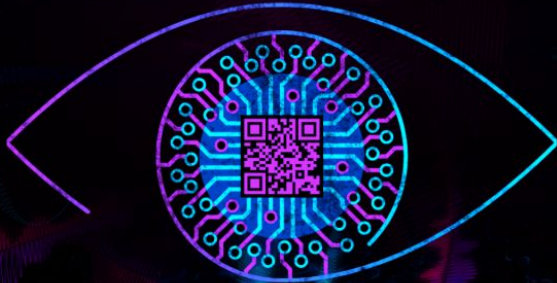


PSYCircuits



**PrismTorch
User Manual**

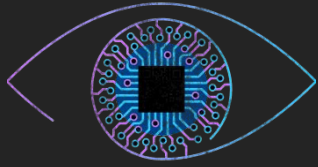
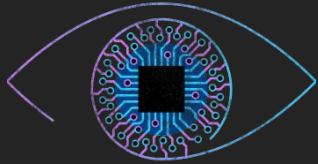


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Introduction

Hey Flowmie!

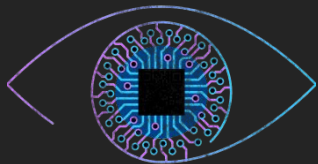
We wanted to take a moment to express our sincerest gratitude for choosing us as the partner for your flow arts journey! Your support means the world to us, and we're honored to be given the opportunity to bring a little extra magic into your life. Our team works tirelessly to craft each PrismTorch with love and care, ensuring that every LED shines bright and true.

We want you to know that we're always here for you. If you ever experience any issues or have any questions regarding your PrismTorch set, please don't hesitate to reach out to us. We are committed to making sure you have an amazing experience.

Thank you again for being an integral part of our journey. We can't wait to see where your flow adventures take you next.

Sincerely,

The PsyCircuits Team



What is a PrismTorch?

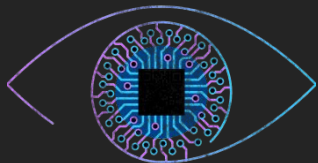


The PrismTorch is a high-performance LED flow prop that uses persistence of vision (POV) technology to display stunning, customizable visuals as you spin. It can showcase images, patterns, and effects with incredible clarity turning your flow into a full-blown light show.

Each device can be easily programmed with your own images and effects. Whether you're spinning solo or syncing multiple devices at once, the PrismTorch is built for total creative freedom.

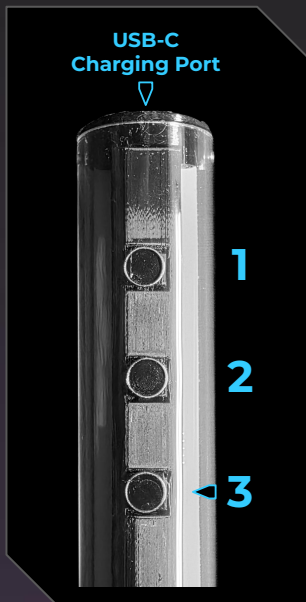
And thanks to our quick-release end cap system, you can seamlessly switch between different flow props (like poi, staffs, and more) using the same device. For advanced users, the onboard SD card gives you full control to upload images or even program your own effects from scratch.

⚠️ Please keep in mind that, while we strive to make every PrismTorch as durable as humanly possible, it is still an electronic device with sensitive internal components. They are not completely indestructible, and must be used with care.



Quick Start Guide

Each PrismTorch has 3 buttons to control the various functionality of the device.



Turn on:

- **PRESS** button **2** once (it may take a moment to turn on while the images load)

Turn off:

- **HOLD** button **2** until all LEDs are filled with **red**

Change Brightness:

- **PRESS** button **2** while the device is turned on
- This will cycle through 8 different brightness levels
- Be sure the buttons are not locked

Syncing the Torches:

- The PrismTorch will automatically sync to others, as long as they all have the same wifi name settings
- Any settings changed via the buttons will automatically propagate to other synced devices

Charging:

- Connect the PrismTorch to any standard USB-C charger
- The PrismTorch is capable of up to 2A charging current

Check Battery:

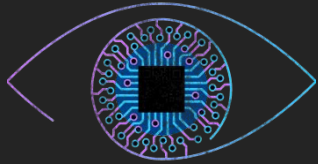
- **HOLD** buttons **1** and **3** (**green** indicates the charge level)

Lockout Mode:

- The buttons will automatically lock after 10 seconds to prevent changing your settings if the buttons are accidentally hit while spinning
- **PRESS button 2 rapidly x3 to unlock**
- There is a small internal LED that is visible through the USB-C charging port. When pressing buttons, it will light up **RED** when buttons are locked, and **TEAL** when buttons are unlocked.
- You can still check the battery and turn off the PrismTorch while the buttons are locked

Factory Reset:

- **HOLD** buttons **1, 2, & 3** for 15 seconds until all LEDs are filled with **red**
- This will fully clear any saved settings, including your saved wifi name and password



Quick Start - Modes

The PrismTorch has 4 modes:

1. Image Mode (default)
2. Hue Effect Mode
3. Color Effect Mode
4. Brightness Effect Mode



Changing Modes:

You can cycle through modes using buttons 1 & 3. They will be cycled in the order listed above. A short animation will display on the LEDs to indicate which mode has been selected (examples shown above).

- HOLD button 1 to go to the next mode
- HOLD button 3 to go to the previous mode

Once reaching the end of available modes, it will wrap back around and start from the beginning. For example, if you are on **Brightness Effect Mode** and HOLD button 1, it will cycle back to **Image Mode**.

Image Mode (Default):

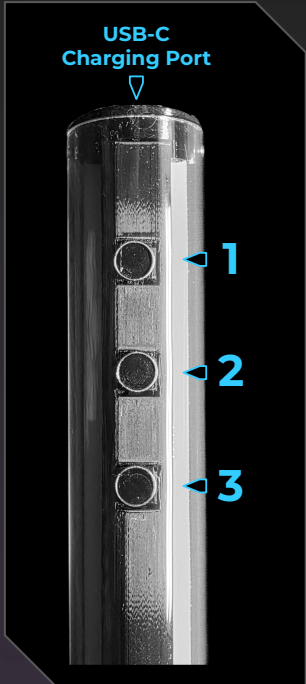


⚠ When you first turn on the PrismTorch **or after unlocking the buttons**, the PrismTorch will be in **Image Mode**.

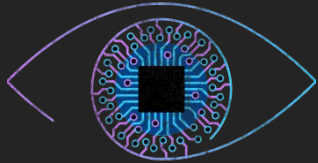
In this mode, you can cycle through the stored images using buttons 1 & 3:

- PRESS button 1 to go to the next image
- PRESS button 3 to go to the previous image

Once reaching the end of available images, it will wrap back around and start from the beginning.



Quick Start - Effects



Effects:

Effects can be applied to modify the image that is currently displayed. There are multiple of each type of effect pre-loaded onto each PrismTorch. Effects can be stacked - i.e. one effect of each type can be applied at the same time.

When the PrismTorch is currently in an effect mode, you can use buttons **1 & 3** to cycle forwards and backwards between the effects in that mode.

- PRESS button 1 to go to the next effect
- PRESS button 3 to go to the previous effect

Once the end of available effects is reached, it will wrap back around to effect #0 (OFF)

! For advanced users, custom effects can be written and loaded onto the PrismTorch. Details in a later section.

Hue Effect Mode:

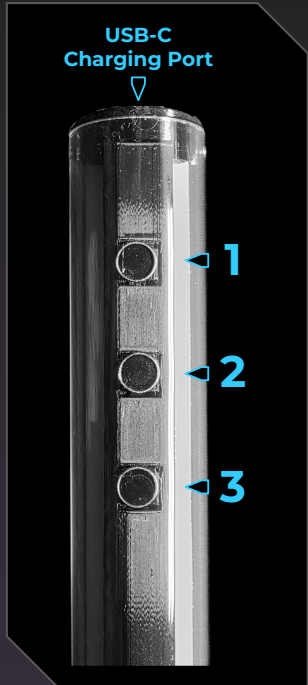
Hue effects take any image and shifts the hue, producing an entirely different color palette than the original. For instance, blues might get shifted to red and reds might get shifted to green. This may be seen in the pre-loaded “fire” image. You will see the fire go from its normal orange hue, to something entirely different like blue or green.

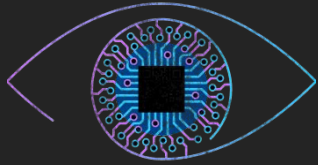
Color Effect Mode:

Color effects are similar to hue effects in that they change the colors of the current image, but there is an important distinction. Color effects work by controlling the intensity of red, green, and blue in each pixel. They can remove color that is there, but not add in color that is not already in the image.

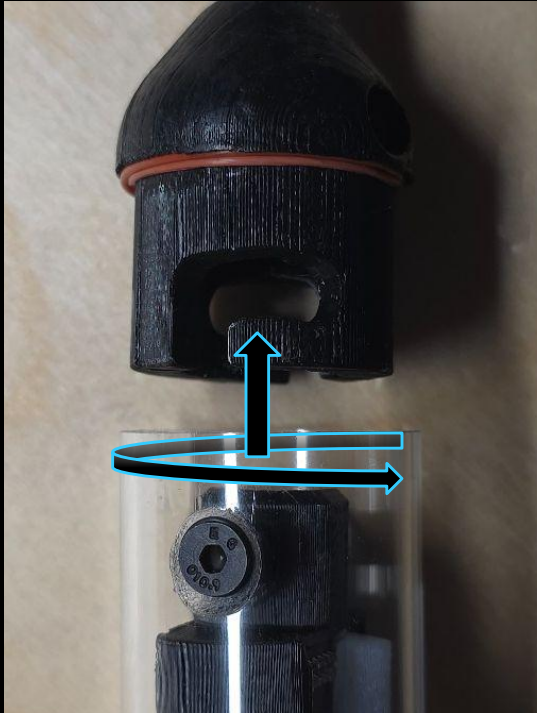
Brightness Effect Mode:

Brightness effects control the overall brightness of each image to produce a visual effect. For instance, you can add a strobe or pulse effect to any existing image.





Quick-Release Connectors



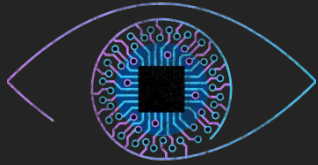
Each PrismTorch comes equipped with a quick-release connector, allowing for super fast tether changes.

The connectors are available in 2 sizes: **6mm** and **10mm**

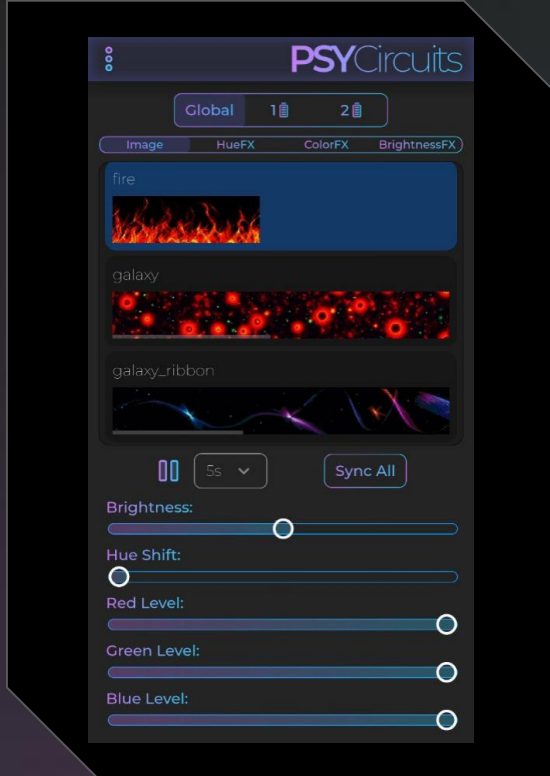
This allows you to carry multiple tethers of different sizes/lengths and swap between them on the fly, or connect the torches to one of our staff connectors.

To remove the quick-release connector, simply twist the connector (counter-clockwise from the top) until you feel it turn, then pull the connector out. This may take a little effort until the grooves get worn in a bit.

To re-connect, insert the groove of the quick-release connector over the PrismTorch retaining pin, then twist back to the locked position.



Web-Application



The PrismTorch has a built-in web-app that allows you to change the images, apply effects, upload new images, and update the configuration of the sticks. The app is fully self-contained and can be accessed from anywhere, on any device, **even if you do not have cellular service or wifi.**

To connect to the PrismTorch, open your WiFi settings, and connect to the prismtorch network. Your device may take a while to fully connect, this is normal.

Default Wifi Network Settings:

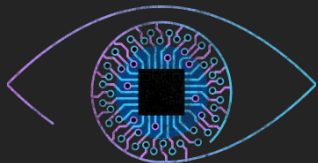
ssid: prismtorch
pass: prismtorch

! If your device displays a notification indicating that the network does not have internet access, select "connect anyways" or otherwise continue.

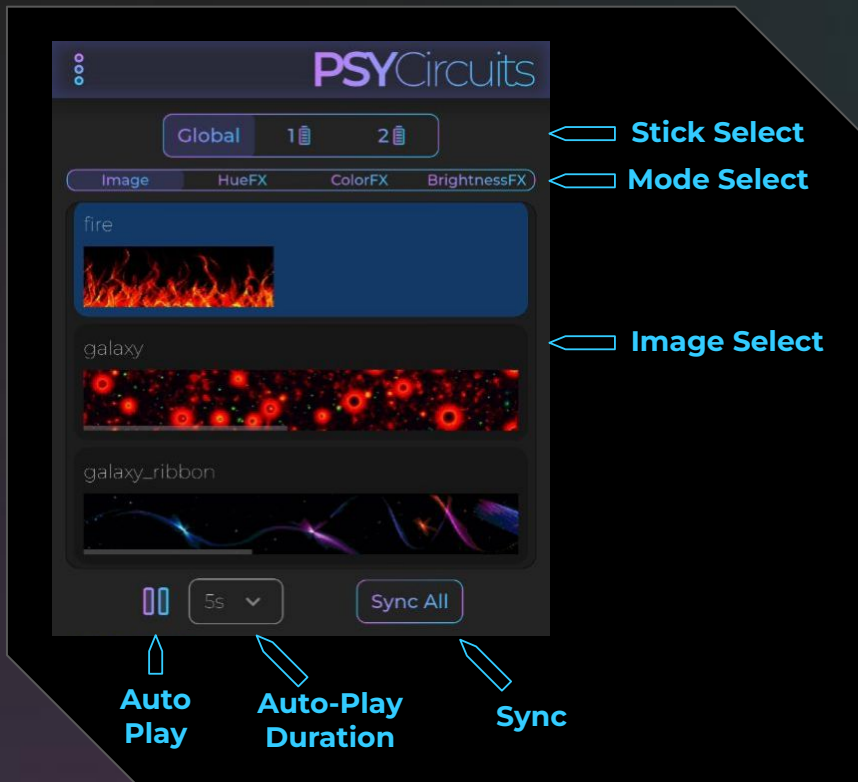
Once connected, open an internet browser and navigate to:
prismtorch.local

You should now see the webapp interface as shown to the left.

! It is recommended that you change the WiFi name and password in settings as soon as possible. The PrismTorch syncs to other torches based on the WiFi name, which can cause them to sync unexpectedly if there are other PrismTorches around with the same network name.



WebApp - Main Interface



Stick Select:

- This toggle switch allows you to choose whether to control all synced PrismTorches at once, or individual sticks
- It also displays the current battery life of each connected stick
- Making changes to any of the following settings while in **Global** mode will affect all sticks that are marked as "synced"
- Making changes to any of the following settings while on a specific numbered stick will affect only the selected stick

Mode Select:

- This toggles between modes (as explained in the **Modes** section of this guide)
- You can also swipe left/right on the image select menu to switch between modes

Image Select:

- This menu allows you to browse all images contained on the PrismTorch and select images to display
- Click or tap on an image to make the sticks display that image

Auto-Play:

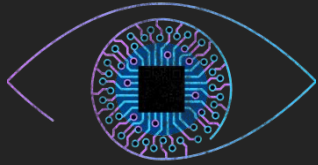
- This controls whether the sticks will auto cycle through all the available images

Auto-Play Duration:

- This controls how long the sticks display each image before moving on to the next
- There is a slight delay due to the image loading, so **the duration may not be exactly what is set here**

Sync:

- In **Global** mode, this button is labelled **Sync All** and will cause all unsynced sticks to re-sync and display the same image with the same settings
- When the **Stick Select** is set to a specific numbered stick, this will be a toggle button that allows you to switch between synced and unsynced



WebApp - Main Interface

Brightness:

- This controls the overall brightness of the LEDs
- Brightness has an extremely large effect on battery life - keep this around 50% for best results

⚠ Be careful turning up the brightness past ~80% if displaying images that contain mostly or all white. This can cause a large spike in current and force the battery into protection mode.

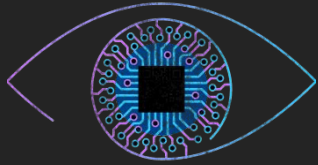
Hue Shift:

- This shifts the hue in the same manner as **Hue Effects**
- It will actually change the color palette of the displayed image

Red/Green/Blue Level:

- This controls the individual color intensity in the same manner as **Color Effects**
- You can lower/remove individual colors from the image to achieve a unique effect





WebApp - Effect Modes

The effect mode interface is very similar to the **Image Mode** interface. It contains a list of all available effects for the selected mode.

The main difference is the additional **Effect Speed Menu** at the bottom, which allows you to change the speed of the effect, based on how often the effect is applied.

Frame:

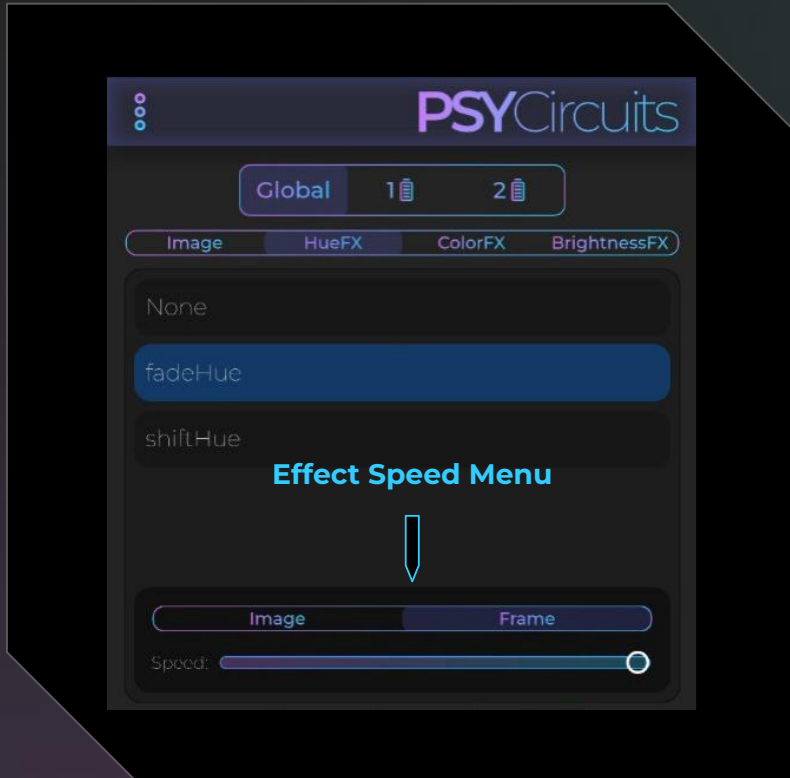
This mode advances the effect based on the number of frames that have passed i.e. how many lines the PrismTorch has drawn.

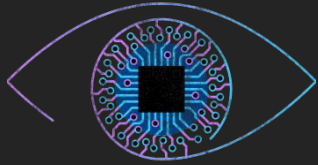
For example, the **fadeHue** effect shifts the hue by 1 degree every time it advances. This effect is best used in frame speed mode, where we can shift every few frames. Otherwise, the effect will be almost too gradual to notice.

Image:

This mode advances the effect every time the image repeats.

For example, the **shiftHue** effect will shift the hue by 60 degrees every time it advances. This effect is best used in image speed mode. Each time an image repeats, it will be shifted to an entirely different color.





WebApp - Pages Menu

You can access the different pages of the web-app by clicking/tapping the three dots in the upper left-hand corner.

Home:

- The main interface previously covered in this guide

Images:

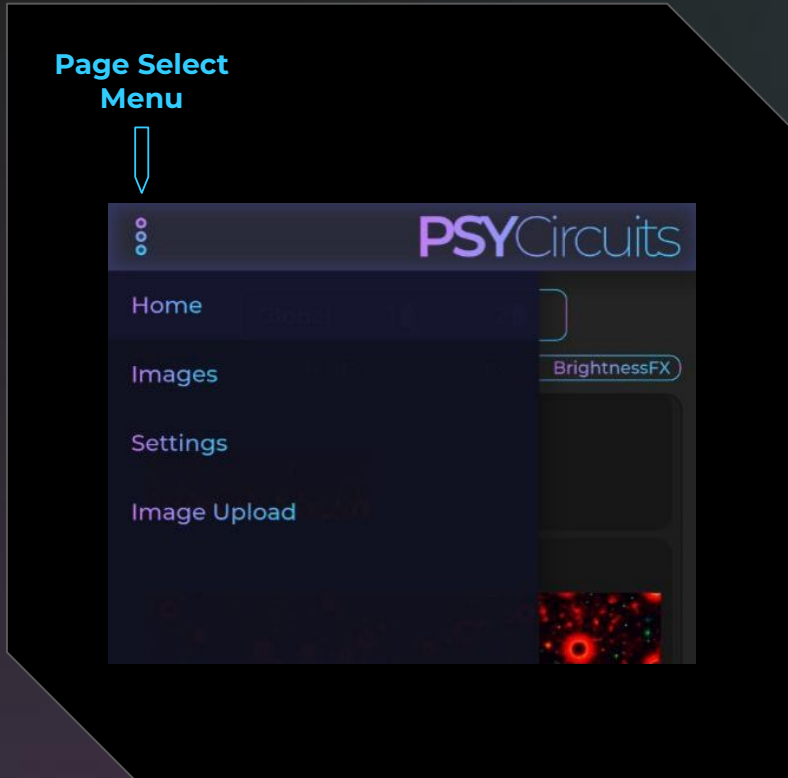
- Rename/Delete images
- Slightly larger preview of each image than on the home interface

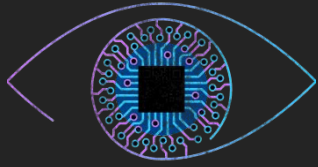
Settings:

- Change the configuration of the PrismTorch

Image Upload:

- Upload new images to the PrismTorch





WebApp - Images Page

On the **Images Page**, you can see each of the available images in a slightly larger preview than the main images interface.

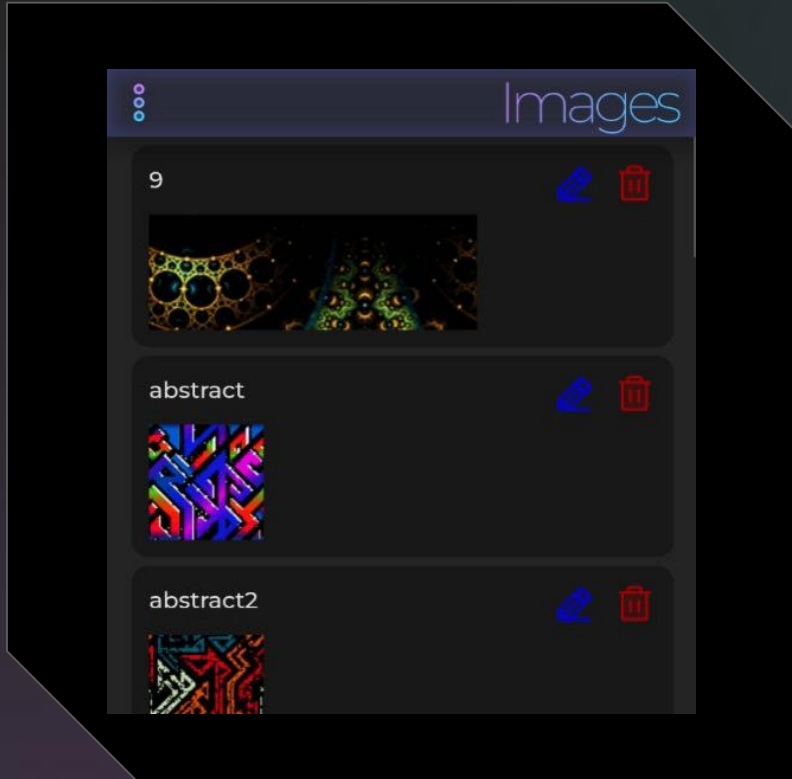
You can also rename and delete images from this menu.

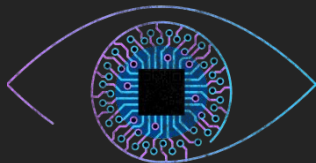
⚠ Be sure to have all of your sticks connected and synced before making any changes here. Verify that all of your sticks are listed and numbered on the main interface, as shown below.



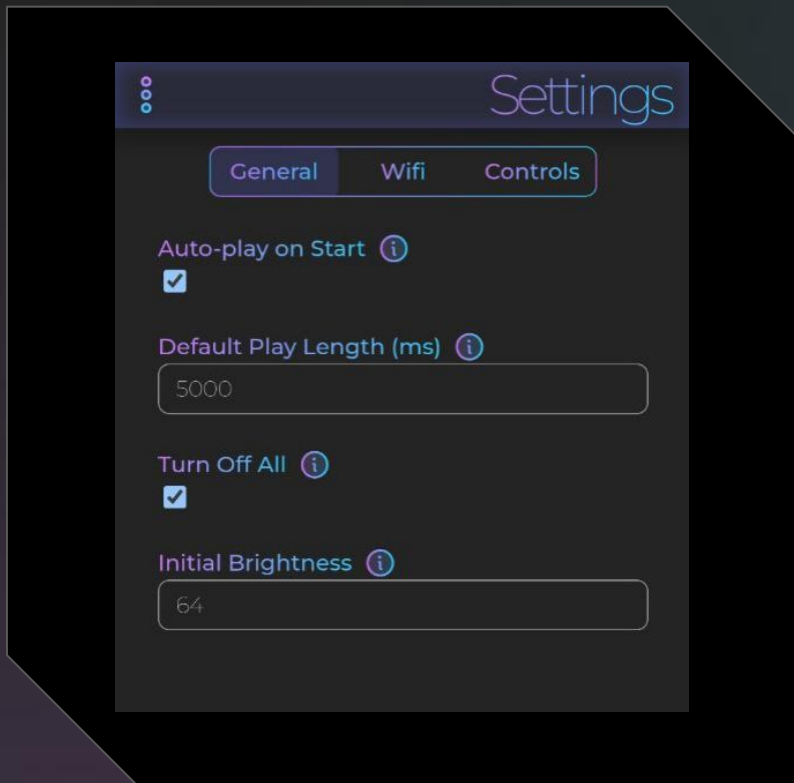
When deleting an image, you will see your connected sticks flash **red**. Wait until they are done flashing before making any further changes.

When renaming an image, you will see your connected sticks flash **green**. Wait until they are done flashing before making any further changes.





WebApp - Settings (General)



Auto-Play on Start:

- This settings toggles whether the PrismTorch will auto cycle through images **on startup**

Default Play Length:

- This is default the amount of time (in milliseconds) between each image when in auto-play mode

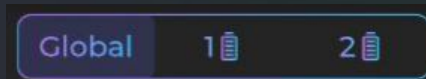
Turn Off All:

- This toggles whether turning one stick off will turn off all connected sticks
- In the event one of your sticks battery dies, this setting will **not** cause the rest to turn off

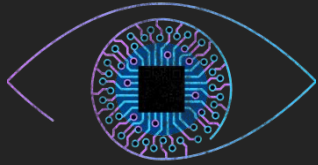
Initial Brightness:

- This is the default brightness when you turn on the sticks
- Range is from 1 to 255
- **Brightness is not linear** - 64 equates to 50% on the main menu brightness slider

⚠ Be sure to have all of your sticks connected and synced before making any changes here. Verify that all of your sticks are listed and numbered on the main interface, as shown below.



When saving your changes, you will see your connected sticks flash **green**. Wait until they are done flashing before making any further changes.



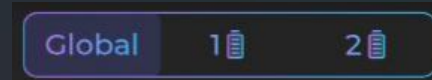
WebApp - Settings (WiFi)

This is where you can change the default Wifi name and password that you use to connect to the PrismTorch.

⚠️ You must restart all connected sticks for the changes to take effect.

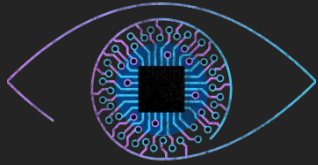
⚠️ It is **highly recommended** that you change the WiFi name and password in settings as soon as possible. The PrismTorch syncs to other torches based on the WiFi name, which can cause them to sync unexpectedly if there are other PrismTorches around with the same network name.

⚠️ **Be sure to have all of your sticks connected** and synced before making any changes here. Verify that all of your sticks are listed and numbered on the main interface, as shown below.

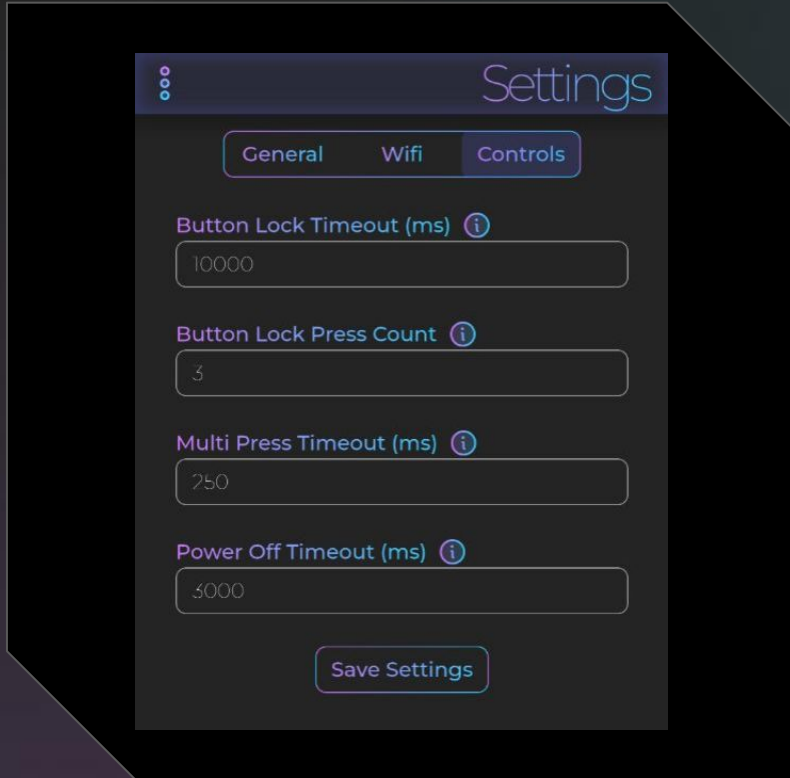


When saving your changes, you will see your connected sticks flash **green**. Wait until they are done flashing before making any further changes.

The screenshot shows the 'Settings' application with the 'Wifi' tab selected. The 'SSID' field contains 'prismtorch' and the 'Password' field is empty. A 'Save Settings' button is located at the bottom of the screen.



WebApp - Settings (Controls)



Button Lock Timeout:

- This controls how long before the buttons automatically lock
- Time is set in milliseconds

Button Lock Press Count:

- This controls how many times you must press button **2** in order to unlock the buttons

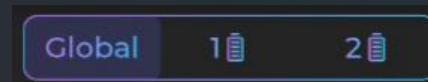
Multi Press Timeout:

- This is how long of a delay is used to register multi-presses
- If you are having trouble unlocking the buttons, you can increase this number
- Time is set in milliseconds

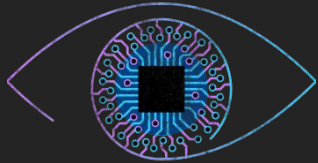
Power Off Timeout:

- This is how long you must hold button 2 in order to turn off the PrismTorch
- Time is set in milliseconds

⚠ Be sure to have all of your sticks connected and synced before making any changes here. Verify that all of your sticks are listed and numbered on the main interface, as shown below.



When saving your changes, you will see your connected sticks flash **green**. Wait until they are done flashing before making any further changes.



WebApp - Image Upload

To upload an image, navigate to the **Image Upload** page and click on **Select Image** to choose an image from your device.

Clear:

- This clears any selected image and starts over

Reset:

- This resets any changes made to the selected image, such as cropping or inverting

Invert:

- This inverts the colors of the selected image
- This is useful if the image contains mostly white, since this will drain the battery much faster than normal

Crop:

- This takes you to a menu where you are able to crop the image down to your desired size.
- The final image is only 80px in height, so it is a good idea to crop out any dead space on the top or bottom

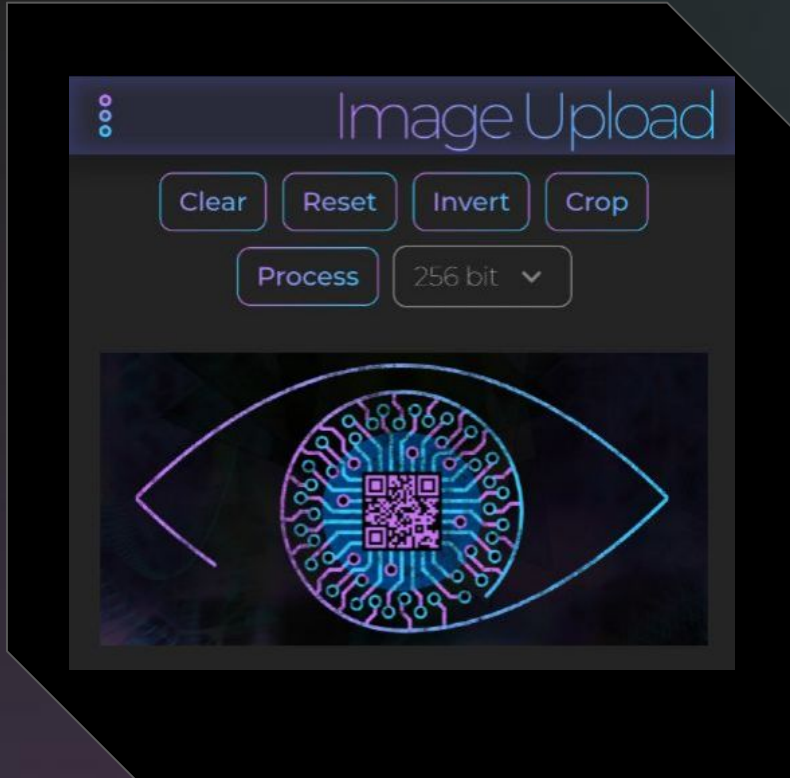
Process:

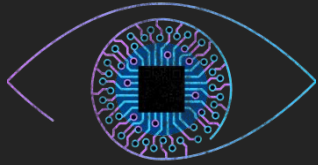
- Press this when you have finished adjusting the image and are ready to upload

Color Depth (Bit):

- This allows you to lower the amount of colors used in the final image color palette
- It can sometimes be used to achieve unique effects

When you are done making changes, click **Process** to move to the next menu





WebApp - Image Upload (Contd.)

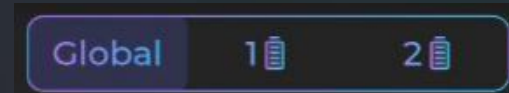
Once processed, you can see the final version of the image that will be uploaded to your PrismTorch.

If you are unhappy with the result, you can click **Reset** to undo any changes to the image and start over. You can also click **Clear** to remove the image completely and select another one.

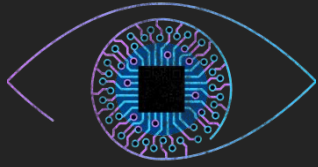
If you are happy with the results, click **Upload** to send the processed image to the PrismTorch.

You may need to refresh the web-app in order to view the newly uploaded images within the interface.

⚠ Be sure to have all of your sticks connected and synced before making any changes here. Verify that all of your sticks are listed and numbered on the main interface, as shown below.



When uploading an image, you will see your connected sticks flash **green**. Wait until they are done flashing before making any further changes.



Firmware Update

The PrismTorch has an internal SD card that stores all of the images, effects, configuration files, and webapp. The firmware is available for download as a zip file, and contains all of the files that belong on the SD card.

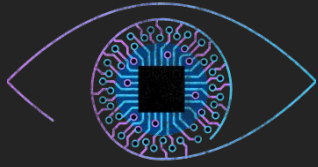
To update the firmware, connect the PrismTorch to a computer via USB. It should show up as an external drive (similar to a thumb drive).

Basic Firmware Update:

- Delete the folder named **server** on the PrismTorch Drive
- Drag the **server** folder from the new firmware zip onto the PrismTorch drive
- Copy the files inside the **firmware** folder from the firmware zip into the **firmware** folder on the PrismTorch drive

Full Firmware Reset:

- Delete everything inside of the PrismTorch Drive
- Unzip the firmware onto the PrismTorch Drive
- Note: This will reset all of your settings and delete all custom images



Advanced Features

Custom Effects:

You can create custom effects for the PrismTorch if you have basic knowledge of scripting. The effects are '.script' files that exist on the internal SD card. By plugging the PrismTorch into a computer, you can open the SD and view the files in order to see their basic structure.

Effects are written in a lightweight scripting language called wrench, and are interpreted by the PrismTorch on the fly.

Wrench Documentation:

<https://home.workshopfriends.com/wrench/www/>

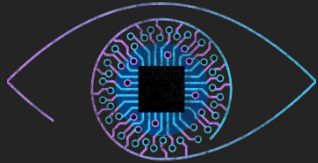
Each effects script has just a few basic requirements:

var default_timer - the default speed of the effect (in frames). Can be set to zero for image length
function process() - this is the function that is run each time the effect is applied

Hue Effects - process() returns the hue shift amount (integer) from 0 to 359

Color Effects - process() returns an integer array(3) for the levels of {red, green, blue} (0 to 256)

Brightness Effects - process() returns the brightness level (integer) from 0 to 256



Troubleshooting

Won't turn on:

- Check that the battery is charged
- It is possible that the battery has gone into protection mode. Plug it into a charger to reset.

Buttons not responding:

- Check that the buttons are not in lockout mode
- There is a small internal LED that is visible through the USB charging port. It will light up **RED** when buttons are locked, and **TEAL** when buttons are unlocked.

Not syncing:

- Try restarting all devices
- It is possible that the WiFi configuration has become unsynced. Perform a factory reset.

Can't access the webapp:

- Make sure your device is connected to the correct WiFi network
- Ensure you have used the correct password
- Try forgetting the network and reconnecting

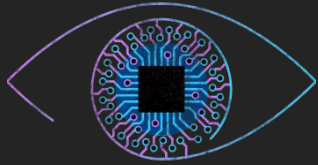
PrismTorch turns on but does not display images:

- It is possible that the internal SD card has become unseated. The bottom cap may be removed to access it, or you may contact us to help address the issue.



If all else fails, you may need to reflash the firmware.

For more troubleshooting documentation, visit: psycircuits.com/faq



Safety & Compliance



FCC Compliance:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

This product has been tested and found to comply with the limits for both intentional and unintentional radio frequency emissions, using certified components.

Battery Safety:

- Do not expose the device to water or extreme heat.
- Do not attempt to open, puncture, or modify the battery or internal components.
- Discontinue use if the battery appears swollen, leaking, or damaged.

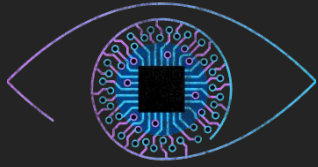
General Use Guidelines:

- This device is intended for adult use only - user assumes all risks
- Avoid impact against hard surfaces, which may damage LEDs or circuitry.
- Do not operate while charging.
- Store in a cool, dry place when not in use.

Disposal:

- Please dispose of this product responsibly. Do not throw electronics in the regular trash. Check local regulations for e-waste recycling or drop-off programs.

For full compliance documentation, visit: psycircuits.com/compliance



Support

- **React out via email at support@prismtorch.com**
- **Send us on a message on psycircuits.com/support**
- **Can also be reached on socials where we often do discounts/giveaways/contests:**
 - Instagram: https://www.instagram.com/psycircuits_official/
 - Reddit: <https://www.reddit.com/user/PsyCircuits/>
 - YouTube: <https://www.youtube.com/@PsyCircuits>
 - TikTok: <https://www.tiktok.com/@psycircuits>
- **Warranty Info**
 - The PrismTorch has a 2 year warranty based on the date of purchase.
 - For full details, see psycircuits.com/warranty