Doepfer — A-121-3

[Doepfer A-121-3 12dB Multimode Filter Manual (HTML source)](#)

Creative Patch Ideas for Doepfer A-121-3 12dB Multimode Filter

The **A-121-3** is a compact, voltage-controlled 12dB/octave multimode filter offering simultaneous Lowpass (LP), Highpass (HP), Bandpass (BP), and Notch (N) outputs. With flexible CV options and resonance up to self-oscillation, it's an extremely versatile tool in a Eurorack system. Here are creative ways you might use it:

1. Classic Subtractive Synthesis

- **Patch:** Oscillator (VCO) → A-121-3 Audio In, use LP output to VCA, then to output.
- **Tip:** Modulate the cut-off with an LFO or Envelope Generator (e.g. Doepfer A-140, Maths) via CV1 or CV2 for movement and dynamics.
- **Enhancement:** Modulate resonance (CQ) with another LFO for evolving harmonics.

2. Parallel Multimode Filtering

- **Patch:** Use all four outputs (LP, HP, BP, N) simultaneously.
- **Mix:** Send the outputs into a mixer such as Mutable Instruments Veils or Doepfer A-138.

- **Result:** Morph between filter types in real time, or process parallel bands differently (e.g. stereo spread, effects processing).

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3. Filter as a Sine Oscillator/Modulator

- Self-oscillate the filter (resonance full CW, no audio input) and patch the outputs to:
- **Audio Path:** Use as a precise sine oscillator for FX or FM (e.g. to modulate another filter or VCO).
- **CV Path:** Use the oscillating signal as an LFO by controlling frequency at lower ranges.

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4. Distortion Tricks

- Increase the input level (Level knob past 5) to push the filter into soft clipping/distortion.
- **Patch:** Try simple waveforms (triangle, sine) and then complex/ dense sounds (chords, noise).
- **Enhancement:** Follow with a wavefolder (e.g. Befaco Chopping Kinky) or wave multiplier for aggressive timbres.

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5. Dynamic Filter Modulation (Wobble/Basslines)

- **Setup:** Use CV2 with attenuator (FCV2) and patch in a complex CV source, such as:
- Envelopes with wiggly end-of-cycle feature (e.g. Intellijel Quadrax).
- Stepped random (e.g. Wogglebug, Turing Machine).
- **Result:** Create 'wobble' filtered basslines or morphing sound textures.

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6. Evolving Resonance

- **Idea:** Modulate CQ input with a slow LFO or random source (e.g. Make Noise Wogglebug).

- **Result:** Evolving, organic filter peaks—great for drones, pads, or generative compositions.

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7. Dual Filter Crossfading and Animation

- Use two A-121-3s or another filter (e.g. Doepfer A-121-2 or Ripples), patch outputs to a crossfader (X-PAN, Happy Nerding PanMix).
- **Result:** Animate transitions between different filter shapes in real time.

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8. Notch Filtering Rhythmically

- **Performance:** Patch the Notch output to an effect like delay or reverb. Modulate the cutoff rhythmically with a gate sequencer (e.g. Pamela's New Workout, Varigate).
- **Result:** Sweeping notches with rhythmic motion, creating movement in pads or loops.

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9. Filter Feedback Patching

- Patch the filter output (e.g. LP or BP) back into the filter input through an attenuator/VCA.
- **Result:** Self-modulating, unpredictable results—great for experimental and noise music.

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10. Multimode Percussion Synthesis

- Use self-oscillation with fast VCAs/envelope generators to ping the filter. Vary the outputs for different percussion archetypes (kick -> LP, snare -> BP/N, hats -> HP/Noise).
- **Enhancement:** Modulate cutoff and resonance per hit for dynamic percussion sounds.

Module Pairing Ideas

- **Complex LFOs:** Mutable Instruments Tides, Make Noise Maths
- **Stepped/Sample&Hold:** Doepfer A-148, Wogglebug
- **Mixers/VCAs:** Mutable Instruments Veils, Doepfer A-138, Intellijel Quad VCA
- **Random/Chaos CV:** Turing Machine, Marbles
- **Envelopes:** Intellijel Quadrax, Doepfer A-140
- **Crossfaders:** Happy Nerding PanMix, Xaoc Devices Samara II

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