PixelCon Frame (mini)

Mini Pixel Art Showcase Frame



The PixelCon Frame is small device that displays pixel art (known as PixelCons) from the web. The pixel art is displayed on a bright 8x8 matrix of LEDs and is powered by the inexpensive WiFi enabled esp8266 board. Everything is enclosed in a 2.75in square 3D printed case.

Pixel art displayed on the frame comes from the PixelCon ecosystem on the Ethereum blockchain. Anyone can make and explore PixelCon and using the power of the Ethereum blockchain, each PixelCon can be owned, collected, and traded like a cryptocurrency.

How To...

Connect to WiFi

The PixelCon Frame shows a stored set of PixelCon by default, but you can connect it to WiFi to display more PixelCon from the Ethereum blockchain. When the PixelCon Frame is not connected to WiFi, it acts as a WiFi hotspot (See **Reset WiFi** for clearing out any existing saved connection). Perform the following steps to set up a WiFi connection:

- 1. Connect to the PixelCon Frames WiFi hotspot through a computer of mobile device (the hotspot name will look like "PixelCon Frame xxxx")
- 2. Navigate to the WiFi configuration page from your device (type in '192.168.4.1' in a web browser if no prompt pops up)
- 3. Select a WiFi network, enter the password and click connect
- 4. If the configuration was correct, the PixelCon Frame will stop acting as a WiFi hotspot and will instead be connected to the configured WiFi network.

Reset WiFi

The PixelCon Frame saves WiFi connection data for the next time it's powered on. To clear out these settings and connect to a different WiFi network, perform the following steps:

- 1. Press and hold the bigger action button on the back of the frame until the screen turns off
- 2. Press the smaller reset button on the back of the frame to re-power the frame
- 3. On boot, the PixelCon Frame should now start up as a WiFi hotspot to set up a new WiFi connection (See **Connect to WiFi** for setup instructions)

Configure Settings

There are several settings that can be tweaked for the PixelCon Frame from a web interface. To access these controls, perform the following steps:

- 1. Make sure your PixelCon frame is connected to WiFi and you have a second device with a web browser connected to the same WiFi network.
- 2. Press the bigger action button on the back of the frame to see its IP address scroll across the screen. (You may have to hold the button down for a second, but make sure to release it as soon as the IP address shows)
- 3. Enter the IP address in the browser of a device connected to the same WiFi network. (This should take you to the configuration web interface for the PixelCon Frame)

Configuration Web Interface



General Settings

At the top of the page there is the general settings section. This section includes the brightness slider and duration input, which sets the number of seconds between the pixel art changing. Once these settings have been updated, click the Save button to update the PixelCon Frame.

Import/Export

Also in the general settings section is a button for the import/export functionality. Clicking this button will bring up a window that displays the PixelCon Frames current configuration in a text box. Copy this text and save it somewhere to effectively export the current settings. Change the displayed text or paste in a previous configuration and click the Import button to load the configuration data. Once the data is loaded, click the Save button to update the PixelCon Frame to these settings.

Dynamic Mode

The lower half of the page is for configuring what pixel art is shown. A toggle at the top of this section allows you to switch between a Static and Dynamic mode. Dynamic mode allows you to configure the PixelCon Frame to display PixelCon from different sources from the Ethereum blockchain (See <u>here</u> for more information on PixelCon). This data is updated in real time as transactions get committed to the blockchain.

Clicking the Plus button will add a source to the list, while clicking the Minus button will remove a source. Use the dropdown in the Source column to configure what type of source a line is. A source can be an artist address, an owner address, a collection index, or simply specify all PixelCon currently in existence. In the ID column, specify the artist/owner address or collection index. You can add up to 10 different sources, which will randomly be pulled from when displaying pixel art.

Static Mode

Switching on the Static Mode toggle will switch the configuration into a static mode. In this mode, you can simply add and remove PixelCon that will be displayed. These configured PixelCon are also what the PixelCon Frame will display when it cannot connect to WiFi.

Clicking on a PixelCon icon will enable you to remove it from the list. Clicking the Plus button will open the add PixelCon window. In this window, there is a text box where you can enter a PixelCon ID (See <u>here</u> for more information on PixelCon). Click the Add button to then add the entered PixelCon to the list. Up to 100 individual PixelCon can be added to the static list, which will randomly be pulled from when displaying the pixel art.