



FOUR x THREE

WAVETABLE SYNTHESIS | PATCH 1.0.1

THE COMPLETE BEGINNER GUIDE

Learn the controls. Build your own sounds.
Make the synth work for your music.

PATCH MIXER HARMONICS PRESETS SETTINGS

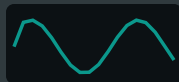
OSC 1



OSC 2



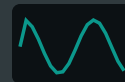
OSC 3



OSC 4



NOISE



Illustrated control maps + simple steps + sound-building recipes

A friendly field guide for new players and curious sound designers.

FOUR x THREE | VERSION 1.0.1

Start here: your first 5 minutes

You do not need to know music technology to get started. Follow this short path, listen after each change, and save anything you like.

What FOUR x THREE does: It combines up to four tone sources, noise, filters, shaping tools, effects, and modulation. A patch is one saved sound recipe.

1. Make one sound

1. Open the **Patch** page. Click **Init** if you want a clean starting point. This resets the sound controls to their default values.
2. Turn on **OSC 1** with its small power switch. Choose a wave from the wave menu. Play the keyboard at the bottom or send a note from your DAW.
3. Raise or lower **LVL** to make OSC 1 louder or quieter. Use **PITCH** to move it up or down. Change one control at a time so you hear what it does.
4. When you like the sound, click **Save Preset** and give the patch a name.

2. Learn the three most useful words

Word	In everyday language
Oscillator	A sound source. FOUR x THREE has four.
Filter	A tone-shaper. It removes or emphasizes parts of a sound.
Modulation	An automatic movement, such as a slow pitch wobble or a filter sweep.

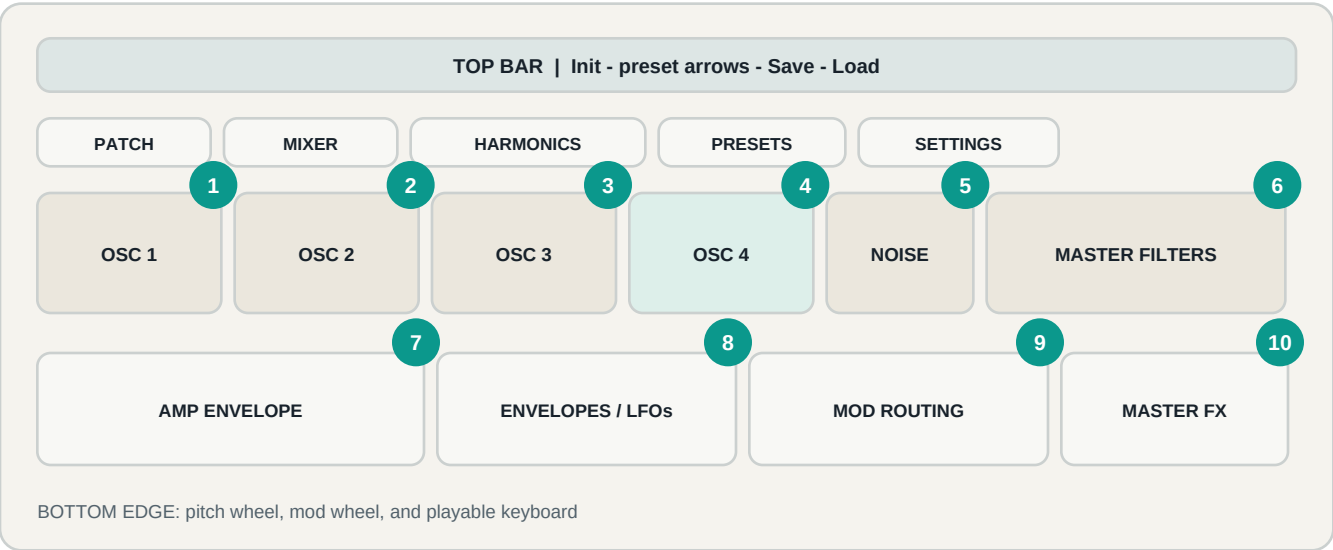
Easy rule: Start with one oscillator. Add a second only when the first one sounds good. More layers are not always better.

How to read the pictures

The numbered circles point to real control groups in the plugin. The diagrams are simplified so labels stay easy to read. Knob directions are described with words such as “raise” and “lower”; the screen may show exact numbers when you move a control.

Know your way around

Use this map to find the main areas. The tabs across the top change pages; the Patch page is where most sounds begin.



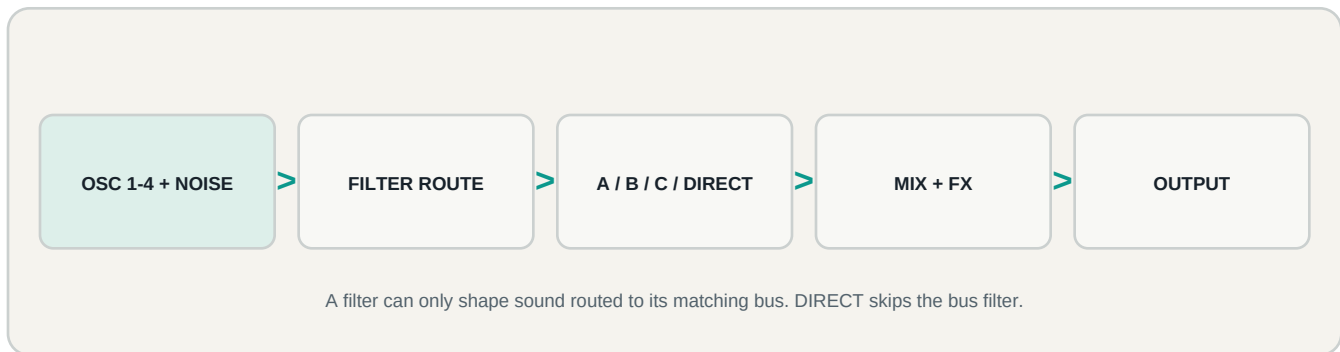
Number	Area	What it is for
1-4	OSC 1 to OSC 4	Choose and shape four sound sources. OSC 4 can play a sample as grains.
5	Noise	Add a steady noise layer; choose White or Pink noise.
6	Master Filters	Shape the combined sound with Filters A, B, and C.
7	Amp Envelope	Set how a note starts, holds, and fades.
8	Envelopes / LFOs	Choose which envelope or repeating movement you are editing.
9	Mod Routing	Connect movement to a sound control.
10	Master FX	Add effects and set the final level.

The bottom keyboard can play notes with the mouse. The two slim wheels beside it are Pitch and Mod. The Patch, Mixer, Harmonics, Presets, and Settings tabs are along the top of the working area.

If a panel is partly hidden, scroll inside the plugin window. The plugin is taller than some screens.

How a sound travels

Think of the sound like water moving through pipes. Each step changes what you hear.



The oscillator or noise panel decides which bus receives that source. A, B, and C are filter paths. Direct skips that bus filter. The Mixer page controls how the buses feed the shared effects and output.

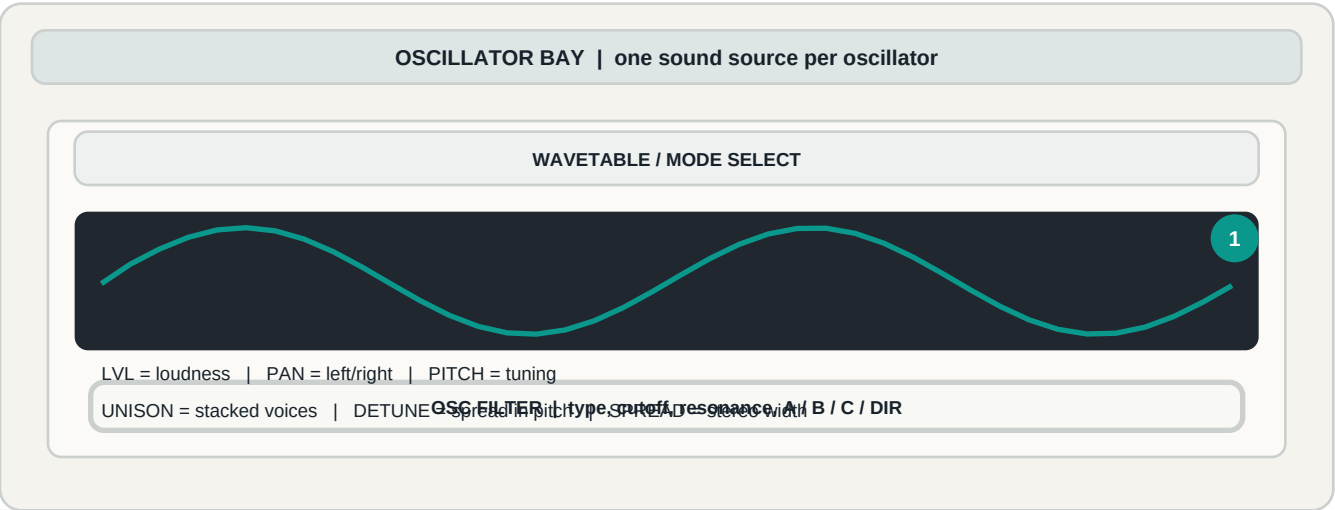
A simple way to troubleshoot silence

1. Check that at least one oscillator is switched on.
2. Check that its LVL knob is raised.
3. Check its filter route: A, B, C, or DIR. If it is routed to A, check Filter A is not closing all the sound.
4. Check the Amp Envelope sustain is not at zero and release is not extremely short.
5. Check the [master output level](#) and your [DAW track level](#).

Change one thing, play the same note again, and listen. This makes cause and effect easy to hear.

Oscillators 1, 2, and 3

An oscillator is one sound layer. Use the same controls on OSC 1, OSC 2, and OSC 3. Start with one, then blend in more.

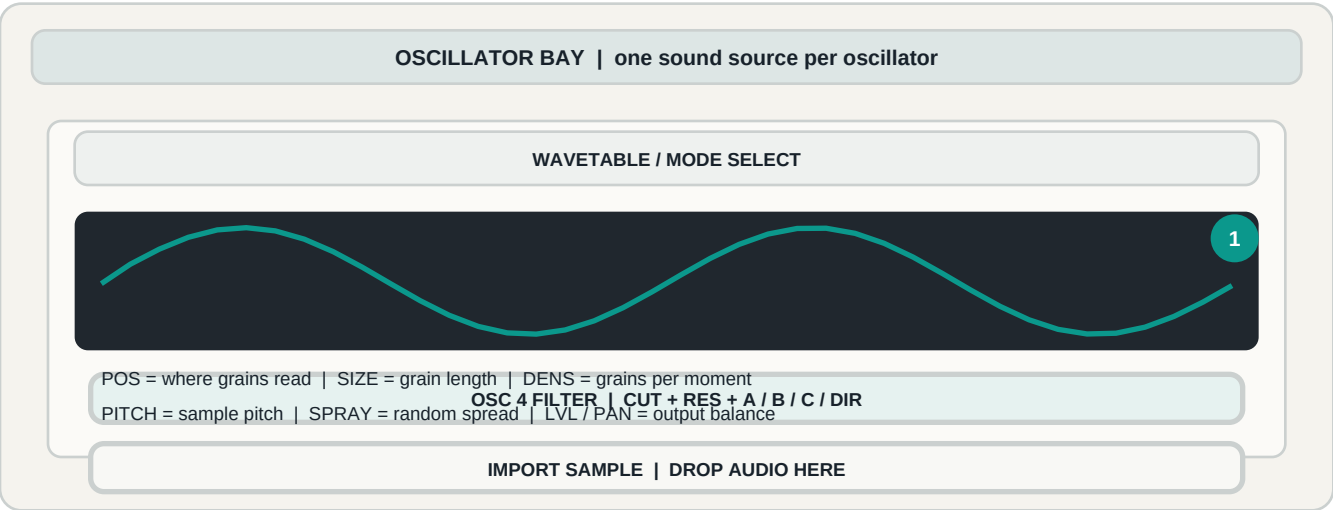


Control	What it changes	A good first move
Power switch	Turns this oscillator on or off.	Start with only OSC 1 on.
Wave menu / wave position	Chooses the tone shape or wavetable frame. Different shapes sound bright, hollow, smooth, or buzzy.	Try each menu choice and play the same note.
LVL	How loud this oscillator is in the full sound.	Raise until you hear it; lower if it covers other layers.
PAN	Moves this layer left or right in stereo.	Keep near the middle, then spread separate layers.
PITCH	Tunes this layer.	Move by a small amount to add thickness.
Filter type	Chooses how this oscillator filter behaves.	Low-pass darkens a sound as Cutoff goes down.
CUT	Cutoff: the point where the filter starts changing the tone.	Lower to make the sound darker; raise to restore brightness.
RES	Resonance: emphasizes the area around Cutoff.	Use small changes; too much can sound sharp.
A / B / C / DIR	Sends the oscillator to Filter A, B, C, or directly past the bus filters.	Choose A if you want Filter A to shape it.
Unison, Detune, Spread	Adds voices, widens their tuning, and spreads them across stereo.	Add a little at a time; too much can blur pitch.

LVL is not the same as the DAW track volume. LVL blends one oscillator inside this patch; the DAW fader controls the whole plugin track.

OSC 4: wavetable or granular sample

OSC 4 works like the other oscillators when Granular is off. Turn Granular on to use an audio sample as many tiny pieces called grains.



Load a sample

- 1. Open the **Patch** page and find OSC 4. Turn its power on.
- 2. Switch its mode to **Granular**.
- 3. Choose **Import Sample**, then select an audio file. You can also drag an audio file onto the sample panel.
- 4. Play notes. Adjust POS and SIZE first; change one knob at a time.

Control	What you hear
Filter type / CUT / RES	Shape the OSC 4 sample tone. The filter is above the sample panel while Granular mode is on.
POS	Moves the place in the sample where grains are read.
SIZE	Changes how long each grain is. Small grains can sound noisy or buzzy; larger grains keep more of the sample shape.
DENS	Changes how many grains play close together.
PITCH	Tunes the sample playback.
SPRAY	Adds spread around the grain positions.
LVL / PAN	Set OSC 4 loudness and left/right position.

If you hear silence, confirm OSC 4 is on, a sample name appears, LVL is up, and the filter route is not blocking the sound.

Noise and oscillator filters

Noise adds a steady layer that can make a sound airy, rough, breathy, or percussive. Filters decide which parts of a sound stay.

Noise controls: Raise the Noise LVL to add it. Press the White button to switch between white and pink noise. Choose A, B, C, or DIR to send it through a filter bus or directly to the mix.

How to use a filter

- 1. Pick a sound source and route it to A, B, or C.
- 2. Choose a filter type from the menu.
- 3. Move **CUT** slowly while holding a note. Notice which frequencies disappear or return.
- 4. Move **RES** a little. It highlights the cutoff area. Back it down if the tone becomes too sharp.

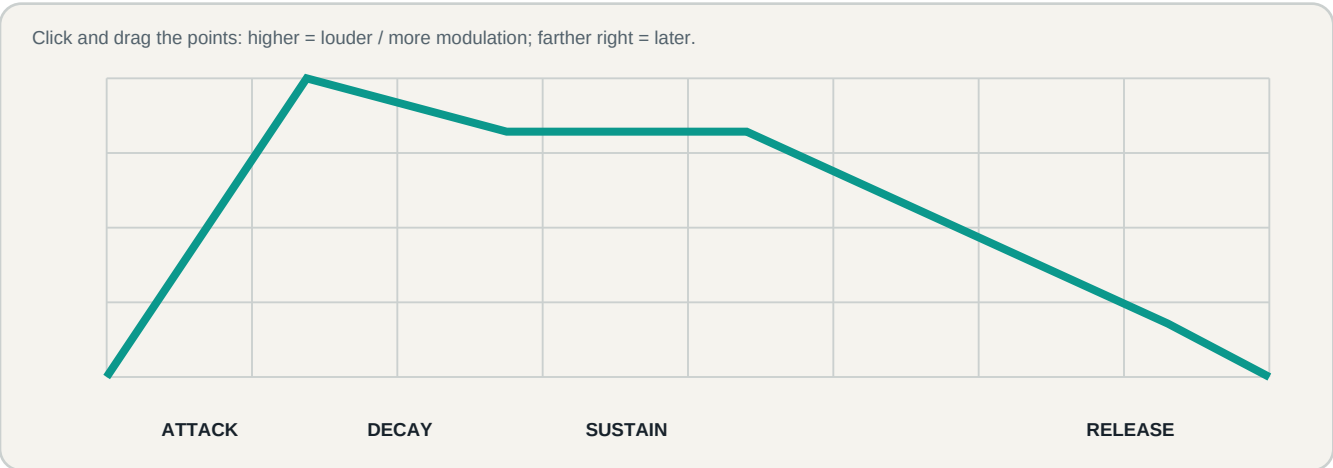
Filter idea	Try this
Low-pass	Lower the cutoff to remove high, bright parts.
High-pass	Raise the cutoff to remove low, bass-heavy parts.
Band-pass	Keep a smaller band of sound and reduce frequencies above and below it.
Resonance	Adds emphasis near the cutoff. It can make a moving filter sweep easier to hear.

The plugin also has Master Filters A, B, and C. They process the sources sent to their matching bus. Direct routing skips those bus filters.

A filter only changes sound sent to it. If turning Filter A does nothing, check whether any sound source is routed to A.

Envelopes: shape a note over time

An envelope is a sound-shape that starts when a note begins. The Amp Envelope controls loudness. Other envelopes can move a chosen control.



Stage	Plain meaning	What to try
Attack	How long the sound takes to rise after a key press.	Short for a quick start; longer for a soft swell.
Decay	How long it takes to fall from the first peak toward the held level.	Short for a quick drop; longer for a slow settling sound.
Sustain	The level while you keep holding the key.	Lower for a pluck; higher for a held tone.
Release	How long the sound fades after you let go.	Short for a clean stop; longer for a tail.

Draw a curve in an envelope

1. Select ENV 1, ENV 2, ENV 3, or ENV 4 in the Envelopes / LFOs area. ENV 1 is also the Amp Envelope.
2. Find the large graph. Drag a point to change when the envelope rises, falls, or holds.
3. Play and release the same note to hear the change.
4. Use the four ADSR knobs below the graph for quick overall timing and level changes.

For a pluck: use a fast Attack, low Sustain, and short-to-medium Release. For a pad: lengthen Attack and Release and keep Sustain higher.

LFOs: make controls move by themselves

An LFO is a repeating movement. It can wobble pitch, open a filter, or change another destination. FOUR x THREE has LFO 1-4 plus a Master LFO.

FREEHAND LOOP | drag across the graph to draw a repeating shape



SNAP: note step / FEEL: straight, dotted, triplet / GRID: visual divisions, X and Y

Control	What it does
Shape	Chooses a preset movement such as a smooth wave, ramp, or square step. Draw selects your own shape.
Rate	How fast the movement repeats. Turn on Sync to follow the song tempo, then choose a note division.
Depth	How far the chosen control moves. Raise slowly so the sound stays in tune and in balance.
Trigger mode	Controls how the LFO starts in relation to played notes. Check the on-screen choice to hear its behavior.
Smooth	Softens the edges of step-style movement when available.

Draw a freehand LFO

1. Select an LFO 1-4 tile. Open its Shape menu and choose **Draw**.
2. Set **Snap** to control where horizontal drawing points land: 1/1, 1/4, 1/8, 1/16, 1/32, 1/13, or 1/64.
3. Set timing feel to **Straight**, **Dotted**, or **Triplet**.
4. Set the display grid separately: horizontal X and vertical Y can each run from 1x1 through 16x16. The grid helps you see the curve; Snap controls the timing positions.
5. Drag across the graph to draw. Then set Rate, choose a destination in Mod Routing, and raise Depth a little.

Snap and Grid do different jobs: Snap controls note timing; Grid adds guide lines to the drawing area.

Mod Routing: connect movement to a control

Routing means telling one source to move one destination. For example: LFO 1 moves pitch, or ENV 2 opens a filter after a note begins.

The Mod Routing panel lists sources such as ENV 1-4, LFO 1-4, Velocity, Key Track, Master LFO, Mod Wheel, and Resonance. A destination is a control the source can move.

Make your first connection

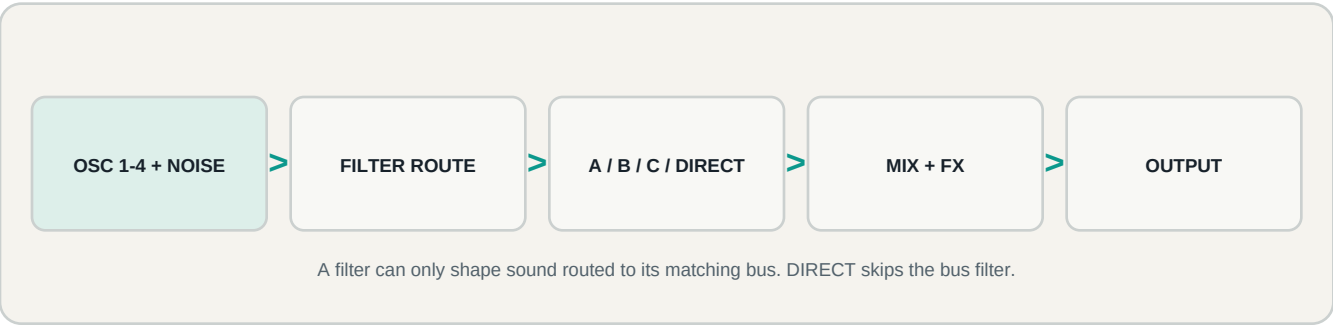
- 1. Choose the source row, such as **LFO 1**.
- 2. Open the destination menu and choose a destination, such as Osc 1 Pitch or a filter cutoff.
- 3. Raise the small Depth knob next to that route. Start low.
- 4. Play a note. If the movement is too big, lower Depth. If it moves the wrong way, adjust the depth direction/value.
- 5. For a drawn LFO, also check its Rate and Shape.

Part	Remember
Source	The mover: an LFO, envelope, wheel, or other source.
Destination	The control being moved: pitch, cutoff, level, or another available target.
Depth	How much the destination moves. Zero depth means no audible movement.
More than one route	An LFO can affect multiple targets when the additional route slots are used.

If nothing changes, check three things: the source is moving, the destination is correct, and Depth is above zero.

Mixer and Master Filters

The Mixer page helps balance sources and route them into three filter buses. Use it after individual oscillators sound right.



In simple terms: each source picks a route, the matching filter shapes that route, then the mixer and effects combine the sound. Direct is a bypass route around the A/B/C filters.

Try a clear mix

- 1. Turn on OSC 1 only and set its route to A.
- 2. Play a steady note. Find Master Filter A and gently move Cutoff.
- 3. Turn on OSC 2 and route it to B. Adjust its LVL until it blends with OSC 1.
- 4. If a layer sounds too muddy, lower its level or move its filter cutoff. Do not change every filter at once.

Panel	Main controls
Mixer	Bus levels, balance, and the signal sent onward. Use the screen labels as you work.
Master Filter A/B/C	Filter type, Cutoff, and Resonance for the matching routed bus. The response display shows the filter curve.
Output / Master Mix	Final plugin level and Adaptive Clip safety control. Keep enough headroom in the DAW.

If you route a source to B, turning Filter A will not change that source. Bus letters must match.

Harmonics, effects, and playing style

Use these sections after the core sound is balanced. They can add character, width, space, and performance response.

Harmonics page

The Harmonics Shaper uses 32 bands tied to the played note. Raise or lower parts of the harmonic picture to change brightness and tone. Start with small edits. If the sound gets harsh, return the strongest bands closer to the center.

Master FX

Effect	What it adds
Delay	Repeats the sound. Time sets spacing, Feedback sets how repeats continue, Mix balances dry and repeated sound.
Reverb	A room or tail around the sound.
Distortion	Adds grit and stronger harmonics. Drive controls how hard it is pushed; Mix balances it.
Chorus	Adds a moving, wider thickness.
Compressor	Controls level jumps and helps sounds feel more even.
Soft Clip	Gently rounds peaks to help control sharp output spikes.

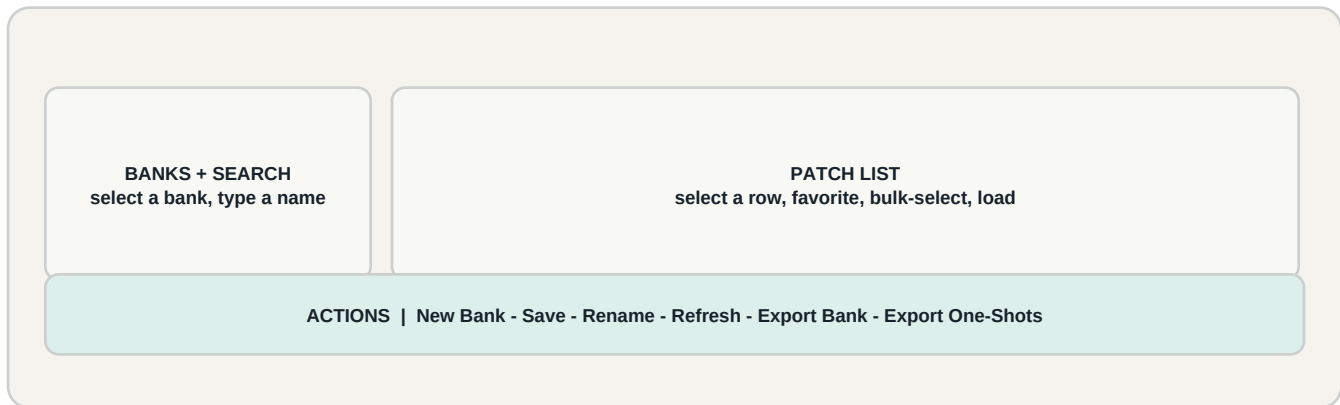
Voicing and performance

Control	Use
Poly / Mono	Poly lets several notes play together. Mono focuses on one note at a time.
Voices	How many notes/voices can sound at once in Poly mode.
Glide	Slides pitch between connected notes when enabled.
Legato	When enabled, overlapping notes move pitch without restarting envelope/LFOs.
Pitch wheel	Bends pitch; it springs back to center when released.
Mod wheel	Sends modulation (CC1), often used to add LFO movement.

Add one effect at a time. Lower the dry sound or effect mix if the result becomes cloudy.

Presets and banks: save the sounds you make

A preset is one saved patch. A bank is a folder that groups related presets. Save before experimenting if you want to keep a sound.



Save a preset

1. Use the **Presets** tab. Click **Save** or the preset name, enter a name, and confirm.
2. To edit a saved patch, load it, make changes, then save/overwrite using its name. If you want both versions, use **Save As** with a new name.
3. Use search to find names. Select a bank on the left to view its presets. Favorites and Auto-Saves are separate views.
4. Create a new bank to group a set, such as Pads, Leads, or Drum Hits.

Your main preset folder is **Documents/Four By Three/Presets**. The plugin makes it automatically. The **Autosaves** folder contains recent safety copies. Refresh the browser after adding files outside the plugin.

Auto-Saves are rough drafts. They help recover work, but give favorite patches clear names and save them into your own bank.

Skins and library folders

Skins change the look of the plugin. They do not change the sound controls or the layout.



The patterned previews use texture images embedded in the installed skin bundles. Blue, Red, and Grey use color palettes; Workstation, Race Car, and the Bandana skins also add their material texture.

Choose a skin

- 1. Open **Settings**. Find **Appearance**.
- 2. Choose Default, Blue, Red, Grey, Workstation, Cream Bandana, Pink Bandana, or Race Car.
- 3. To add a single skin file, put its **.fbt-skin** file in **Documents/Four By Three/Skins**.
- 4. Return to Settings and click **Refresh Skins**, then choose the new skin.

Folder	What belongs there
Documents/Four By Three/Presets	Your saved patches and banks.
Documents/Four By Three/Samples	Audio samples for OSC 4.
Documents/Four By Three/Skins	Single-file skin bundles.
Documents/Four By Three/Wavetables	Wavetable files installed by your master installer.

You can choose a different Samples folder in Settings; it applies right away. Choosing a different Wavetable folder takes effect after you close and reopen the plugin.

Keep the master installer and its Wavetables library. The Patch update does not replace that library.

Export a clean one-shot WAV

A one-shot is a short audio file made from a patch. It is useful for a sampler, a drum pad, or a quick audio layer in a DAW.

Export one or more patches

1. Open the **Presets** browser. Click the checkboxes beside the patch or patches you want.
2. Choose **Export Selected as One-Shots**. Wait while the button says Rendering.
3. The plugin writes clean 7-second WAV files to **Documents/Four By Three/Presets/Exports/OneShots**. Finder opens the folder after a successful render.
4. Listen to the WAV in your DAW or a media player before using it in a project.

Send a one-shot to OSC 4

1. After you click Export Selected as One-Shots, a question asks: **Also load the first selected one-shot into OSC 4?** Choose Yes to load it. Choose Cancel if you only want the WAV files.
2. The plugin loads the first selected file and switches OSC 4 to Granular mode.
3. Play a note and adjust OSC 4 POS, SIZE, DENS, PITCH, and SPRAY to shape the sample.

The export is seven seconds long. If the patch has a long fade or effects tail, listen to the file and adjust the patch before exporting again.

Algo Farm: let patches grow while the plugin is open

Algo Farm makes four new hybrid patches every three minutes while a FOUR x THREE instance is open. It uses three existing patches as donors.

What it changes

- It picks three different source patches from your Presets library.
- It mixes patch settings from those source patches to create new combinations.
- Active wavetable oscillators can receive new wavetable choices.
- If OSC 4 is already Granular, it changes Position and Size slightly.
- If a sound source is Noise, Algo Farm leaves its noise settings alone.
- It saves its new patches in **Documents/Four By Three/Presets/Algo Farm**.

Use it safely

1. Make sure at least three regular preset files exist outside Autosaves and Algo Farm.
2. Leave a plugin instance open in the standalone or a running DAW. Algo Farm does not create future patches while the plugin is closed.
3. Wait three minutes for a batch of four. Open Presets and choose the Algo Farm bank/folder to browse them.
4. Keep the patches you like by saving a copy in your own bank. Delete or ignore experiments you do not want.

Algo Farm is a creative helper, not a replacement for listening. Preview each generated patch and keep only the ones that work for your track.

Practice 1: make a short pluck

A pluck starts quickly and fades while you hold a key. Work through each step and listen after each change.

1. Click **Init**. Turn on OSC 1 only. Choose a bright wave that has clear high tones.
2. Lower the Amp Envelope **Sustain** so the held note gets quieter.
3. Keep **Attack** short so the note begins right away. Set a medium **Decay** and a short **Release**.
4. If the sound is too bright, lower OSC 1 Cutoff. If it becomes too thin, raise Cutoff a little.
5. Use a little Resonance only if you want a brighter peak near the cutoff.
6. Add OSC 2 at a lower LVL if you want extra body. Tune it slightly only if the blend sounds too plain.
7. Save it as “My First Pluck”.

Listen for this

The note should start quickly, then fall away. If it keeps ringing, lower Sustain or shorten Release. If it is too quiet, raise OSC 1 LVL first; then check the Master output.

Do not chase exact numbers yet. The goal is to hear what Attack, Decay, Sustain, and Release each do.

Practice 2: build a soft pad

A pad fills space and changes slowly. Long envelopes and gentle movement help make it feel wide and calm.

1. Start from Init and turn on OSC 1 and OSC 2. Choose two waves that sound different.
2. Set a slower Amp Envelope Attack so the sound fades in instead of starting sharply.
3. Set Sustain high enough to keep the note present while you hold the key. Add a longer Release so it trails away.
4. Lower OSC 1 Cutoff until the sharp edge softens. Adjust Resonance only a little.
5. Set OSC 2 slightly quieter than OSC 1. Use Pan to place the layers slightly apart.
6. Select LFO 1, draw or choose a smooth shape, and route it to a filter cutoff. Set a slow Rate and low Depth.
7. Hold a chord. If the sound wobbles too much, lower Depth. If it fades too slowly, shorten Release.
8. Save it as "My First Pad".

Make a granular texture

1. Load a sample into OSC 4 and turn on Granular mode.
2. Set OSC 4 LVL low at first. Route it to a filter bus if you want to shape it.
3. Move POS to find a different section of the sample. Change SIZE to choose smaller or larger grains.
4. Raise DENS gradually. Add SPRAY only if you want a more scattered sound.
5. Play single notes and chords. Save each useful variation as a separate patch.

DAW, MIDI, and everyday fixes

FOUR x THREE works as a plugin or as a standalone instrument. In a DAW, the DAW sends MIDI notes and records automation.

Problem	Check this first
No sound	Oscillator power and LVL; sample loaded for OSC 4; filter route; Amp Envelope; plugin and track output.
Sound is too sharp	Lower Cutoff, lower Resonance, reduce distortion, or reduce Harmonics bands.
Sound is too quiet	Raise the active oscillator LVL, then check Master Mix and DAW track volume.
OSC 4 has no sample	Use Import Sample or drag an audio file onto OSC 4. Confirm the sample name appears.
LFO does not move anything	Pick a destination in Mod Routing and raise route Depth. Check LFO Rate and Depth.
Skin does not appear	Check the file ends in .f3t-skin and is in Documents/Four By Three/Skins; click Refresh Skins.
Wavetable folder changed but list did not	Close and reopen the plugin so it scans the new folder.
A note keeps ringing	Check the host sent Note Off; lower Amp Release; check LFO/envelope retrigger settings and the DAW MIDI clip.

MIDI in Standalone

In Standalone, use Refresh MIDI to rescan connected MIDI devices. The keyboard at the bottom can also play notes. In a DAW, use a MIDI track or instrument track and route its notes to FOUR x THREE.

Protect your work

Save an important patch before experimenting. Keep backups of your Presets folder before moving files or reinstalling. A DAW project may store plugin state, but named presets are easier to reuse in other projects.

Quick reference: every main control

Use this page as a reminder after you have tried the controls once. If a sound does not change, check routing and the source LVL.

Control	Short meaning
LVL / Level	How much of this sound layer you hear.
PAN	Left/right placement.
PITCH	Tune the oscillator or sample.
CUT / Cutoff	Filter brightness point. Lower often sounds darker.
RES / Resonance	Emphasis near the filter cutoff.
POS / SIZE / DENS	OSC 4 granular start point, grain length, and grain amount.
SPRAY	Variation in granular playback positions.
Attack / Decay / Sustain / Release	How a note starts, falls, holds, and fades.
Rate / Depth	How fast an LFO moves and how far it moves its target.
Snap	Timing step for drawing an LFO.
Grid X / Grid Y	How many horizontal/vertical guide divisions appear in the LFO drawing area.
Source / Destination / Depth	What is moving, what it moves, and by how much.
A / B / C / DIR	Filter bus routing; Direct skips bus filters.
Feedback / Mix	For effects: how much repeats continue, and how much effect blends with the original.

Sound-building checklist

1. Choose a sound source. 2. Set its LVL and route. 3. Shape it with the Amp Envelope and filter. 4. Add one modulation route. 5. Add effects only after the sound works dry. 6. Save the patch with a name you will remember.

The fastest way to learn is to change one control, play the same note, and listen. You are the sound designer.