

Loom Groovebox User Manual

Welcome to Loom Groovebox, a powerful mobile synthesizer and sequencer designed for tactile performance and deep sound design.

2. Interface Overview

Play Screen

The hub for live performance. Toggle between Melodic and Drum Kit layouts depending on your track type.

```
! [Melodic Play Screen]
(/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-7a34-4754-a4da-
b660dbf82e09/Play Screen (Melodic).png)
<!-- slide -->
! [Drum Kit Play Screen]
(/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-7a34-4754-a4da-
b660dbf82e09/Play Screen (Drum Kit).png)
```

- **Arpeggiator Menu:** Long-press the **ARP** button to open the advanced Arpeggiator configuration.
 - **Rhythms:** 3 independent lanes (Root, Poly 1, Poly 2) for complex rhythmic patterns.
 - **Octaves & Inversion:** Expand the range or flip the chord voicing.
 - **Mutation:** Randomly swap notes in your arpeggio for evolving patterns.

Sequencing Screen

Create and edit patterns with the 16-pad grid.

```
! [Single Track Sequencer]
(/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-7a34-4754-a4da-
b660dbf82e09/Sequencer Screen (Single Track).png)
<!-- slide -->
! [Drum Kit Sequencer]
(/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-7a34-4754-a4da-
b660dbf82e09/Sequencer Screen (Drum Kit).png)
```

- **Step Options:** Long-press any active step to adjust velocity, gate length, or probability.
- **Octave +/-:** Quickly shift the entire sequence pitch.

Parameters Screen (Sound Design)

Shape your sound using the dedicated controls for each engine.

```
! [Subtractive Engine]
(/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-7a34-4754-a4da-
b660dbf82e09/Param Screen (Subtractive).png)
<!-- slide -->
! [FM Engine] (/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-7a34-
4754-a4da-b660dbf82e09/Param Screen (FM).png)
<!-- slide -->
! [Wavetable Engine] (/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-
7a34-4754-a4da-b660dbf82e09/Param Screen (Wavetable).png)
<!-- slide -->
! [Sampler Engine] (/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-
7a34-4754-a4da-b660dbf82e09/Param Screen (Sampler).png)
<!-- slide -->
! [Granular Engine] (/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-
7a34-4754-a4da-b660dbf82e09/Param Screen (Granular).png)
<!-- slide -->
! [FM Drum Engine] (/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-
7a34-4754-a4da-b660dbf82e09/Param Screen (FM Drum).png)
<!-- slide -->
! [Analog Drum Engine]
(/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-7a34-4754-a4da-
b660dbf82e09/Param Screen (Analogue Drum).png)
<!-- slide -->
! [MIDI Output Engine]
(/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-7a34-4754-a4da-
b660dbf82e09/Param Screen (MIDI).png)
```

Effects & Routing

Chain your tracks through high-quality FX and manage the signal path.

```
! [Effects Pedalboard]
(/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-7a34-4754-a4da-
b660dbf82e09/Effects Screen.png)
<!-- slide -->
! [Routing Matrix] (/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-
7a34-4754-a4da-b660dbf82e09/Patch Screen.png)
```

Settings & Troubleshooting

Project management and system controls.

![Settings Screen] (/Users/danielmiller/.gemini/antigravity/brain/0dad9a40-7a34-4754-a4da-
b660dbf82e09/Settings Screen.png)

- **RESET AUDIO ENGINE (PANIC):** If the audio becomes silent, distorted, or "heavy," tap this button. It performs a "**Nuclear Reset**" by completely reconstructing the native audio engine, clearing out

any bad state or NaN (Not-a-Number) values.

- **Project Files:** Save and Load your sessions. Note: Loading a project also triggers an engine reset for stability.
-

3. Advanced Features

Arpeggiator Polyphony

The new Arpeggiator supports 3 rhythm lanes:

1. **ROOT (Bottom):** Triggers the base note of the arpeggio cycle.
2. **UP 1 / UP 2 (Middle/Top):** Cycle through the remaining held notes in a "staggered walk" pattern, allowing for complex polyphonic interplay even with monophonic engines.

Gain Staging

To provide maximum headroom and prevent clipping:

- Track volumes are default-scaled to **45%** on load.
- Global saturation and internal gain stages are optimized to allow for layering multiple heavy synth engines without digital distortion.