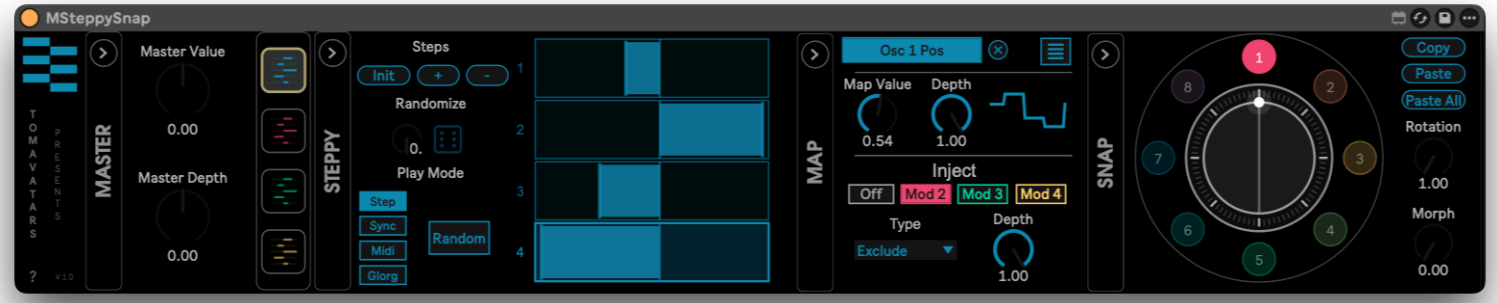
# MSteppySnap Manual v1.0

M4L unit for Windows and Mac

Reference manual by Tomavatars





Tomavatars

Game dev, sound design, music, playful technologies…

Contact support : www.tomavatars.com

# Main information

## 1.1 Plugin overview

MSteppySnap is a Max for Live MIDI effect made by Tomavatars
It's a midi controlled modulator, where you can map other Ableton and VST/AU units parameters and modulate them with 4 multi length lane sequencers.
There's also a preset wheel for preset morphing and recalling plus a bunch of very useful and fun features.

Main features:

- 4 top to bottom sequencers with variable length to modulate mapped parameters
- 4 mappable parameters for each sequencers: 16 in total
- Inject sequencers into the other sequencers for more complex modulations from diverse algorithms
- Each sequencers have 4 different ways to be played: increment from note in, classic synced rate, midi note selection and Glorg
- Store your sequencers shapes in 8 presets
- Play and morph the presets from a preset wheel and mappable parameters
- Master controls to play with the center value of all the mapped parameters as well as the depth of the modulations
- Some Push control and automation


## Special Thanks

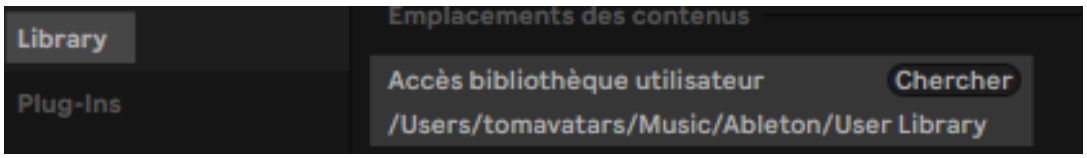
*To all the Unfiltered Audio Underground peeps, thank you all for your support and your kindness! To Mike and Jeremy for the playtests. Thanks to Darren at Isotonik for the support and distribution. Peter Kirn, Chapelier Fou, folks on Max For Live Facebook group and Instagram for your interest.*
*To my patrons on Patreon: Sam Lundell, François E., Dawesome Music, Dylan Ratner, Naomi, Nils Fitzek and Josh.*
*To all my family members and friends that always believed in me.*

## 1.2 System Requirements

- Live Version: 12 with Max for Live
- Developed using Max version 9
- Operating System: Windows, Mac

## 1.3 Installation Instructions

Unzip the ZIP file and copy the plugin amxd file to your User Library folder.
There are two ways to find where your User Library is located: Go to Preferences – Library – Location of User Library

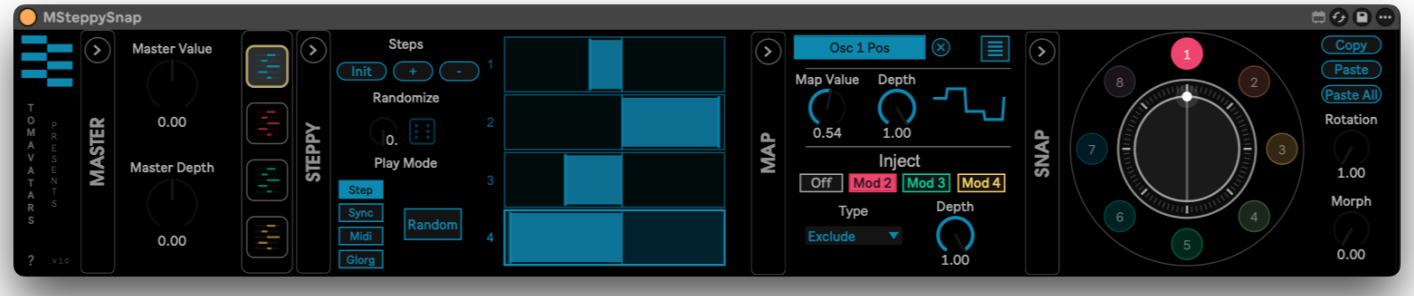



Or [right-click] on the User Library in the Browser – Show in Finder (Explorer)


## 1.4 Navigation

All sections are collapsible with the arrows of their title tab

MSteppySnap unit

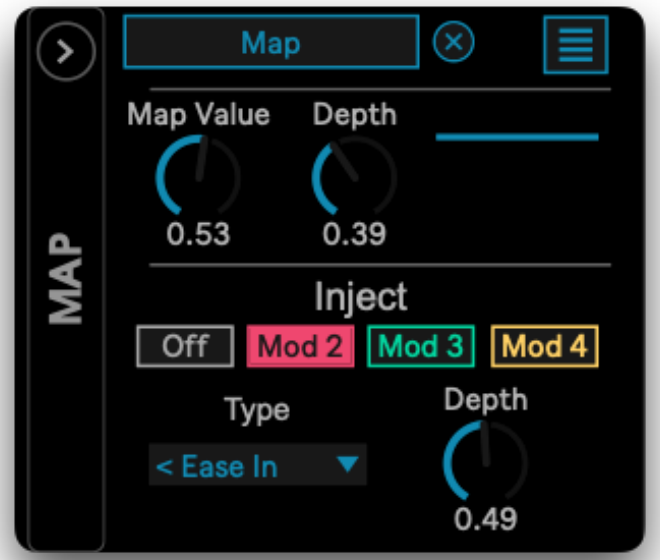


**MASTER:** master section to control value and depth of all the mappings

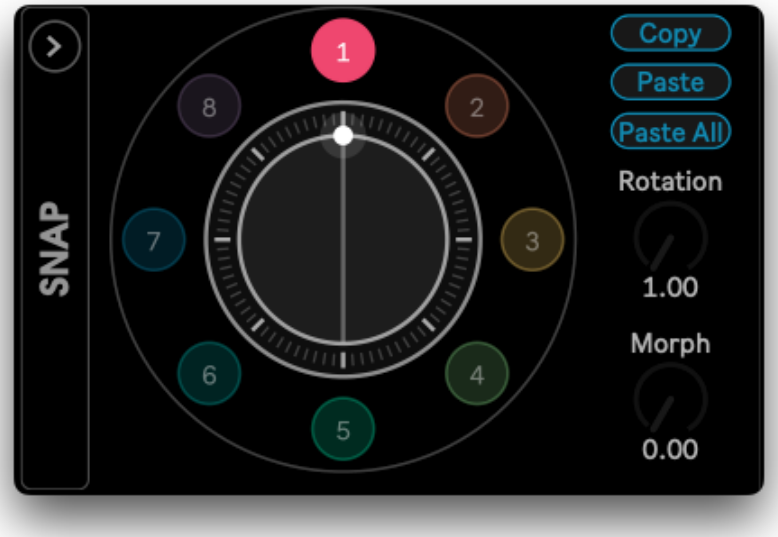

**Sequencer selection:** 4 buttons to select the current sequencer and its Map panel.

**STEPPY:** the sequencer panel. On the right, the sequencer parameters. On the left, the sequencer with vertical sliders.

**MAP**: the mapping panel with its parameters and the injection section.




**SNAP**: the preset panel with a morphing wheel, two control knobs and handy copy paste buttons.



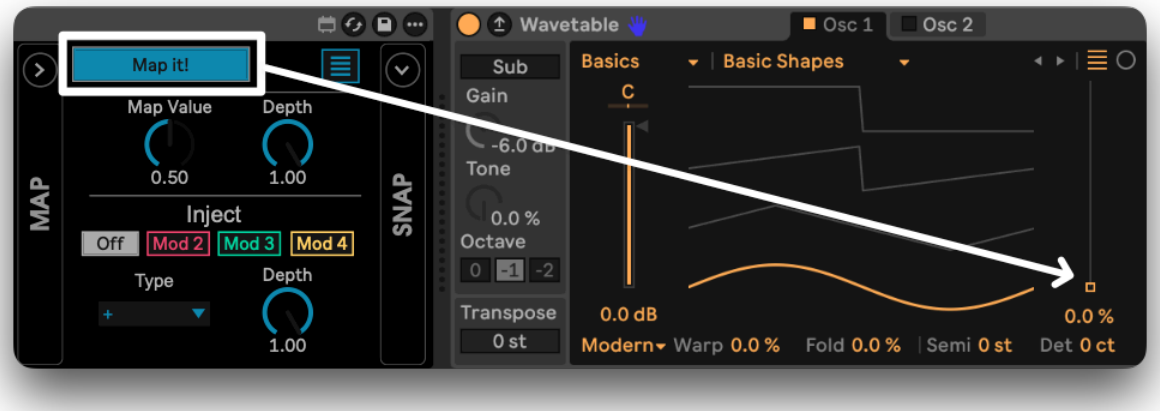
# MSteppySnap

## 2.1 First step

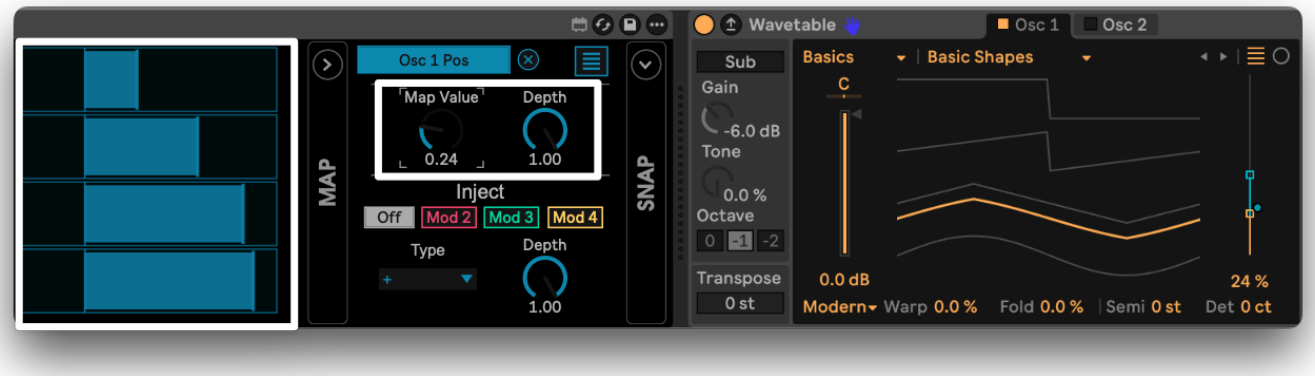
Drop the unit on a MIDI track.
Add other units, may it be MIDI, Instruments or audio effects.

Select a STEPPY sequencer from the sequencer selection.

Click the « Map » button and select a parameter on another unit.

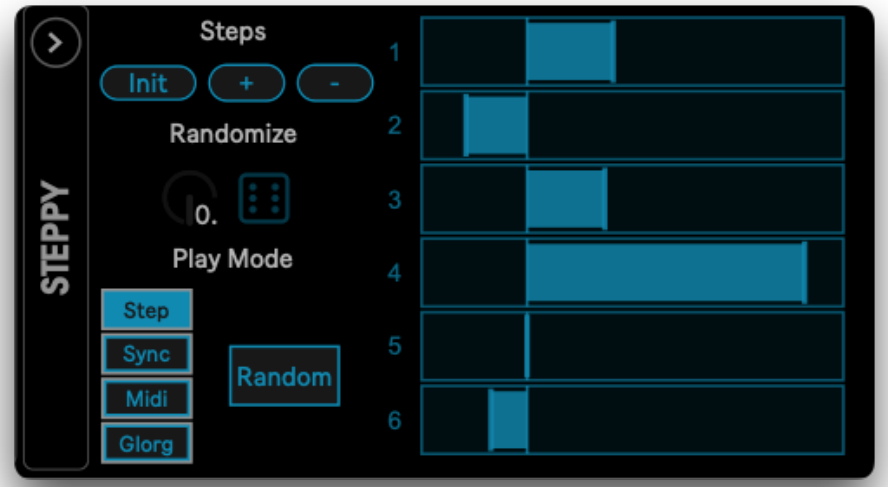


Play with the sequencer sliders and the Map Value and Depth controls.




And voilà, you controls will be modulated based on the Play Modes.

## 2.2 STEPPY




*STEPPY panel*

**STEPPY** is the sequencer part of the unit. It allows you to set modulation values of the parameters you control from mapping.
There are 4 parts in this section

### Steps

- **Init:** initialise the sliders values
- **+ :** add a new slider. You can add up to 16 sliders
- **- :** remove slider. The minimum quantity of sliders is 1.

### Randomize

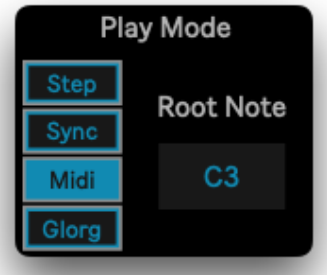
- **Randomize Knob:** the knob will set the amount of randomization for each sliders
- **Dice button:** apply randomization.

## Play Modes

- **Step:** increment which slider will modulate the mapped parameter from midi in trigger (note on)
    - **Random:** select random slider with each midi in trigger


- **Sync:** increment which slider will modulate the mapped parameter from a synced playhead based on a resolution setting.
    - **Resolution:** sets the speed of the playhead
    - **Shape:** sets the behavior of the playhead: forward loop, ping pong (forward and backward) and random.

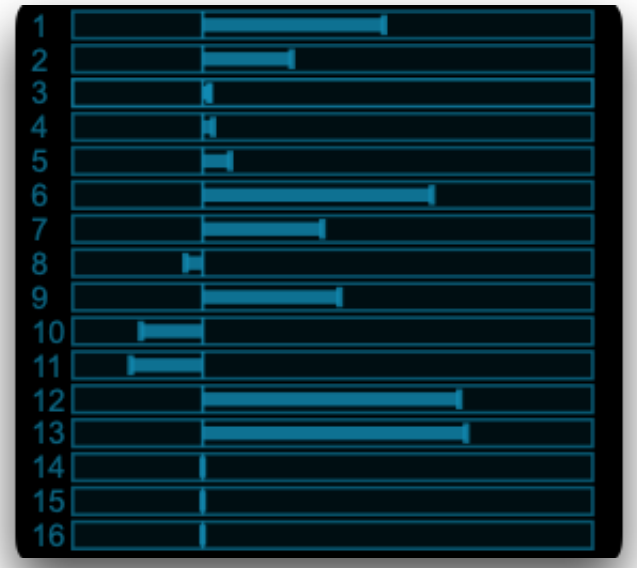

- **MIDI:** selects which slider will modulate the mapped parameter from midi note pitch
    - **Root Note:** sets the root note that will correspond to the first slider. It'll the wrap around this root note (root note -1 being the last slider)



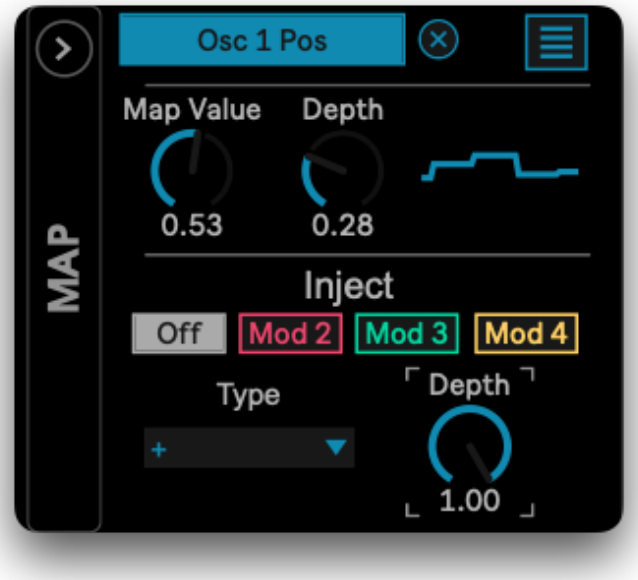
- **Glorg:** selects which slider will modulate the mapped parameter from a slice knob. Will also be bonded to another module that I'll release soon.
    - **Slice:** selects which slider to play


## Sequencer

Just left click and drag your mouse on the different sliders to set the values. Shift + click sets the slider to default value. Cmd/ctrl + click is fine tuning.



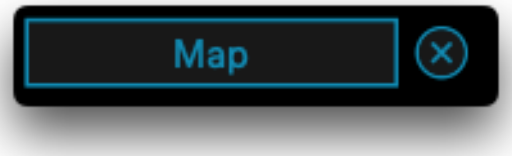
## 2.3 MAP




*MAP panel*

Map is the core of the unit. It allows you to map other units parameters to the sequencers modulations.
There are 4 parts to this section: the map to parameter, the map controls, the inject section and a sub panel to map 3 more parameters.

### Map




**Map button:** click on it and select a parameter to map. It'll then display the name of the mapped parameter. You can click again on it to override the mapping with another parameter.

**Undo button:** the X button will unmap the current parameter.

## Controls

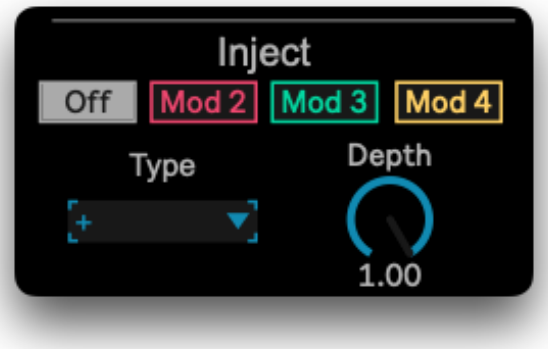
Controls are two knobs that will modify the base value (central) and depth of the modulation. For each mapping targets, you also have a live visualiser in order to watch the modulation shape in action.


**Map Value:** this knob will set the base value of the mapped parameter. This value will be updated as well on the mapped parameter of the other unit.

**Depth:** depth is a 0 to 1 value to set the depth of the modulation. At 0 no modulation will occur. At 1, modulations will be full based on the sliders values in the range of the mapped parameter.

## Inject

Inject allows you to modulate the current sequencer modulation based on the other sequencers allowing you for more complex movements in time and longer modulation sequences.
For example, if you have 4 sliders on sequencer 1 and 6 sliders on sequencer 2, if you inject the sequencer 2 on the sequencer 1 with the + type with both in step mode,  you'll have a 24 modulations steps loop.



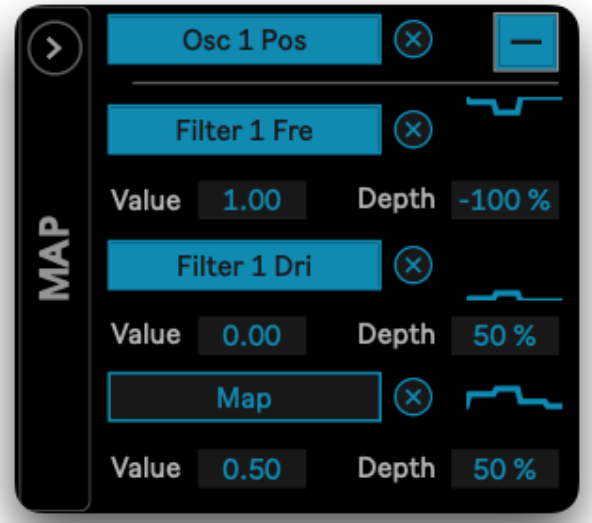

You can select one of three injection sources per sequencers: the other sequencers. There are also ten injections algorithms and a depth control.

- **Buttons:**
  - **Off:** Turns injection off
  - **Mod 1:** sets the sequencer 1 as a source
  - **Mod 2:** sets the sequencer 2 as a source
  - **Mod 3:** sets the sequencer 3 as a source
  - **Mod 4:** sets the sequencer 4 as a source
- **Type:**
  - **+** : adds the source sequencer modulation signal to the current sequencer signal
  - **-** : subtracts the source sequencer modulation signal to the current sequencer signal
  - **x** : multiply the source sequencer modulation signal to the current sequencer signal
  - **< Ease In:** interpolate towards the source sequencer modulation signal from the current sequencer signal as an ease in curve
  - **< Ease Out:** interpolate towards the source sequencer modulation signal from the current sequencer signal as an ease out curve
  - **> Ease in:** interpolate from the source sequencer modulation signal to the current sequencer signal as an ease in curve
  - **> Ease Out:** interpolate from the source sequencer modulation signal to the current sequencer signal as an ease out curve
  - **Min:** gets the minimum value between the two sequencers
  - **Max:** gets the maximum value between the two sequencers
  - **Distance:** Outputs the absolute distance between the two sequencer values, scaled by Depth. The result is always positive and folds back within range if it exceeds ±1.
  - **Exclude:** Blends the two sequencer values using an exclusion formula. Produces strong contrast when values are opposite, and near-silence when they are identical.

## Sub Mappings

Along the main modulation, there are 3 more mapping destinations per sequencers.


*Click on this icon to open the sub mapping panel*



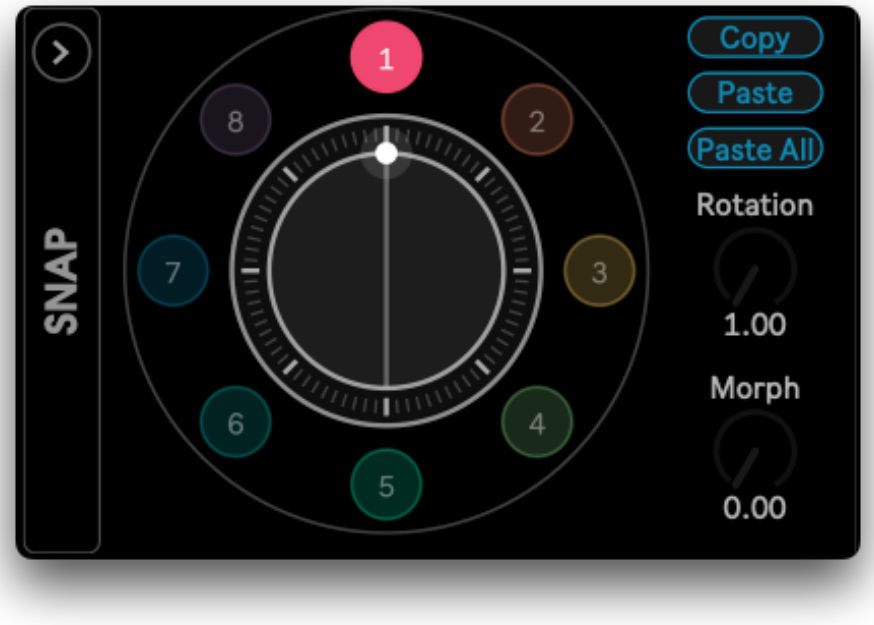

*Sub panel with 3 other map buttons and their controls*

Sub maps shares the same sliders as the main mapper. But they are their own base value and depth controls. They also have their own visualizer.

**Map button and Unmap button:** same as the main mapper.
**Value:** controls the base value of the mapped parameter.
**Depth:** -100% to 100% relative to the current modulation.

## 2.4 SNAP

The SNAP panel is a powerful preset manager. With it, you can set 8 different sliders presets (for all 4 sequencers), and morph them with 2 controls: Rotation and Morph. The presets only records the modulation sliders, not the other parameters of the units. But you can automate them of even modulate them with an external LFO for example.




*The SNAP Panel*

The **Preset wheel** can be manipulated with your mouse. Click on the preset number to select the current preset. Turn the wheel to rotate the preset. Move the morph point to travel to the opposite of the wheel.
While in transition between presets, you can't edit the sliders.

**Copy:** will copy the currently selected preset
**Paste:** will paste the current selected sequencer to the currently selected preset slot from the copy you made
**Paste All:** Will paste all the sequencers from the copy you made to the current selected preset
**Rotation:** Rotation is a mappable control that will rotate the preset wheel
**Morph:** Morph is a mappable control that will morph between opposite presets

## 2.5 Master


*The MASTER Panel*

The Master panel have two controls that will influence every sequencer modulations.
**Master Value:** will modify the base value of all mappings
**Master Depth:** will modify the modulation depth of all the mappings

# Push compatibility

Nearly all the parameters are accessible from Push.
Have fun!

# A final word

MSteppySnap is an instrument designed with fun and experimentation in mind.
I initially wanted a step modulator that increment values from midi trigger, but then I thought it could be a more complex unit but with playfulness in mind.
I also wanted to add one more module for my future live sessions.

**Thank you so much for purchasing MSteppySnap!**