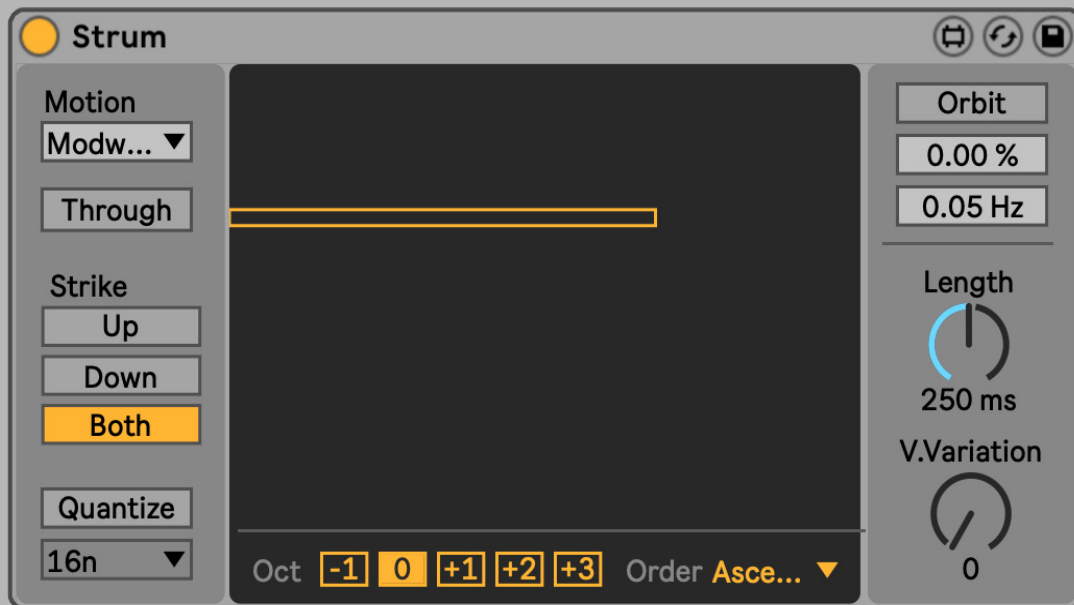


# Strum

## User Guide



# CONTENTS

<b>Overview</b>	<b>3</b>
<b>Installation</b>	<b>4</b>
<b>Usage</b>	<b>5</b>
Plucking Notes	6
Processing and Arranging Notes	7
Configuring Note Output	8
Quantization	8
Auto Mode: Using the LFO	9
Extra Movement: Orbit	10
One-shots: Rake Mode	11
<b>Glossary of Controls</b>	<b>12</b>
<b>Changelog</b>	<b>15</b>
<b>Information</b>	<b>16</b>

# OVERVIEW

*There's nothing quite like raking through a rich, wide chord on a guitar, harp or piano, and hearing each note effortlessly roll out after the next. Strum allows you to bring this motion to any virtual instrument in Live, and provides a range of controls and settings to modulate your performances.*

The screenshot displays the Ableton Live software interface, specifically the Strum and Wavetable control panels. The Strum panel is active, showing a list of notes (G6, F5, A#5, G4, F3, A#3, G3, F2, A#2) and various settings like Motion (Modw...), Strike (Both), and Quantize (16n). The Wavetable panel shows settings for Gain (-18 dB), Tone (0.0%), Octave (-1), and Transpose (0 st).

**Strum Panel:**

- Motion: Modw...
- Through
- Strike: Up, Down, Both
- Quantize: 16n
- Notes: G6, F5, A#5, G4, F3, A#3, G3, F2, A#2
- Oct: -1, 0, +1, +2, +3
- Order: Asce...

**Wavetable Panel:**

- Sub
- Gain: -18 dB
- Tone: 0.0%
- Octave: 0, -1, -2
- Transpose: 0 st

## Installation

Install Strum as you would any other Max for Live device. You can simply drop **Strum.amxd** on any track in Live from the Browser or directly from your system's file explorer.

You may prefer to place the .amxd file in the User Library manually. Find the Max Audio Effect folder in the following location:

### **Windows Vista, Windows 7, Windows 8, Windows 10**

\Users\[username]\Documents\Ableton\User Library\ Presets\MIDI Effects\Max MIDI Effect

### **Mac OS X**

Macintosh HD/Users/[username]/Music/Ableton/User Library/Presets/MIDI Effects/Max MIDI Effect

The easiest way to access this folder is to just right-click on the User Library Place in the Live Browser and click "Show in Finder/Explorer".

# USAGE

The following pages cover how to get started with Strum and its basic functionality.

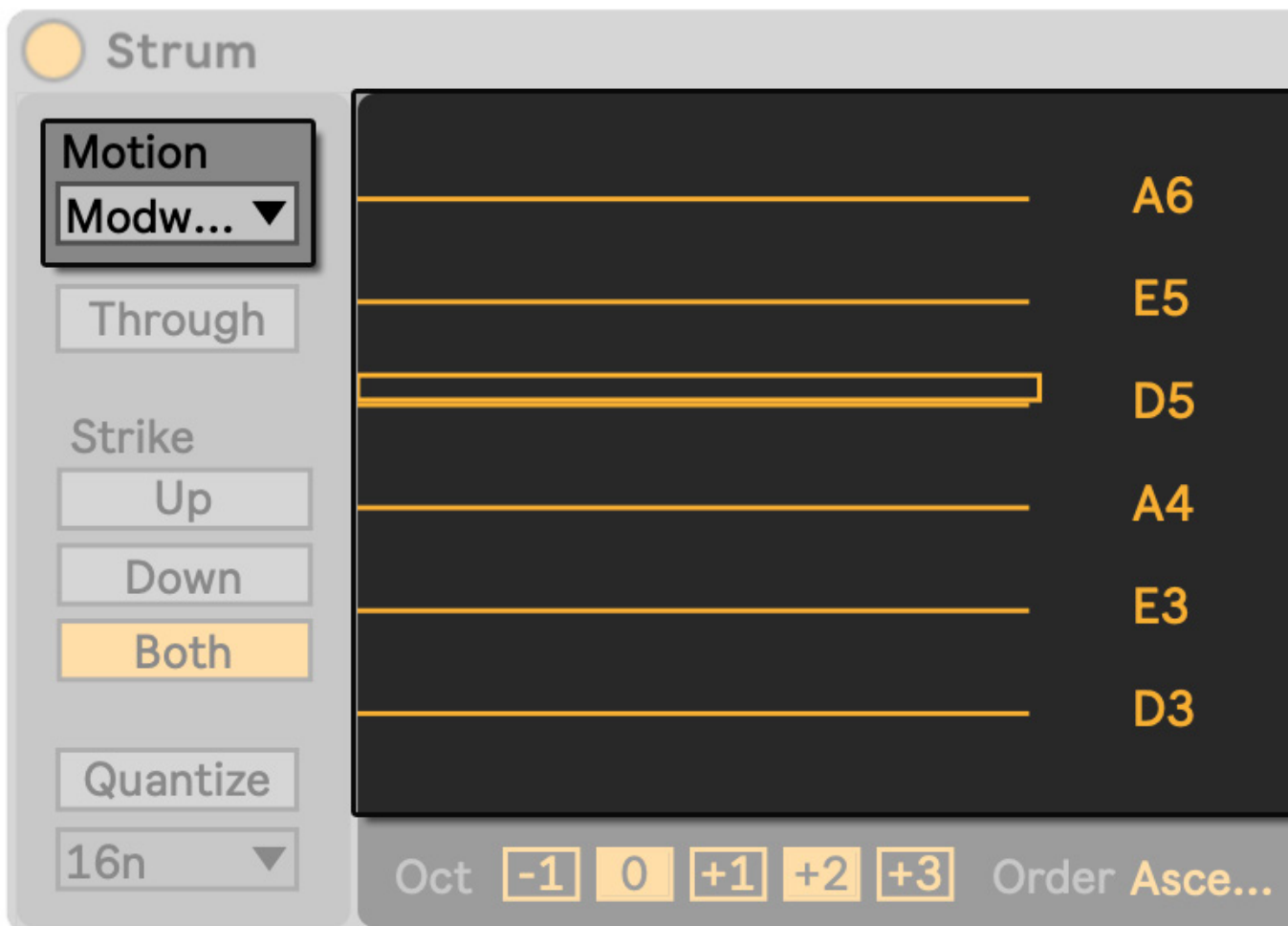
## Plucking Notes

Select notes by playing and holding them -- you'll see the notes populate the main panel of the interface. These notes won't play, however, until their associated strings are struck (like holding down a chord on a guitar).

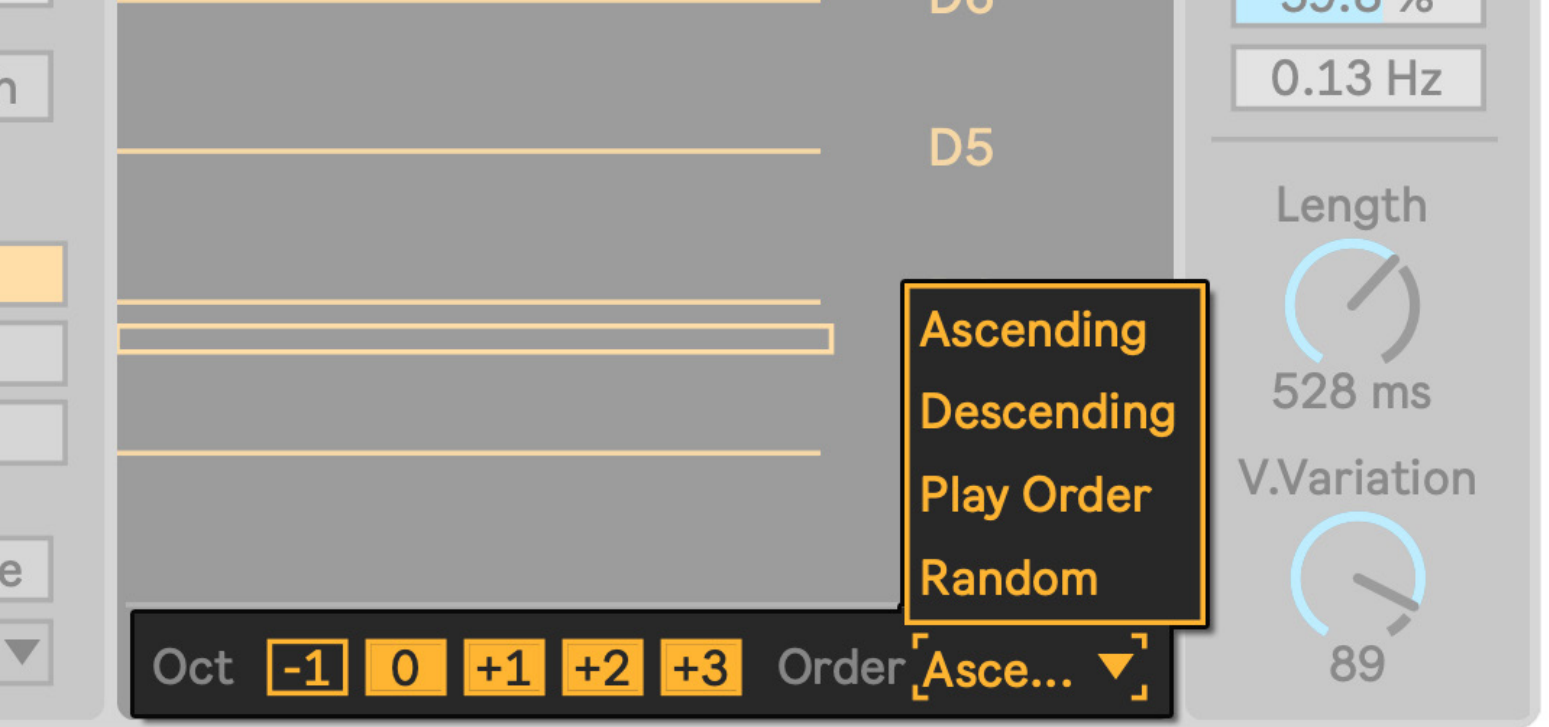
To output these notes to your instrument, they must be "plucked" by crossing one of their associated *strings* with the strumbar. The **Strike** menu let's you determine if a string is plucked when the strumbar moves past in going upward, downward, or in both directions.

The strumbar's motion can be controlled by a variety of sources, chosen in the **Motion** drop-down menu. Your controller's Modwheel or Pitchbend are great options for hands-on controller, or use the device's built-in LFO to go totally hands-off.

You can also directly move the strumbar in the interface with your mouse, or MIDI map this to any knob, fader, or MIDI CC controller you have at your disposal!



**Figure 6.1** Strum is played in two steps. Set the notes you want make available to populate the strings in the main interface. Then, using one of the sources selected in the **Motion** drop-down, move the strumbar across the strings to output the notes associated with them.



**Figure 7.1** Some of Strum’s most important controls are found at the bottom of the main interface.

## Processing and Arranging Note Input

Input notes can be duplicated and shifted by octaves to give you a more expansive range of available notes. For instance, if you toggle the [ 0 ], [ +1 ], and [ +3 ] buttons and play in an A<sub>2</sub> and C<sub>#3</sub>, the notes available to be strummed will be A<sub>2</sub>, C<sub>#3</sub>, A<sub>3</sub>, C<sub>#4</sub>, and A<sub>4</sub>, C<sub>#6</sub>.

By default, notes will be ordered from lowest on bottom to highest on top in the interface. You can reverse by selecting “Descending” from the **Note Order** drop-down menu.

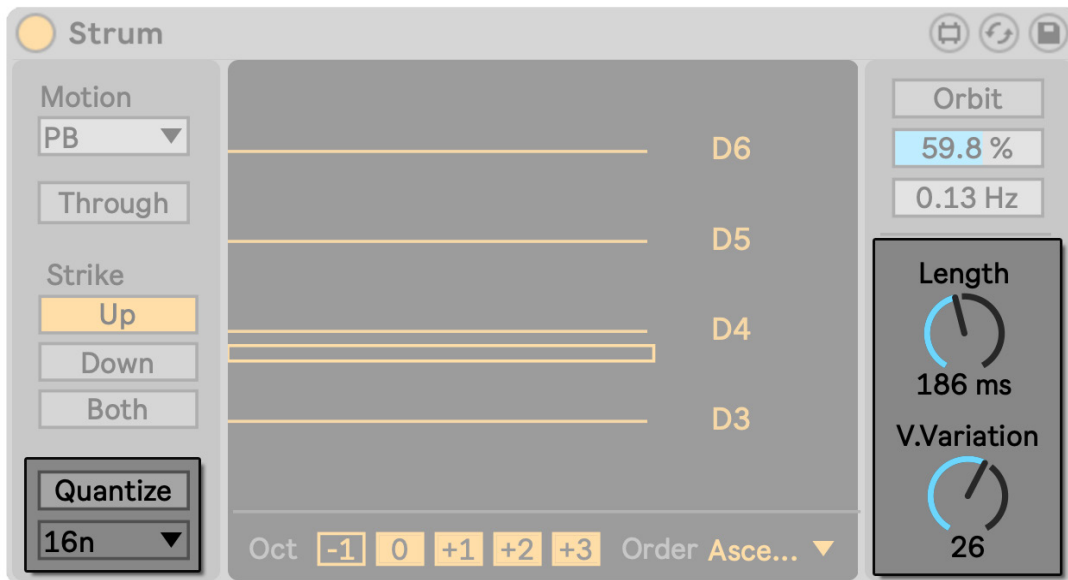
You can also let the order you play notes in determine their arrangement. Set the **Note Order** to “Play Order” and the first note you play will be on the bottom of the stack, the next note above that, and so on. This pattern is repeated across any octaves you choose to add.

Otherwise, you can throw caution to the wind and choose a “Random” **Note Order**, which simply scrambles the notes every time one is added or removed.

## Configuring Note Output

Any note produced by Strum will be held for a given length, as set by the “Length” parameter. This is very similar to the Gate control found on Live’s Arpeggiator device.

While the velocity you play each note with is preserved and output when their associated strings are struck, you may find hitting notes at the same velocity over and over again to be rather lifeless. Reach for the **V.Variation** (Velocity Variation) to slightly (or significantly) randomize the velocity of each note, and add unique dynamics to each strum.



**Figure 8.1** Strum’s various convenient utilities ensure you get the most usable output from the device.

## Quantization

Strum’s built-in **Quantize** system transforms the device into a full-on manually controlled sequencer of sorts. When toggled on, plucked notes can only be output on the time division specified as the **Quantize Rate**. This works especially well with the **LFO** controlling the Strummer’s **Motion**.



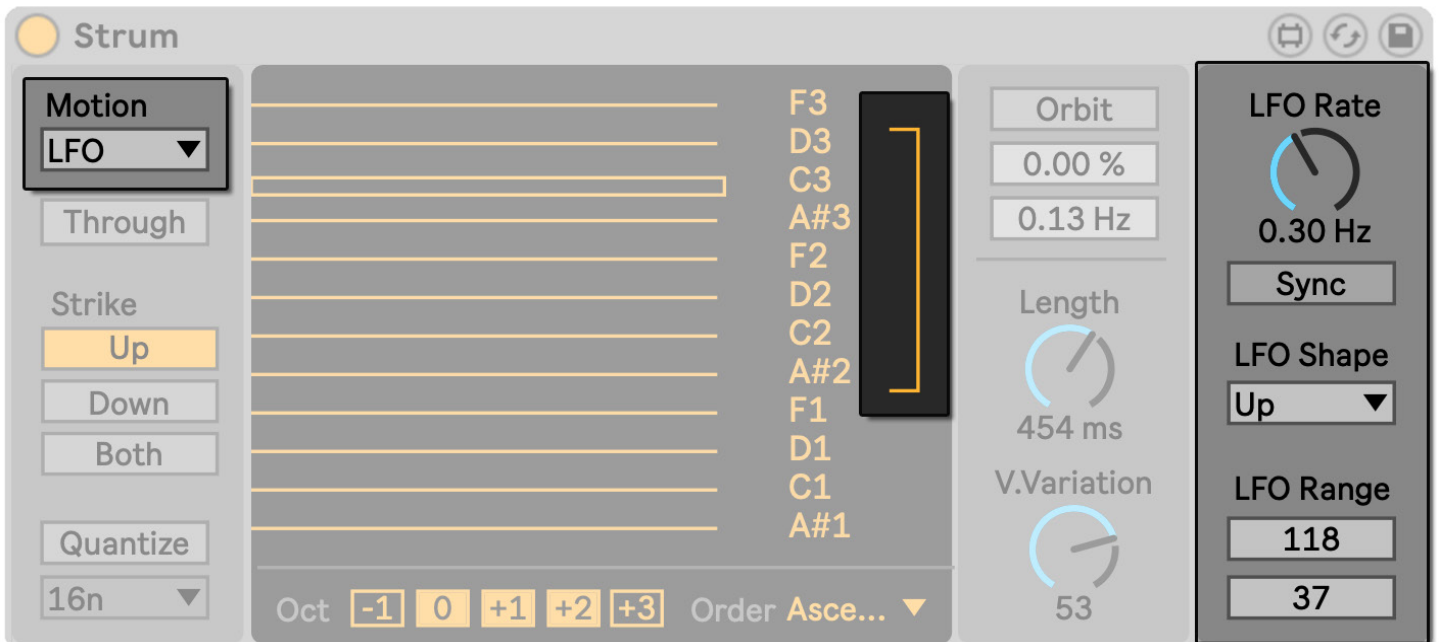
## Auto Mode: Using the LFO

Strum is great fun as a manually-driven arpeggiator, but you can get something closer to a traditional arp by selecting LFO as the **Motion** source.

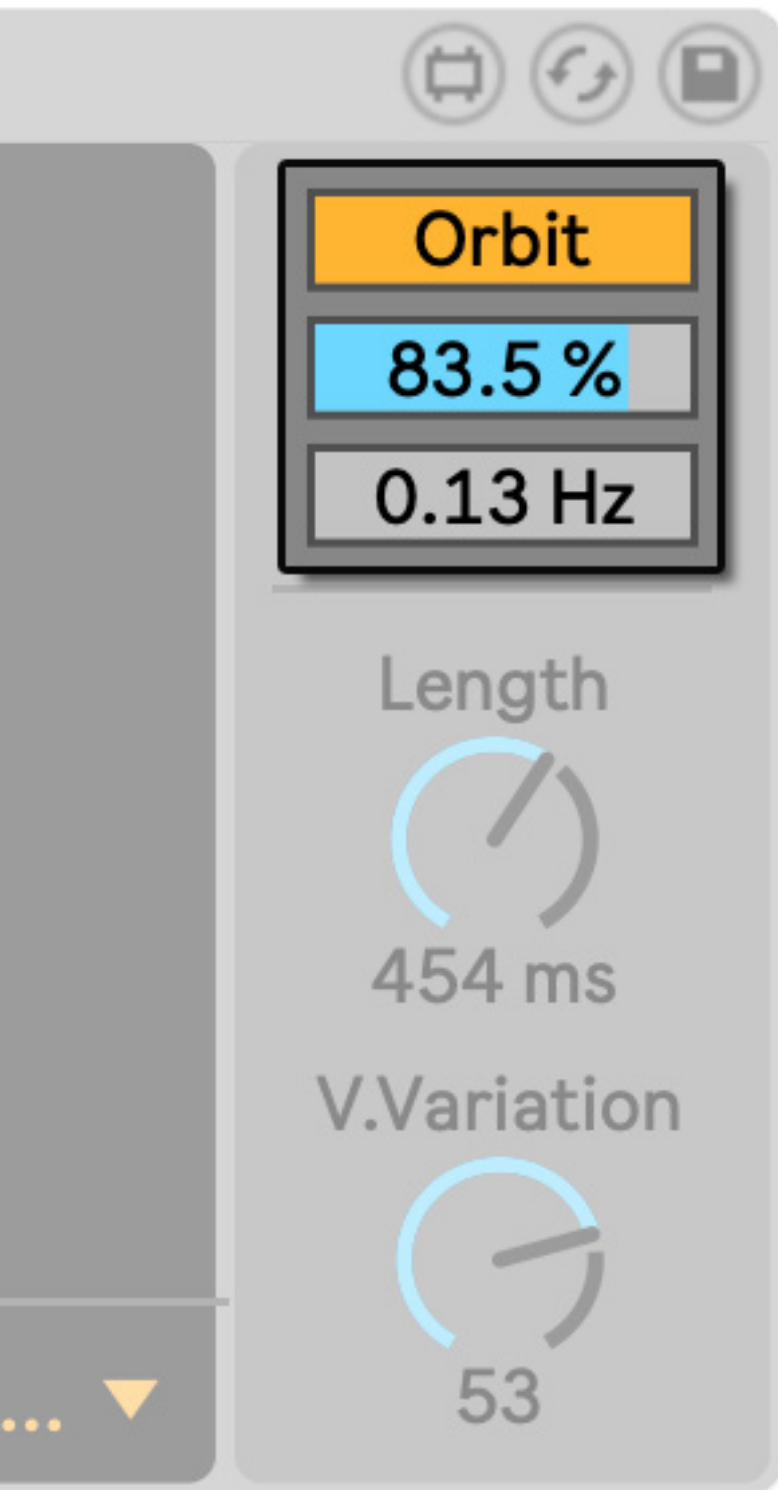
As you might expect, this causes the strumbar to move in the interface automatically at the speed determined by the **LFO Rate** dial, freeing you up to focus on note choice. If you have a modwheel available on your controller, it will be auto-mapped to control the **LFO Rate**, as a variable LFO Rate can be a highly musical, dynamic way to discover interesting rhythms.

The LFO rate can be set freely, or synced to your project's tempo. Syncing can be a great way to ensure the general contour of your output maintains consistency, regardless of how many notes are being played.

Four shapes are available for the LFO -- "Sine" (a typical sinusoidal cycle), "Up" and "Down" sawtooth shapes, and "Noise". Noise is like a drunk sequencer, and its values are interpolated so that the strumbar will strike notes as it steps between random values.



**Figure 9.1** When the **Motion** source is set to LFO (upper left), a new panel opens in the device with an array of controls to configure the LFO (right). The LFO range can be particularly useful, which is set with the numboxes at the bottom of the LFO panel or the range display in the main interface.



**Figure 10.1** Orbit has simple controls, but can add unending complexity and creative excitement to how you use Strum.

## Extra Movement: Orbit

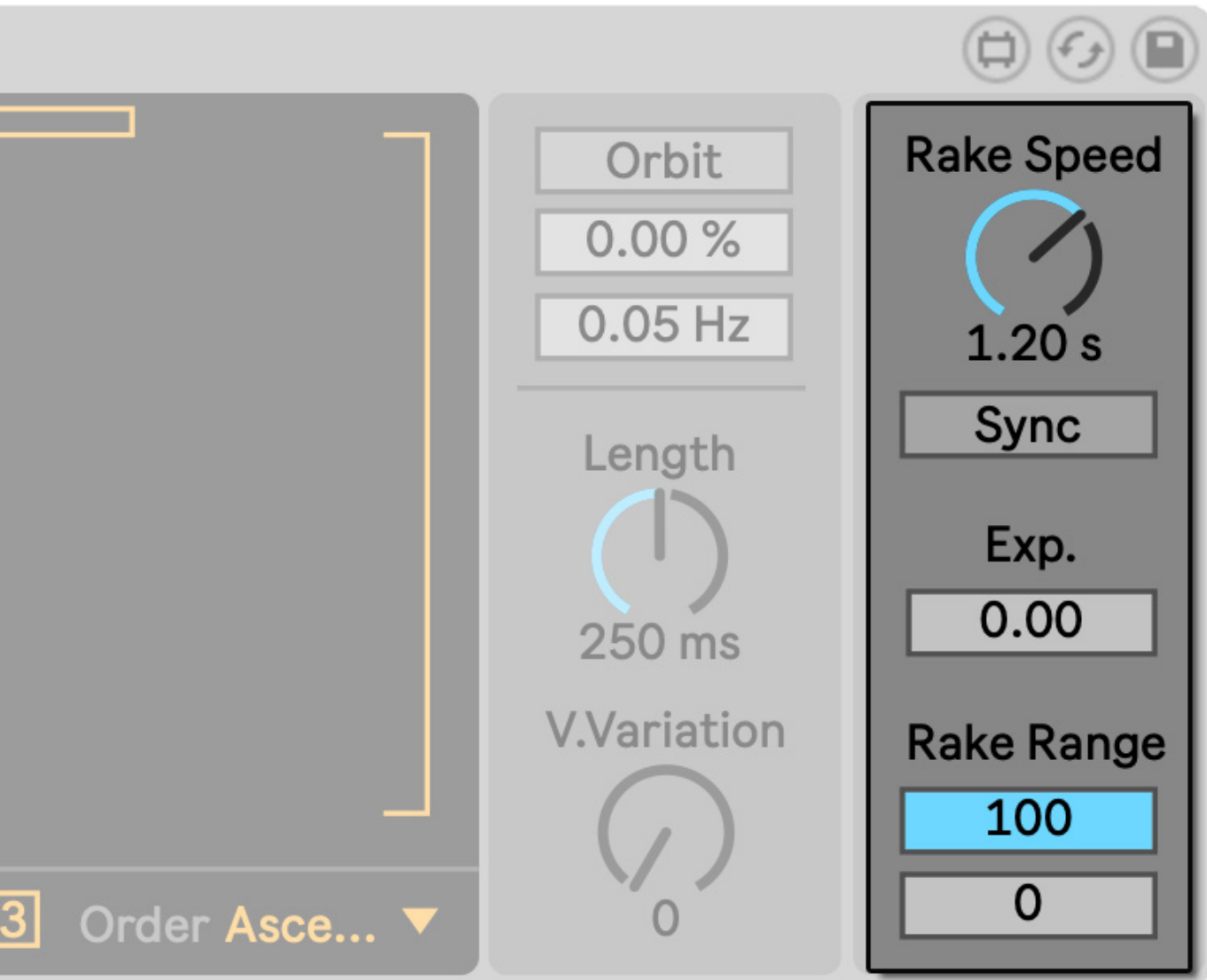
Regardless of the source of **Motion** you’ve chosen, an additional LFO can move the strumbar around the position you move it to. This additional LFO is known as **Orbit**.

When toggled, a ghostly blue rectangle appears in the interface to display where the strumbar is currently positioned, though when this crosses a note will not necessarily be output. The “true” strumbar (the familiarly *yellow* rectangle) will oscillate around this position, and any note strings it crosses will be output as usual.

The maximum distance from center (the blue rectangle) the strumbar will travel is determined by the first numbox (pictured set to 83.5% in **Figure 10.1**).

The second numbox (pictured set to 0.13 Hz in **Figure 10.1**) sets the rate of Orbit.

Slow speeds add variation to repeated **Motion** patterns and add infrequent-but-delightful extra strikes. Faster speeds add a manic character and may rapidly output a few notes over and over, resulting in some highly inspiring glitchy results depending on your instrument



**Figure 11.1** The Rake panel opens out like the LFO Panel when the Motion mode is chosen.

## One-Shots: Rake Mode

New in Version 2.1.0, Rake mode is “automatic” like LFO, but only triggers when new input notes are received. This triggers an envelope that moves the strumbar through the notes. The envelope lasts as is set by the **Rake Speed** parameter, which can be sync’d or unsync’d.

One of the most entrancing parameters to play with here is the **Exp.** control which can set the envelope to move through the notes at a constant speed (o), hang out toward the bottom before ramping up, like a rocketship (positive values) or zip to the end and slow down as it gets to the end. Logarithmic curves are much more evident and efficacious at longer **Rake Speeds**.

# **GLOSSARY OF CONTROLS**

The following pages detail each control in the device with more technical descriptions. View these any time in Live's Info View by hovering over a given parameter.

### Motion

Determines the source of movement for the strumbar.

### Through

Strum normally only outputs notes that are “plucked”. Toggling **Through** lets the MIDI notes you play pass directly out of the device while maintaining the original strum functionality.

### Strike

Determines when notes are plucked.

- Up - A note is sounded when the strumbar crosses a string while moving upward.
- Down - A note is sounded when the strumbar crosses a string while moving downward.
- Both - A note is sounded when the strumbar crosses a string in either direction.

### Quantize

Toggles note output quantization.

### Quantize Rate

The rhythmic division notes are quantized to when Quantize is toggled on. Note that only one note will be output per clock division.

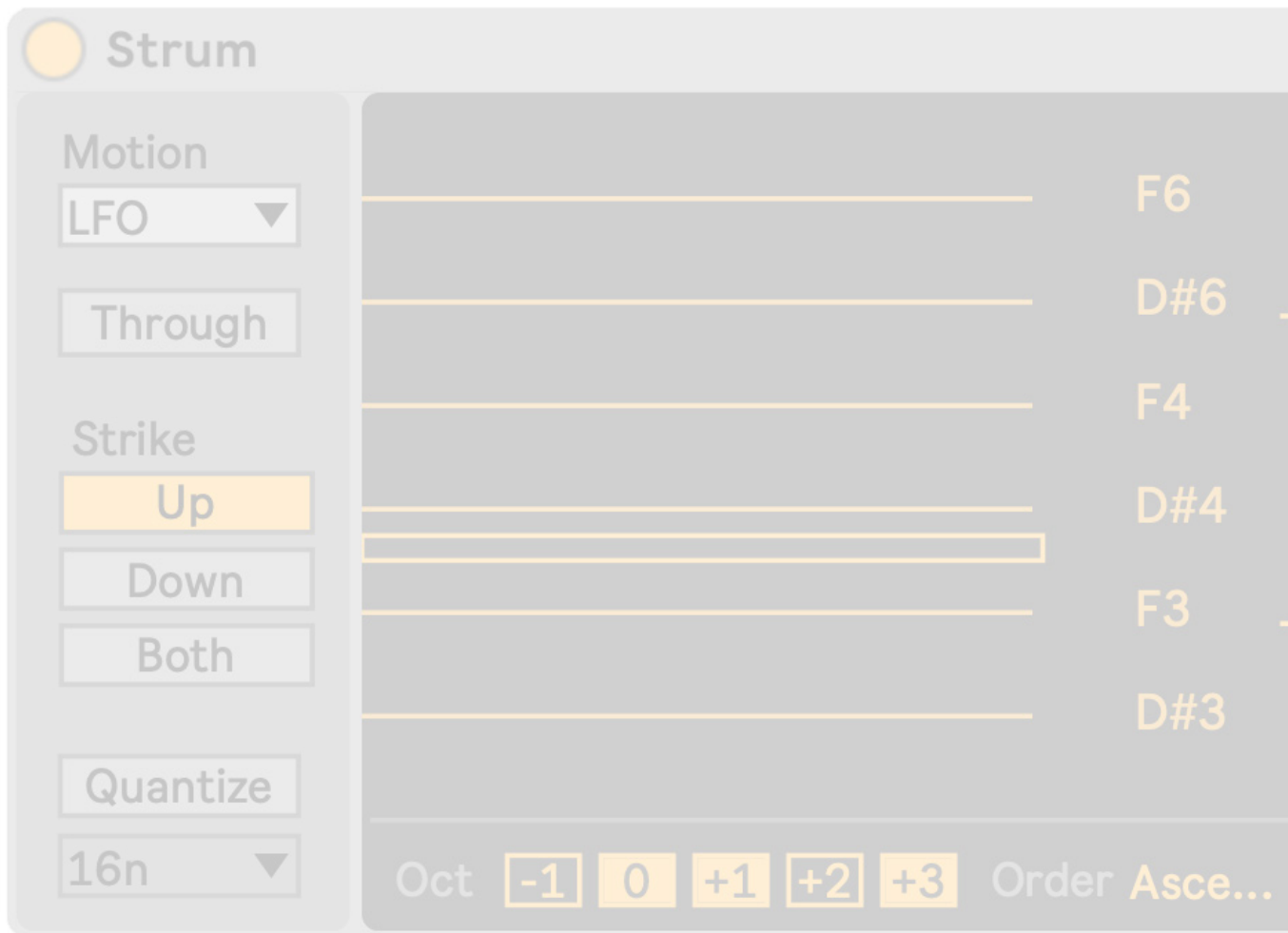
### Octave

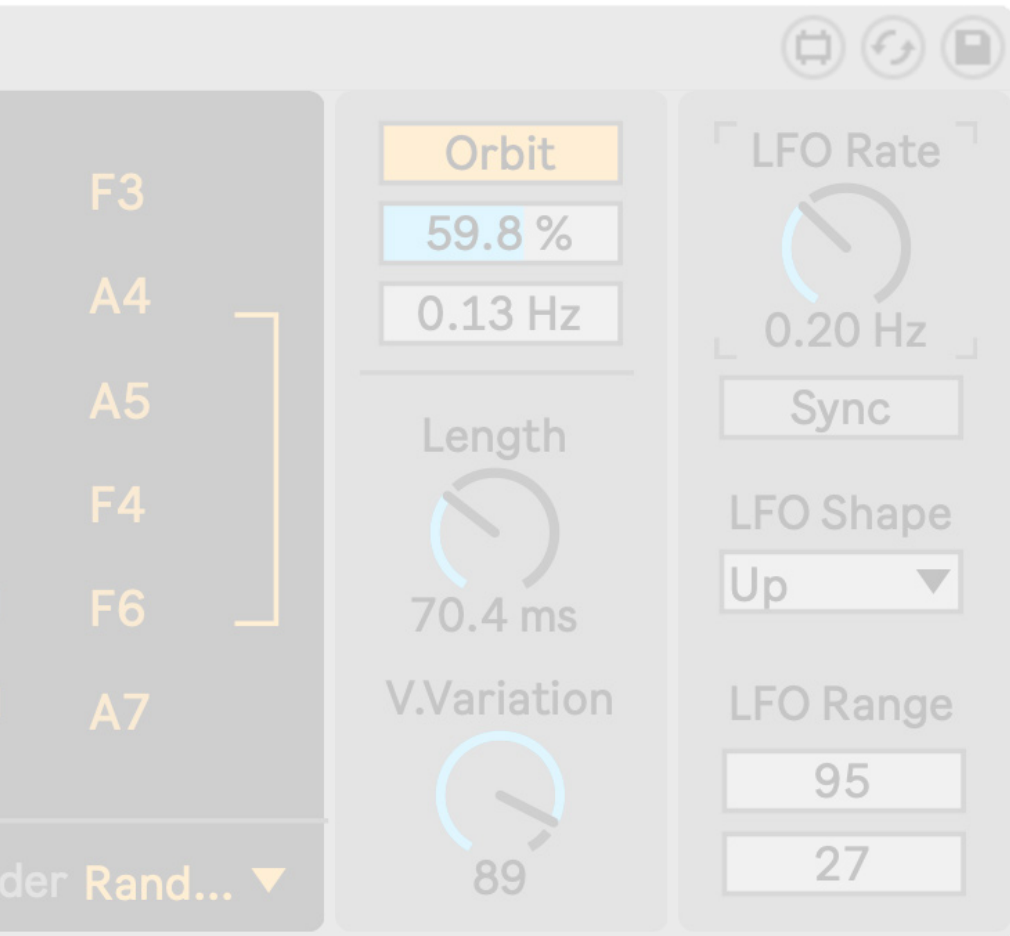
Note input can be expanded by adding octaves. Any combination of these can be used.

### Order

Determines how notes are arranged in the interface.

- Ascending - Notes are ordered from lowest on the bottom to highest on the top
- Descending - Notes are ordered from highest on the bottom to lowest on the top.
- Play order - Notes are arranged according to the order in which they were input, starting from the bottom. This pattern is repeated across any octaves which are added.
- Random - All notes are arranged completely randomly, including octave duplicates. Note that note order is shuffled each time a note is added or removed.





### LFO Rate

Sets the speed at which the LFO oscillates.

### LFO Sync

Syncs the LFO rate to Live's transport.

### LFO Shape

Selects the shape of the LFO - Sine, Ramp Up, Ramp Down, or Random.

### LFO Range

The span of the note panel in which the LFO can move within.

### Orbit

Toggles Orbit to provide additional movement to the strumbar.

### Orbit Amount

How far the strumbar oscillates around its center point.

### Orbit Speed

How fast the strumbar moves around its center point. Slower speeds add unexpected strikes while fast speeds produce manic, glitchy, non-repeating patterns.

### Length

How long a note is sustained when strummed. Similar to the "Gate" control on Live's Arpeggiator device.

### Velocity Variation

Adds or subtracts a random value to the input note velocity.

# CHANGELOG

Version 2.1.0

Rake - A new Motion control for note-triggered envelopes. Closer to an “automated” Modwheel than LFO, really.

LFO and Rake Range adjusted to 0-100 from 0-127 (same range, just displayed in a more sensible way)

LFO Shape defaults to Ramp Up. Also the “Noise” shape is now called “Random”.

Descending Order was adjust to include octave'd notes. Previously, notes would be organized in reverse order and then this ordeer was repeated across all other octaves.

Marginal graphical adjustments. Misaligned lines. [live.text] replaced [live.comment] for LCD labels.

Sustain pedal support. Thanks **АНТОН РУКАВИШНИКОВ**.

# INFORMATION

Version 2.1.0

## Download

The download link for this device is <https://www.patches.zone/strum>  
More Max devices from pATCHES can be found at  
<https://www.patches.zone/max-for-live>

## Support

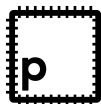
Working on these devices is a labor of love, and there's a huge list of WIPs and ideas I have that I want put out there. If you want to help make those reality (and get discounts, news, and other perks...), consider supporting me on Patreon!

Sign up at <https://www.patreon.com/patcheszone>

## Contact

Comment or query? Suggestions? Just want to say hi?  
I'd love to hear from you!

Send an email to [contact@patches.zone](mailto:contact@patches.zone)



Manual written and designed by Dan Hilse and Isaac Vandyne.  
Strum is a product of patches.zone, a website dedicated to creating resources for music producers.

[www.patches.zone](http://www.patches.zone)