



## Connecting Wasatch Pixels Advanced Eight Controller for Use with WLED and xLights

- 1) Connect input wires to controller (+V, -V from power supply, and an Ethernet cable to a network shared with xLights computer.) Connect green power and data connectors to +V, -V (sometimes labeled G or GND on pixels) and D (data) lines on pixel strings.
- 2) Turn on power and observe green Ethernet activity light illuminated and flashing with Ethernet traffic
- 3) Find network IP address of controller. This can be done by using a network scanner such as any one of these: <https://geekflare.com/network-scanner/> . Or, more easily download the WLED app to a phone or tablet, click on the large "+" sign at the top right of the screen, then press the DISCOVER LIGHTS... button. WLED will discover your controller if your phone or tablet is connected to the same network as the controller is. Click on the check mark on the top right corner of the app screen. On the main screen you should now see your WLED controller. Note the IP address of the controller to be entered into xLights.
- 4) Open xLights
- 5) Make sure you are on the *Controllers* tab
- 6) Click the *Add Ethernet* button
- 7) On the right side of the screen give the controller an appropriate name in the *Name* field
- 8) From the *Vendor* pull down list select WLED
- 9) From the *Model* field that will appear after you select WLED in the *Vendor* field, select WLED
- 10) From the *Variant* field that will appear after you select WLED in the *Vendor* field, select Generic ESP32
- 11) Go to the *IP Address* field and enter the IP address that you found in step 3
- 12) Under *protocol* select your desired protocol. It is recommended to use DDP for the best performance between xLights and the controller
- 13) Select the *Save* button on the left side of the screen
- 14) Go to the *Layout* tab, create a prop
- 15) Under the details of the prop on the left side of the screen and in the dropdown menu of the *Controller* field, select your controller (It will be listed by the name you gave your controller in step 7)
- 16) Go back to the *Controllers* tab
- 17) On the left side of the screen, reselect the controller you created
- 18) At the bottom of the screen click the *Visualize ...* button
- 19) Find the model you created in step 14 and drag it from the right of the screen to the left side next to one of the available ports. (Note xLights will by default list 8 ports here. If you have a QUAD controller, you can only use Ports 1-4 here. If you have a SIX controller, you can only use ports 1-6 here. If you have an EIGHT controller, you can use all 8 ports.)
- 20) Close the *Visualizer ...* window that was open
- 21) Click on the *Upload Output* button at the bottom of the screen. This will upload the appropriate pixel count to be assigned to the appropriate pins in WLED. You can verify this if you go to your WLED app or the controller's IP address in a web browser. Click on *Config*, then select *LED*

*Preferences*. Under the *Hardware setup* section, you will see the information for the respective pins. You can select the appropriate *Color Order* here if necessary (it is defaulted to GRB in WLED.) DO NOT change the *pin numbers* or the Data outputs on the screw terminals will not correspond correctly to Port number in the xLights visualizer. Verify the *Count* of pixels is correct as sent from xLights. If you made changes here in WLED, *Save* them and exit the configuration.

- 22) Repeat Steps 14-21 for other props you want to setup in xLights. If running a 40 FPS sequence, it's recommended you have no more than 600 pixels per port. If running a 20 FPS show, you can use up to 800 pixels per port.
- 23) In the WLED app or on the WLED page for your controller in a web browser make sure the power button is turned on
- 24) Start your sequence in xLights with the output to pixels Light Bulb selected on, and you should see the animation(s) running on your pixels

Note: If you don't want any WLED animations to play while xLights is not outputting data to your pixels, you'll need to go to WLED and create *segments* that correspond to the number of pixels on each port of the controller. Then select black for all three color options on the WLED Colors Tab. Go to the *Effects* Tab and select the *Solid* effect. Save this to a *Favorite* in WLED. Then go back to *Config, LED Preferences* and scroll down to the line: *Apply preset [ ]* at boot and enter in the preset(Favorite) number of the black solid effect you just created. Go to the top or bottom of the page and click *Save*.

Now when the controller is powered, it will default to having the WLED Power button selected ON, but WLED will not be illuminating the lights when xLights is not sending sequence data.