2hp — Grain

Creative Uses for the 2hp Grain in a Eurorack System

The **2hp Grain** is a compact yet powerful granular audio processor with CV control over every parameter. Here are some creative patch ideas and module pairings to explore its full potential:

1. Granular Drum Layering

- **Patch Idea:** Run drum loops or percussive hits (from a sampler like **Mutable Instruments Plaits**, or a sample player like **Tiptop One**) into the Grain's **IN**. Use the **Density** and **Freq** controls to create stuttering, chopped, or time-stretched versions of your drums.
- **Enhancement:** Modulate the **Density CV** with a randomized stepped LFO (like from **Make Noise Wogglebug**), or pattern sequencer (**Malekko Varigate 4+**), for evolving drum scatter.
- **Result:** Glitchy, granular percussion layers over steady, dry drums.

2. Textural Processing with Field Recordings or Vocals

- **Patch Idea:** Feed audio from a mic preamp (e.g., **Intellijel Audio Interface II**) or a field recorder (**Music Thing Radio Music**), into the Grain. Set the **Mix** knob mid-way to blend natural ambience with granular "clouds".
- **Enhancement:** Modulate **Mix CV** with an envelope follower (**Doepfer A-119**) to accentuate granular effect on sound peaks (e.g., birdsong crescendos or vocal shouts).
- **Result:** Organic textures with shimmering, animated atmospheres that respond to sound intensity.

3. Pitch-Sequenced Melodies and Grains

- **Patch Idea:** Use a CV sequencer (**Make Noise 0-CTRL** or **Intellijel Metropolis**) to control the **V/Oct** input. Adjust the **Freq** knob for additional pitch shifting.
- **Enhancement:** Modulate **Density** with a slow LFO to shift grain generation from rhythmic to random.
- **Result:** Granular melodic sequences, evolving between pitch-accurate and lush, spectral mess.

4. Self-Oscillating Granular Synthesis

- **Patch Idea:** Patch the **OUT** of Grain back into the **IN** via a VCA or mixer (**Intellijel Quad VCA**), and gently raise the feedback. Modulate **Density** and **Freq** with random voltages (**Mutable Instruments Marbles**).
- **Result:** Self-generating, evolving soundscapes full of morphing grains and unpredictable behavior.

5. Granular Reverb/Echo Designs

- **Patch Idea:** After the Grain, route audio to a reverb or delay (**Mutable Instruments Clouds, Make Noise Mimeophon**).

- **Enhancement:** Use Grain as a "pre-granularizer" for your ambience processor: subtle settings yield lush, smeared echoes; high Density makes resynthesized vaporwave tails.
- **Result:** Immersive, sparkling, or destroyed ambience.

6. Granular Freezer / Live Resampling

- **Patch Idea:** Use a gate or trigger sequencer (e.g., **Pamela's New Workout**) to modulate the **Density CV**—periodically freezing and scattering live input.
- **Enhancement:** Patch Grain between an instrument and a looper for sampled, evolving textures.
- **Result:** Live, hands-free, time-warped "freezes" and animated textures from any incoming audio.

7. CV Interplay / Complex Animation

- **Patch Idea:** Stack multiple modulation sources into the **Density**, **Mix**, and **Freq** CVs: try envelopes, random, LFOs, and sequencers.
- **Modules: ALMPamela's New Workout**, **Mutable Instruments Stages**, **Make Noise Maths**.
- **Result:** Highly animated granular effects changing over time, ideal for generative sets or evolving sound installations.

General Module-Type Suggestions:

- **Envelope Generators** (for dynamic control of Mix/Density, e.g., **Intellijel Quadra**)
- **Random/S&H** (for unpredictable, organic variation, e.g., **WMD/ SSF Ultra-Random Analog**)
- **Sequencers** (for pitch sequencing and rhythmic tricks, e.g., **Arturia Keystep**)
- **LFOs** (for cyclical grain speed and blend changes, e.g., **Xaoc Batumi**)
- **Effect Processors** (delays/reverbs for lush tails)

- **Filters** (pre or post Grain for sculpting, e.g., **Mutable Ripples**)
- **Mixers/VCA** (for feedback and live blending)

Explore, experiment, and embrace chaos—grain the world!