Cute Lab — Mom Jeans

- Manual PDF

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Creative Sound Design with Mom Jeans Oscillator

Based on the manual you provided, here's a sound design analysis and recommendations for using the Mom Jeans oscillator to craft **distorted percussion**, **aggressive basslines**, and **atmospheric pads**. I'll include modulation tips, CV patching strategies, and parameter combinations tailored for each sound type.

General Modulation Concepts

Mom Jeans offers **CV modulation** over nearly every key parameter: Shape, Density, Cadence, Torque, FM Index, Pitch (V/Oct and Linear FM), plus toggles for Coupling and Quantization. This gives you a wide palette for animation and morphing:

- **Shape** — Crossfades between seven waveforms (from soft to stepped saw).
- **Density** — Grain/pulsaret width, affects brightness, noisiness, and texture.
- **Cadence / Torque** — Set internal rate and depth of density modulation; can track pitch for harmonic effects.
- **FM** — Traditional and linear FM and hard sync for added harmonic complexity or aliasing.

- **Pulsar vs. Square Outputs** — Mix or use separately for cleaner or more complex timbres.

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1. Distorted Percussive Sounds

For punchy, gritty, or metallic percussion like snares, metallic blips, and "machine" hits:

Patch Example

- **Trigger/Envelope → Linear FM or Density CV In:** Use a sharp envelope or trigger as a CV or audio signal.
- **Shape:** Mid to high (rectangle, saw, or stepped saw for more harmonics).
- **Density:** Set low or high (extremes for clickiness or metallic texture).
- **Cadence:** Moderate to fast; try high values for rapid modulation.
- **Torque:** High, to create extreme grain modulation (for noisier or unstable attacks).
- **Coupling:** OFF (for chaos) or ON (for tuned metallic effects).
- **Quantization:** OFF for randomness, ON for stepped, robotic percussion.
- **Sync:** Hard sync with another VCO/LFO for metallic or ringing effects.
- **Output:** Use the Pulsar out for grit, mix in Square out for a more structured attack.

Extra Tips

- Automated or random modulation of **Density** and **Shape** via fast LFO, gate, or sample-and-hold can simulate analog drum machine randomness.
- Try audio-rate density modulation (another VCO patched to Density CV) for extreme aliasing and industrial overtones.

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2. Dubstep / DnB Basslines

For heavy, morphing, tearing bass that's alive with movement and harmonics:

Patch Example

- **V/Oct:** Sequence with a pitch CV from your MIDI-to-CV/gate.
- **Shape:** Sweep across the center point for complex harmonic movement; automate with envelope or LFO for "wub" sounds.
- **Density:** Modulate with envelope or LFO synced to the bass pattern—extremes for gnarly, broken digital bass, middle values for harmonically rich "formant" bass.
- **Cadence:** Tie to pitch (Coupling ON) for consistent sub presence.
- **Torque:** High, to exaggerate modulation.
- **FM:** Use moderate linear FM from another oscillator (possibly envelope FM for "growls"), modulate FM Index to sweep between harmonics.
- **Quantization:** Try ON for stepped vowel/formant sounds; OFF for smoother morphs.
- **Output:** Rout Pulsar output through a VCA and filter for extreme sounds, Square out to layer solid sub.

Extra Tips

- Automate **Density** and **Shape** simultaneously for formant basslines (classic dubstep technique).
- Routing sequencer gates to the **Sync** input can produce gnarly resets and tight rhythmic effects.

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3. Haunting Atmospheric Pads

For eerie, shimmery, textural beds (think sci-fi or horror ambiences):

Patch Example

- **Pitch:** Low to mid, slow LFO slight modulation for sluggish drift.
- **Shape:** Slowly sweep with LFO or random CV for evolving tonality.
- **Density:** Keep low to mid (gentle formants and breathy texture). Animate with slow random mod or slow S/H.
- **Cadence:** Slow, or coupled to pitch for shimmer.
- **Torque:** Moderate, just enough to keep movement without becoming rhythmically obvious.
- **Coupling/Quantization:** OFF for unpredictable, ghostly movement; ON for subtle, familiar organ-like timbres.
- **FM:** Try very shallow, slow audio-rate FM for detune/phasing.
- **Output:** Use only Pulsar out, or combine with subtle Square for slower, rounder undertones.

Extra Tips

- Send multiple, unsynced slow LFOs or random voltages to different CV ins for organic drift.
- Try self-patching the Pulsar output (attenuated) back to Torque or Density CV input for chaotic, feedback-like modulation.

Parameter Modulation Summary Table

Sound Type	Key Params	Modulation Suggestions
Percussion	Density, Shape, Cadence, Torque, FM, Sync	Fast envelope/trig modulate Density & Shape, hard sync, high Torque
Basslines	Shape, Density, FM, Cadence (Coupled), Quant	Automated formant sweeps, FM growls, Quant for stepped movement
Pads		

Sound Type	Key Params	Modulation Suggestions
	Shape, Density, Cadence, Torque (all slow)	Slow/random LFOs and S/H, light FM, uncoupled modes for drift

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Final Tips

- **Extreme settings** are encouraged: push Density/Cadence/Torque to their limits and modulate deeply for digital artifacts.
- Abuse the **Coupling** and **Quantization** toggles to flip between organic flow and stepped robotic sound.
- **Pulsar Output** excels at bright, harmonically rich tones; **Square Output** for foundation/subs.
