

mini **mad**



the hardware companion of MadMapper
User guide

1024
architecture





mini**mad**

miniMAD is a all-in-one dedicated device for video mapping and LED mapping based on the Raspberry Pi platform.

It is easy to use, small and versatile, for your future video mapping projects.

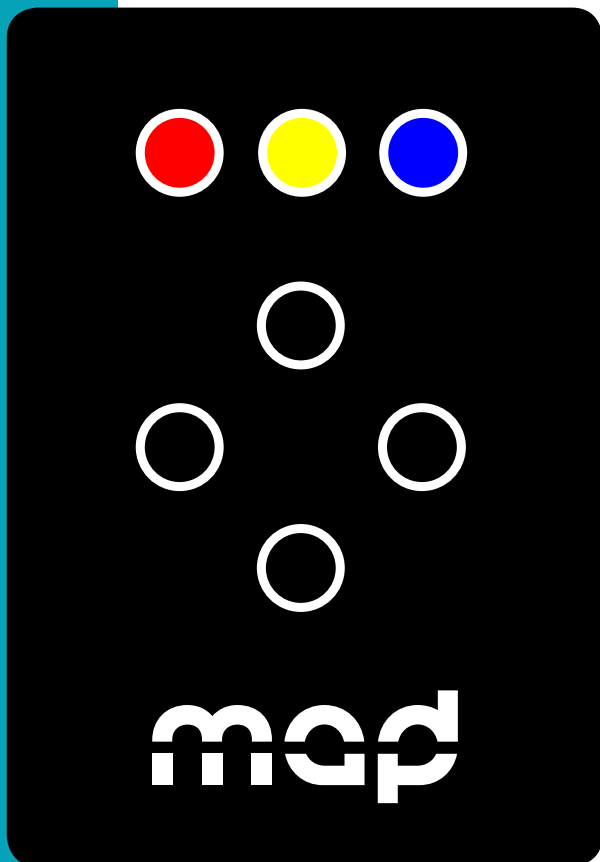
www.madmapper.com

Designed and developed by garageCube and 1024 architecture

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VIDEO PLAYBACK / FEATURES



SURFACES

miniMAD 3 supports quad* and triangle surfaces.

Other surfaces (Circle, Mask, fixtures, Lines, 3D Surfaces) are not supported yet.

* Quad masks and shaders are not yet supported

MEDIA

miniMAD 3 supports a single media at a time on every surfaces.

Every image files supported by MadMapper will be exported to miniMAD.

During the export process, movie files will be transcoded and their size adapted to maximize the performance depending on the selected projector's resolution.

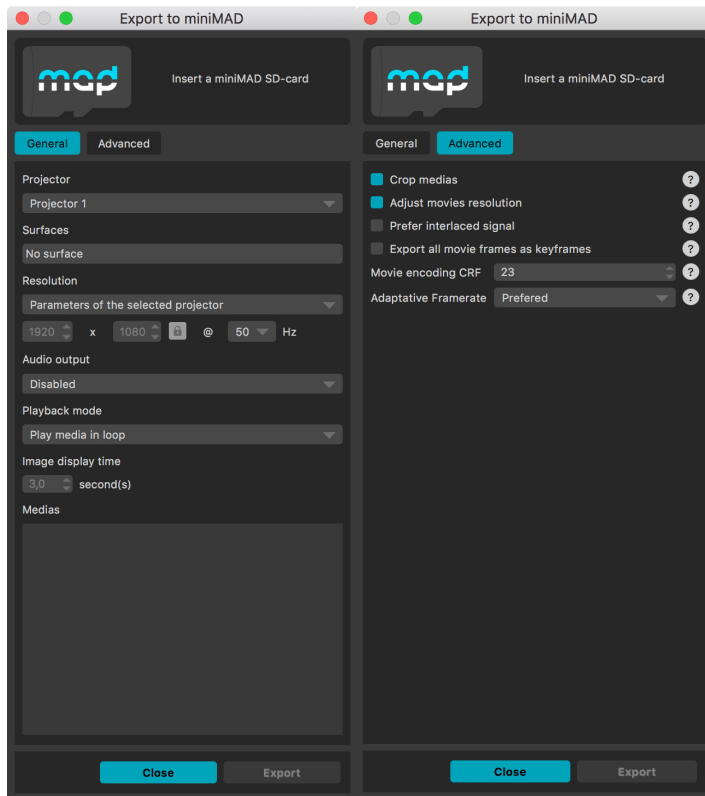
PROJECTORS

The device supports a single projector connected to the HDMI port.

The maximum supported resolution is 1080p (1920×1080).

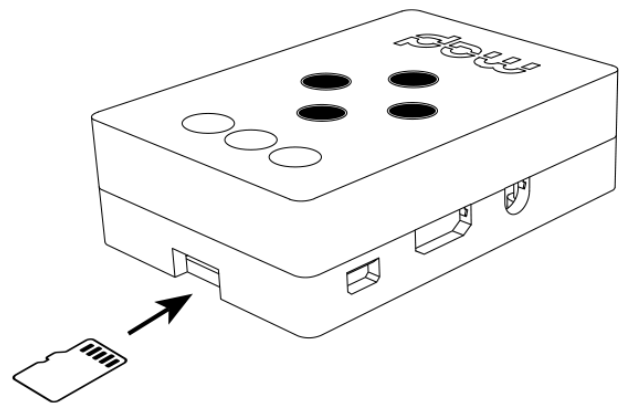
In case the selected resolution is not supported by the actual connected projector, the device will use the projector's default resolution and display a notification.

VIDEO PLAYBACK / FEATURES



EXPORT TO miniMAD

Insert the provided SD-card in your computer using the bundled microSD card adapter. If necessary, update miniMAD as advised before exporting.

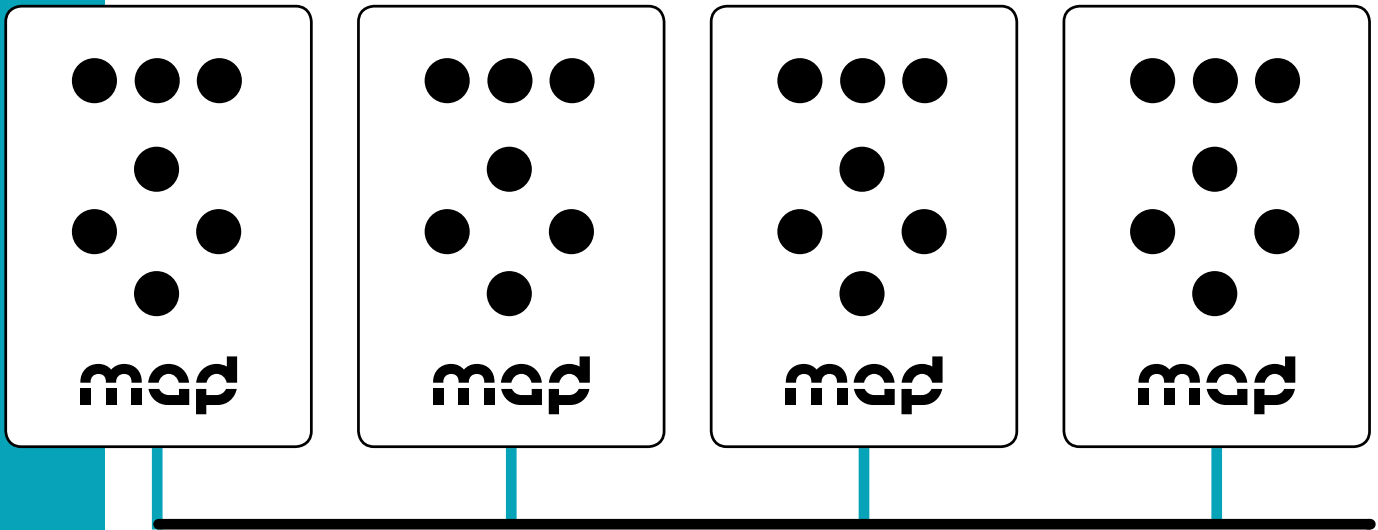


Then, select the projector you want to export to miniMAD, adjust the output resolution, the audio output, the playback options, optionally unselect and reorder your medias and highlight the default media to be played at startup.

Finally, click the “Export” button to start the export – FFmpeg Tools is required to export MadMapper project to miniMAD please download FFmpeg Tools Installer.

The process may take some time depending on the number of movie files and their duration. MadMapper will avoid transcoding movie files that are already optimized on the SD-card.

VIDEO PLAYBACK / FEATURES



network switch and
ethernet cables

NETWORK SYNCHRONIZATION

Connect the miniMADs on the same ethernet network to synchronize media-playback automatically*.

* movie synchronization happens when the movies playing on every miniMADs have the same frame count and framerate, even though their file names are different

Every media-related action made on any miniMAD happens instantly and automatically to every miniMADs: media change*, pause, restart, playback mode, audio mode, image display-time.

* media change works properly if every miniMADs contain a file with the same name, even though its content is different

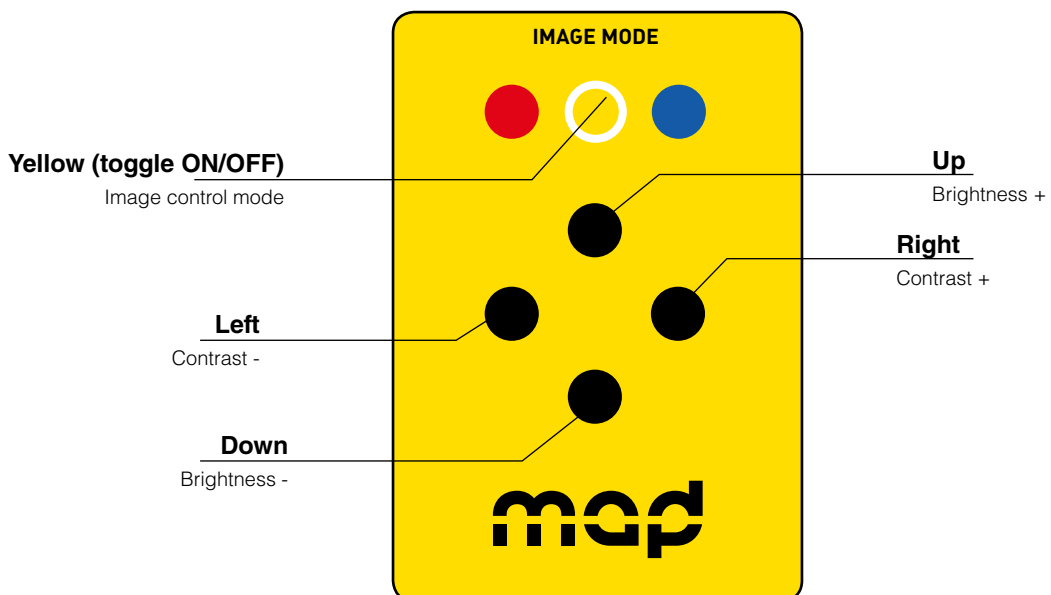
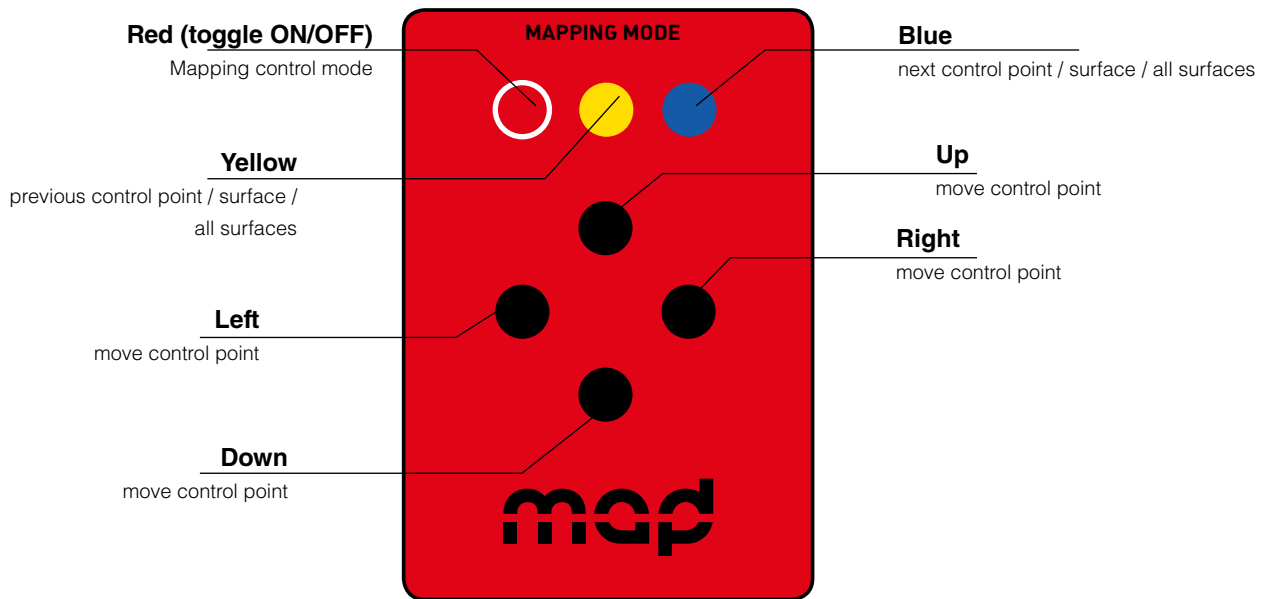
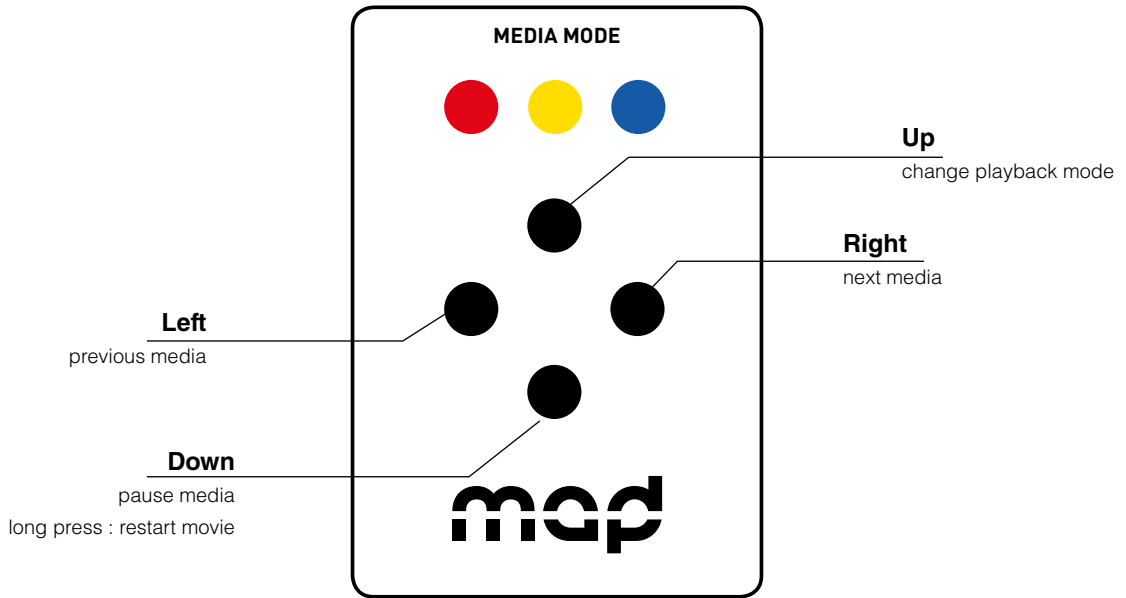
Create a MadMapper project using the video-wall template, import your pictures and videos, and export the different projectors to as many synchronized miniMADs. The setup couldn't be easier: Just connect all your miniMAD with an ethernet cable to a network switch*, and wait until they automatically synchronize.

* the switch is only necessary starting with 3 miniMAD devices



VIDEO PLAYBACK / CONTROLS

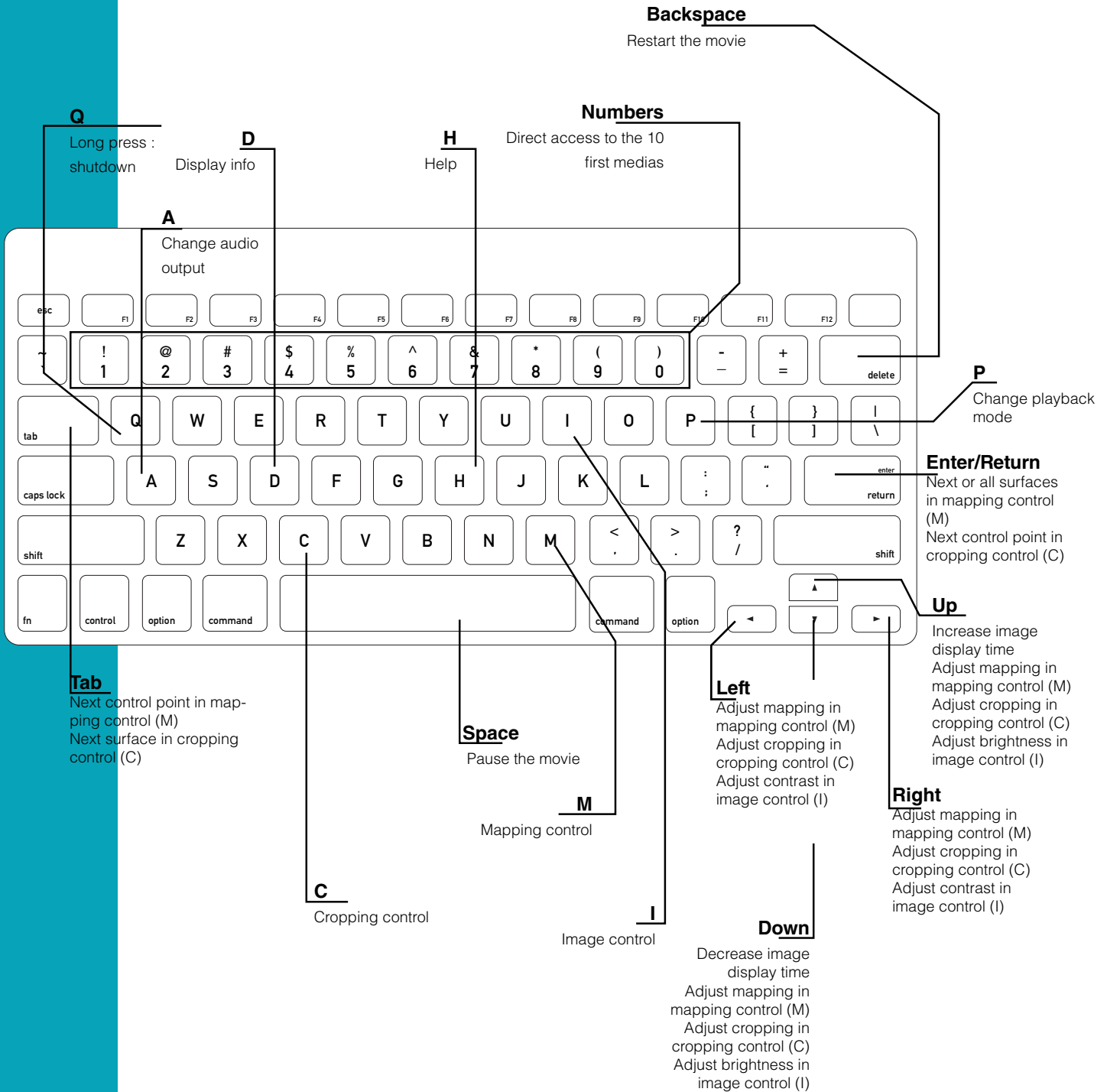
BUTTONS



VIDEO PLAYBACK / CONTROLS

KEYBOARD

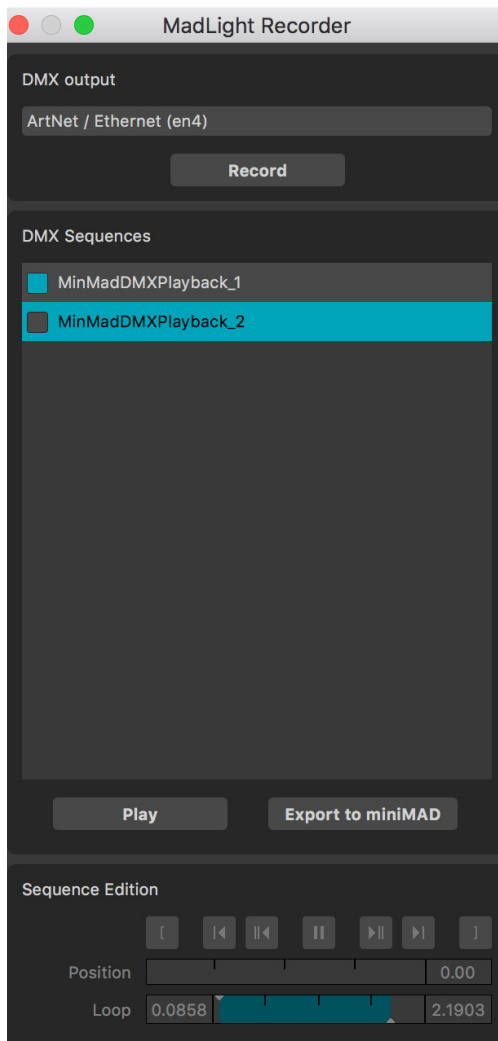
As an alternative to the miniMAD's buttons, you can use any USB keyboard as a remote. Using a wireless USB keyboard may be particularly interesting when the device is not easily accessible. Attach the keyboard to one of the four USB ports prior to powering it on and follow the following keyboard map to control all functions:



NETWORK SYNCHRONIZATION

When connected to a network, all the miniMADs share the same media controls (media change, pause, restart, playback mode, audio mode, image display time) which means that every change that's made on any miniMAD is instantly reflected on all of them.

DMX/ARTNET PLAYBACK / FEATURES



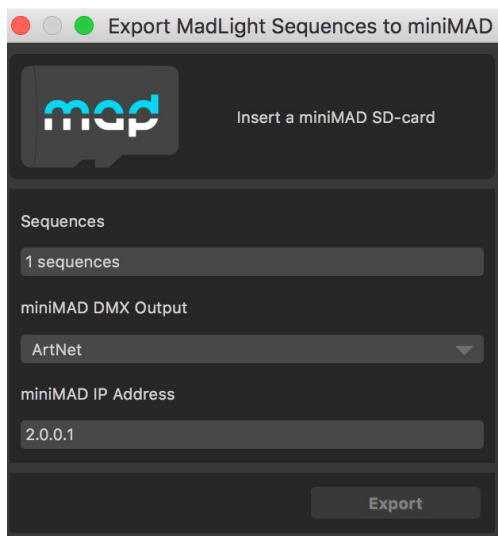
RECORD DMX SEQUENCES using MadLight Recorder in MadMapper 3.1

Once your fixtures are setup, open Tools > MadLight Recorder.

Click “Record” (or press Return) to start recording the DMX output. Click “Record” again to stop the recording. The newly recorded DMX sequence will be added in the sequences list.

Start playing back your sequence by clicking “Play” (or press Space).

Adjust the in & out frames by using the dedicated Sequence Edition controls (keyboard shortcuts are available for quicker operations). Adjustments are automatically saved.



EXPORT DMX SEQUENCES

In the MadLight Recorder dialog, check the sequences you want to export then click “export to miniMAD” to open the export dialog.

By default, miniMAD will use the same DMX interface as MadMapper, but you can select a different one using “miniMAD DMX Output”.

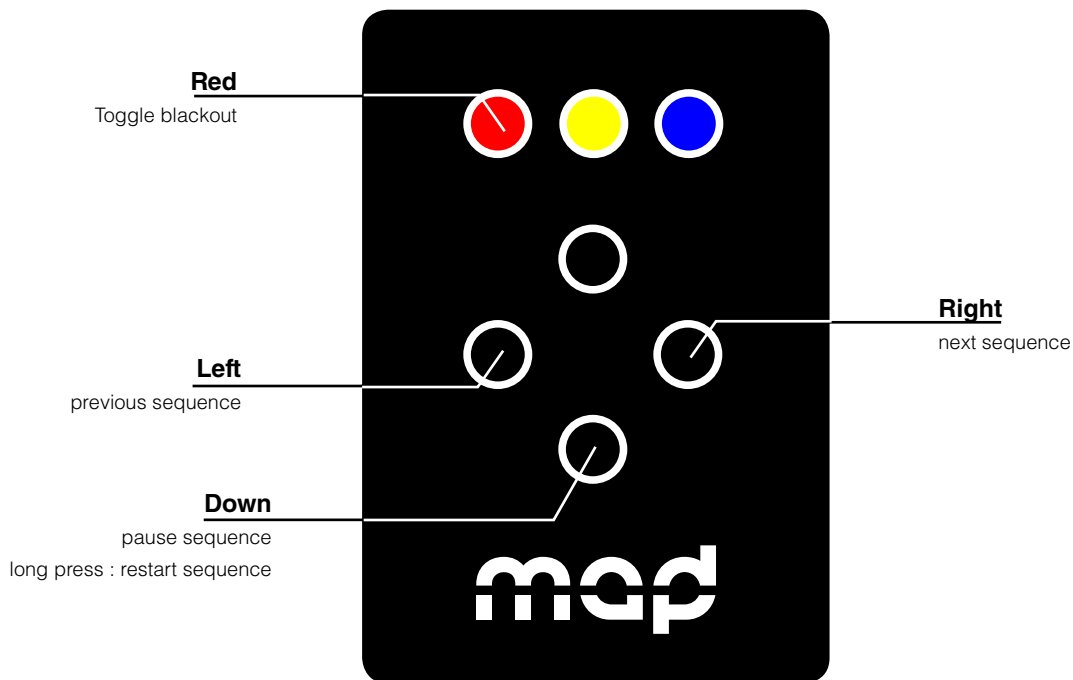
In the case you’re using ArtNet or SACN you need to input the IP-address the miniMAD will use on the network.

Insert the miniMAD SD-card in the SD-card reader. If you never used miniMAD 3.1 before you may need to flash your SD-card with the latest image that’s available on MadMapper Yourspace page. Please refer to “Flash miniMAD SD-card” section for more details.

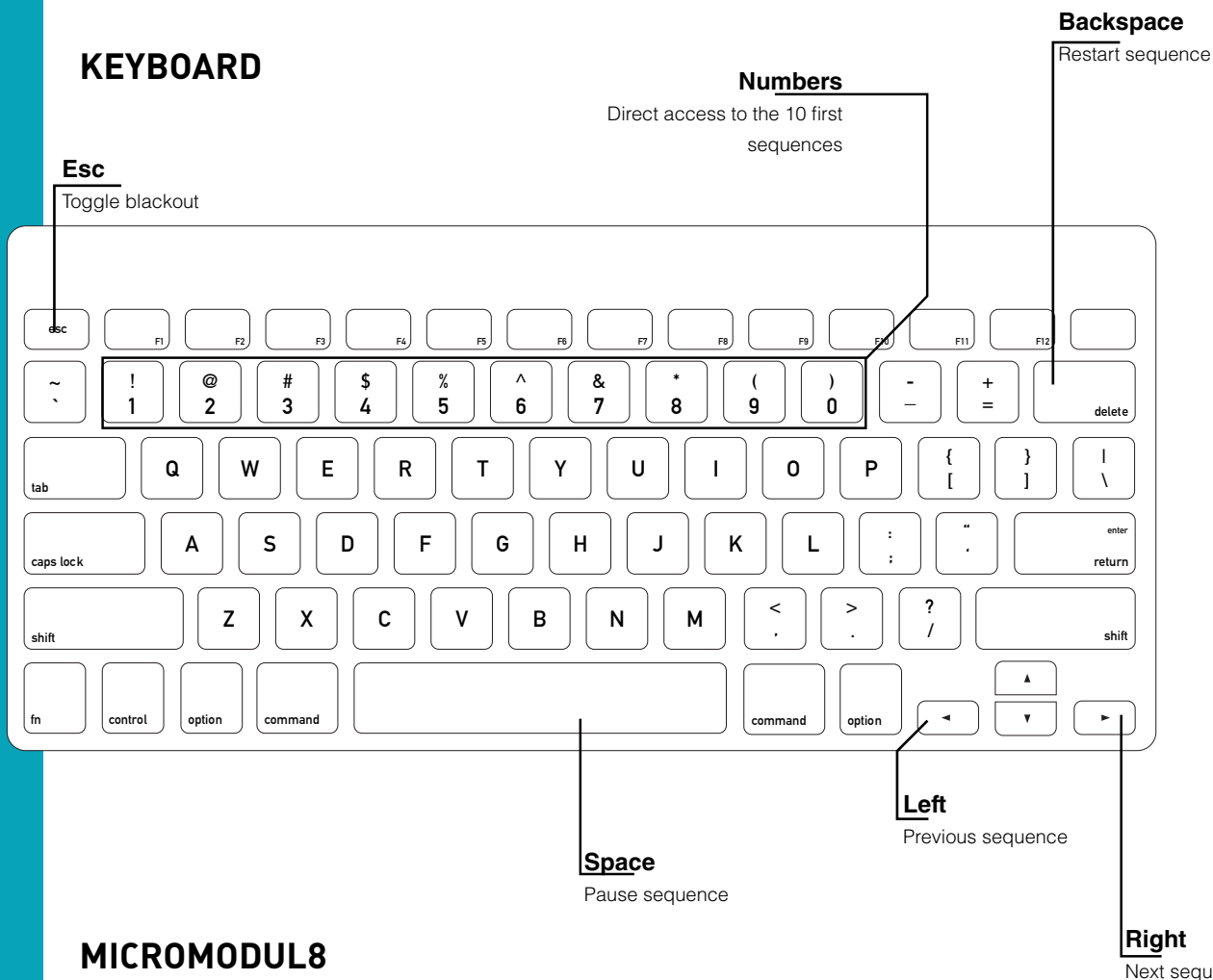
Once the SD-card is ready, click “export” to export selected sequences to the SD-card. Once exported, the SD-card should be automatically ejected so you can directly stick it in your miniMAD.

DMX/ARTNET PLAYBACK / CONTROLS

BUTTONS



KEYBOARD



MICROMODUL8

Blue buttons : direct access to the 16 first sequences
Left master knob : master luminance



TECHNICAL SPECIFICATIONS

- Raspberry Pi 2 Model B
- 7 buttons control panel
- HDMI output up to 1080p60 (1920x1080 at 60Hz)
- 16 GB MicroSD-card + adapter
- 2 Amps power supply
- Size 9x10x3 cm

IN THE BOX

- 1 x 16 GB microSD-card class 10 installed with miniMAD software and an SD-card adapter
- 1 x power supply 100-240V including EU, AUS, UK and US plug
- 1 x printed user-manual

DISCLAIMER

miniMAD network synchronization can induce a one-frame delay between the different miniMADs.

Therefore miniMAD is not the best solution for setups using edge-to-edge screens, side-by-side or soft-edge projections, using content that would highlight this delay.

For such a setup, we advise you to use MadMapper software on a computer with several video-outputs.

UPDATE YOUR miniMAD SD-CARD

First, you need to download the latest image of the miniMAD system (8 and 16GB versions are available) and the Etcher flashing tool. All those files are available to download on MadMapper Yourspace page.

Here's how to extract the image from the .tar.bz2 file:

Mac

Double-click on the .tar.bz2 file.

Windows

Download and install WinRAR on your system. Decompress the download .tar.bz2 file by right clicking --> Extract Here.

Once finished you should have a .img file next to the .tar.bz2 file.

Then, on both platforms :

Insert your miniMAD SD-card in your computer's card-reader.

- 1-Launch Etcher application.
- 2-Select the decompressed .img disk-image file.
- 3-Select the SD-card drive.
- 4-Click "Flash!" to start the operation.

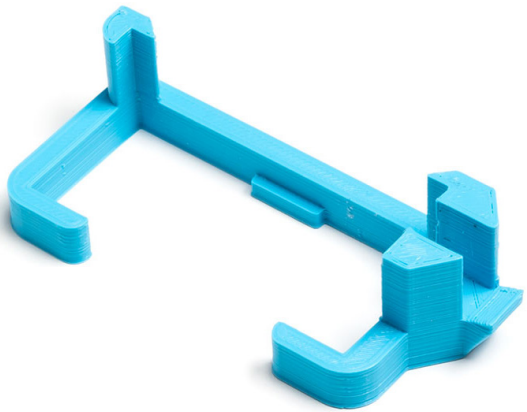
The flashing operation can take up to 20-30 minutes.

ACTIVATE YOUR miniMAD

After you flashed your miniMAD SD-card with the latest system image, you will need to activate it. The procedure only takes a few seconds:

1. insert the SD-card in the miniMAD
2. connect the miniMAD to any HDMI display
3. plug the power cord to turn the miniMAD on
4. follow the procedure displayed on the screen.

INFORMATION



ACCESSORIES

Secure your miniMAD power-plug from being disconnected or damaged with the PLOCK – Power Supply Lock. You can download the 3D file to print it yourself (Creative Commons Attribution Noncommercial Share Alike).

