

2hp – Swarm

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Creative Patch Ideas for the 2hp Swarm Hyper Oscillator

The **2hp Swarm** is a powerful and compact "hyper-oscillator" that excels at creating lush, dense textures—think classic supersaw stacks, swamy pads, chaotic noise, or ultra-thick unison leads. Its CV-controllable voices and detune parameters, plus a waveform toggle (saw/pulse), make it a flexible foundation for any Eurorack patch. Here's how you can take Swarm into creative sonic territory by pairing with other modules:

1. Classic Supersaw Pads & Chords

Modules Needed:

- Swarm
- Polyphonic MIDI-to-CV (e.g. Expert Sleepers FH-2, Mutable Instruments Yarns)
- Quad Envelope/AD (Intellijel Quadrax, Mutable Instruments Quadra)
- VCA (2hp VCA, Intellijel uVCA)
- Stereo Reverb & Chorus (Strymon Magneto, Happy Nerding FX Aid)

Patch:

- Sequence Swarm's **Freq CV** with your MIDI-to-CV for poly-style pitch control.
- Use Swarm's **Voices** and **Detune** to max for ultimate thickness.
- Envelope your sound with quad ADs into VCAs for dynamics.
- Patch

audio output into lush stereo effects for epic, wide trance leads or evolving pads.

2. Organic, Animated Drones and Textures

Modules Needed:

- Swarm
- LFOs/modulation sources (Make Noise Maths, ALM Pamela's PRO Workout, Mutable Instruments Tides/Marbles)
- Filters (Mutable Instruments Ripples, 2hp MMF)
- Random/chaos generator (Wogglebug, Ornament & Crime "Hemispheres" applets)

Patch:

- Modulate **Voices** and **Detune** with slow or random CVs for constantly evolving timbres.
 - Switch between saw/pulse for harmonic changes.
 - Shape the output with a state-variable filter, modulating cutoff/resonance for morphing tones.
 - For extra depth, modulate filter parameters with another random source.
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3. Experimental Noise and Percussive Textures

Modules Needed:

- Swarm
- Envelope Follower (Doepfer A-119, Mutable Instruments Ears)
- Distortion/Wavefolder (SSF Triptych, Befaco Wavefolder)
- Manual Switch/Trigger (Make Noise Pressure Points, 2hp Trim)

Patch:

- Use an envelope follower to drive Swarm's **Detune** for rhythm-reactive chaos.
 - Use Swarm in **Pulse** mode for clicky, digital artifacts.
 - Patch output through wavefolder/distortion for gnarly timbres.
 - Use manual triggers to jump between different numbers of voices/detune levels during live performance.
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4. Thick, Wobbly Basslines

Modules Needed:

- Swarm
- Analog VCA (Intellijel uVCA, Doepfer A-132)
- ADSR Envelope (2hp EG, Intellijel Dual ADSR)
- Saturation or Analog Drive (Erica Synths Fusion, Mutable Warps)

Patch:

- Swarm in pulse mode, low on **Voices**, just enough for weight. - Envelope gate the bassline with a snappy ADSR and VCA. - Post-VCA, add saturation for subharmonic richness. - Modulate **Detune** slightly with a slow, synced LFO for an "analog drift" effect.
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5. Generative, Self-Evolving Patches

Modules Needed:

- Swarm
- Sequencer (Winter Modular Eloquencer, Make Noise Rene, or even something generative like Marbles)
- Quantizer (Intellijel uScale, Ornament & Crime)
- Physical modeling processor (Mutable Instruments Rings, Clouds)

Patch:

- Steer Swarm's pitch and detune with generative sequences & quantized random voltages. - Send Swarm's audio into Rings or Clouds for novel spectral processing. - Modulate **Waveform Toggle** and **Voices** for timbral movement.
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6. Dynamic Leads with Performance Control

Modules Needed:

- Swarm
- Performance controller (Sensel Morph, Intellijel Tetrapad)
- Expressive Modulation (manual joystick, Planar2, or touch strip)

Patch:

- Map touch position to **Detune** and **Voices**, allowing expressive swells, shimmer, and shifts live. - Map vertical axis to **Waveform Toggle** via CV for morphing between saw/pulse.

Favorite Generic Pairings

- **Wavefolders/Ring Modulators:** For further timbral expansion (Tiptop Fold, Doepfer A-114).
 - **Clocked Delays & Granular FX:** Adds evolving rhythm and texture (4ms Dual Looping Delay, Clouds).
 - **Spectral Processors:** Insert after Swarm for chordal shimmer or tone carving (WMD Overseer, Mutable Instruments Blades).
 - **VCAs for Modulation:** Not just audio! Animate Swarm's CV inputs for movement.
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Highly Compatible Module Types

- **State-variable, multi-mode filters** (2hp MMF, Mutable Ripples, Doepfer A-106-6)
 - **Analog distortion/drive** modules
 - **Stereo reverb & chorus FX**
 - **Random/S&H sources** for modulating parameters
 - **Performance-oriented controllers** for expressive play
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Explore! Experimentation is key. Swarm's superpower is the stacking and micro-motion of voices—so hyper-modulate, saturate and spatialize its output for wild results.
