



# miniBit

## User Guide

v1.8

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# miniBit

## 8bit Synthesizer

[miniBit](#) is an 8-bit/chiptune style synthesizer plugin that emulates the sound of 80s game consoles and retro computers.

It features a main oscillator with 18 waveforms paired with a sub oscillator (a square wave pitched one octave below).

The waveforms are not bandlimited and will produce aliasing. Furthermore, using the built-in bitcrusher, you can create even more noisy and retro sounds.

miniBit also features a synced 8 Steps Stepper/Sequencer with multiple destinations. From noisy, snare-like steps to ambient subs, miniBit has many uses beyond what one expects from a chiptune synth.

**miniBit** is available for macOS, Windows, and Linux (VST, VST3, AU, AAX, CLAP, Standalone).

It's also available on the App Store for iOS and iPadOS (AUv3 and Standalone).

# Installation

## macOS

- Double click on the DMG archive to extract it
- Right click on the PKG installer and click open
- Follow the instructions to install the plug-in(s)

## Windows

- Extract the ZIP archive
- Double click on the setup file (.exe)
- Follow the instructions to install the plug-in(s)

## Linux

- Extract the tarball archive
- Run `./install.sh`
- Follow the instructions to install the plug-in(s)

# Registration

When you open the plugin for the first time, the activation window will appear automatically. If it does not appear, open it by clicking the ☰ icon next to the bypass button in the top right corner of the plugin.

A registration window with a light gray background and rounded corners. At the top center is an icon of a flask with a stopper and a small flame. Below the icon is the text "Log in to authorize". There are three input fields: the first is labeled "Email" with an envelope icon, the second is labeled "Password" with a key icon, and the third is a "Log In" button. Below the button is the text "or drag the offline license file here". A close button (X) is in the top right corner.

Log in to authorize

Email

Password

Log In

or drag the offline license file here

## Online

- If you haven't created an account yet, you can [sign up here](#)
- Enter your email and password and click Log In.

## Offline

- Download the license file from your [account](#).
- Drag and drop the license file into the registration window, or click the *offline license file* label below Log In to select the license file.

# Parameters

## LFO

<i>Rate</i>	Controls the frequency of the modulation
↳ <i>Sync</i>	Switches the range for the Rate knob (Hz or synced)
<i>Wave</i>	Selects the modulation waveforms: sine, triangle, ramp up/down, square, sample & hold
<i>Destination</i>	Selects the modulation destination: pitch, volume, cutoff, downsample
<i>Amount</i>	Controls the amount of modulation

## Envelope (volume, pitch)

<i>Amount</i>	Controls the amount of modulation (only for pitch)
<i>Attack</i>	Controls the attack time of the envelope
<i>Decay</i>	Controls the decay time of the envelope
<i>Sustain</i>	Sets the sustain level of the envelope
<i>Release</i>	Controls the release time of the envelope

## Oscillator

<i>Fine Tune</i>	Controls the pitch of the oscillator in cents ( $\pm 50c$ )
<i>Tune</i>	Controls the pitch of the oscillator in semitones ( $\pm 24st$ )
<i>Volume</i>	Controls the volume of the main waveform
<i>Sub Osc</i>	Controls the volume of the sub oscillator
↳ <i>Oct</i>	Controls the pitch of the sub oscillator (-24, -12, 0)
<i>Poly</i>	When enabled the instrument is polyphonic
<i>Glide</i>	Controls the portamento time

## Filter

<i>Cutoff</i>	Controls the cutoff frequency of the filter
<i>Resonance</i>	Controls the resonance amount of the filter

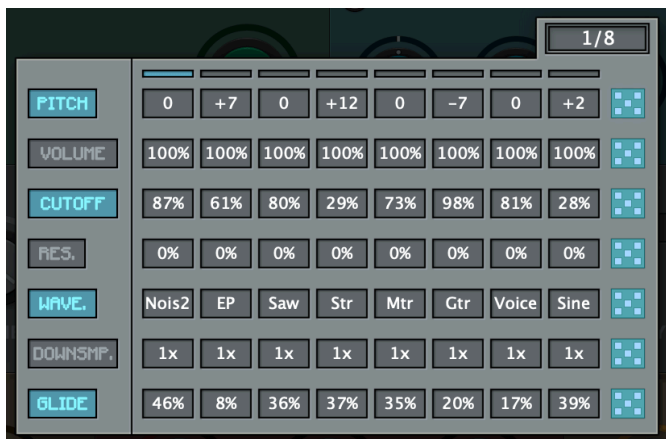
## Delay

<i>Time</i>	Controls the time between each repetition
↳ <i>Sync</i>	Switches the range for the Time knob (% or synced)
<i>Feedback</i>	Controls the number of repetitions
<i>Wet</i>	Controls the amount of Delay signal

## Crusher

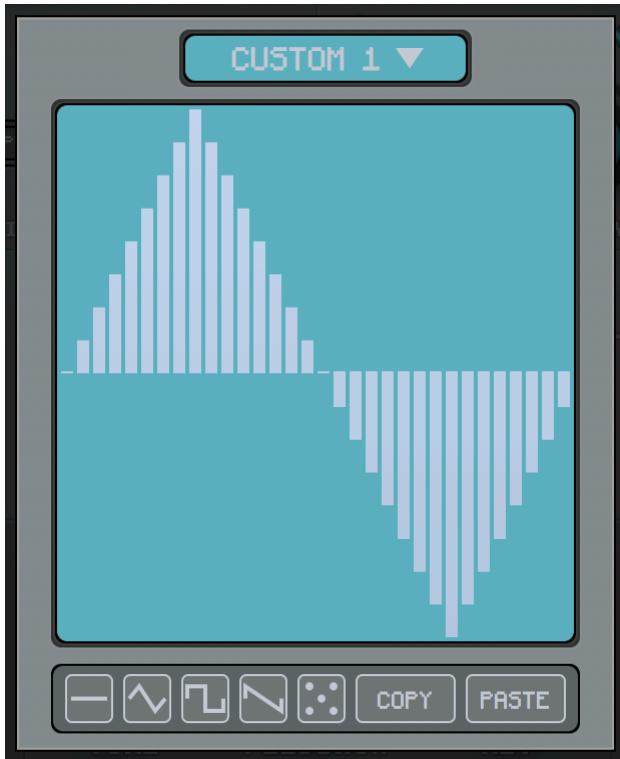
<i>Bits</i>	Reduces the bit-depth of the sound causing distortion
<i>Downsample</i>	Reduces the samplerate frequency causing aliasing

## Step Sequencer



You can show/hide the Sequencer by clicking on the icon next to the presets box. Each track in the step sequencer can be enabled or disabled by clicking on the parameter names on the left. Each track can also be randomized using the dice buttons on the right. You can change the number of steps by clicking on the ≡ icon.

## Custom Waveforms



To open the *Custom Waveform Editor* select one of the Custom Waveforms from the Waveform monitor, then click on the Editor button.

The Custom Waveform Editor features 32 steps and 8 waveform slots per preset.

You can draw your waveforms by clicking and dragging on the editor. You can also use some of the built-in examples as a starting point.

Since each preset has its own custom waveforms, if you want to use a custom wave with another preset, you can use the Copy/Paste buttons.

If you want to keep your custom waveforms while browsing the presets, you can disable the Global Setting – Update Custom Waves, see below.

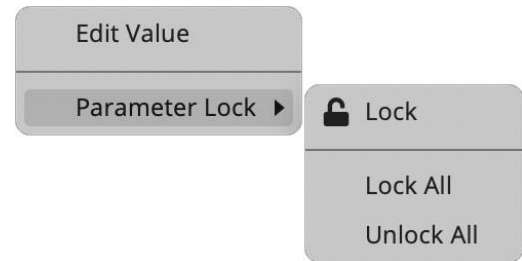


# Features

## Parameter Lock

If you want to keep the value of one or more parameters while changing presets, or when using the randomizer button, you can use the *Parameter Lock* feature.

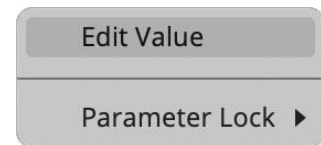
Right click on a parameter and choose *Parameter Lock*.



<i>Lock / Unlock</i>	If locked, the parameter won't be updated when changing presets
<i>Lock All</i>	Locks all parameters
<i>Unlock All</i>	Unlocks all parameters

## Edit Value

You can also manually change the value for knobs and sliders. Right click on a parameter and choose *Edit Value*. You can also access this feature with SHIFT + Click.



By clicking on the icon ≡ you can access additional features.

## Volume Boost

You can increase the overall output level of miniBit by up to +12 dB. Please be careful, as this is a global setting. Changing it will affect all presets as well as previously saved projects.

## Update Custom Waves

Every time you load a preset, the eight Custom Waveforms are overwritten with the Custom Waveforms stored in that preset. If you want to keep the current set of Custom Waveforms while browsing presets, you can disable this option.

## Sequencer Steps

You can change the number of steps in the step sequencer. The default is 8 steps. This can be useful if you want to sync the sequencer to an odd tempo.

## Pitch Bend Range

You can change the pitch bend range independently for upward and downward bends, up to 12 semitones.

## Velocity

You can disable velocity if you want all notes to play at the same volume. You can also adjust the velocity curve from soft to hard. If your MIDI controller offers a velocity curve option, we recommend using that and leaving the miniBit setting set to Linear.

## LFO Range

Chooses between a Normal or Extended LFO range. Extended allows modulation rates up to 2 kHz.

## Preset Copy / Paste

You can easily share presets by using this Copy/Paste feature.

*Copy to Clipboard*                      The status of all parameters will be saved to the Clipboard

*Paste from Clipboard*                Load a preset from the Clipboard

## Enable / Disable Notifications

You can enable or disable the notifications for updates and news (shown by the bell icon). This option is global and it will affect all AudioThing plugins.

## Swap Mouse Buttons

If you use the right button as your primary mouse button, the plugin might not recognize it. Use this option to enable it internally in the plugin.

This option is global and it will affect all AudioThing plugins.

## GUI Acceleration

You can enable or disable the GUI acceleration supported by your system.

The current and default library is OpenGL.

## Graphics Controls

This feature allows you to modify the User Interface's Brightness and Contrast.

## Window Size

You can resize the plugin window using three predefined sizes (*small, standard, big*).

You can also resize the plugin window by clicking and dragging the bottom-right corner of the interface. Double clicking will reset to the standard size.

# End

## Where is everything?

The installer will place the plugins, presets, and other data in these folders.

### macOS

AU     /Library/Audio/Plug-ins/Components/  
VST     /Library/Audio/Plug-ins/VST/  
VST3    /Library/Audio/Plug-ins/VST3/  
CLAP    /Library/Audio/Plug-ins/CLAP/  
AAX     /Library/Application Support/Avid/Audio/Plug-Ins/  
Data     /Users/Shared/AudioThing/

### Windows

VST     *custom path from the installer*  
VST3    \Program Files\Common Files\VST3\  
CLAP    \Program Files\Common Files\CLAP\  
AAX     \Program Files\Common Files\Avid\Audio\Plug-Ins\  
Data     \Users\Public\Public Documents\AudioThing\

### Linux

VST     ~/.vst/  
VST3    ~/.vst3/  
CLAP    ~/.clap/  
Data     ~/.local/share/AudioThing/

## Credits

DSP & Code	<i>Carlo Castellano</i>
Design	<i>John Gordon</i>
QA	<i>David</i>

## EULA

Please visit [www.audiothing.net/eula/](http://www.audiothing.net/eula/) to review this product's EULA.

## Thank You

Thank you for your purchase! We hope you will have as much fun using it as we had making this product.

For support, please visit [www.audiothing.net/support/](http://www.audiothing.net/support/)

For further help or any questions, please contact us here: [www.audiothing.net/contact/](http://www.audiothing.net/contact/)

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