Intellijel — MultiGrain

- Manual PDF

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Using Intellijel Multigrain for Dense, Hyper-Complex Percussive Rhythms

As a eurorack musician, **Intellijel Multigrain** is an extremely deep tool for granular sampling, morphing, and rhythmic exploration. To generate densely rhythmic, hyper-complex percussion with polyrhythms, odd time signatures, and intricate patterns, follow these strategies derived from the manual and your creative goals:

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1. Granular Percussion Voice: Sample Preparation

- **Load a bank of short, percussive samples** (one-shots, drum hits, clacks, found sounds) across all 8 Sound slots. Use one channel (L or R) for dry drums and the other for treated hits to enable stereo complexity (p.55).
- **Make multisample files**: Load one file with rapid-fire percussion slices, then use granular Start/Wrap/Scan controls to jump between them.
- Normalize your samples to keep attack transients punchy and consistent (p.55).

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2. Complex Rhythm Generation: Triggers, Modulation & CV

A. Clocking & Triggering

- **Patch independent rhythmic triggers into GATE/NEXT/SELECT/SYNC** for each Sound to generate polyrhythmic grain streams (pp.11, 18). For example:
    - **GATE**: Fires grains within active Sound based on panel settings.
    - **NEXT**: Step through the sample bank sequentially with every external trigger.
    - **SELECT**: Directly voltages address which Sound slot is being accessed. Use with stepped CV or random voltages for unpredictable sequences.
- **SYNC input**: Use external clocks with odd divisions or non-standard rhythms. RATE knob becomes a clock multiplier/divider, allowing you to align or offset grains—even with polymetric clock sources (pp.18–19).

B. Modulation: X, Y, Z Inputs and Internal Random

- **Assign CV modulation to granular parameters**: Send clocked CV to SIZE, RATE, WRAP, SCAN, PITCH, and BLUR for time-varying results.
    - Modulating **RATE** and **SIZE** at fast, independent rates (e.g., with LFOs or sequencers at different tempos) instantly produces polyrhythmic grain bursts.
- **Apply internal random (RAND) to parameters**: Use neg/pos amounts to introduce probabilistic envelope, position, or direction tweaks per grain (p.25).

C. Per-Step Modulation (Live Complexity)

- **Trigger grains via external triggers** for “manual” micro-programming (e.g., running GATE from a fast/clock-divided rhythm generator), or use CV-controllable grain generation by modulating RATE (p.18).
- **Assign modulation to REVERSE** for reversal “hits” mapped to a rhythmic pattern or random toggling (p.24–26).

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3. Morphing & Scenes: Instant Timbre/Pattern Changes

- Create Scenes (A/B) with **wildly different grain shapes, lengths, pitch, or density** for the same percussion sample (pp.13–14).
- **Automate the Morph fader** with CV to interpolate between settings in sync with a rhythmic LFO, knob, or even incoming performance gestures.
- **Discrete parameters (SHAPE, REVERSE)** can be morphed probabilistically, so you can set up probability-based rhythmic variations as you crossfade between Scenes (p.14).

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4. Unique Percussive Voice Processing Techniques

A. Superimposed Polyphony

- **Latch multiple Sounds** (use LATCH; p.9, 53) to let grains from several sample slots overlap. Employ per-Sound modulation for polymetric granulation layers.

B. Ping-Pong SCAN and Reversal

- **Enable Ping-Pong (long press REVERSE; p.20)**—instead of wrapping, your grains bounce back and forth within the sample memory, yielding mesmerizing, irregular rhythmic motion.

- Combine this with clever START/WRAP/SCAN settings to “cycle” through various parts of a drum loop at variable speeds.

C. Envelope Randomization for Groove and Stutter

- Assign **RAND to LEVEL and TONE**, with negative amounts for automatic panned randomization—makes each hit jump L/R in the stereo field and change its EQ (p.25).

D. Pitch Quantizer + Modulation

- Use the **Quantizer** to force granular pitch shifts to scale degrees, but modulate it with X/Y/Z at audio rates for melodic percussion (pp.32–33).
- Assign quantized PITCH to CV for melodic-rhythmic patterns.

E. Blurring/Reverb for Density

- Add per-grain reverb via BLUR; modulate per-grain for “clouds” of percussive clutter that ebb and flow with rhythm (p.21).

F. Live/Looping Recorder Tricks

- Use the **Looping Recorder** (v1.2) to record rhythmic material live. Freeze/unfreeze the buffer on the fly (by button or modulation) to “lock in” spontaneous loops mid-performance (pp.39–41).
- Use threshold-based auto-freeze for sample-accurate rhythmic looping.

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5. Algorithmic/Generative Control for Evolving Patterns

- Modulate multiple parameters simultaneously for self-evolving complexity.
- Assign random (RAND) to alternative grains for pseudo-generative sequences (p.25–26).

- Use complex sources (logic, euclidean sequencers, bursts, etc) patched to GATE, NEXT, or CV for non-repeating hyper-complex rhythmic streams.

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6. Unique FX Processing

- Use Multigrain as an **effect**: Patch in drums or complex rhythmic audio to inputs, set a Sound to “Live” mode (p.10), and granulate/morph wild output streams.
- Combine **thru/blur bypass** and CV-morphing to switch between dry, reverb-drenched, and glitched-out percussive FX.

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7. Performance Shortcuts & Workflow

- Use quick button combos (p.52–54) to randomize, copy, and morph Sounds and Scenes in realtime—injects controlled chaos and new grooves on demand.

Pro Tip: Layer Multigrain with Dedicated Triggers and Accent Modulation

Multigrain’s design lets you “address” separate layers in parallel, creating intricate polyrhythmic structures. Use external sequencers, trigger matrices, or generative CV for advanced control.

Explore, experiment, and let Multigrain’s granular engine warp your rhythmic ideas into intricate soundscapes!

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