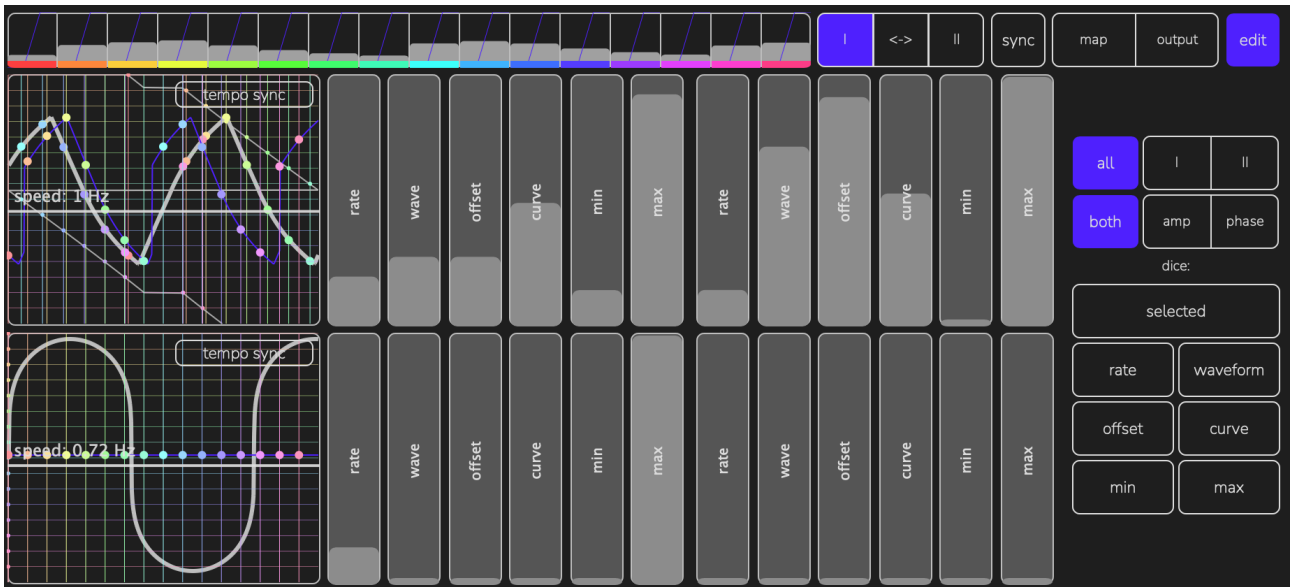


# lfoch

experimental LFO generator

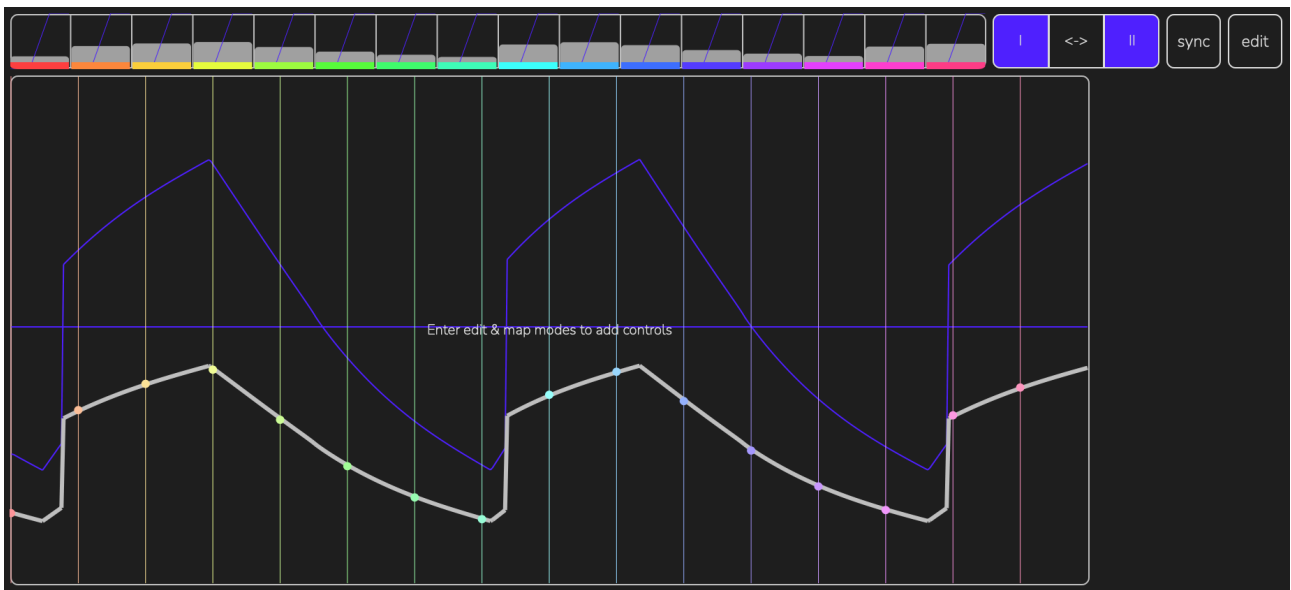


## Overview

"lfoch" is an experimental LFO generator that is capable of creating a chase-like effect with multiple outputs that are driven by one waveform. It features:

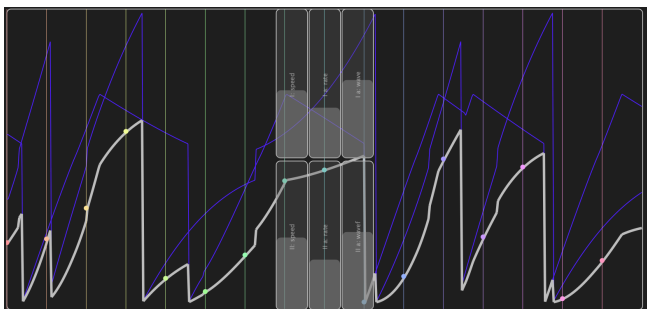
- Two independent generators that create the output waveform:
- Each generator contains two sub-oscillators. Each oscillator has 6 parameters: waveform rate, waveform type (sine - triangle - sawtooth - square), nonlinear curve and minimum-maximum range. One suboscillator drives the phase of another suboscillator.
- The result waveform is the multiplication of the waveforms of both generators.
- You can select N outputs (1 to 16) from this waveform and route them to MIDI Control Change messages
- The app works as standalone and an AUv3 MIDI effect

# Quick start



Application starts in a **perform** mode that allows you to control the waveform with the selected sliders (see details in the description of the **map** mode) and see the result waveform.

## Controls



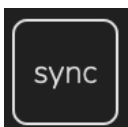
This is a result waveform and the selected sliders



This is a display for the output values. The section count is set in **output** mode



This toggles I and II generators to actually "run" (change their phase). The <-> button inverts the state of both buttons.



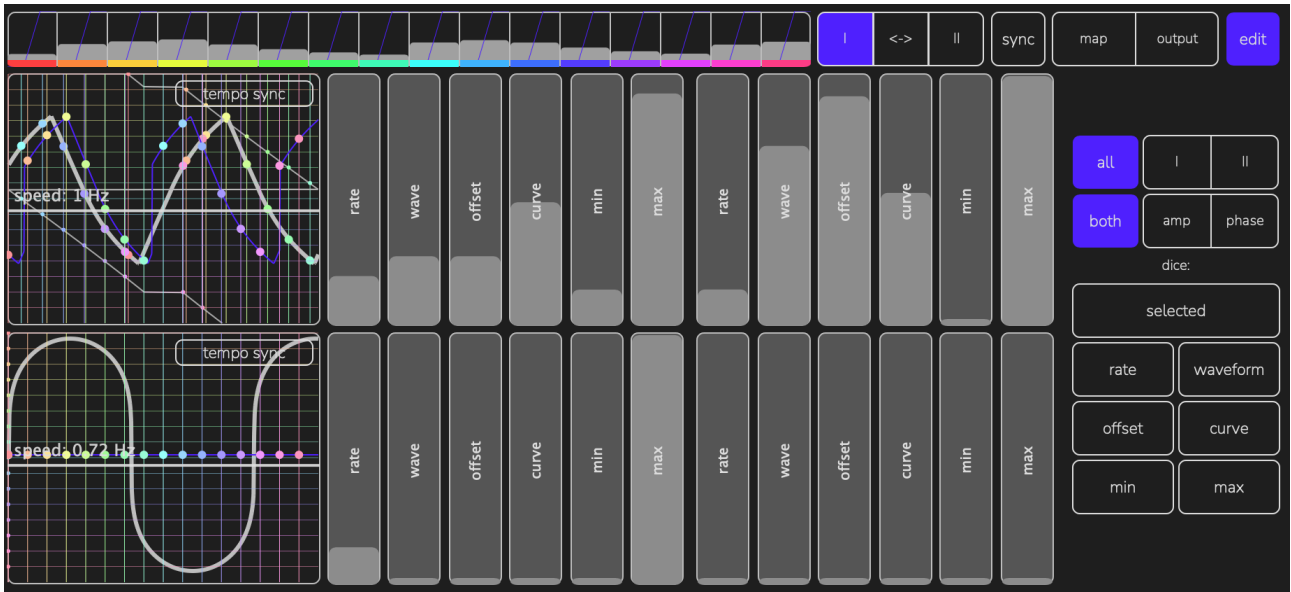
This button resets phase for all generators and "restarts" them



This button toggles **edit** mode.

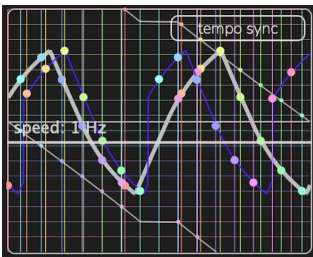
Other modes (**map** and **output**) are also accessible within the edit mode.

# Edit mode

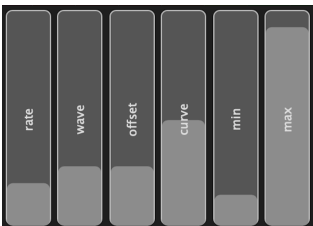


Here you can set all values for the waveform generation. "map" and "output" buttons also appear in edit mode and allow to temporary switch to the respective mode.

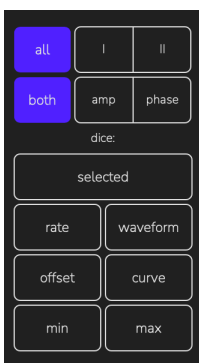
## Controls



This is a generator output display. It shows both amplitude and phase suboscillators' waveforms and allows to set up speed of this generator. Speed can be set in Hz or according to app (or AUv3 host) tempo



This is a set of parameters for each suboscillator. Left one is carrier (that outputs actual value for the result waveform) and the right one is phase modulator



These are randomisation buttons.

Upper rows select the target (all generators or I/II and both suboscillators vs just amplitude / phase ones)

Press "selected" to randomise all parameter in the suboscillators selected above (i.e. "I", "amp" and "select" will randomize all parameters in amplitude suboscillator of generator "I") or press "rate" etc buttons to randomize single parameter across selection of suboscillators.

# Output setup mode



This screen allows you to set up output. Toggle button to select and change value.

- Outputs. Use **[+]** and **[-]** to add or remove outputs or **[clear]** to reset to 1 output.
- **[ch]**: MIDI channel. This will be the same for all output values
- **[cc]** and **[stride]**: This is a base control change for output 1. All other outputs will use this number + (number of output multiplied by 'stride'). You can see the resulting mapping in the right pane of this screen
- **[min]** and **[max]**: This is the output range for the LFO values. You can set **[min rnd]** and **[max rnd]** to randomize these across all outputs. Use **[seed]** value to change randomization
- **[standalone output]** sets MIDI port for standalone version
- **[BPM]** sets tempo for standalone version or shows host tempo for AUv3. **[free run]** disables transport sync for AUv3 mode. **[grp1]** **[grp2]** and **[dice]** buttons are the same as in **map** mode and allow to map tempo value to the slider in **perform** mode

# Map mode



This page allows you to show sliders and dice buttons on a **perform** page

**[grp 1]** is the upper row of sliders

**[grp 2]** is the lower row of sliders

**[dice]** is the button in the right side of perform view

manual version: 1

lfoch

v1.0.0

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