

# Mutable Instruments – Marbles

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## Creative Modulation with Mutable Instruments Marbles

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Mutable Instruments Marbles is an incredibly versatile random sampler and CV/gate generator module, perfect for infusing eurorack patches with unpredictability, organic rhythms, and evolving melodies. Based on the manual, here's how you can use its features to create unique and compelling **distorted percussion, dubstep/drum & bass basslines**, and **atmospheric pad sounds**.

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### 1. Distorted Percussive Sounds

#### Clock & Gate Tricks

- **Master Clock Jitter**

Use the *JITTER* parameter (via knob or CV) to add erratic timing to the internal clock. Send Marbles' gate outputs to trigger distortion/wavefolder modules, resulting in rhythmically unstable, glitchy percussion bursts.

- **Random Gate Division & Duration**

Use the *random rhythm generator* and set the gate duration to short triggers. With the generative models (especially coin-toss/random division), layer percussive hits on different analog drums, then re-process with distortion/fuzz.

## **DEJA VU (Looping and Shuffling)**

- Crank up *DEJA VU* to lock Marbles into semi-repetitive loops, then randomize the order. This gives you **mechanically-crushed and evolving breakbeat patterns**. Run these patterns through distortion and you get irregular, harsh percussive textures.

## **External CV Processing**

- Feed harsh noise or aggressive envelopes into Marbles' CV processing input (X section). Quantize or smooth them (extreme STEPS knob positions) and send those CVs to oscillators with aggressive waveforms for **distorted metallic percussion**.
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## **2. Crazy Basslines (Dubstep/Drum & Bass)**

### **Random Voltage Basslines**

- Use one or more X outputs set to 0V to +2V or -5V to +5V range, feeding your bass VCO 1V/oct input. Use *SPREAD* to alternate between smooth glides and stepped random voltages:
- Clock X from fast divisions for rapid bass changes.
- Clock X from slow divisions for glitchy, erratic bass pitch.

### **BIAS & SPREAD**

- Set *BIAS* toward the top or bottom of the voltage range for focused, “wubby” bassline zones.
- Use *SPREAD* to morph from narrow, bell-shaped, “bouncy” bass sequences to wide, randomized jumps—excellent for the unpredictability in neurofunk or jump-up DnB.

### **Quantizer Programming**

- Use Marbles’ “scale learning” to program in custom dubstep or DnB scales (even all roots/fifths or tritones for atonality), and add wild probability to out-of-scale notes. Glide between scales or quantization strengths with STEPS.

## Live Glitch Bass

- Record external complex LFOs or wavetables into Marbles' DEJA VU loop, then shuffle and manipulate them. Send X output to wavefolder or filter with high resonance/drive for rootsy, modwheel-crazy basslines.
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## 3. Haunting, Evolving Atmospheric Pads

### Smooth CV Generation

- Turn STEPS fully counterclockwise for slew; now X outputs generate smooth, evolving random voltages.
- Send these to multiple VCOs or filter cutoffs for **ever-morphing pads**.

### Long Looping & Probability

- Set DEJA VU for long loop lengths (8–16 steps) to create slowly evolving, pseudo-melodic CV patterns.
- Modulate the amount of *looping* vs *new random* with CV (or manually) to shift between hypnotic repetition and unexpected change.

### Distribution Morphing

- Move the SPREAD and BIAS controls slowly with CV/LFO. Pads will soften or intensify, cluster or disperse, depending on these settings.

### Pair with FX

- Use Marbles' oddly-shaped, quantized CVs to modulate reverb mix, feedback, or shimmer controls. This brings organic, spectral movement to storied atmospheres.
- Randomize gate lengths to trigger ambient envelopes, modulate pads' amplitude for ghostly, flickering drones.

## External CV Post-Processing

- Feed in recorded melodic material, let Marbles apply lag/quantization/randomization to create crystalline, haunted echoes or new evolving harmonies.
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## General Tips

- **Patch all 3 X outputs** to different voices or timbre parameters (oscillator pitch, filter cutoff, FX) and set the output “diversity” per channel for shifting interrelations.
  - **Push Marbles with extreme rates** and experiment with external clocking and modulation inputs from other modules (LFOs, Euclidean generators, audio-rate clocks for chaos).
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For further inspiration, download the official [Marbles Manual PDF](#).

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