Léon Light
USER GUIDE

“Wild & Watchful”

Theremin-inspired Hands-free Motion-detecting Musical Instrument

“*While the Theremin is notoriously difficult to play,* ***Léon Light*** *in its raw, untamed form, is even more unruly, perhaps even, unplayable!”*

Light is the key to taming Léon. Movement detected creates sound. When Focused, Tempered & Trained Léon’s discipline is impeccable. Yet even then, there is always the danger that Léon will devour his trainer!

Léon Light :
- Detects motion within a field of view.
- Converts movement into pitch across the audible range
- Uses Filtering and Tempering to ‘Tame the Lion’
- Create slides, textures, and rhythmic patterns with input Quantization.
- FX Box with Space—Tone touchPad & Width parameter for Real-time control.
- Quick Select Instruments. Pre-program scales, chords, and songs.

Léon Theremin (born Lev Sergeyevich Termen, 1896–1993) was a Russian inventor, physicist, & musician best known for creating the Theremin in 1920, one of the first fully electronic musical instruments. The theremin is played without physical contact, using the performer’s hands to control pitch & volume generated by two antennas. Its ethereal, voice-like sound became iconic in early electronic music, film & science-fiction soundtracks.

Not A Theremin!
The Theremin responds to movement within electromagnetic fields. **Léon Light** responds to motion detected within a visual field.

Inventor’s note:
Early demos of the prototype instrument always elicited the response: “Oh, it’s like a Theremin!”. Clinging to the conceit of originality, I would protest and explain the differences — to no avail. Today, I embrace the comparison.
“Yes, it is like a Theremin — but even more difficult to control!”

Taming the Lion
Adjust quantization, temperament, instrument range, focus, attack style, pitch class filtration, and real-time effects. Léon can sing smooth scales & arpeggios. With proper light conditions, training and playing technique, Léon is a reliable, expressive musical instrument. Yet always remember — Léon is wild at heart.

MAIN SCREEN

Fx Box | + Info Training | Voice Box

Light Level *— the most critical step in using Léon Light!*

Under normal conditions:

* move the **Light Level slider** from right to left until **Noise** appears (Zebra lines),
* Adjust the slider back to the right until the noise is gone.

Léon Light is now as sensitive as possible. Adjust to desired level.

Dark Alternative:

Set up a candle or other small light source in a dark room. Point & tilt the camera towards the light source. It tracks very well!

N.B. the best method is still to be determined!

Noisy Zebras!

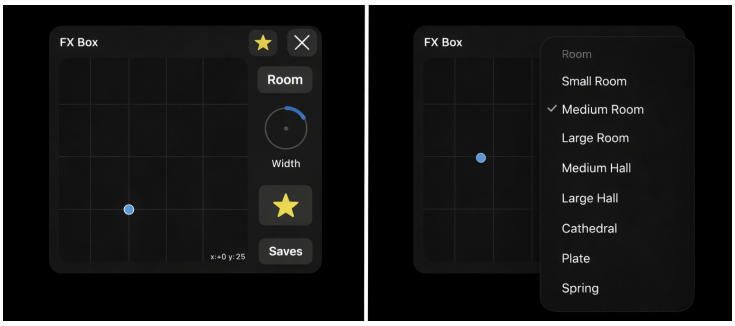
FX Box

Star - save a setting

Room - select size

X-Y TouchPad
Tone - brightness / color
Space - room size / depth

Width dial- stereo spread

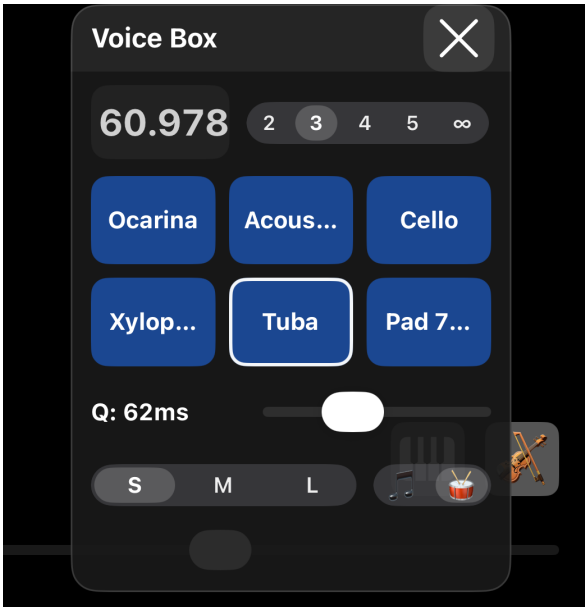


Saves - recall saved setting. Long press to ‘Rename’ or ‘Delete’

FX Box positioned on the left side of the instrument so that it can be used as a real-time controller in performance!

Voice Box

Microtonal Pitch Display



Octave range
Infinite range by default.
Choose smaller size for more control

Quick Select Instruments Slots (6)
Long Press on slot opens instrument list.
Tap to select

Q Value — Quantization
Rate at which the instrument triggers new notes.
Experiment with Q value for rhythmic effects.

Note length
'Short', 'Medium', 'Long' sets the duration pitches are sustained after movement stops. Longer - more legato.

Playing style
Melodic — sustained notes are not repeated.
Percussive — can re-trigger the same note (at Q value).

Training

Reset to Wild — all 12 pitches available, pitch bend is ON.

Temper — *the most violent modification!*
Disable pitch bend & force the instrument into Equal Temperament.

Focus — Léon pays more attention to the most recent active region, smoothing out the input signal. Combine with Light Level to adjust control.

Pitch Class Filter
Select which pitch classes are allowed through the filter.
Program chords, scales, & pitch class sets.

Star **Save** — write file of the 12 saved PC sets.
Open list of saves to recall.

For fun: *Try filtering out notes while bend is on!*

+ Info

In the Info menu, Quick Start, In-app purchases (if any), licenses, links to User Guide & Website

MIDI Connection

Léon Light sends MIDI via Bluetooth

🎛️ How to connect to your Mac via wireless MIDI

Steps:

1. On your Mac, open Audio MIDI Setup (found in Applications > Utilities).
2. In the menu, choose Window > Show MIDI Studio.
3. In the MIDI Studio window, double-click Network to open MIDI Network Setup.
4. Under My Sessions, select Session 1, then click Enable.
5. In the Directory, select your iOS device.
6. Click Connect to link your iOS device to the session.

Once connected, your iOS app will appear as a MIDI source and can transmit wirelessly to any MIDI-enabled software on your Mac.

Troubleshooting

📣 No Sound?

If the app stops producing audio:

- Quit the app completely (Swipe up from the app switcher)
- Reopen the app
- Ensure Silent Mode is OFF
- If using Bluetooth speakers/headphones:
  Turn Bluetooth off, relaunch the app, then try again.

Why this can happen:
iOS sometimes gets “stuck” when switching audio between apps or Bluetooth devices. Restarting resets the audio session.

*“**Wild & Watchful**”*

📣 Sound Stops After Switching Apps

Sometimes when returning from a game, social media, or another audio-heavy app, the sound may not resume immediately.

Fix:

- Minimize the app and reopen it
- Or briefly switch to another system app (e.g., Music), then back

This refreshes iOS’s audio routing.

❗ Lag, Delay, or Response Feels Slow

If Leon Light seems sluggish:
- Check the Quantization value is set to its lowest value for fastest response.
- Make sure there is sufficient ambient light for the camera to detect motion
- Ensure the Light Level is set to its sweet spot
  —high enough to respond to intentional movement,
  but low enough to remain quiet when the scene is still
- Reset the Pitch Filter to allow all pitch classes through.

When in Doubt
A restart of the app or the device solves almost all rare iOS audio/touch inconsistencies.

⚠️ Data & Deletion Warning
- Deleting the app will permanently remove all of its save data from this device.
- Saves are stored locally unless otherwise backed up via device or iCloud backup.

ℹ️ First-Time UI Behavior
When certain interface elements are loaded for the first time, you may notice a brief pause. After initial use, performance should remain smooth and stable.

We have found no other issues when this app is used as directed.
Please report any unexpected behavior so it can be addressed in future updates.

📜 Licenses

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Léon Light incorporates a proprietary, patent-pending interaction model.

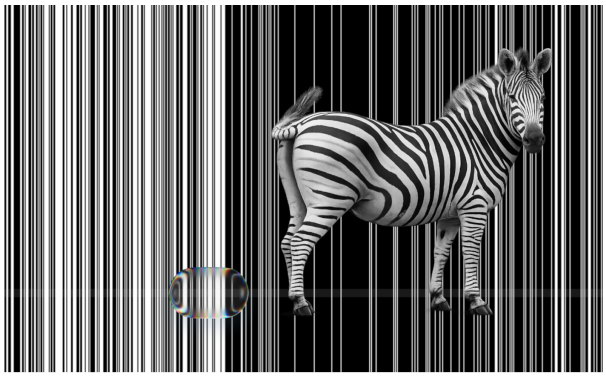
"Ferocious precision."

💬 Questions? Feedback?

We hope you enjoy training with ***Léon Light***!

Your feedback is important to us. Reach out via the online support form.
We'll do our best to respond as soon as possible 🙏
We're constantly developing & improving our products.
Got a great idea or feature request? We want to hear it!
Sign up to share feedback, get early access to new apps, & receive exclusive offers.

https://bondinstitute.io/



"Do Lions Dream of Zebras?."

Léon Light – MIDI Specification Sheet

This document outlines the MIDI messages sent by Léon Light, for integraion with external MIDI devices, DAWs, or recording software.

1. MIDI Messages Sent

MIDI Message	Purpose	Channel(s)	Trigger / Event
Note On (0x9x)	Plays note	Per voice / per internal channel (0–31)	Note start (performance input)
Note Off (0x8x)	Stops note	Per voice / per internal	Note release / stop
Pitch Bend (0xEx)	Continuous pitch control/tuning	Per voice / per internal channel (0–31)	Continuous / tuning
Control Change – CC7	Main volume	Global (default ch. 0)	Volume control
Control Change – CC10	Pan	Global (default ch. 0)	Pan control
		Global (default ch. 0)	Pan control / mapped from motion Y)

2. Technical Notes

- MIDI output only; incoming MIDI is not supported.
- Léon Light can send Note and Pitch Bend messages on up to 32 MIDI MDI channels (0–31), allowing independent pitch control per active voice/channel.
- Pitch Bend is used for continuous pitch control and tuniuning.
- Internal samplers are configured to a 1-semitone pitch bend range (RPN 0,0 → Data Entry = 1).
- External devices or DAWs should be set to the same pitch bend range for accurate tuning response.
- Instrument selection and program changes are handled internally; no Program Change message is sent.