# I-1024 Digital controller mnauel

## Attention!

This controller need to work with DMX512 controller and digital led strips, If there is equipment failure in the use of other products, the warranty will not be given.

When wiring program in projects , pls careful with :

1:Pls follow the signal input and oupt direction as the arrow shows in the led strips.

2: The distance between controller to the first pixel in led strip, should be less than 5 meters.

3:The digital led strip can not be bend when installation, otherwise will cause broken.

4:The digital strips should be connect to power supply each 5 meters , while signal connector could be connected by each other.

**Controller ports define.**

**1、connect controller to other dmx512 controller ports.**

 Pls strictly follow that the input wire connect to the following DMX512 IN port, and the output wire to the DMX512 OUT port in the following

 And recommend to make the led strips in the whole wire diagram end parts, to help the installation.

 

1. **Led strip connect and power supply connection.**

 

OUPPUT: GND connect to GND in the led strip

 D1 connect to led strip signal wire .

 Others wont need to connect .

**3、DIP switching setting**

 

1.Dial up the DIP switch to ON state.

2.Dial the 10th bit up to the off state, which is the 512 controlled mode. then Set the address .

3.The 512 address value is added to the individual numbers. For example, address 16, dial down the DIP switch of 16.

For example, at address 21, turn off the switches of 01, 04, and 16.( 01+04+16=21)

**16CH)Details of the 16 channels**

|  |  |  |
| --- | --- | --- |
| Channel  | Name | Description |
| 1  | (dimmer) | The brightness of the led strips |
| 2  | Red | Foreground red |
| 3  | Green | Foreground green |
| 4  | Blue  | Foreground blue |
| 5  | Effects | Change the running effects of the strips：0~31：All led s turn on32-63： comet trail64-95：Line segment movement 96-127：Spring movement 127-159：Fill up color one by one160-255: all leds keep turning on |
| 6  | Speed  | 0~127: Forward speed from MAX to zero**128: Led strips stop running**129~255：Speed in reverse direction from MAX to zero  |
| 7  | Group  | Divide the led strips in several groups , each group repeat themselves effects0~1：Group 12-255: Group 2~255 |
| 8  | Zoom | Pattern Scaling  |
| 9  | Mirror  | make the pattern symmetrical0：No symmetry1：make symmetry each one group2：make symmetry each 2 group3： make symmetry each 3 group |
| 10 0  | Prism rotation | Expand the current color within a certain range (controlled by another channel ColorExpanding)0-127:Distributes the expanded colors in space, the larger the value, the denser the spatial distribution128-255：Change different colors in time, the larger the value, the faster the change |
| 11  | Background Red | Red background color |
| 12  | Background Green  | Green background color |
| 13  | Background Blue  | Blue background color |
| 14  | Resolution | Control granularity, treat multiple pixels as one logical pixel to control0~1：One logical pixel per pixel2：2 pixels are treated as a logical pixel, the color of these two physical pixels is the same at any time；3：3 pixels are treated as a logical pixel, and the color of these three physical pixels is the same at any time; |
| 15  | Flash  | 0：no flash1-255：Blinking speed from slow to fast |
| 16  | Size of the program (Control the pixel qty of the led strip) | 0：All pixel , all led strips1-255：The larger the value, the smaller the range. 255 is the minimum,At this time, the number of lamp beads is 2 |

**Samples :**

1. Remove all effects

2. Push channel 1 brightness to 255

3. Push RGB (channels 2, 3, 4), you can see that the entire light bar displays a certain color.

3. Slowly nudge the effect channel (channel 5), you can see different effects. For example, if you push it to 48, you can see the comet trailing effect.

4. Push Speed (Channel 6), you can adjust the speed and direction of the effect.

5. Push the zoom (channel 8) to see the pattern length change.

6. Push the group (channel 7), you can see that multiple groups of patterns are repeated

7. Push mirror (channel 9), you can see that the group is mirrored

8. Push the prism (channel 10) to see the colors spread out in space

9. Push the granularity (14 channels), you can see that the adjacent lamp beads use the same color

11. Push the background RGB (channels 11, 12, 13) to change the background color.

12. Push the 16th channel to control the number of long points of the light strip.

**Technical parameter**

Debugging method: built-in pattern, online programming

Input signal: DMX512

Input voltage: 5-24V (standard DC12V power adapter)

Number of driving LEDs: 1024 pixels.