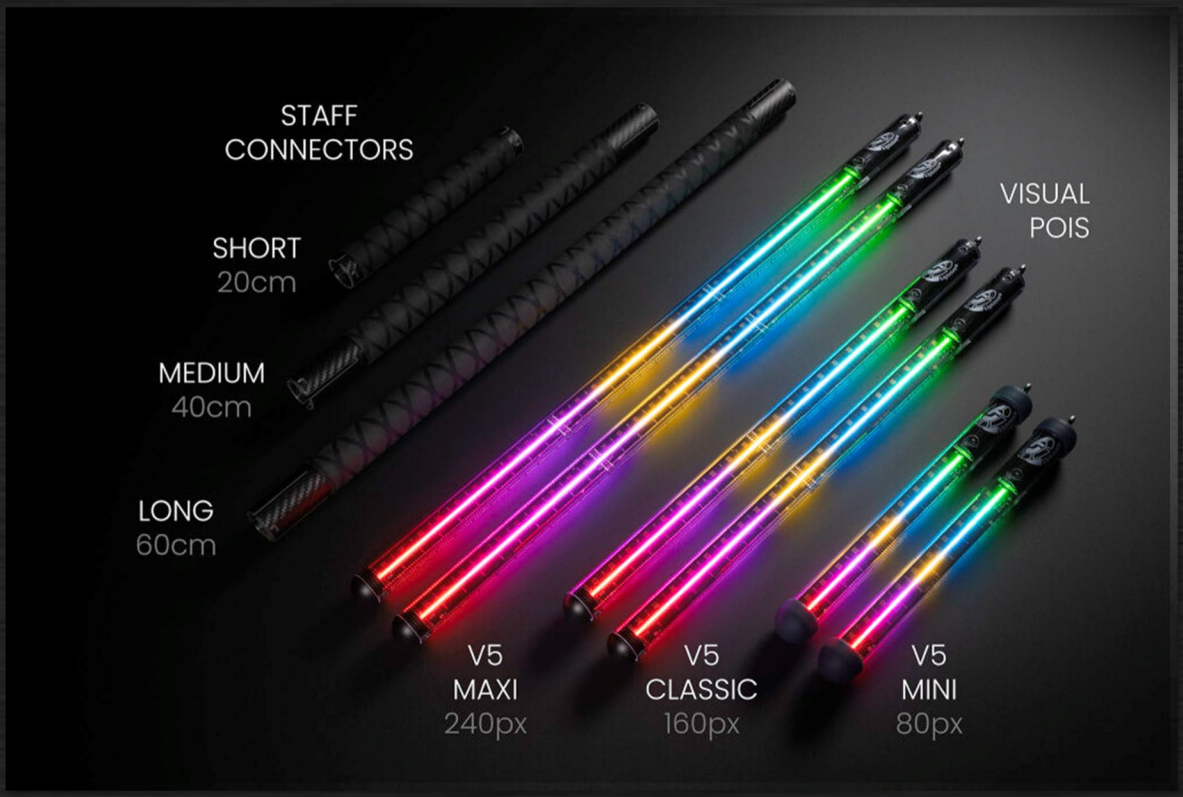
Lighttoys



Visual Poi V5

User manual

V2.7

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Introduction

Dear customer, thank you very much for your purchase of the Visual Poi product. Before you start using your new equipment, please dedicate a few minutes to the contents of this manual.

Even though we strived to make the Visual Poi as durable as possible, please keep in mind that it is a sensitive electronic device and so appropriate caution is needed.

The first part of this manual is devoted to the usage of Visual Poi, the second part is devoted to the creation of graphic sequences for your Visual Poi – so that your shows always look the best!

"With proper use, Visual Poi will bring you and your audience great visual amazement."

What's included

The Visual Poi comes with the following parts and accessories:

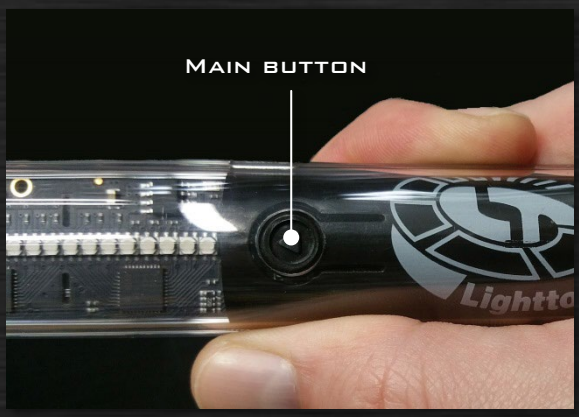
- 2x Visual Poi V5
- 1x FT remote controller
- 1x 5V USB wall charger
- 2x USB-C cable
- 1x transport case
- *Staff connector (optional accessory)



Content of the package

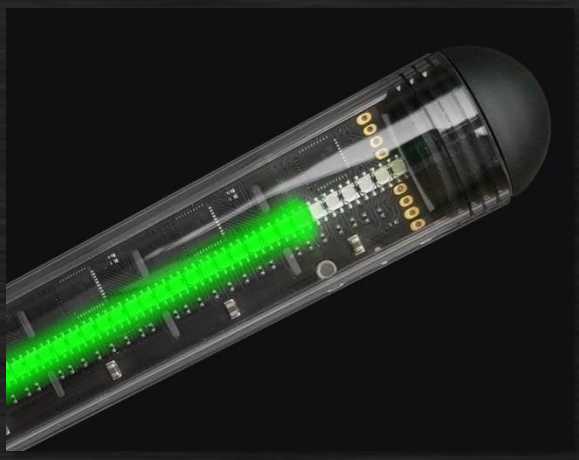
Getting started

Visual Poi is very easy to operate. All functions of the device are controlled by pressing a single button located at the end of the poi, in the handle:



Location of the main button on the Visual Poi

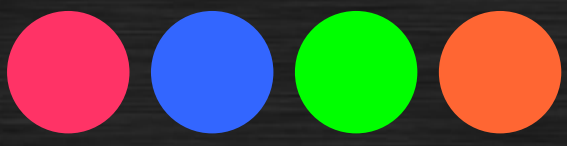
Visual Poi is turned ON/OFF by pressing the main button for 1 second. It's indicated by a quick ramp up effect one the LEDs, which also serves as a battery level indicator. Green color – battery is full, orange color – battery is getting empty, red color – battery is empty and needs recharge.



Visual Poi battery level indicator

If you leave Visual Poi unattended for **30 minutes**, it automatically enters a so called 'blackout mode' (all LEDs dark) and after extra **4 hours** of inactivity the Visual Poi automatically turns off. Also, when the battery level drops too low, the Visual Poi turns itself off to protect the battery and you need to charge the Visual Poi to use it again.

After turning on, the Visual Poi enters the memory bank selection menu, where you can select which image sequence to play. It is indicated by 4 LEDs closest to the main button:



Bank 1 *Bank 2* *Bank 3* *Bank 4*

There are up to 4 memory banks available, each indicated by a different LED color. Press the main button repeatedly to make your selection, currently selected bank will shine with a brighter color on the LEDs:



Bank 3 selected

To confirm your selection, make a longer press of the main button – the Visual Poi will enter a **"prelaunch mode",** ready to start your image sequence at will. This is indicated by only a single LED shining in the color of the memory bank:



Bank 3 ready to be started

When you are ready to start your Visual Poi show, press the main button and the image sequence will start to play immediately.

The running image sequence can be stopped at any time by a **long press** of the main button. This prevents any accidental interruptions of your show.

LtComposer software

After playing with the preloaded image sequences, surely you want to try some original graphics of your own and experience the full potential of the Visual Poi, don't you? To do so, you need to install the Lighttoys Composer software, which is used to design your image sequences and upload them to the device.

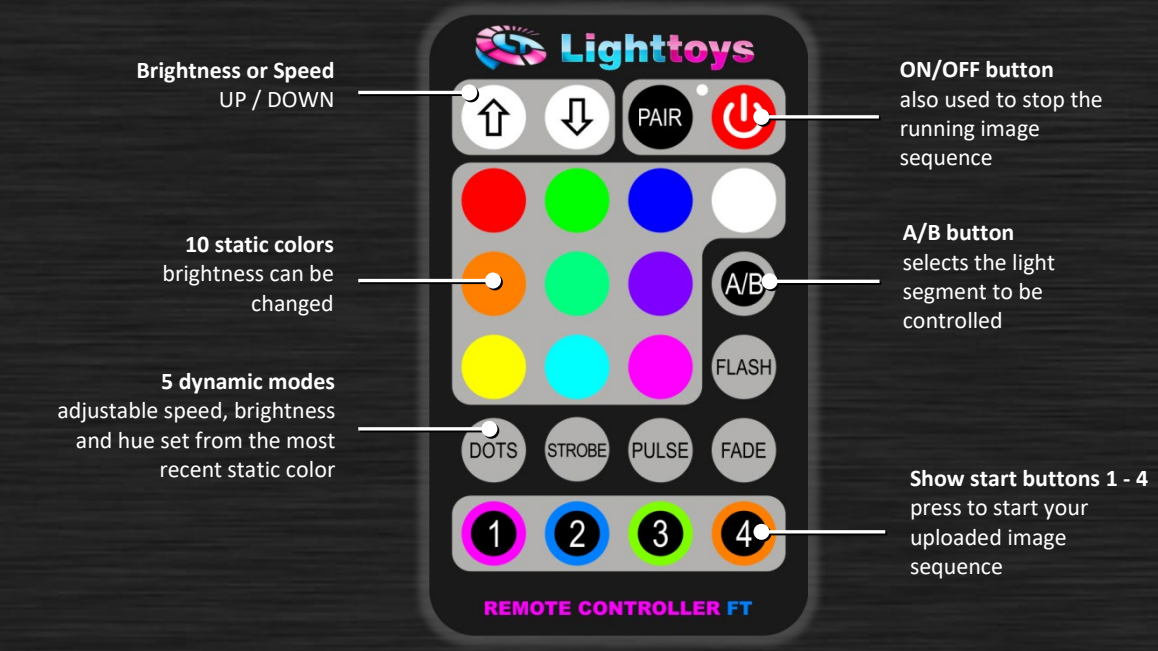
The software runs on both Windows PC and MAC OS. To download the latest version, please visit Lighttoys support page at: www.lighttoys.cz/support/.

Using the FT remote controller

Visual Poi V5 is compatible with the powerful FT remote controller, which allows you to control and precisely start many Visual Pois and other FT props from distances up to 200 meters away.

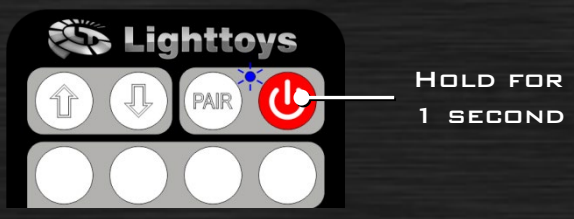
The remote can be used in two ways:

- **simple (manual) operation** – you can play with the color and dynamic modes available on the remote, simply by pressing the corresponding buttons. This is similar to our other FT products.
- **image sequence start / stop** – by pressing the buttons labeled 1 - 4 you can start your uploaded image sequences instantly and perfectly synchronized thanks to the *Perfect Sync* feature. To stop the sequence, press and hold the ON/OFF button for 1 second.



FT remote controller layout

Powering on / off



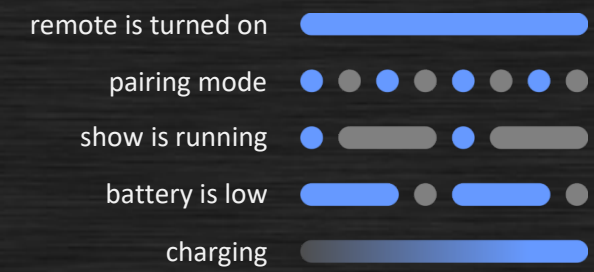
To turn on the FT remote, press and hold the red button for 1 second, until the blue indicator LED on the remote starts shining.

To turn off, press and hold the red button again until the blue LED stops shining.

The FT remote will turn off after **30 minutes** of inactivity to save battery power. This feature is disabled, when any image sequence (show) is running or the FT remote is plugged to the computer. Pressing any button on the remote will reset the timer.

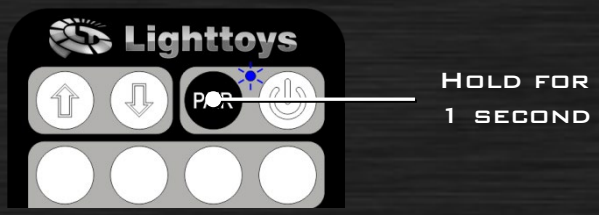
LED indicator

The blue color LED indicator at the top of the FT remote indicates the different work conditions of the FT remote:



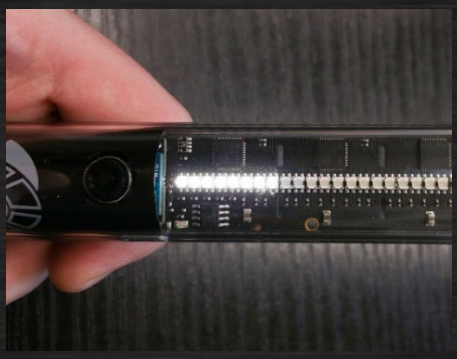
Pairing procedure

Pairing procedure synchronizes your FT remote with the Visual Pois of your choice. Whenever you want to control more or different Visual Pois, you will need to perform a new pairing procedure.



Turn on the FT remote with the on/off button. Now press and hold the PAIR button for 1 second. The LED indicator will start blinking. This indicates the remote has entered the pairing mode.

Now make sure all the Visual Pois you want to control are turned off. For each Visual Poi, press and hold its main button for 3 seconds, until you see the 8 LEDs double blink in white color, then turning pink color – which indicates a successful pairing.



Pairing Visual Poi with the FT remote

After you pair all Visual Pois to the FT remote, press and hold the PAIR button again for 1 second. The LED indicator will stop blinking. The LEDs on the Visual Pois should turn blue color. Congratulations, the pairing is now completed.

During the pairing process, the 2.4GHz radio spectrum is scanned and best channel is selected (with least interference). When performing with Lighttoys FT products in a new venue, it is recommended to perform a new pairing procedure close to the actual gig where performance is about to happen.

After pairing, the Visual Poi enters a so called "**standby mode**". In this mode, the Visual Poi LEDs will shine in either blue or pink color, indicating communication with the FT remote:



FT remote is answering, signal quality is good.



FT remote is turned off or signal quality is poor.

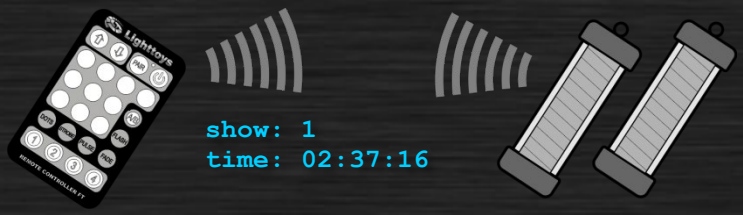
Press the main button once (or any button on the FT remote) to quit the standby mode.

Perfect Sync feature

Perfect Sync is a unique functionality of the Visual Poi V5 and FT/FT2 products. It makes sure that your Visual Pois always start and run synchronized, no matter how strong the electronic interference at the stage is or when the performer accidentally stops the show.

How it works

When you press the button 1-4 on the FT remote to start the image sequence, the remote begins to repeatedly send this start information along with a current time mark (actual position into the running show):



Perfect Sync feature

If some Visual Poi doesn't catch the signal, the moment it gets it, it will calculate its precise position in the show (with 2 millisecond accuracy) and start from there!

Perfect Sync feature helps to rescue the following unfavorable situations:

- **SITUATION 1** – some Visual Poi(s) don't catch the start signal.

  Remedy: wait for the Visual Poi(s) to catch the signal; when the interference is strong, come closer with the FT remote.

- **SITUATION 2** – some Visual Poi(s) were not turned on when the show started.

  Remedy: Turn on the Visual Poi with the main button and the Visual Poi will start from the correct time position.

You can check the following video to see Perfect sync in action: https://youtu.be/avgoezJM9Z0.

Calculation of the precise time position in the show is a computing intensive operation. Visual Poi needs to go through all the pictures stored in the memory and simulate the show. It can take several seconds to find the correct spot. The LEDs are turned off during this time.

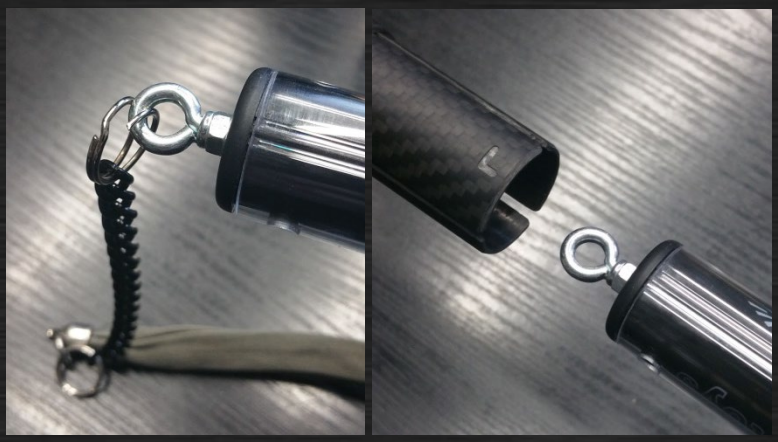
Assembling the staff connector

Staff module is an optional accessory that quickly turns your Visual Poi into a Visual Staff. Below you will find instructions how to assemble and use it properly.



Visual Poi staff connector

First, remove the leash (ring with the chain) from the Visual Poi and align the Visual Poi with the connector:



Preparations for staff attachment

Next, push the Visual Poi inside, making sure the “L” mark is aligned with the grooves in the Visual Poi tube. Then rotate Visual Poi 90 degrees, so the “L” mark is aligned with the button:



Visual Poi alignment and the locked position

As a last step, we recommend using a firm adhesive (or electrical) tape to secure the Visual Poi in the staff connector against rotation. Your Visual Staff is now ready for use!



Securing the Visual Poi with a tape

To disassemble the staff and return to the normal Visual Poi operation, follow the above steps in reverse orders.

Available staff sizes

You can assemble the following staff combinations from the Visual Poi V5 MINI, CLASSIC or MAXI with the help of SHORT or LONG staff connector:

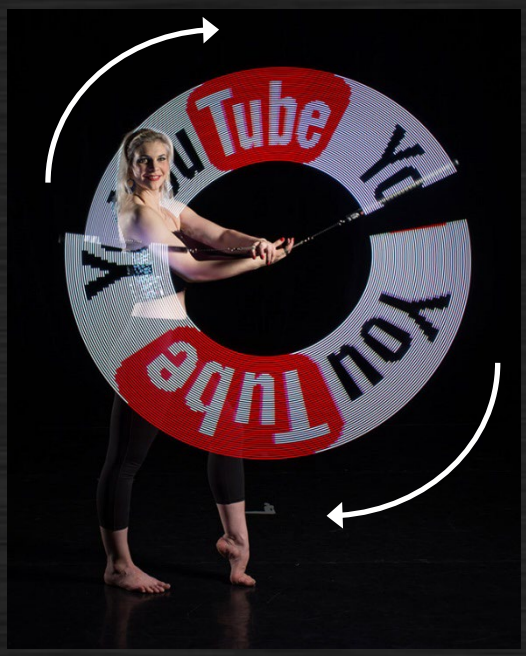


Available staff combinations

How to spin Visual Poi

To create the most beautiful visual experience and clarity for your audience with the device, it's good to know how to spin it properly. If you are a seasoned poi spinner, you can skip this part.

The Visual Poi is held with the leash, each in one hand. We recommend you to learn the b**asic 3-beat forward weave** poi move, which gives the best clarity to your texts and logos (we recommend visiting our knowledge base). After you gain practice, you can try other poi tricks, which look great also with abstract patterns.

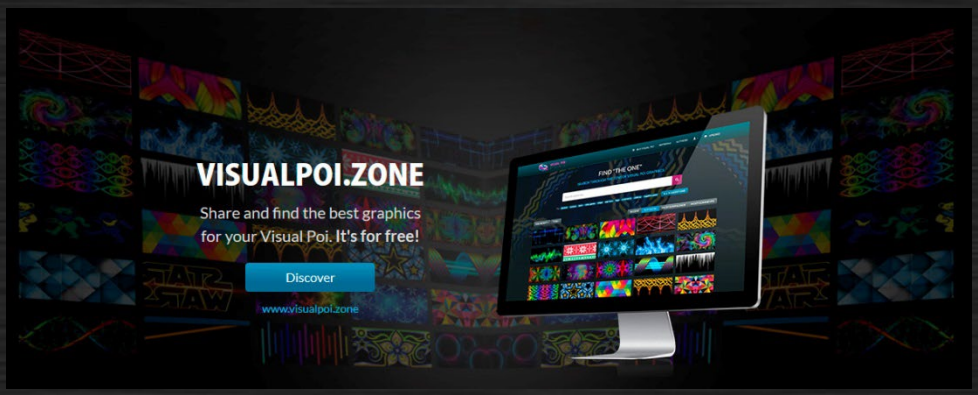


Forward 3-beat weave gives the best clarity to your logos and texts

NOTE: If you want to spin texts and logos, please make sure you are spinning in the right direction (clockwise) facing your audience! See the image above.

Visual Poi ZONE

We have created a community-based web portal, where you can share and download hundreds of Visual Poi pictures for free! Check it out at the following link: http://www.visualpoi.zone/



Looking for pictures for you Halloween party? Searching for Christmas patterns? Or just curious what others have recently uploaded? Head over to Visual Poi ZONE!

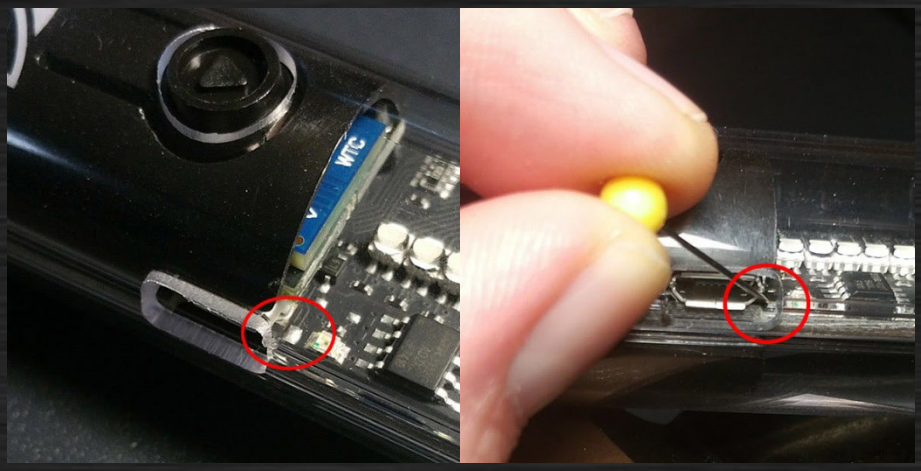
Latest Firmware

To enjoy the latest features and fixed bugs, always use the latest version of LtComposer software, which automatically checks the firmware of attached devices and performs the update when needed.

Troubleshooting

"The Visual Poi has problem registering in LtComposer software or the memory banks don't behave properly." It seems the memory got corrupted and it must be completely reset. Attach the Visual Poi with a USB-C cable to the computer, turn it on, and run the LtComposer software. Go to Devices menu, select the Visual Poi in the table and click "Erase Chip".

"The Visual Poi is displaying a static line of pixels and cannot be turned off." The Visual poi needs a hard reset. Locate the hidden reset pin on the Visual Poi circuit board, on the right side of the USB connector. Get a thin metal object, a needle or paper clip works the best. Then touch the USB connector and the reset pad, both at the same time:



Visual Poi reset procedure

The LEDs should stop shining and the blue charging LED will blink for few seconds, indicating the Visual Poi was reset. Turn the Visual Poi on with the main button and it should work again normally.

Taking photos & videos of Visual Poi

Taking photos

Capturing beautiful photos like the ones you see on our webpage is actually not very difficult, once you have the right equipment and know what to do!

For optimal results, get a DSLR camera and a solid tripod. The type of camera is not so important, the only requirement for it is to have full manual mode ("M" mode).

Put your camera on the tripod, set it to "M" mode and for starters try dialing the following camera settings:

- ISO 100-200

- Aperture F/6.3
- Shutter speed 1/4 sec

Instruct your performer to spin 3-beat weave (or any other trick) and start taking photos. If the photo is too dark or bright, change the aperture. If the Visual Poi trails are too “long” or “short”, change the shutter speed to your liking.

Taking videos

Taking beautiful videos of your Visual Pois can be a little tricky, because almost all cameras default to wrong default video settings. But it’s not hard to get it right!

First, you need to get a camcorder or camera with **full manual settings** when shooting video. Any intermediate or professional camera should have these settings. You must be able to individually set these parameters on your camera:

- frame rate (fps)
- shutter speed
- aperture / iris
- ISO / gain

Set your camera to full manual mode. Next, make sure that **frame rate (fps) is the same as shutter speed**. That way there will be no black "gaps" in the video and the Visual Poi pattern will look smooth.

*Example: Let’s say your camera’s frame rate is set to **30 fps**. Then you have to set the shutter speed to **1/30 sec** (this is sometimes called “360-degree shutter angle”). These two values must be kept the same.*



Right and wrong setting of frame rate and shutter speed

Then you set your aperture and ISO so that exposure (brightness of the video) is not too dark or too bright. Definitely turn off any AUTO settings, because the camera always "assumes" that the scene with Visual Poi is too dark and turns the brightness up. Set your aperture and ISO according to the camera display - make sure the colors are not too pale (blown out). It's always good to make the settings a bit darker than too bright.

What frame rate to use? We found 30fps to give a good balance between reasonably long Visual Poi trails and fluidity of movements. 25fps is preferred if you want even longer trails (then you set your shutter speed to 1/25 sec). A solid tripod or stabilizer for your camera is also highly recommended.

Maintenance

Charging

When the battery indicator drops down in level, the Visual Poi needs to be recharged. You can use the included charger or any mobile phone charger supplying 5V from its USB connector. Visual Poi is fully charged, when the blue LED indicator next to the USB connector turns off.

Afterword

“Team Pyroterra Lighttoys wishes you a lot of fun and amazed audience with Visual Poi V5.
Enjoy the ground-breaking technology, opening new worlds of visual presentation. Because, FUTURE IS NOW!”



www.lighttoys.cz