

Qu-Bit — Synapse

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Creative Eurorack Patch Ideas Using Qu-Bit Synapse

Qu-Bit Synapse is a powerful crossfading sequential switch and dynamic routing module with internal modulation and memory. The following creative patch ideas combine Synapse with other modules for dynamic, generative, and performative Eurorack results.

1. Animated Four-Voice Mixer/Crossfader

Combo:

- Synapse
- 4 Oscillators (e.g., Mutable Instruments Plaits, Make Noise STO)
- Modulation (Function generator/Envelope, e.g., Make Noise Maths or Intellijel Quadrax)

Patch Idea:

- Patch four different oscillator voices into Synapse's A inputs, then connect an envelope or LFO (from Maths/Quadrax) to Synapse's CV ins for crossfading.
- Use the Terminal encoder and memory recall to quickly switch between preset mix/fade scenes for live set transitions or morphing textures.

Why This Works:

- Synapse allows morphing between complex multi-oscillator blends and recalling them as scenes, making it a powerful performance mixer.
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2. Morphing Modulation Source and Stored DC Voltages

Combo:

- Synapse
- Function Generators (e.g., Make Noise Maths, ALM Pamela's New Workout) - Sequential/Voltage-Controlled Switch (e.g., Doepfer A-151)

Patch Idea:

- Enable +5V DC offset on Synapse B inputs, turning Synapse into a programmable/stage-able multichannel modulation bank. - Use stored scenes to step through preset voltage levels for modulation targets (filters, oscillators, VCAs). - Use the sum output as a custom, programmable modulation source for other modules.

Why This Works:

- This approach gives you a morphable, storable, and recallable set of LFOs, envelopes, or stepped voltages for sequenced or generative music.
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3. Dynamic Effects Routing & Spatialization

Combo:

- Synapse
- FX Modules (e.g., Magneto, Strymon Starlab, Mutable Instruments Clouds) - VCAs and Panning (e.g., Intellijel Planar)

Patch Idea:

- Route audio from Synapse through various effects chains by assigning Synapse outputs to different effect modules, then sum or pan. - Use the Scatter/Advance features to create random or rotating effect chains for unpredictable, evolving textures. - Sequence memory locations live to create song arrangements or live "remix" effects.

Why This Works:

- Synapse's switching and spatialization capabilities let you build evolving soundscapes with shifting effects paths, panning, and mix scenes.
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4. Generative Patch Matrix

Combo:

- Synapse
- Random/Chaos Modules (e.g., Make Noise Wogglebug, Mutable Instruments Marbles) - Sequencers or Manual Controls (e.g., Turing Machine, Pressure Points)

Patch Idea:

- Send random gates from Marbles or Wogglebug to Synapse's Advance/Scatter inputs, shuffling routing of CV or audio for generative composition.
- Use stored scenes (memory locations) to constrain generative states to "musical" or performable settings, ensuring controlled chaos.

Why This Works:

- This enables controlled generative routing, suitable for live performance, ambience, or evolving generative pieces.
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5. Voltage-Controlled Crossfade Waveshaper

Combo:

- Synapse
- Wavetable/Complex Oscillators (e.g., Mutable Instruments Braids, Make Noise DPO) - Filters/VCA's

Patch Idea:

- Crossfade between a complex oscillator's different outputs (sine, triangle, saw, wavefolded) using Synapse's per-channel crossfade and internal LFOs. - Sequence or modulate Synapse for timbral morphing from smooth to harsh textures on the fly.

Why This Works:

- You get a hands-on, voltage-controlled waveshaper and complex timbre-morphing without patching and repatching.
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6. Pseudo-Sequencer or Custom Step Sequencing

Combo:

- Synapse
- Euclidean/Rhythm Generators (e.g., Euclidean Circles, Pam's New Workout) - Quantizers/Sample & Hold (e.g., TipTop Quantizer, Doepfer A-148)

Patch Idea:

- Use Synapse as a 4-step sequencer by enabling DC offsets or storing voltage levels per crossfade bank. Advance steps with rhythm triggers. - Route outputs to pitch quantizer for pseudo-sequenced melodies. Combine this with A/B crossfades to add melodic or modulation variety.

Why This Works:

- It offers clocked, storable CV or pitch patterns, giving unique sequences not found in traditional sequencers.
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7. Customizable Performance Macro Controller

Combo:

- Synapse
- Macro Controllers (Expert Sleepers Super Disting EX, Mutable Instruments Frames) - Output to multiple system destinations (filter, effect send levels, VCA control)

Patch Idea:

- Use Synapse memory banks and sum outputs as a macro controls for quick, sweeping system changes—like preset morphing or sudden scene

changes. - Assign output sums to multiple system targets for dramatic, coordinated changes.

General Module Type Recommendations

- **Oscillators:** For crossfading and waveshaping.
 - **Sequencers/Random Sources:** For dynamic routing and memory bank modulation.
 - **VCA/Panners:** For spatial audio uses.
 - **Effect Modules:** For diverse routing and morphing effects.
 - **Modulation Sources:** To animate crossfade, switch positions, or inertia.
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