Doefper — A-148

- [Manual PDF](#)

Creative Uses for the Doepfer A-148 Dual Sample & Hold

The Doepfer A-148 Dual S&H is a versatile module with two independent S&H (or optional T&H) circuits. It can create "staircase" voltages from any input CV or audio source, with triggers defining when new values are sampled. Below are creative ways to use the A-148 in your modular system, combining it with other modules for powerful or unexpected results.

1. Classic Random Voltage Generator for Melodies/Modulation

- **Modules Needed:** Noise Source (e.g., Doepfer A-118, Mutable Instruments Kinks), LFO (Doepfer A-145, Make Noise Maths, etc.), VCO
- **Patch Idea:** Patch white or random noise into the Smp In. Use an LFO to trigger the Trig In. Send the S&H output to a VCO's 1V/oct input. This will create random pitched notes, perfect for generative sequences or evolving patterns.
- **Variation:** Route the S&H output to a filter's cutoff or to a wavetable position for ever-changing timbre.

2. Pseudo-Analog Drum Machine - Randomized Percussion

- **Modules Needed:** Noise/Random Source, Sequencer (e.g., Intellijel Metropolis, Make Noise Rene), Drum Modules
- **Patch Idea:** Use a rhythmic trigger sequence to clock the S&H. Feed random noise to Smp In. Patch out to drum CV inputs (e.g., pitch, decay, tone). Every drum hit will have a unique character but remain in sync with your sequence.

3. Smooth Glissandi/Stepped Portamento

- **Modules Needed:** Keyboard or Sequencer, Slew Limiter (Doepfer A-170, Mutable Instruments Stages), VCO
- **Patch Idea:** Keyboard/SQ out → Slew Limiter → S&H Smp In; LFO clocks S&H. S&H output to VCO 1V/oct.
  This produces a staircase voltage, causing the pitch to step between "smoothed" values—useful for quantized glissandi and stepped arpeggios.

4. Rhythmic Filter Modulation

- **Modules Needed:** Random/Noise Source, Envelope Generator, VCF
- **Patch Idea:** Random voltage → Smp In; Envelope gate triggers S&H. S&H output to filter cutoff.
  Each new note samples a new random filter cutoff, great for acid, techno, and IDM sounds.

5. Dual S&H for Stereo or Parallel Processing

- **Modules Needed:** Two audio or CV sources, Two LFOs/Triggers, Dual filters, Dual VCOs, Effect modules

- **Patch Idea:** Use both A-148 channels for stereo effects or two parameter paths. E.g.:
    - Left Smp In: random noise; Right Smp In: stepped LFO.
    - Left and right S&H Out control two separate VCFs in a stereo patch for wide, evolving textures.

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6. T&H Mode for Unique Modulation

- **Modules Needed:** Fast/slow clock sources, CV sources
- **Patch Idea:** Set one channel to T&H mode via jumper.
  The S&H output "tracks" the input while the trigger is high, then holds on low. Use clock divisions or gates to rhythmically open and close this tracking, generating syncopated or complex modulation shapes.

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7. Controlled Chaos: Restrict Random Voltages

- **Modules Needed:** VCA/Attenuator, Offset generator (e.g., Doepfer A-183-2), Noise/Random source
- **Patch Idea:** Place a VCA or attenuator before Smp In to restrict the voltage range. Use an offset module to shift the center point. Perfect for keeping random modulations within musical ranges— a trick for tuning random LFOs to a certain note or parameter range.

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8. Sample & Hold Audio for Downsampling and Bitcrush

- **Modules Needed:** Audio source, High-frequency clock or oscillator
- **Patch Idea:** Patch audio to Smp In. Feed a high-frequency pulse (audio-rate or just below) into Trig In. S&H Out gives a

"downsampled," gritty version of your audio—useful for lo-fi percussion, glassy clicks, or digital artefacts.

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9. Randomizing Effects Parameters

- **Modules Needed:** Random/Noise Source, Trigger source, Delay/Reverb/FX module with CV
- **Patch Idea:** Random voltage into Smp In, rhythmic trigger to Trig In, S&H out to effects parameter CV. Achieve unpredictable, organic modulation of reverb size, delay time, etc.

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10. Stepped Sequencer from Smooth LFOs

- **Modules Needed:** Free-running LFO, Clock divider, VCO or other mod destinations
- **Patch Idea:** LFO into Smp In, sequencer clock/divider to Trig In. The S&H output is a stepped approximation of the LFO, useful for rhythmic pitch, filter, or effect automation.

More Creative Patching Ideas - **Cross-Patching:** Feed one S&H's output to the other's trigger or input for chaotic, self-modulating patches. - **Modulo/Logic combinations:** Combine S&H with logic modules (AND, OR, XOR) to create complex gates from simple ones. - **Euclidean/Probability Sequencing:** Sync S&H triggers with Euclidean or probability-based gate sources to create evolving non-repetitive melodies and modulations.

Reference: - Doepfer A-148 Official Manual (PDF)

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