

Fluxion

16-step rhythm channel with a draggable time curve.

One Fluxion rhythm channel: 16 editable steps, a draggable temporal curve, and Main / Aux 1 / Aux 2 note streams. It is a MIDI effect with no samples or audio, adapted from the Flux module manual and the author's web app.

Every value is a real Live parameter (309 of them), so all but four are automatable and mappable by Live's modulators, Max for Live LFOs, macros and MIDI.

HOW IT PLAYS

Live transport (1.1.1 = beat 0)
 -> song beat modulo loop length -> walk selected steps (own lengths)
 -> per step: density, curve, phase, humanize, chance, gate (+ Mod page offsets)
 -> Main / Aux 1 / Aux 2 note streams -> raw MIDI on three channels

QUICK START

- 1 Drag Fluxion onto a MIDI track that has an instrument after it, and start Live's transport.
- 2 The default is one repeating four-beat step. Main plays on channel 1, note 36, velocity 100. Aux 1 (channel 2, note 43) and Aux 2 (channel 3, note 45) are off.
- 3 Raise **Loop last** to include more steps, then select a step (1-16) and edit its values. Editing is independent of playback.
- 4 Drag the **Curve** graph to bend where the hits fall inside the step. Double-click returns to linear.
- 5 Set **Note in** to LATCH or HOLD and put a MIDI clip before Fluxion: Fluxion decides when notes fire, the clip decides which.

CONTROLS

STEPS AND LOOP

CONTROL	RANGE	WHAT IT DOES
1-16	step buttons	Select the step to edit. The amber underline shows playback and never changes the selection. Alt/Option-click mutes a step.
Loop first / last	inclusive	The loop range. The loop is anchored to the song start.
Length	per step, in 1/16 notes	Not necessarily one sixteenth per button; lengths 4, 8, 12 give a six-beat loop.
STEP OFF	toggle	Mutes the selected step's three outputs and keeps its length.
ALL	toggle	Applies later step edits to all 16 steps. Spends one undo step per bank, so leave it off unless you need it.

RHYTHM VALUES (PER STEP)

Density, Curve, Diff, Phase, Compress, Humanize, Chance, Gate	-	Hit count, timing bend, differential, phase before compression, compression, humanization, probability and gate length. Values are stock Live numboxes: drag, Shift-drag for fine, or type.
Curve graph	drag	Bends the hit distribution. Double-click resets.
Multi curve	1, 2.0-2.2, 3.0-3.3 ... 8.0-8.8	43 choices. The integer is the number of equal subgrids; the decimal is the bend pattern. Curve sets overall strength and sign. Use Density above the division count to hear it.

OUTPUTS

Aux modes	per aux lane	OFF, COPY, SOS, FIRST, LAST, DEL 1-8, TL 1-16, PPQ 1/2/4/8/16, /2 /4 /8 /16. Probability picks Trigger or Step.
Channel / Note / Velocity	per lane	Each lane is independent, so two lanes may share a channel.
Note in	OFF / LATCH / HOLD	OFF uses each lane's Note and Velocity. LATCH plays the most recent incoming note at its velocity. HOLD fires only while input notes are held. Input MIDI is not passed through.
MUTE / PANIC	buttons	MUTE releases notes and stops. PANIC clears pending and held notes and engages MUTE.

MOD PAGE

Global Offsets	8 parameters	Density, Curve, Diff, Phase, Compress, Humanize and Chance ride on top of every step and are neutral at 0; Gate is a percentage, neutral at 100 %. Results are clamped to each field's normal range.
Mod Slots	4 slots	Each has Target (any step field except Length), Step (All or 1-16) and Amount (a percentage of the target's full range).

NOTES

Multi-curve patterns

Suffix .0 Repeat, .1 Alternate, .2 Rise, .3 Fall, .4 Call/response, .5 Arch, .6 Valley, .7 Wave, .8 3-3-2. Negative Curve reverses each pattern's bend directions. These are interpretations of the hardware's behaviour, not verified replicas of its presets.

Things worth knowing

- **Banked parameters.** Each step owns a full parameter set (for example [Step 7 Mask Shift](#)), and only the selected bank is on screen. That is what lets Live's modulators map a single step: select it, hit Map, click the field.
- **Modulation lands on the next step edge.** Values are sampled once per step, at most 80 ms before it sounds. Fast modulators produce stepped changes, like a sequencer sampling a CV at each gate.
- **Transport.** Seeks and loop wraps release held notes and replan at the destination. A tempo change releases held notes, so it can shorten a gate. Timing is scheduler-based MIDI, not sample-accurate.
- Only All, Mod, Panic and the selected step are Stored Only; there is no pattr blob.

STATUS

Offline tests cover the rhythm engine, MIDI generation, seeks, tempo changes and face behaviour. None of it has been proven in Live: widget behaviour, timing, automation, save/reload and modulator sampling all still need an in-host check before performance use.