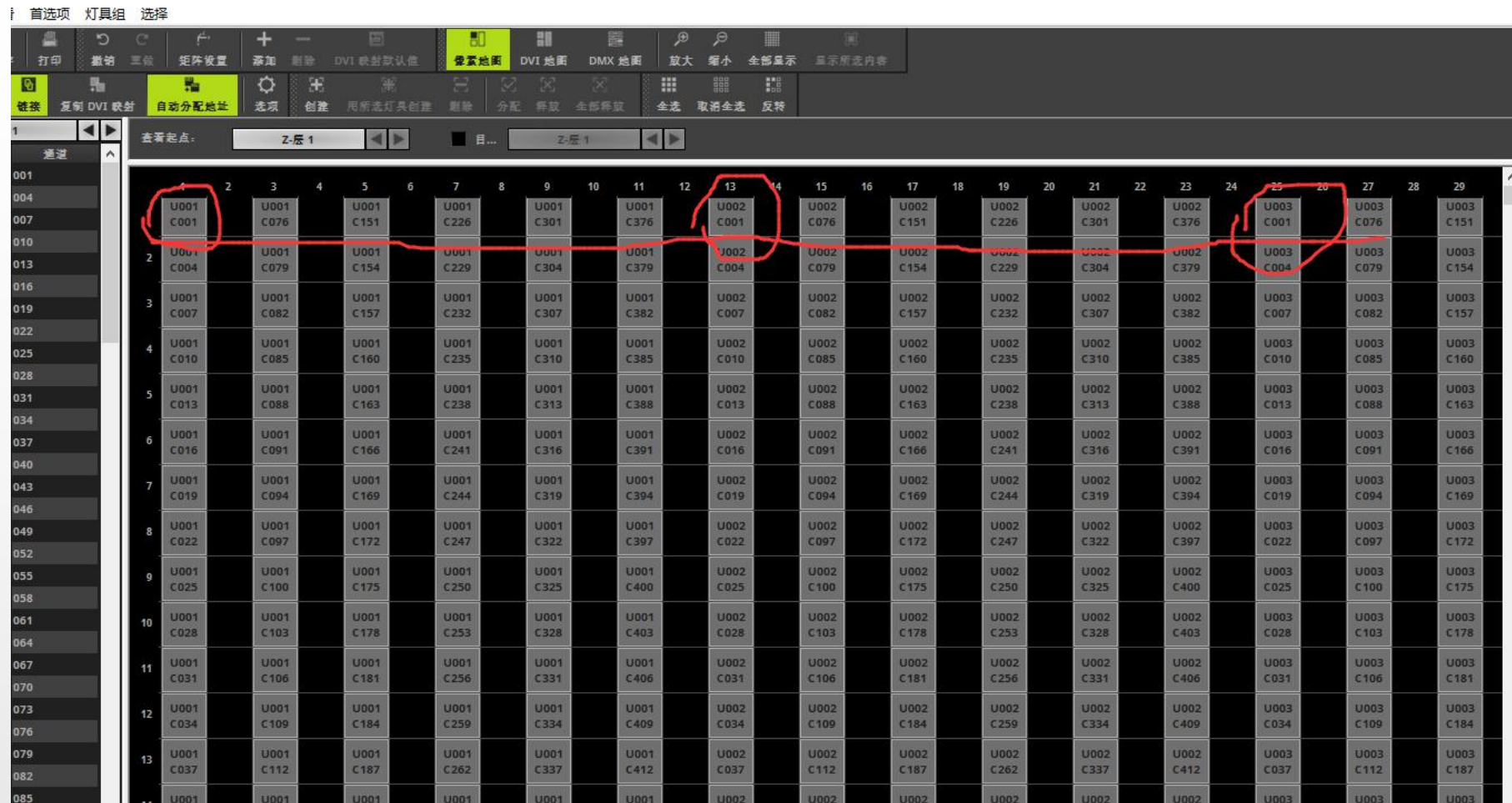


Add

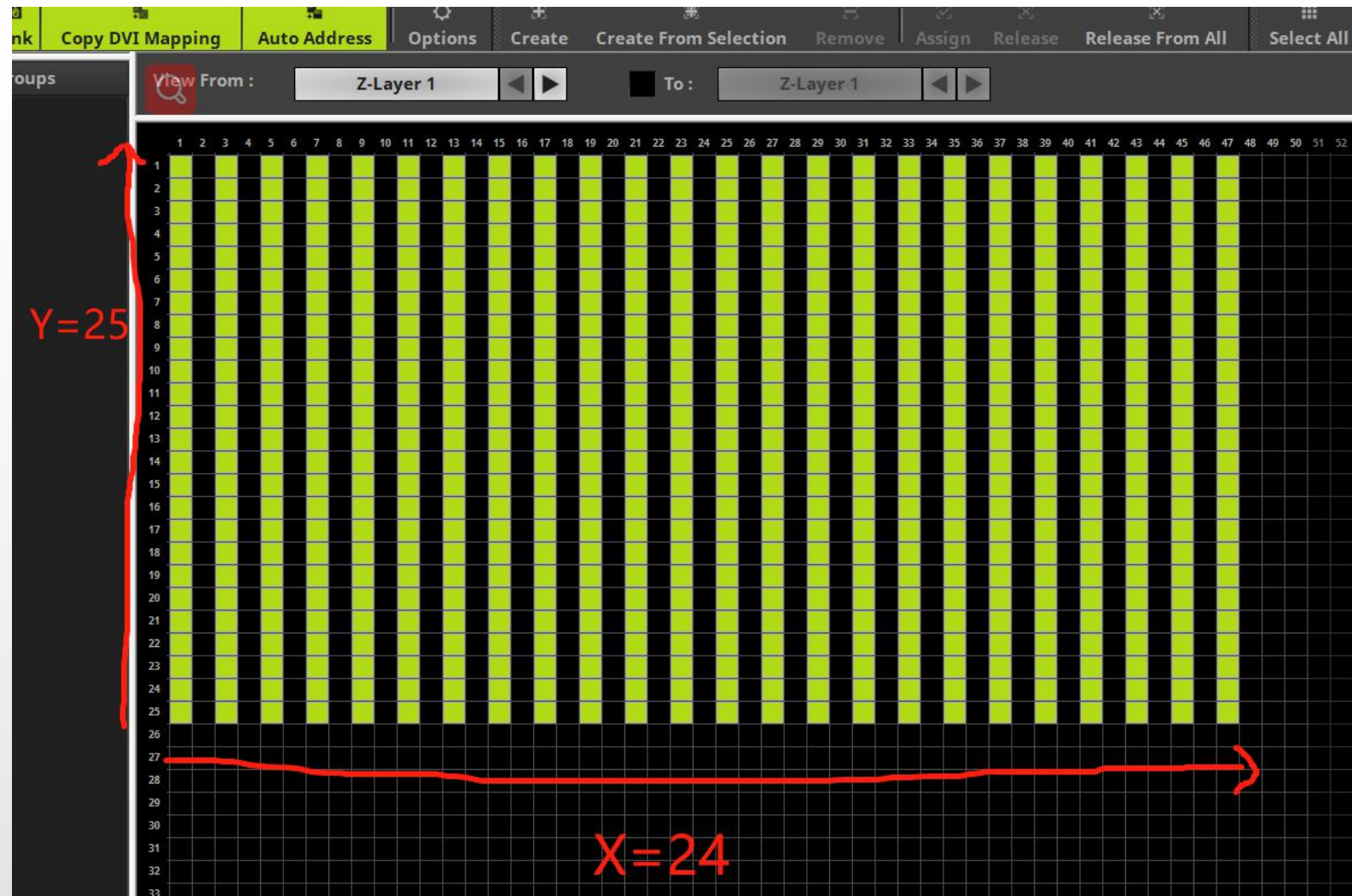
Close

Explanation:
 404R controller universe
 1-4,when universe1
 reach 150pixel,it will
 Automatic accumulation,
 then port 2 will be
 universe 2, port 3 will be
 universe 3, port 4 will be
 universe 4. So one 404R
 controller universe is 1-4.

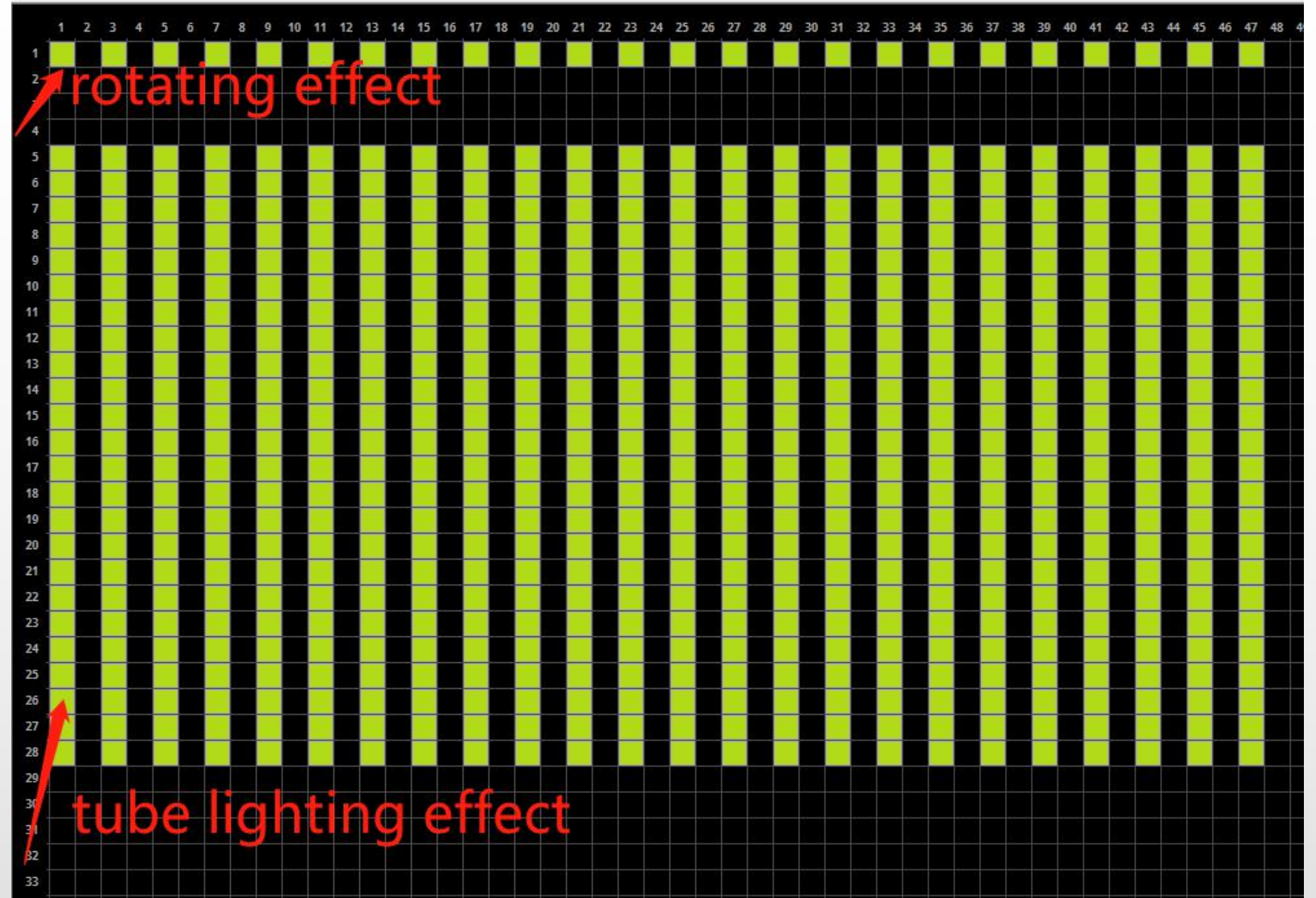
When you use second
 404R controller, while
 mapping the effect, start
 universe should be 5.



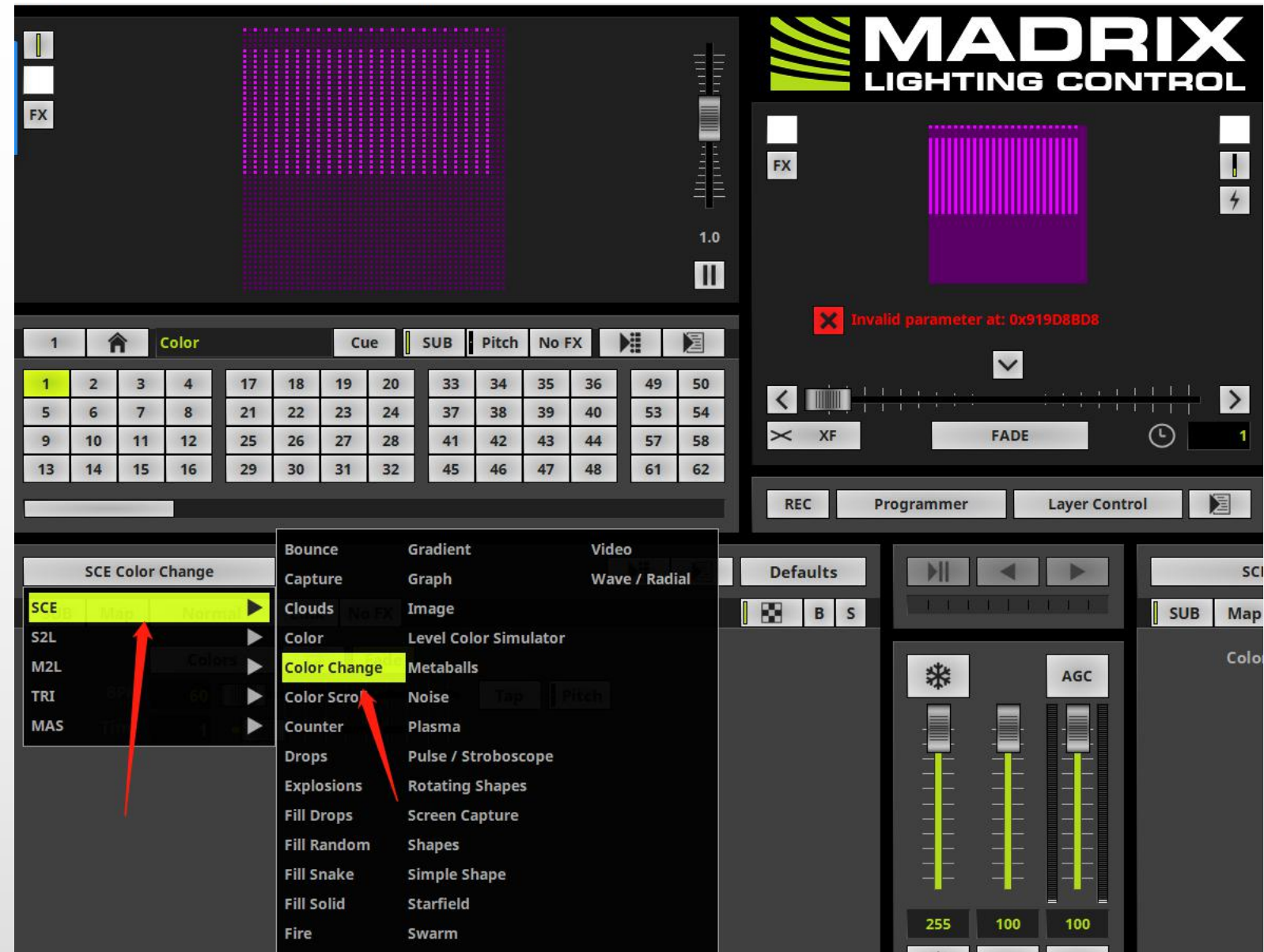
Explanation:
X 24 Y25



long press shift, leave one point
for rotating effect, the rest for
tube lighting effect.



SCE color change, choose
color change



change the numerical value.

Black:0,0,0 this is to pause the rotating effect.

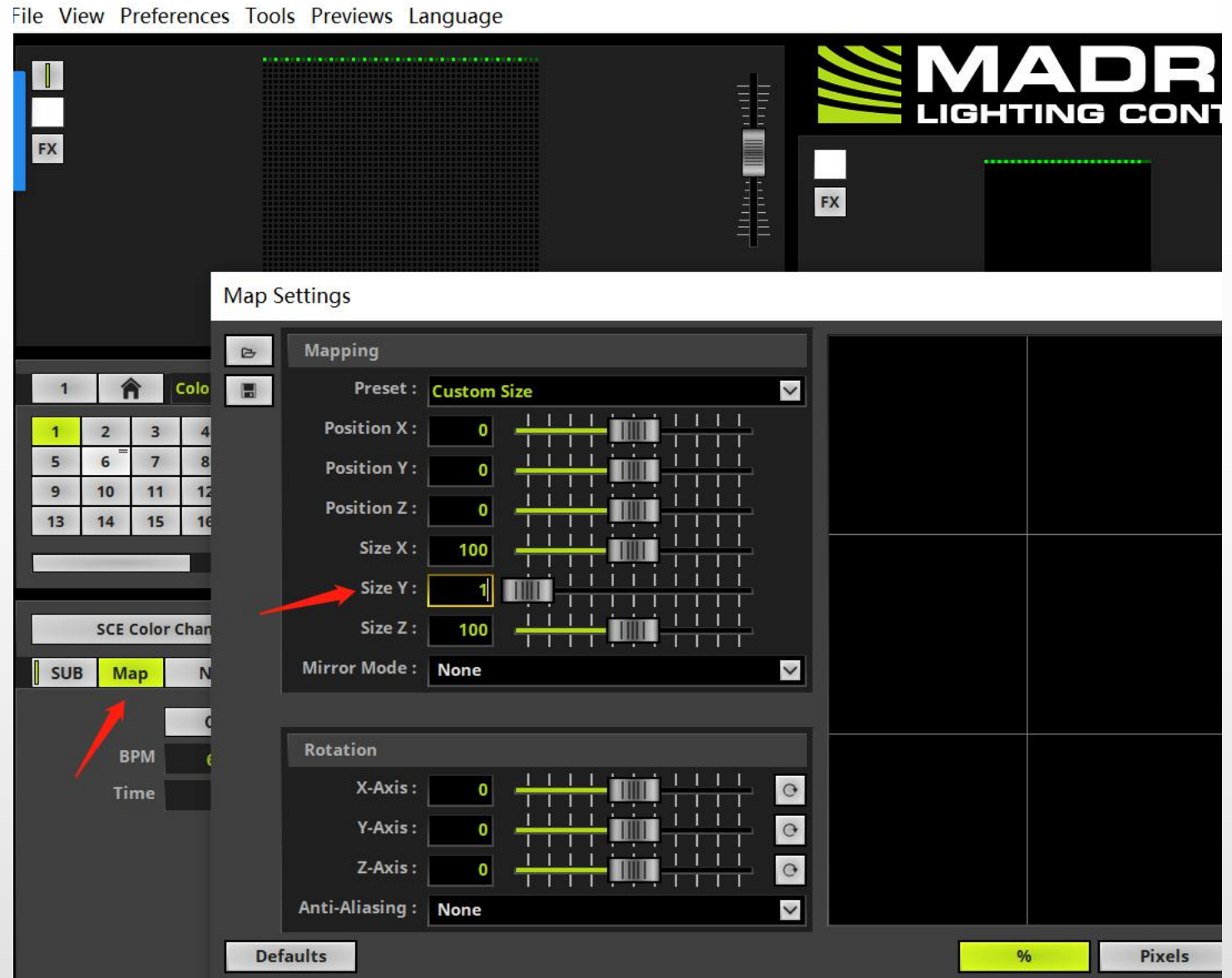
Green:0,255,0 this is for opposite rotating effect.



Click Map

Size Y: 1

Then you can see rotating
effect only.



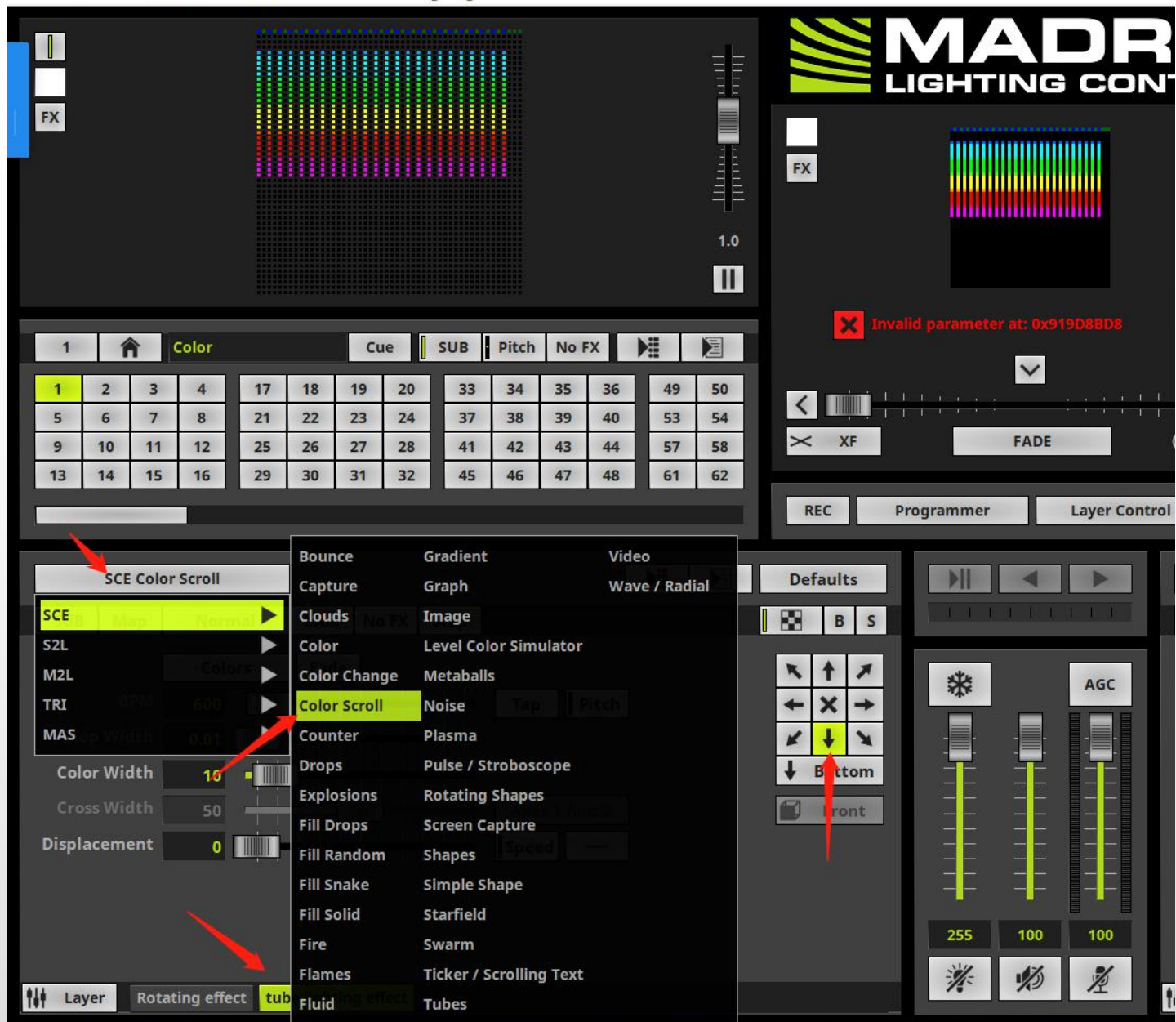
Right click rotating effect, choose New, then add a new mapping for tube lighting effect.

Rename, one is rotating effect, the other is tube lighting effect.



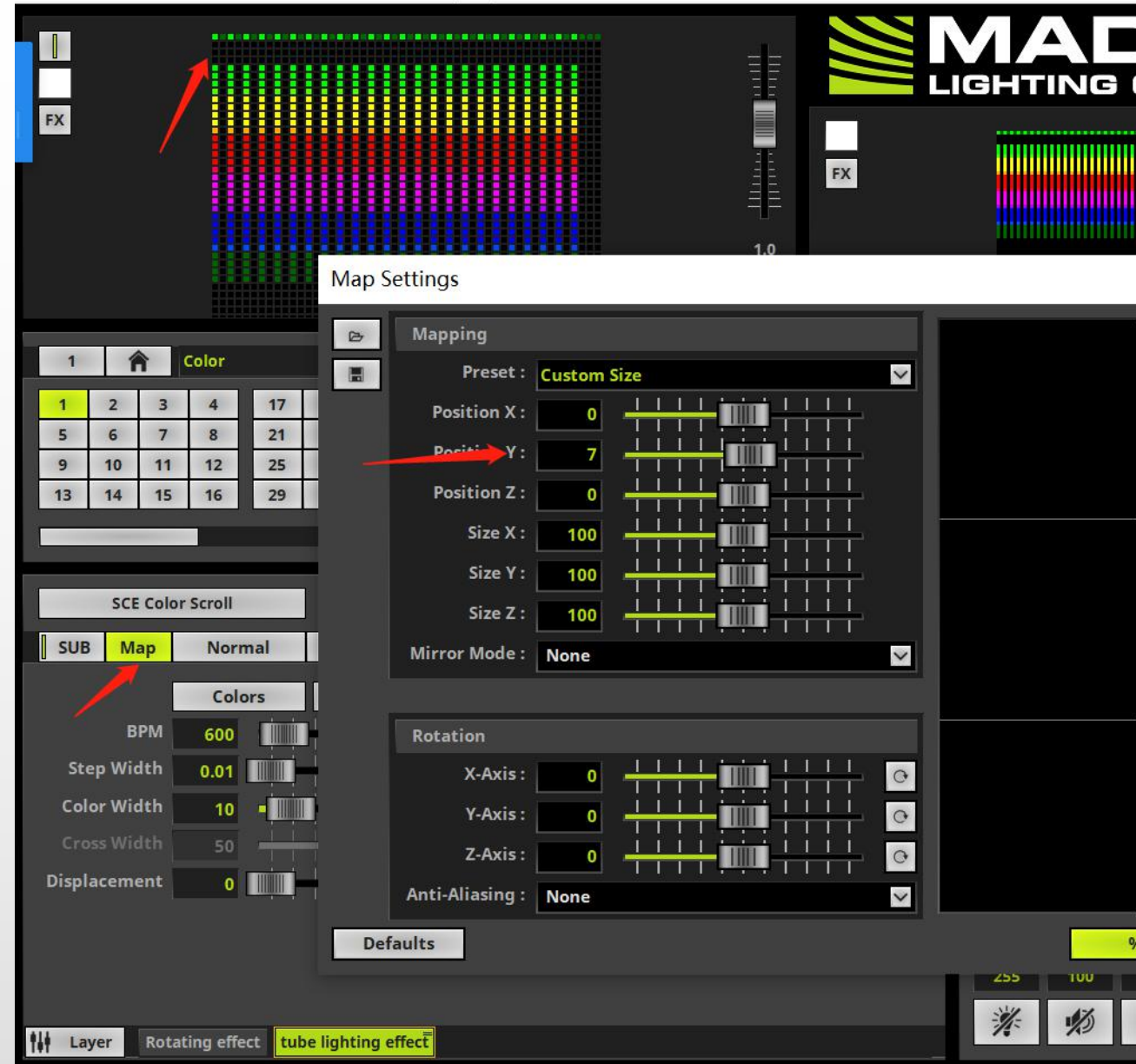
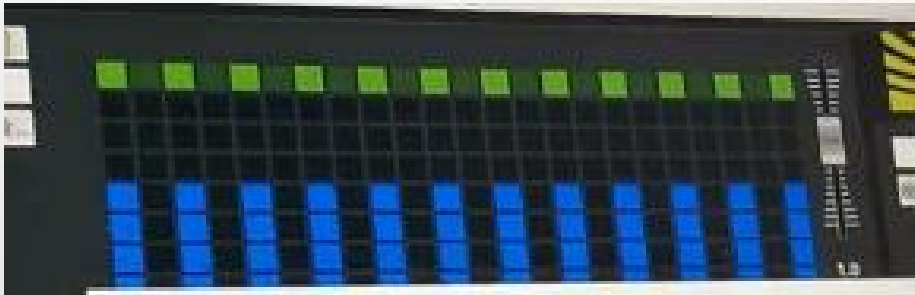
Left click tube lighting effect,
then click SCE color scroll,
choose SCE, then color scroll.

Choose lighting
effect "bottom", let the tube
color change from top to
bottom.



click Map, Position Y should can be 5 or 7. This number is for position, you can change number to cover the pixel area.

If the tube have one pixel doesn't have lighting effect, then change the position Y to 5, 6 or 7 or 8 or others. until tube light all.



Speed and Direction setting

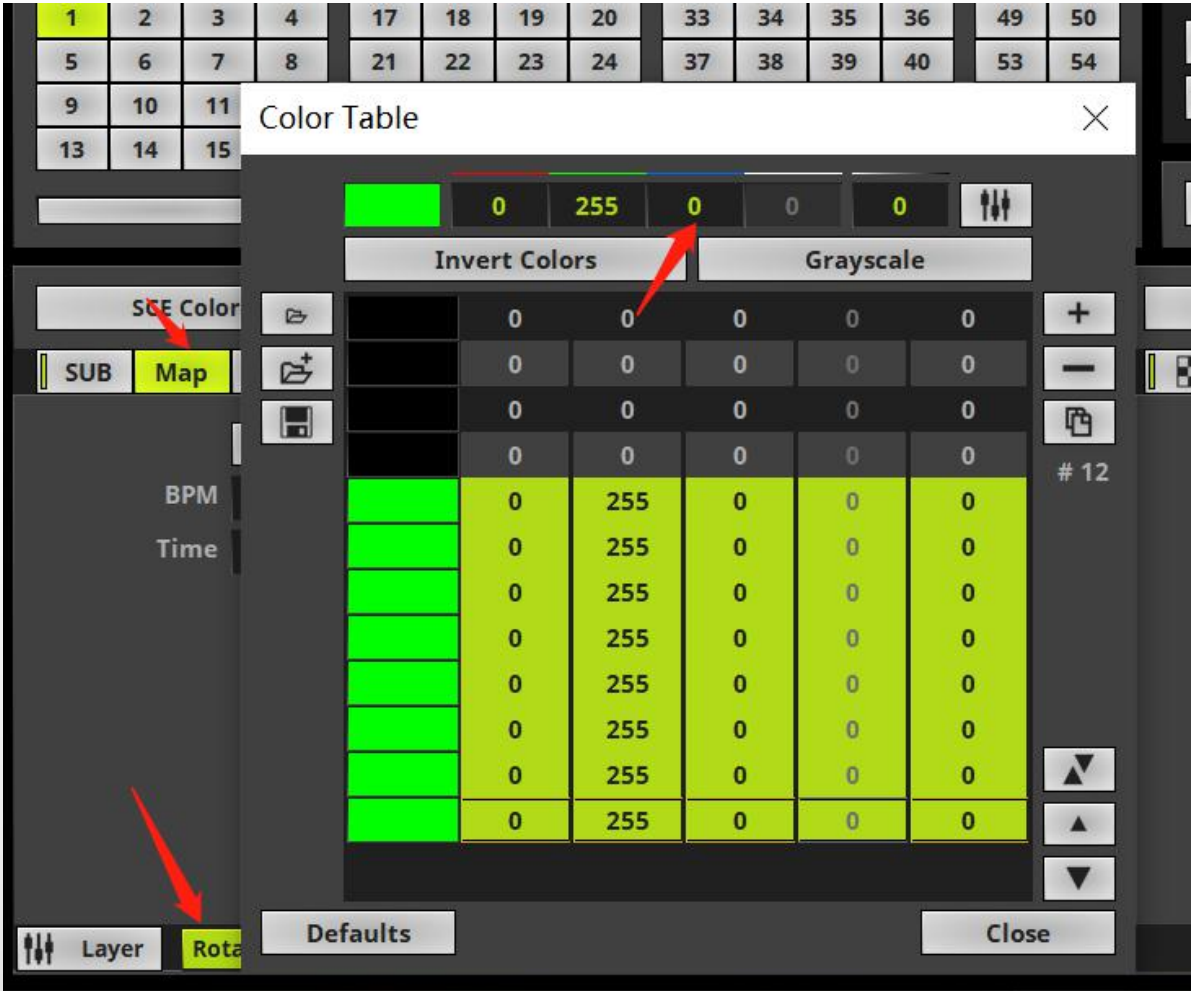
Choose Rotating effect--Map

choose all the green part,when the channel 2 is 255

Channel 3(speed): 0-126 is the opposite rotation,
from fast to slow rotating

Channel 3(speed): 129-255 Positive rotation, from
slow to fast rotating

Channel 3(speed): 127/128 pause



Dial code



1. If all the dial code is 0, then all the rotating motors will show same effect and direction.

2.If you want each tube with different lighting effect and direction, you need to change the dial code of motors.

404R led controller

Port 1: tube 1 dial code is 0, tube 2 dial code is 1.....
tube 6 dial code is 5

Port 2: tube 1 dial code is 0, tube 2 dial code is 1.....
tube 6 dial code is 5

Port 3:tube 1 dial code is 0, tube 2 dial code is 1.....
tube 6 dial code is 5

Port 4:tube 1 dial code is 0, tube 2 dial code is 1.....
tube 6 dial code is 5

360 degree tube (1m)		360 degree tube (1.2m)		360 degree tube (1.5m)	
DMX code	Pixel value	DMX code	Pixel value	DMX code	Pixel value
0	1——25	0	1——32	0	1——37
1	26——50	1	29——58	1	38——74
2	51——75	2	58——87	2	75——111
3	76——100	3	88——116	3	112——149
4	101——125	4	117——145		
5	126——150				

DMX channel description

Channel	Function	Function description
Channel-1	Rotation angle	128 equal parts of the circumference, 0 zero detection (calibration)
Channel-2	Speed	0 stop, 1 — 254 from slow to fast, 251-254 is preset lighting effect, and 255 channel 3 is valid
Channel-3	Automatic rotation	0 — 126 rotate counterclockwise from fast to slow, stop at 127\128; 129 — 255 rotate clockwise from slow to fast