



Likaon Instruments

The Mandala

MEETING THE MANDALA

Let's work on our first track. At startup, the first track is selected and euclidean mode is enabled.

Turn the knob and see what happens : notes are added or removed, and they are dispatched as evenly as possible.

If we press the rotate button, then turning the knob will... rotate the notes defined on our track in one direction or another.

Of course it is possible to set or unset notes manually ! So, let's click and release the knob to enter the manual mode. As we turn the knob, we can see a white cursor moving. Clicking will toggle the note under the cursor. To exit the manual mode, click any track or mode button.

CHANGING TRACK LENGTH

Each track can have its own length, from 1 to 64 steps. It allows you to play with polyrhythms, non 4/4 rhythms, or simply extend track lengths to allow more variations in a loop.

To change the length of a track, select the track and click the length button. On a default track (16 steps), you'll see the 16 LEDs on, plus one of the 4 LEDs in the center, which we did not introduce yet.

Let's rotate the knob to the right, and we see that most of the LEDs are now off, and the second LED in the center is on.

These 4 LEDs simply indicate where we are in our 64 steps. First, second, third and fourth set of 16 steps.

The Mandala is a euclidean sequencer that outputs MIDI signal.

It can be set either as master (tempo provider) or slave (synchronized to an external MIDI or TRIG clock source).

You can control 8 tracks, quick save up to 4 patterns during live performance, and 16 patterns can be stored in the Mandala's internal memory.

Each track can be muted/unmuted with its own mechanical switch.

Tracks can be rotated (left/right) and their lengths can be individually changed (from 1 to 64 steps), which allows longer loops and polyrhythms !

QUICK SAVES

As you're playing, you might want to keep all the tracks states in some memory, because it's soooo groovy and you know you'll want to come back to it in a few minutes. And if you tweak around, it might be difficult to rebuild this awesome groove quickly enough. This is what temporary saves are made for !

Four memories are available. To save the current state, press **↑ + one of the four memory buttons**. To retrieve it, just **press the corresponding memory button**.

With these memories you can easily switch between four grooves, but they are volatile and they mostly target live playing.

PRESETS

Besides the quick saves, you can also make up to 16 permanent saves with the presets !

If the current pattern really pleases you, enter the **presets mode (Pst/Prm)**.

With the knob, select the slot where you want to put your amazing pattern, and **↑ + click the knob** to save.

To restore a preset, enter the preset mode the same way, select the corresponding slot and simply **click the knob**.

The Mandala also accepts MIDI program changes (first 16 programs) to switch from one preset to another.

SYSTEM PARAMETERS

You can set some internal parameters. Fortunately, there are not too many !

To enter the system parameters : **↑ + Pst/Prm**

0. Toggle MIDI master or slave (off: slave, on: master),
1. Toggle between: send several notes to one channel, or one note on 8 channels (off : mono channel, on : multi-channel)
2. If on, auto switch to euclidean mode on track change ; otherwise, stays in the current mode,
3. If on, activates the track mute module (must be activated only if you use the external track mute module. But you should have one, now it's integrated !),
4. Use CV1 as analog clock input
5. Use CV2 as analog reset input
6. Experimental melodic mode on track 8, MIDI channel 9
6. Not really a parameter : reset default settings (doesn't affect presets)
 - * MIDI mode : master,
 - * Multi channel : no
 - * Auto switch to euclidean mode on track change
 - * Mute module : active
 - * Tempo : 120 bpm

See parameters summary behind !

SHUFFLING A TRACK

Every time the Sh button is clicked, a random sequence of 256 steps is generated with 30% probability for a step to be on, and 70% to be off. But nothing happens yet.

When you start turning the knob, the sequence is applied to your track and turning the knob makes you move inside this sequence back and forth. Once you're ok with the sequence you see, you can validate it by clicking Ro, or by changing the active track. You can still add/remove notes with the manual mode. Be careful, using Euclidean mode on a shuffled track will reset it!

TEMPO MANAGEMENT (MASTER MODE)

The idea is to set the three digits (from 0 to 9) of your tempo sequentially.

Let's say we want to set the tempo to 135:

- **Press the tempo button**
- Move the cursor to LED number 1, click the knob
- Move the cursor to LED number 3, click the knob
- Move the cursor to LED number 5, click the knob

And it's done !

If you entered the tempo mode by error, click any track activator to exit without changing anything.

CV OUT – WARNING

The CV clock output sends 10ms pulses at 3.3v and is directly connected to the microcontroller.

DO NOT USE IT AS AN INPUT BY ERROR; YOU WOULD CERTAINLY ROAST THE PIN, OR WORSE: THE WHOLE MICROCONTROLLER

This will be secured in the next release :/

