**1. Features**

**(1). Four ports control maximum 4096 pixels (for example WS2812). But for DMX512, each port outputs 512 channels.**

**(2). Support ArtNet protocol, 4 universes(each 512 channels) output when H802RA works with Madrix.**

**(3). Allocate address for DMX512 chips (for example UCS512, TM512)**

**(4). Controlled by master controller or PC.**

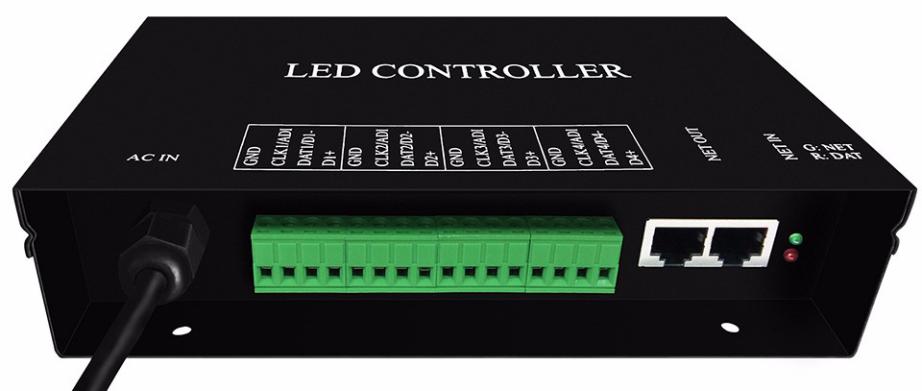
**(5). Transmission distance between two controllers is up to 100 meters.**

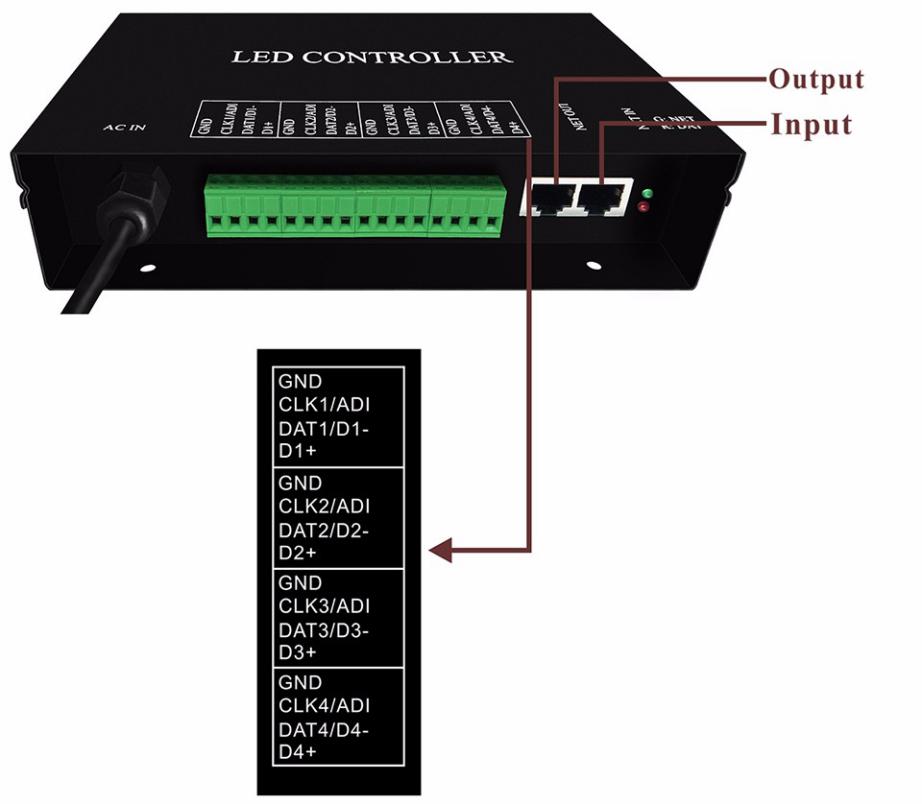
**2. Supported Driver Chips**

DMX512, HDMX, LPD6803, LPD8806, LPD1882, LPD1889, LPD1883, LPD1886, TM1812, TM1809, TM1804, TM1803, TM512, TM1926, TM1913, TM1914, TM1814, UCS6909, UCS6912, UCS1903, UCS1909, UCS1912, UCS512, UCS8904, APA102, APA104, P9813, WS2801, WS2803, WS2811, WS2812, WS2821, SM16716, SM16711, INK1003, LX1003, MY9221, MBI6021, MBI6024, LD1510, LD1512, LD1530, LD1532,etc.

Note: H802RA supports more than the chips listed above(for example UCS2903 has the same sequence diagram with UCS1903, H802RA supports them all).

**3. Product Display**





**GND and DAT are for chips like TM1812, WS2811, WS2812.**

**GND, CLK and DAT are for chips like APA102, LPD6803.**

**GND, D- and D+ are for DMX512 chips like TM512, UCS512.**

**ADI(address input) is address line for DMX512 chips.**

**4. Working Mode**

**(1). Connect to master controller, software is LED Build. Programs are stored in SD card.**

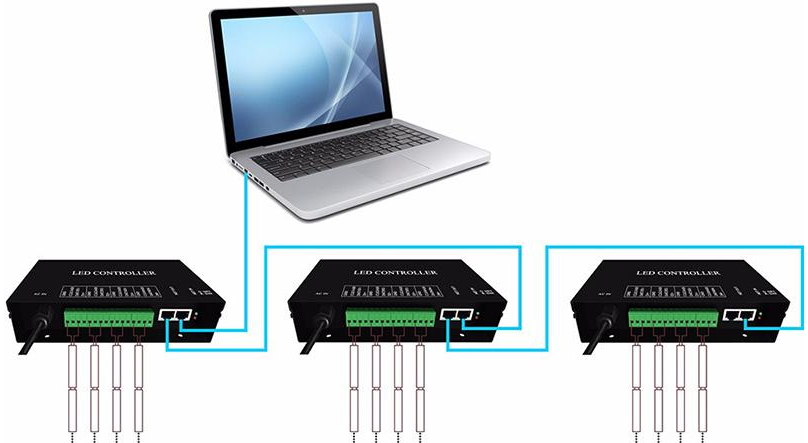


**LED Build download link:**

https://drive.google.com/open?id=0B1gzqyV6hfOgN2pkMV8yMFozYzQ

**LED Build Tutorial Video: https://drive.google.com/open?id=0B1gzqyV6hfOgUnFjeG9EM3VRZjA**

(2). Connect to computer, software is LED Studio(our software) or other software that supports Art-Net protocol.



**LED Studio download link:**

**https://drive.google.com/open?id=0B1gzqyV6hfOgNEtYT2o0LWdDNG8**

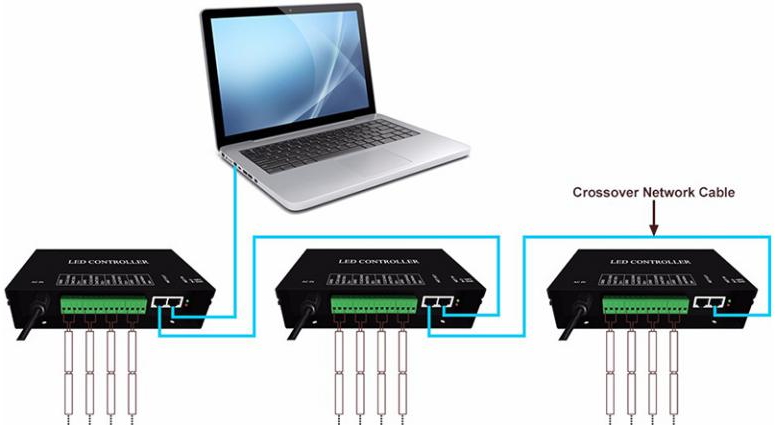
**H802RA to PC manual:**

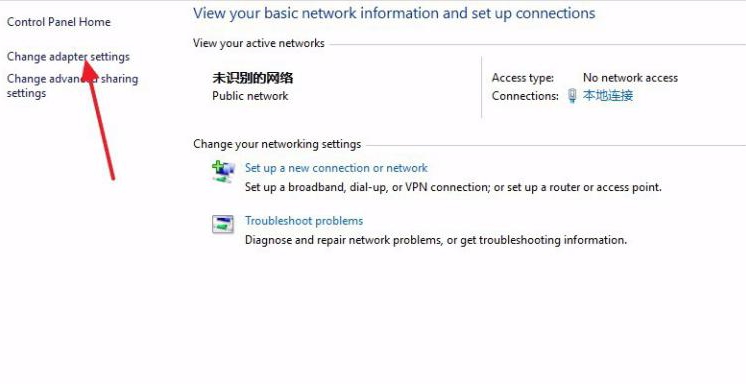
**https://drive.google.com/open?id=0B1gzqyV6hfOgeGI1M2JaYi1URW8**

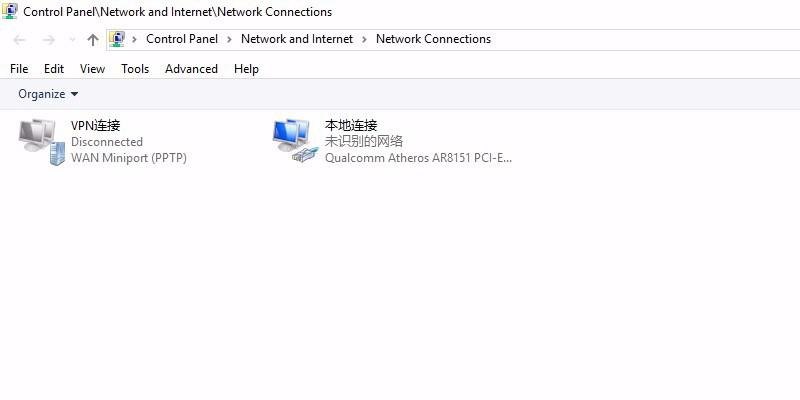
**5. Basic Working Procedure for MADRIX**

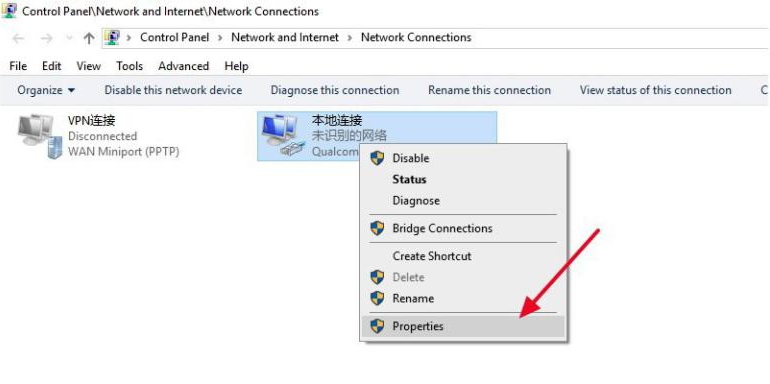
**Configurations before MADRIX (if you use other software, these configurations are also essential)**

**(1). Connect H802RA to PC, allocate an IP address for H802RA.**

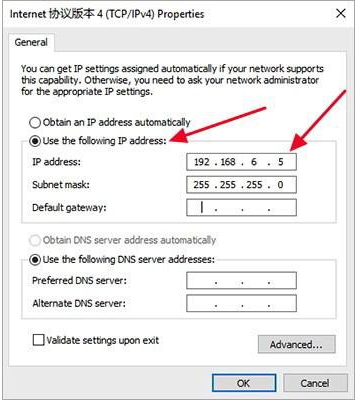




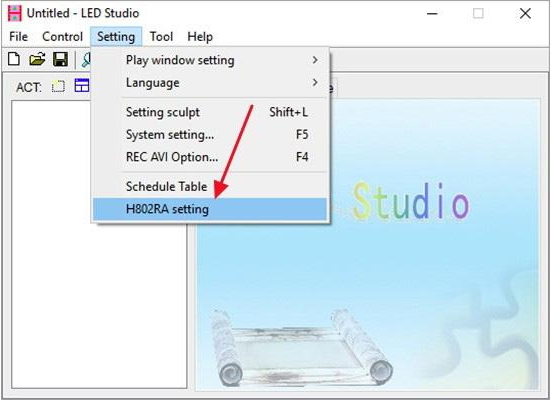


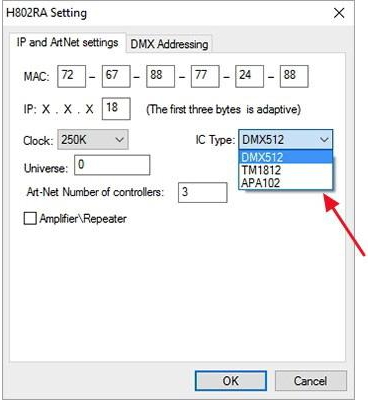






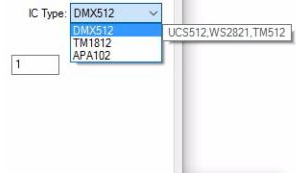
**(2). Open LED Studio, click “setting” -- “H802RA setting”, pops up the following dialog box.**





**Note:**

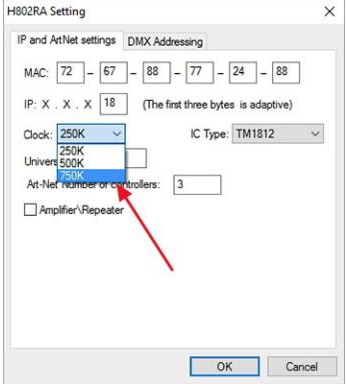
**(1). "DMX512" includes UCS512, WS2821, TM512.**



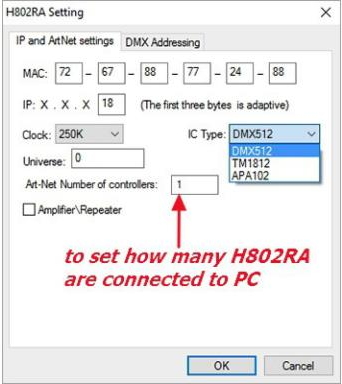
**(2). "TM1812" includes P9883, TM1804, TM1809, UCS1903, UCS1909, UCS1912, WS2811, WS2812, SM16703, SM16709, SM16712, INK1003, LX1003.**



**Normally, if you choose "DMX512", Clock should be 250K, if you choose "TM1812", clock should be "750K".**



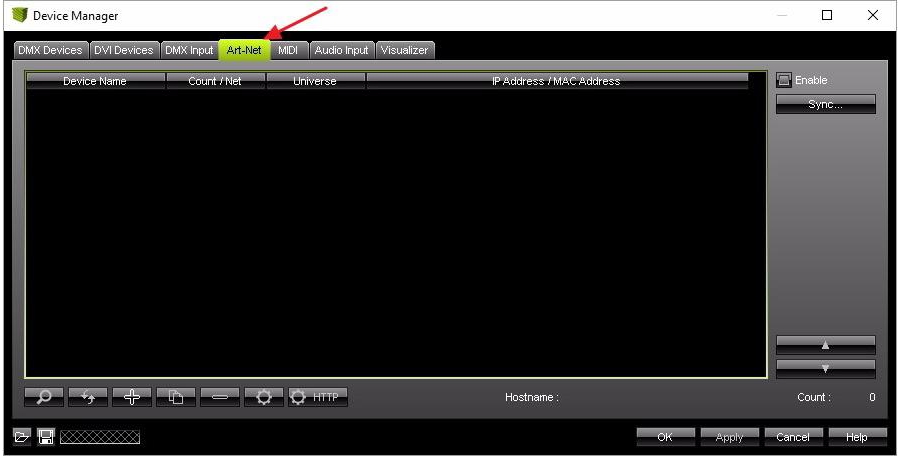




**MADRIX  Configurations**

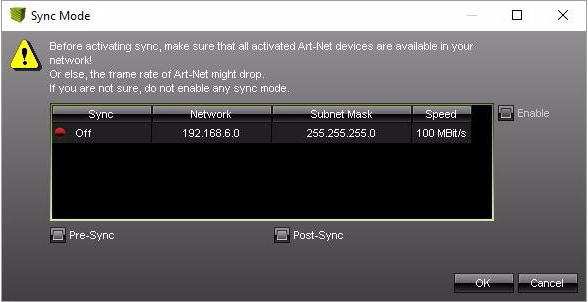
**Assume you connect one H802RA to PC, each universe controls 170 WS2812 pixels (1 pixel includes R,G,B, 512/3=170)**

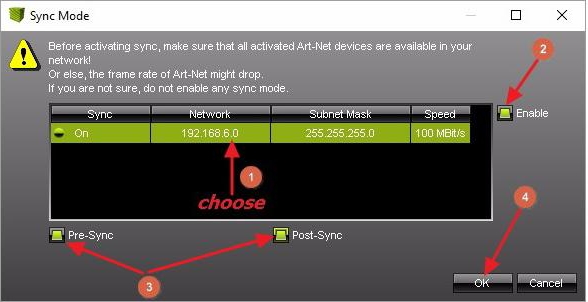




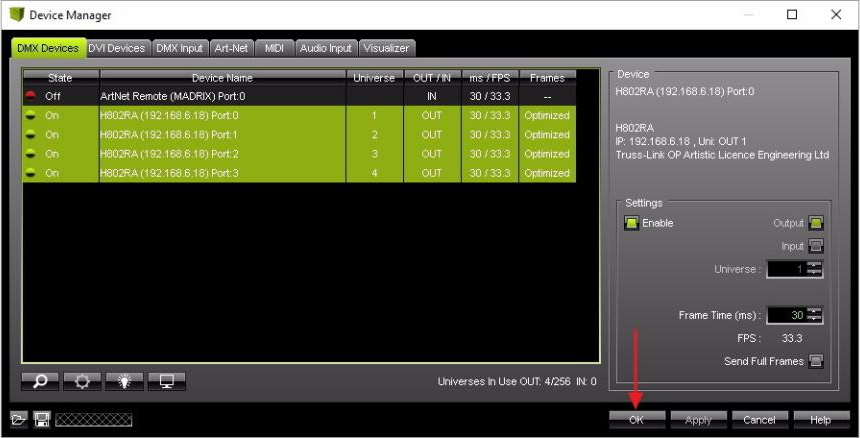


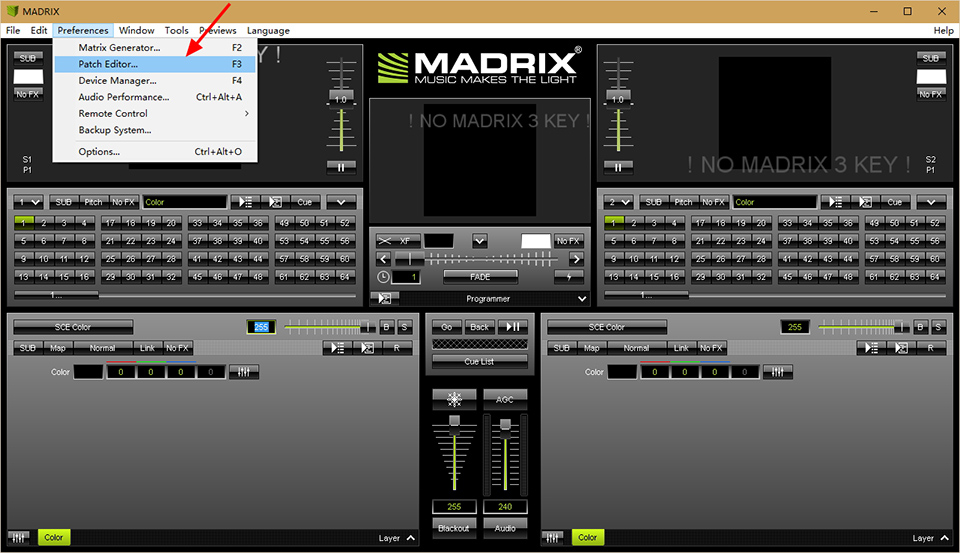


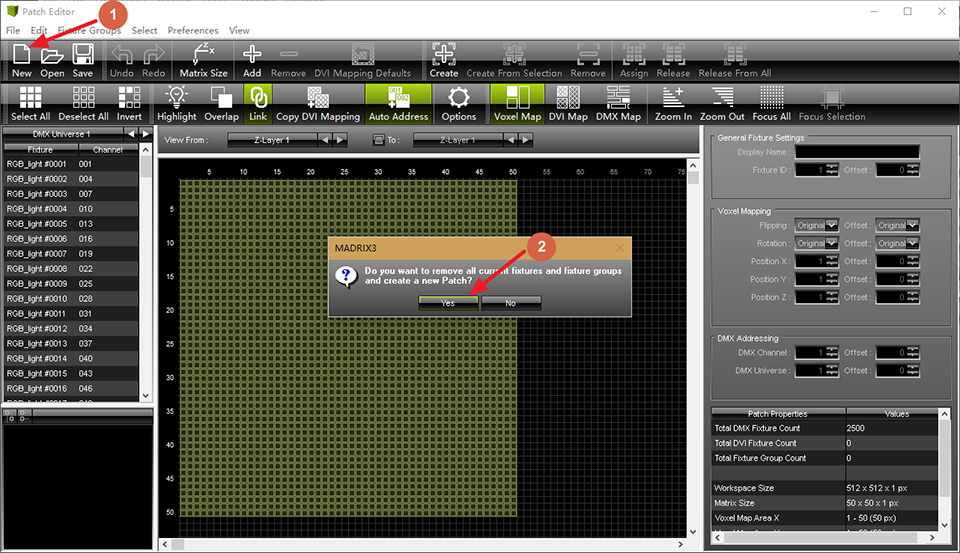


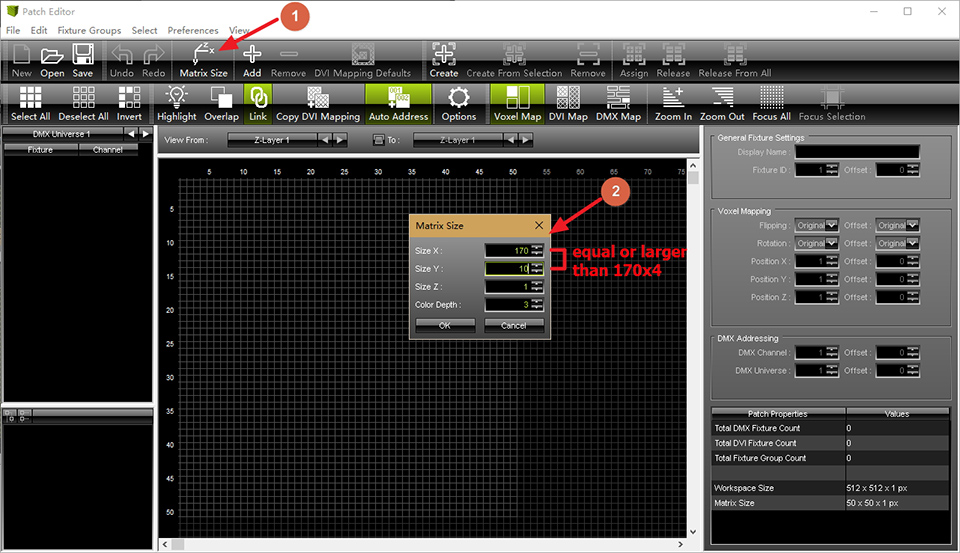


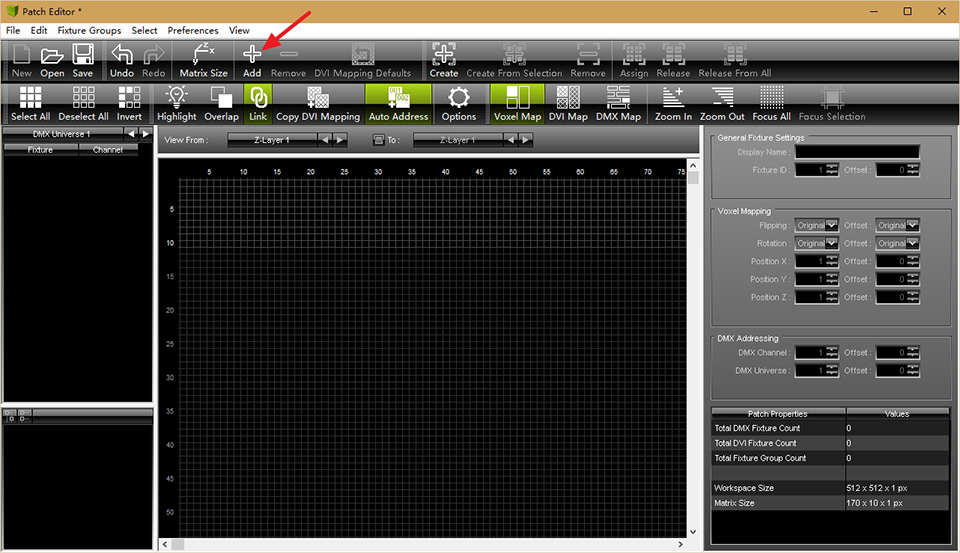




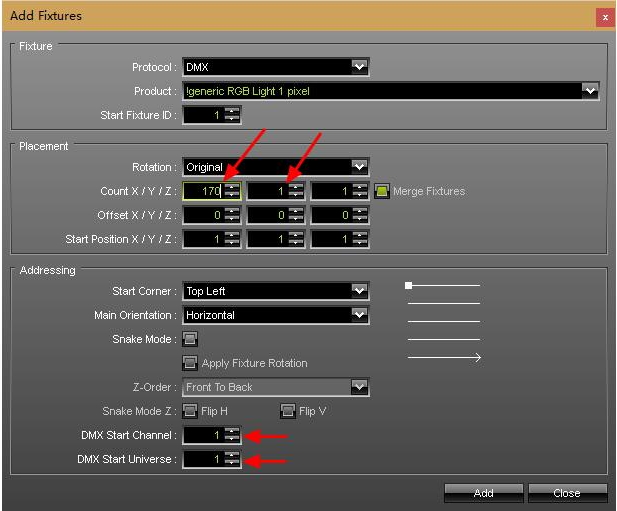




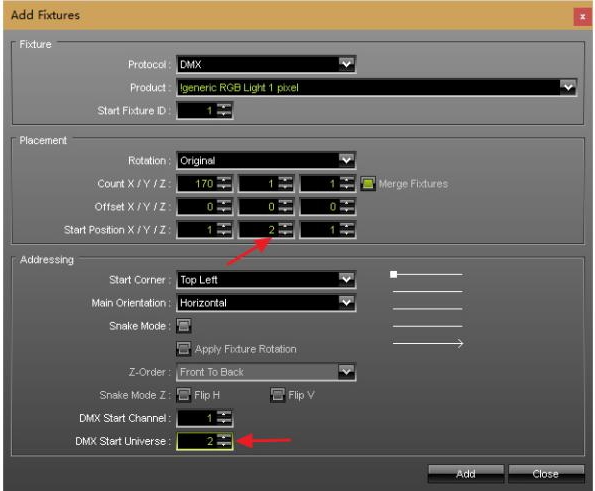




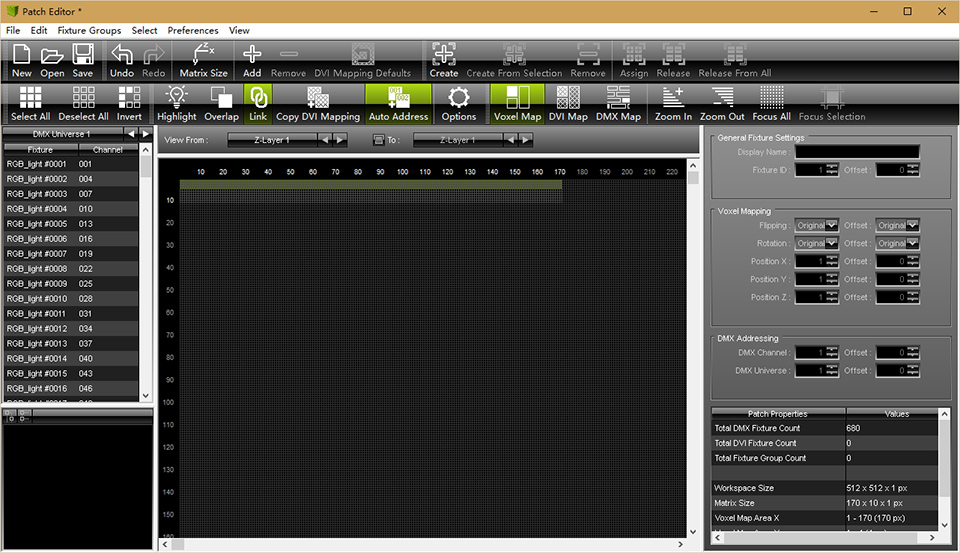
**Add Fixtures to universe 1**



**Add Fixtures to universe 2**



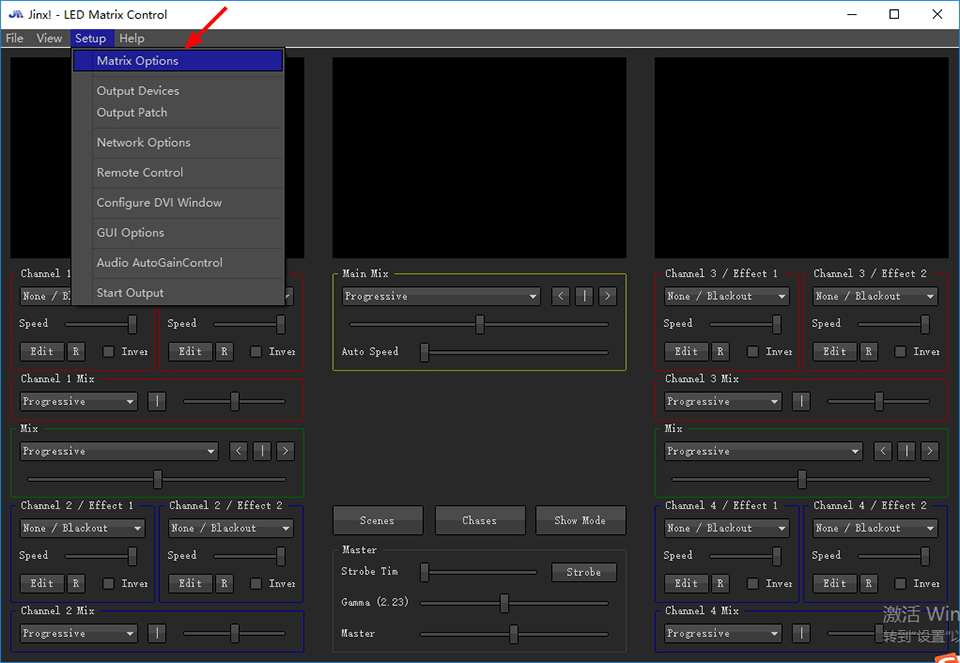
**Use the same way to add fixtures for the rest of two universes**

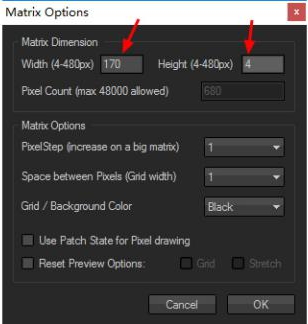


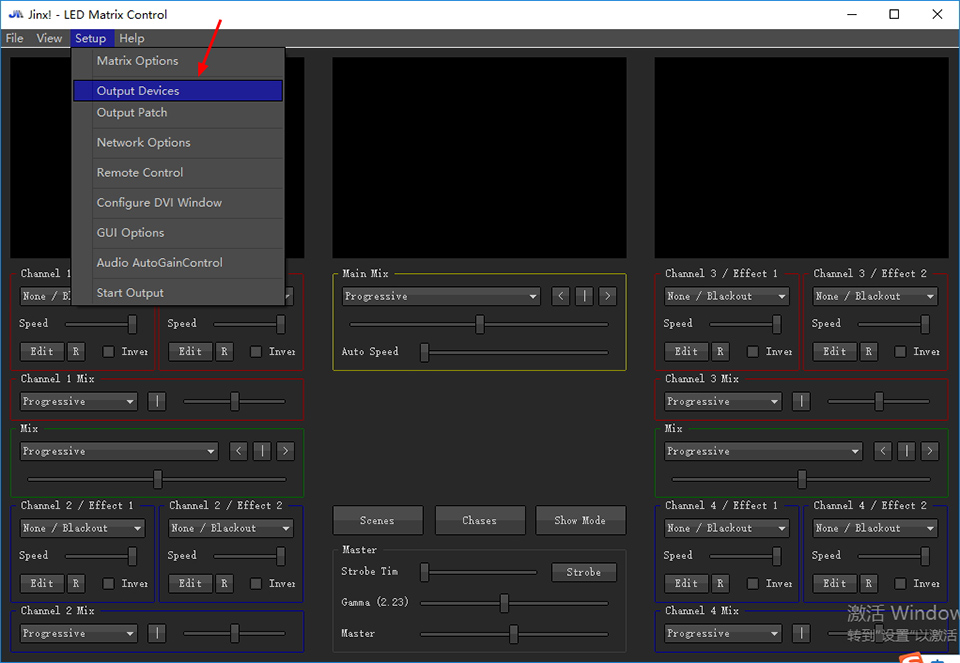
**Save patch, then go back to main window, you can control lights with MADRIX!!!**

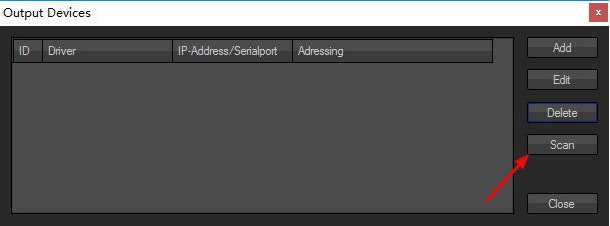
**6. Basic Working Procedure for Jinx!**

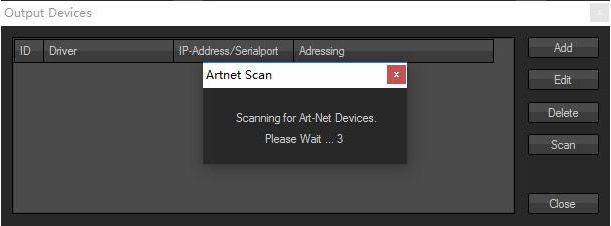
**Note: before this, you should allocate an IP address for H802RA and configure H802RA in LED Studio, which has been showed above.**

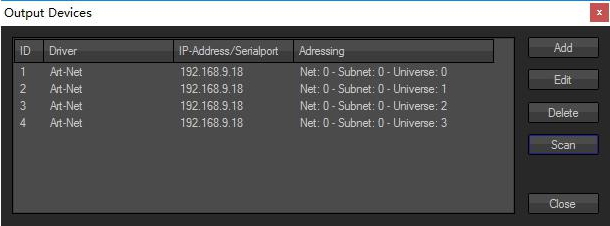


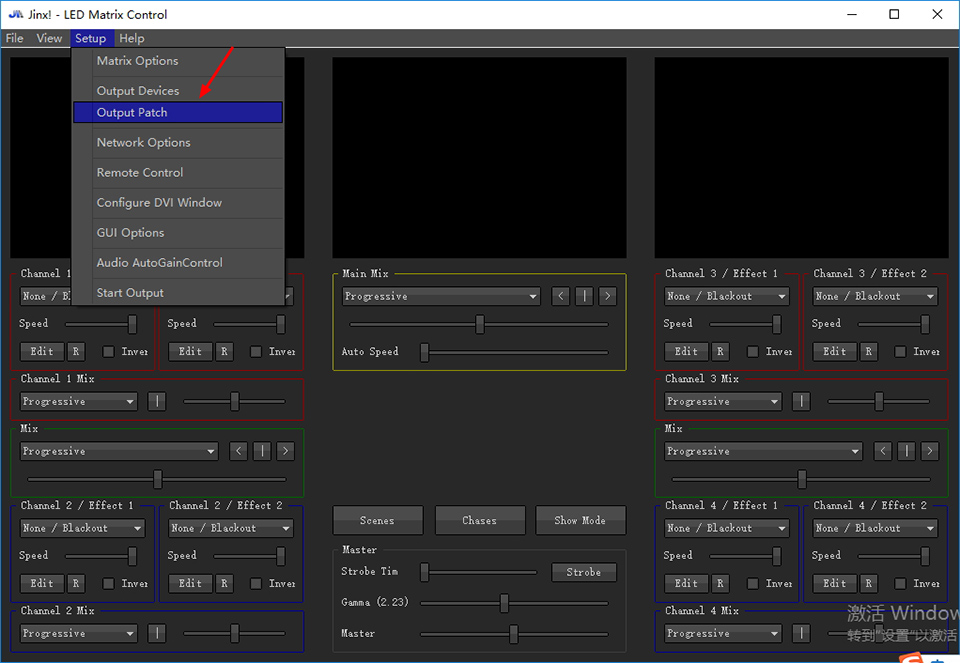


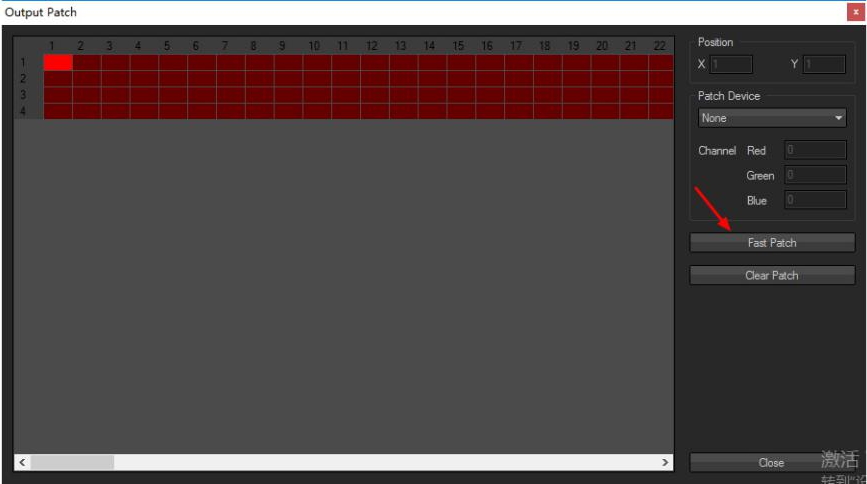


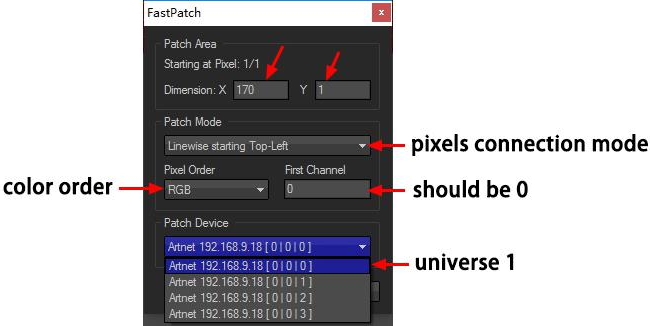


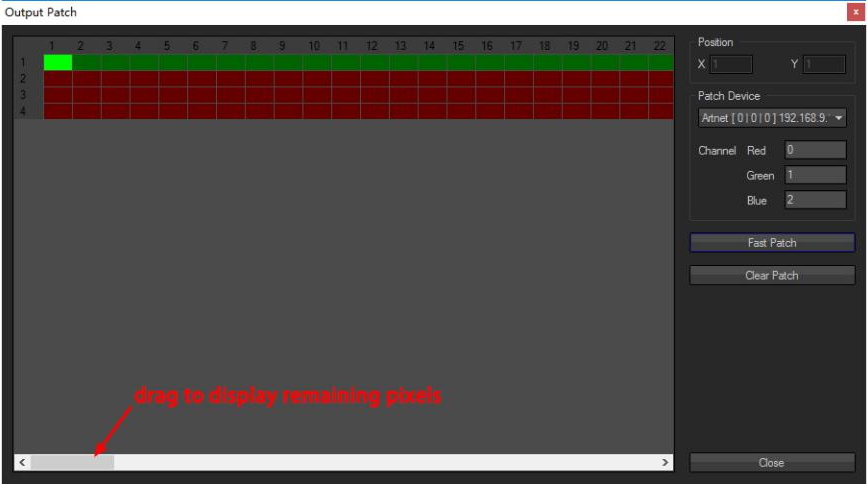


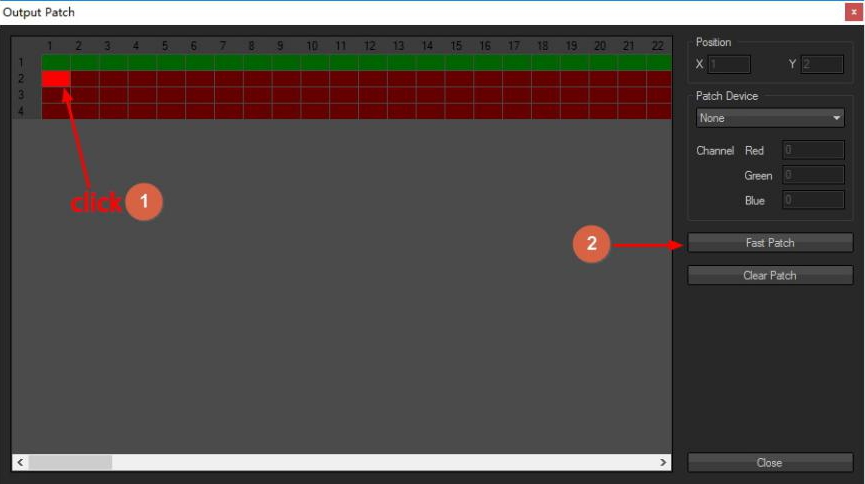


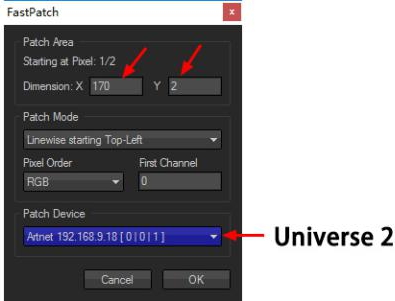


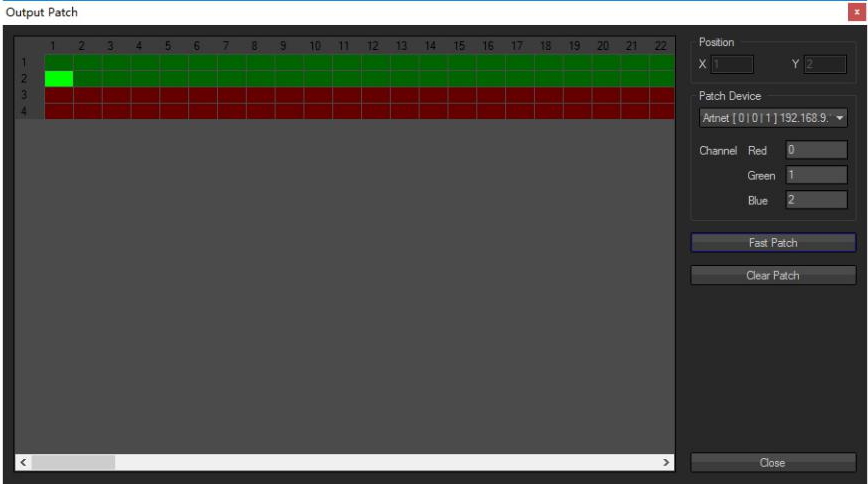




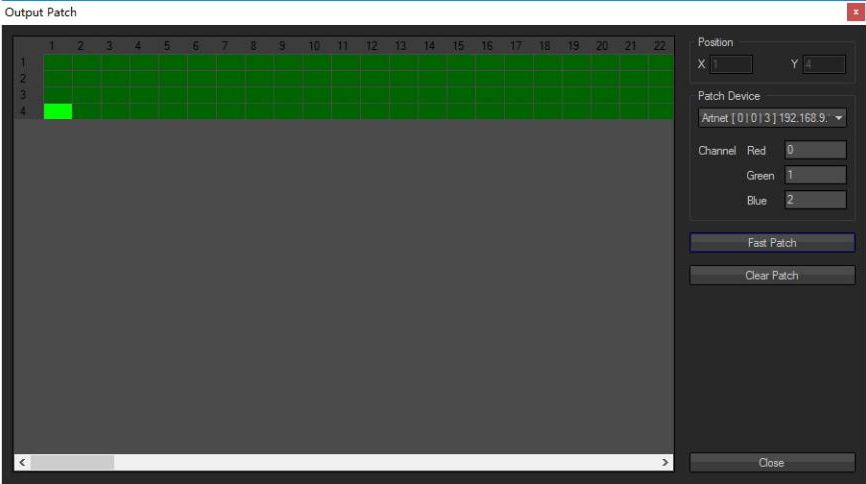




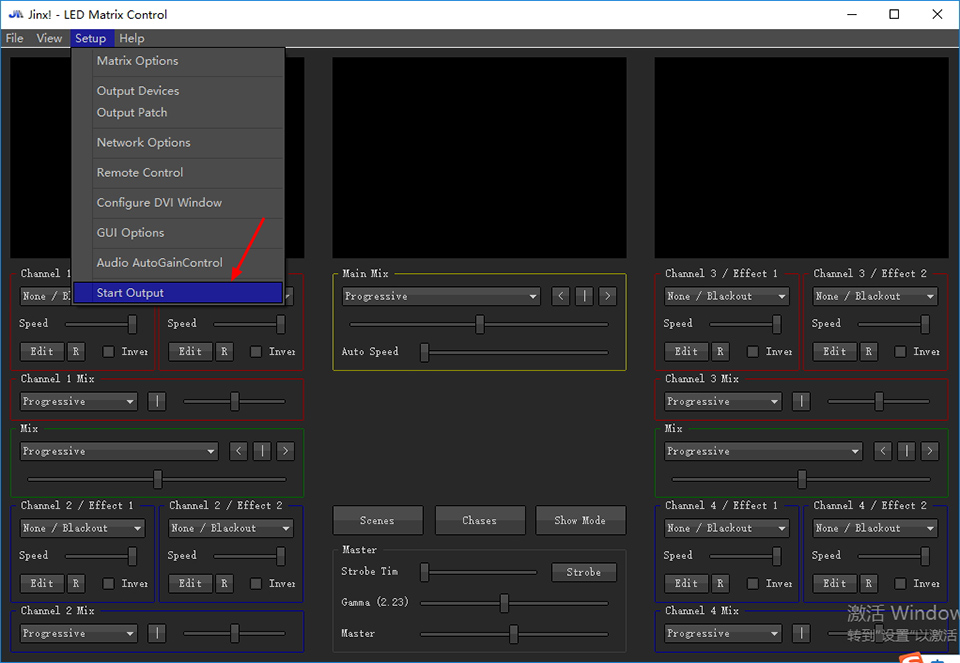




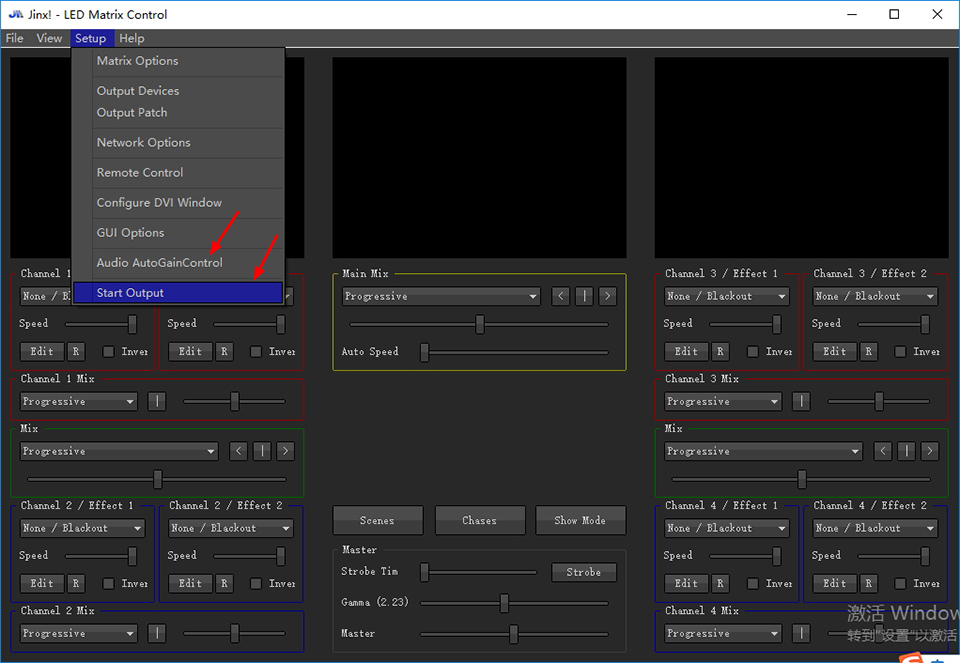
**Use the same way to add pixels to the rest of two universes**



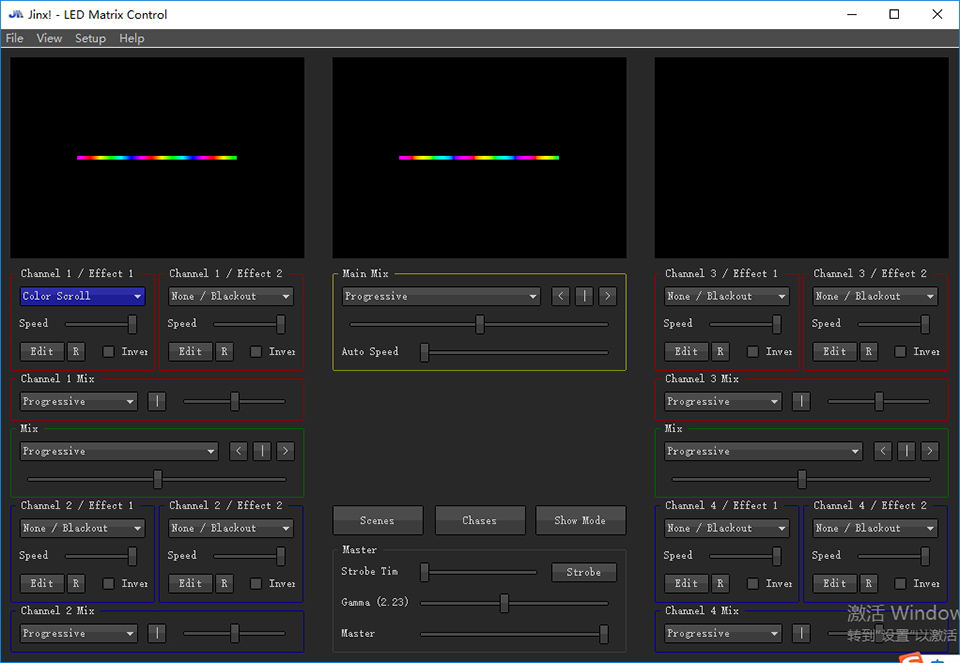
**Then**



**Choose "Audio Auto Gain Control" if you need music effect**

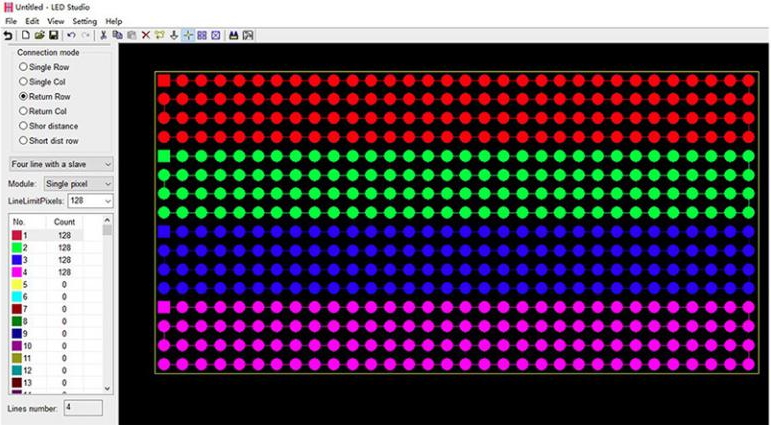


**You can use Jinx! to control lights !!! The following is just for example**

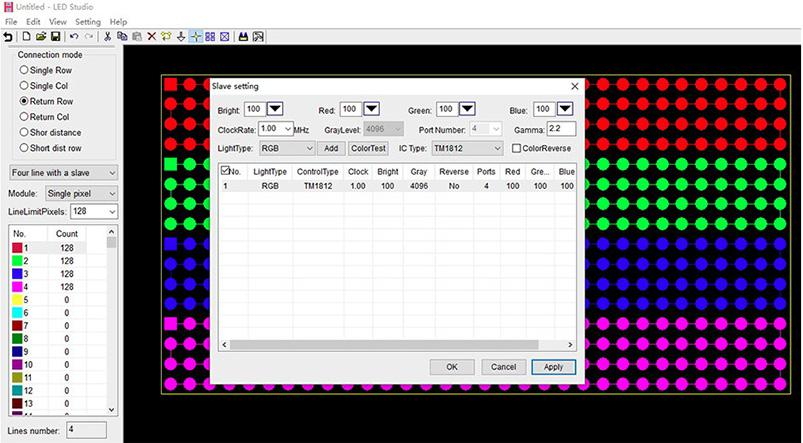


**7.** **Basic Working Procedure for Led Studio**

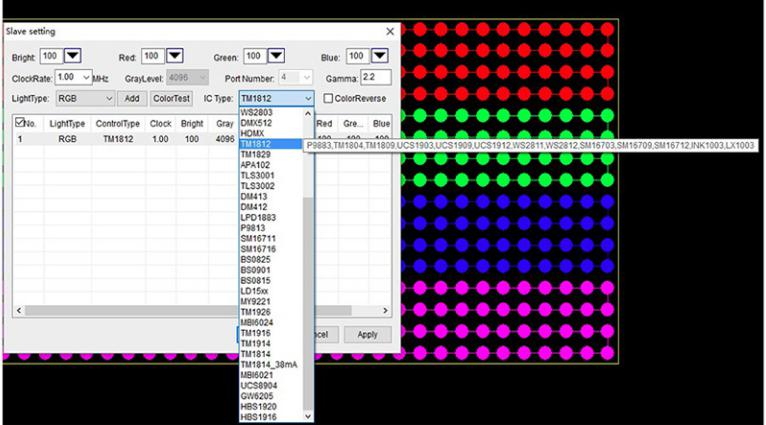
Place Pixels



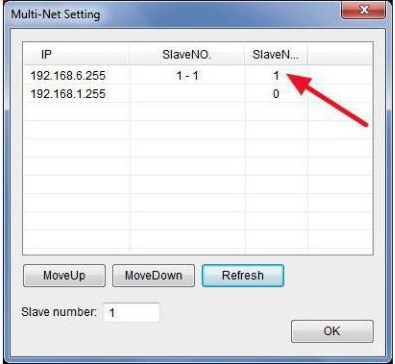
**Slave setting**



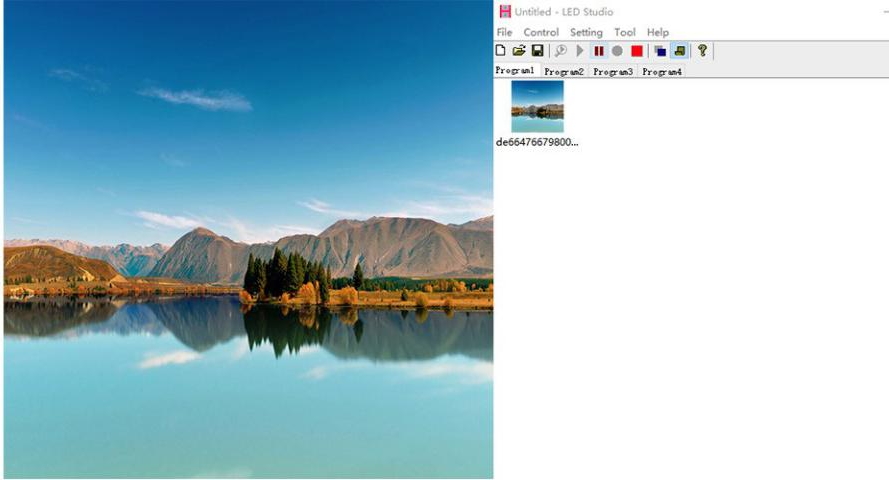
**Note: many chips use one option**



**Allocate controller for the specified IP address.**



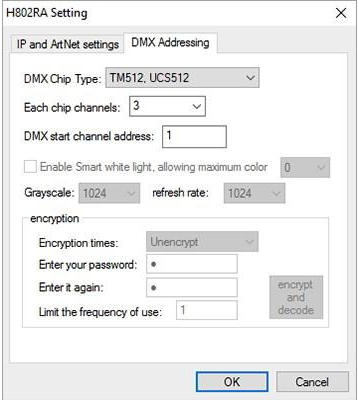
**Make Animation**

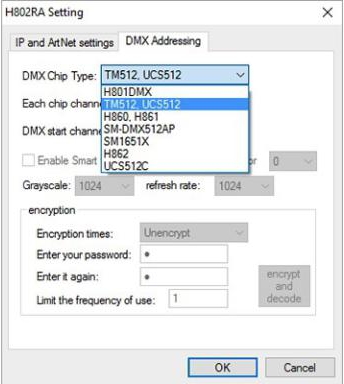


**8. Set Address for DMX512 chips**

**(1). Please connect your lamp to controller according to the connection method i post above(under PCB Layout).**

**(2). In LED Studio, click "Setting" -- "H802RA  Setting".**





**After several seconds, lamp will turn white then green, please repower the lamp.**

**H802RA can address for maximum 1024 pixels.**

**9. Specifications**

**Input Voltage:  Customized**

**Power Consumption:  1.3W**

**Drive Pixels Number:  4096**

**Weight:  1KG**

**Dimension:  L163 x W155 x H54**

**Carton Size:  L205 x W47 x H21**