

# Ministeps v1.0 by NOISS COKO

## DESCRIPTION

Ministeps is a simple and useful control device, designed as a dynamic modulation source for both Live and external parameters. Control values coming from the three integrated sequencers are distributed at will between five output layers, each assigned either by individual Map buttons, or by sending out any of the available MIDI message formats: Control Change, Pitch Bend, Modulation Wheel, Foot Control or Aftertouch.

Easily target single parameters from instruments, effects or others inside the Live set, then use these modulation sources to add expression and make sounds even more interesting. Some of these options are particularly useful when working with instruments like **Sampler**, **Operator** or even **Wavetable**, all of which offer a versatile modulation section for very specific parameters that otherwise would not support MIDI mapping nor clip automation.

The interface is divided into two main sections. On the left, there are three sequencer panels, each with a 'Random' button, eight numerical values, a 'Skip' button, and a 'Map' button. The top panel is labeled 'Right' and has values 48, 14, 98, 36, 36, 113, 105, 46. The middle panel is labeled 'Pong' and has values 111, 110, 109, 122, 13, 110, 112, 75. The bottom panel is labeled 'Left' and has values 15, 83, 13, 119, 6, 31, 64, 56. On the right, there is a table for MIDI mapping.

Source	Range	MIDI	Internal
← A →	-31 %	← CC 15 →	Frequency
← B →	51 %	← CC 27 →	Amount
← C →	-18 %	← PB →	Feedback
← B →	16 %	← FC →	Map
← C →	87 %	← AT →	Map

An extra group of parameters define a set of probabilities for continuous random variations to occur, leading to even more interesting results!

Ministeps is actually composed by a pair of devices, where depending on each case, either the MIDI or the audio version of this effect will result more useful than the other. Nonetheless, both alternatives present the same characteristics, with the only exception being that for obvious reasons, no MIDI column is included on the output section of the audio effect.

## FEATURES AND FUNCTIONS

### SEQUENCE PANEL

#### Control Values

Each one of the three sequencers is integrated by eight control values, all with a range between 0 and 127. These define a specific set of values that ultimately result in the changing state of previously mapped Live parameters, as well as those receiving any of the available [MIDI message formats](#).

#### Mute-Skip

This toggle switches between both groups of buttons:

- **Mute** buttons mute or unmute individual steps. If it is muted, that step is still enabled but no value assigned to it will be triggered.
- **Skip** buttons enable or disable individual steps. If it is disabled, that step is no longer part of the sequence, thus will be ignored. This function could also be used to establish the first and last step of the sequence.

A close-up of the 'Right' sequencer panel. It shows the 'Random' button, eight numerical values (48, 14, 98, 36, 36, 113, 105, 46), the 'Skip' button, and the 'Right' label. Below the values, there are eight colored bars representing the state of each step: grey, yellow, grey, yellow, yellow, yellow, grey, yellow. The 'Skip' button is currently disabled (grey).

#### Random

All control values within a specific sequence could be randomised using this single button.

It is very important to consider that in Ableton Live almost every single parameter variation is saved in the history. Therefore, every time Random is used, all changes involved will be stored in the Undo/Redo History. Please use this feature being aware of this behavior!

### Playback Mode

Four different playback modes are available for each individual sequence:

- **Right:** The sequence will be played forward.
- **Left:** The sequence will be played backwards.
- **Pong:** The sequence will be played back and forth.
- **Other:** All enabled steps, excluding the current one, could be randomly selected next.

### Rate

Controls the sequence running speed. Rate values are displayed as beat divisions, representing a specific fraction of Live's global tempo.

### Reset

This button restarts all sequences from their first active step. It has no effect while the Playback Mode is set to Other.

### Lag

Every time a new control value is triggered, Lag sets a transition between this number and the previous one. How long the transition takes is determined by this parameter.

## RANDOM PANEL

This section features a group of parameters dedicated to dynamically randomise individual aspects of the current sequences.

### Values

Sets more or less random variations between each step original control value and the one that might replace it. In this case, the amount also defines a specific range between the original value and others that might replace it. At its maximum, random selections will cover the whole possible range, while these will get near the original position as the amount decreases.

### Chance

This amount determines the odds for each step to be triggered or not. Therefore, if Chance is set to 100%, active steps will always be triggered, while if it is set to 50%, steps could only be triggered half of the time. Any other alternative between a range of 0% and 100% is possible and will produce more or less unpredictable variations within the sequence.

### Mute

Depending on this amount, values attached to each step will get randomly muted or unmuted. Before making a decision, this function will take each step current state into account, then defining the odds for the next step to be different from the current one.

A screenshot of the 'RANDOM PANEL' interface. It features a vertical stack of controls. At the top, 'Values' is set to '11 %'. Below that, 'Chance' is set to '91 %'. A 'Reset' button is positioned between the 'Chance' and 'Mute' sections. 'Mute' is set to '22 %'. At the bottom, 'Lag' is set to '266 ms'. The entire panel has a dark, semi-transparent background with light-colored text and buttons.

## OUTPUT PANEL

### Source

For each one of the five output instances, it is possible to individually choose between one of the three sources or sequences available. This will only allow a specific set of values to be used as a control signal for that output, defining both the mapped Live parameter and the MIDI message sequence.

## Range

Negative Range percentages will shrink all control values towards their minimum, scaling the original values while keeping some relative difference between them. Positive percentages will do exactly the opposite, leaning all control values towards their maximum range.

## MIDI

Besides being able to map and control Live parameters, control values can also be sent as different kind of MIDI messages. **Of course, this option is only available on the MIDI version of Ministeps.**

Depending on what instrument or effect is receiving the information, MIDI messages could be formatted as:

- **CC:** MIDI messages are sent as Control Change. This value assigns a unique and exclusive Control Change Number to the message. It will not determine the parameter modulation, but it will be used to associate a specific Control Change message with the external parameter that wants to be modulated. With this control number, the receiver knows that this and no other parameter has to be changed.

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- **PB:** MIDI messages are sent as Pitch Bend. By default most devices reserve this type of message for pitch modulation, but the effect will ultimately depend on how the receiving device is configured.

- **MW:** MIDI messages are sent as Modulation Wheel.

- **FC:** MIDI messages are sent as Foot Control.

- **AT:** MIDI messages are sent as Aftertouch.

- **Off:** No MIDI information is sent through. This remains independent from the Map function.

Some of these options are particularly useful when working with instruments like **Sampler**, **Operator** or even **Wavetable**, all of which offer a versatile modulation section for very specific parameters that otherwise would not support MIDI mapping nor clip automation.

## Map

Besides controlling external devices, Ministeps allows to map and modulate any parameter inside Live. In order to perform a new selection, click over Map, and while the button is blinking, select the parameter that wants to be controlled by Ministeps. When this action is done, the button will show the name of the recent selection.

To undo this action click over Map once again and wait five seconds. After this time the previous parameter will be cleared and the Map button default state restored. The current parameter will also be displaced and released every time a new one is assigned.

# CREDITS

## ABOUT

## DEVICES

Ministeps v1.0

Developed by Javier Salthú aka NOISS COKO

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