

2hp — Rnd

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[2hp Rnd Manual \(PDF\)](#)

Using the 2hp Rnd for Hyper-Complex Percussion & Rhythms in Eurorack

The **2hp Rnd** is a powerful random gate and random voltage source that becomes a playground for experimental rhythmic and percussive synthesis. For the creation of dense polyrhythms, complex meters, and intricate percussive patterns, this compact module can be leveraged in several creative ways:

Clocking, Gates, and Rhythms

1. Randomized Gate Patterns (Polyrhythmic and Complex Sequences)

- **External Clock Mode:**
Send a non-standard (e.g., quintuplet, 7/8) clock into the **CLOCK IN** jack.
- **Rate Knob** shapes the density and probability of the random gates.
- **Gate Output** will generate unpredictable triggers at non-binary subdivisions, perfect for hyper-kinetic or polyrhythmic percussion tracks.

- **Patch Example:**

- Use a rhythmic step sequencer or clock divider to provide several mismatched clocks to multiple Rnd units.
- Output random gates to varied percussion voices (hi-hats, metallic pings, clicky samples) for organically evolving, interlocking patterns.

2. Internal Clock for Steady Rhythms with Unpredictable Modulation

- **Internal Clock Mode:**

Use the **Rate Knob** to set a base tempo, outputting a standard clock to a trigger sequencer or drum voice.

- Stack multiple Rnd modules for layered, phase-shifted clocks and polyrhythms.

- **Randomization Layer:**

Send the random gates to percussion accents, fills, or ratchets—combining steady beats with sudden bursts of chaos that are always time-synced.

Modulating Percussion: Unique, Punchy Sounds

3. Generate Unique Modulations with Smooth & Quant Outputs

- **Smooth Output:**

- Sends a constantly morphing random CV (0V-10V).
- Use **Smooth Attenuator** to fit modulation depth.
- Patch to VCA, VCF, or percussion voice FM input for dynamic, wildly animated timbres or envelope shapes.

- **Quant Output:**

- Each clock pulse emits a stepped random voltage for sample-and-hold effects.
- Clock this at an odd division for shifting, jerky dynamics in percussive voices (panning, pitch, filter cutoff).
- **Example:**
 - Smooth CV to the decay time of a drum envelope—get lively, swerving tails.
 - Quant CV to oscillator pitch or drum sample selector for generative, unpredictable patterns.

Advanced Patching Ideas for Hyper-Complex Percussion

Goal	Patch Suggestion
Unusual time signatures	Run the Rnd's Gate Output to a clocked logic module or rhythmic addressable switch
Densely layered rhythms	Chain multiple Rnd modules, each with different clock sources and modulate each other's Rate Knob
Chaotic event accenting	Use the random gate output to punch in effects (reverb bursts, distortion) on percussion hits
Meta-polyrhythm creation	Use Slew (Smooth Out) as a clock modulator, warping the perceived tempo of other rhythmic modules

Sound Design Tips

- **Punch and Snap:**
Patch the stepped (Quant) output to both pitch and VCA

envelopes for percussive voices.

Apply sharp, high-pass filtered Smooth CV for snappy transient modulations.

- **Organic Variation:**

Use attenuators to finely scale randomness—keep patterns musical, not purely chaotic.

- **Flavor Multiple Voices:**

Mult or sequential switch Rnd's outputs to apply its unique movement across your drum architecture.

The 2hp Rnd is not a voice or effect by itself, but as a control/modulation generator can transform even basic drum modules into wildly animated, complex, and rhythmically rich percussive sources.

Generated With [Eurorack Processor](#)