Tiptop Audio — MODFX FSU

- Manual PDF

Tiptop Audio ModFX / FSU Manual PDF

Using Tiptop Audio ModFX + FSU Together for Melodic Eurorack Patches

These two 8hp modules are not “oscillators” in the traditional sense, but together they can absolutely generate and shape **melodic material** from simple sources, short impulses, loops, and external audio.

Quick take

- **ModFX** is best for turning simple tones into:
- stereo chorus voices
- resonant pitched delays
- Karplus/plucked pseudo-strings
- phaser/formant/filter movement that emphasizes melody
- **FSU** is best for:
- pitch-warping and granular melodic fragments
- Sound-on-Sound looping for phrase capture
- distortion/frequency shifting for harmonic coloration
- varispeed and pitch-shifted playback for transposed motifs

Together, they work especially well for: 1. **Karplus and resonator-based pitched voices** 2. **Looped melodic fragments** 3. **Granular/pitch-shifted lead lines** 4. **Stereo doubled melodic textures** 5. **Choir/formant-based pseudo-vocals** 6. **Evolving harmonized delays and chord clouds**

What each module contributes melodically

ModFX melodic strengths

From the manual, the most melody-relevant programs are:

Flanger bank

- **Short Karplus**
- **Dual Karplus**
- **Interval Karplus**
- **Chord Resonator**
- **Haas Detune**

These are the most obviously “pitched” functions.
They can turn triggers, clicks, noise bursts, and percussive audio into tuned tones.

Chorus bank

- **Vintage Random Vibrato**
- **Dual Vibrato**
- **Tri Stereo Chorus**
- **6 Voice Chorus**
- **Random Chorus 4 Voice**

These don’t generate melody on their own, but they are excellent for making a mono melody into something larger, animated, and harmonically richer.

Filter bank

- **Formant Ping Pong Delay**

- **Ahh Detuned**
- **Tape Filter**
- **Quad Bandpass LFO**
- **Many 1 Pole**

These are useful for turning harmonically rich oscillators into vowel-like leads, moving spectral melodies, and animated stereo parts.

FSU melodic strengths

Glitch/Warp bank

- **Glitch Pitch**
- **Varispeed**
- **Varispeed Grains**
- **Random Grain**
- **Pitch Grain**
- **Random Grain Fb2**
- **Many Head Pitch Feedback**

This bank is ideal for taking an existing melody or short motif and turning it into transposed, fragmented, or granulated melodic material.

Sound on Sound bank

- **Dual Head**
- **Dual Pitch**
- **Chorus**
- **Varispeed**
- **Panning Heads**
- **Random Grains**
- **Buffer Degrade**
- **Frozen Plate**

This bank is very useful for capturing phrases and replaying them as melodic loops, harmonized layers, and shifting textures.

Distort bank

- **Ring Mod Sine**
- **Dual Ring Mod**
- **Frequency Shifter**
- **Dual Frequency Shift**
- **Tape Saturation**

These are less “melody generators” and more harmonic enhancers/destructors. But used carefully, they can create sidebands and tuned coloration that support melodic lines.

Best ways to create melodic components

1. Use ModFX as a plucked-string voice

The strongest melodic trick in this pair is **Karplus-Strong** on ModFX.

Best programs

- **Short Karplus** — mono plucked voice
- **Dual Karplus** — stereo two-note pitched result
- **Interval Karplus** — easy interval-based harmonies
- **Chord Resonator** — turns impulses into chord-like resonances

What to feed it

Use: - trigger clicks - short envelopes pinging a VCA - noise bursts - short percussion sounds - a filtered impulse - sharp attack waveforms

Why this works

Karplus patches create a perceived pitch from a short excitation into a feedback delay line. That means **you do not need a full oscillator voice** to get a note-like result.

Musical uses

- plucked bassline
- pseudo-harp sequence
- tuned percussion melody
- stereo dyads and interval lines
- chord stabs from triggers

Patch idea

Trigger sequencer → short click/noise burst → ModFX Dual Karplus

Then: - **Rate** controls right-side pitch - **Depth** controls left-side pitch - **Filter** controls feedback/decay

Add CV to Rate and Depth and you get moving interval relationships.

Great follow-up

Send the result into **FSU Tape Saturation** or **Clipper** to add body and presence.

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2. Capture a melody in FSU and re-harmonize it

FSU's **Sound on Sound** bank is very strong for melodic phrase processing.

Best programs

- **Dual Pitch**
- **Dual Head**

- **Varispeed**
- **Random Grains**
- **Frozen Plate**

Why this works

You can record a short phrase or note into the SOS buffer and then: - shift pitch independently left and right - scrub to different positions - reverse or varispeed playback - create harmonized or stretched versions

Musical uses

- canon-style echoes
- harmonized motif layering
- octave-up/down replay
- reversed melodic phrases
- looping micro-phrases as hooks

Patch idea

Oscillator melody → VCA → FSU SOS Dual Pitch

Use: - **Gain** as recording amount into buffer - **Filter** = one playback pitch - **Depth** = the other playback pitch

Record only short note groups. Then tune left/right heads into: - octave + fifth - unison + octave - minor third + fifth

You get a playable harmonizer/phrase doubler.

Pro tip

The manual notes **Fidelity changes memory time and pitch behavior**, so this becomes a compositional tool: - record at high fidelity - reduce fidelity - transpose playback - use resulting time-stretch-ish artifacts as melodic texture

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3. Use FSU Glitch/Warp as a melodic variation engine

The **Glitch/Warp** bank can make melodies from incoming notes or loops feel alive and unstable.

Best programs

- **Glitch Pitch**
- **Pitch Grain**
- **Varispeed**
- **Varispeed Grains**
- **Many Head Pitch Feedback**

Why it's useful

This bank doesn't just "destroy" sound. It can make: - new transpositions - fluttering pitch ornaments - granular repeats that behave like arpeggios - fractured but musical lead textures

Patch idea

Simple saw/square melody → FSU Pitch Grain → ModFX Tri Stereo Chorus

FSU creates shifting pitch/grain melody fragments.
ModFX widens and smooths them into a lush stereo lead.

Good sources

- a dry sequenced oscillator
- a sampled vocal phrase
- a kalimba/pluck sound
- a sine or triangle for clean pitch results
- short loops from the SOS bank

Musical results

- “Boards of Canada” warped lead
- broken tape melody
- ambient granular arps
- detuned synth-hook fragments

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4. Turn one melody into a stereo ensemble

ModFX excels at taking a plain melodic line and making it sound like multiple performers.

Best programs

- **6 Voice Chorus**
- **Tri Stereo Chorus**
- **Dimension**
- **Vintage Ensemble**
- **Random Chorus 4 Voice**
- **Dual Vibrato**

Why this matters melodically

A melody often feels small when it’s a single dry line. These programs add: - detuning - motion - stereo spread - pseudo-multi-tracking - ensemble thickness

Patch idea

VCO → filter/VCA → ModFX Vintage Ensemble or Tri Stereo Chorus

For best results: - use a simple waveform - try mostly wet or fully wet where recommended - modulate Rate or Depth slowly with CV for organic drift

Good uses

- string-machine chords
- animated mono leads
- doubled bass motifs
- chorused arpeggios
- vintage synth-pop melody lines

Specific standout

Vintage Ensemble is especially nice for melodic pads and string-style counterlines.
The manual notes that **Rate adds octave-down pitch**, which can thicken a melody into a more harmonically grounded line.

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5. Build harmonic intervals with ModFX, then loop them with FSU

One of the strongest pairings is:

1. Generate tuned or interval-based material in **ModFX**
2. Capture and repeat it in **FSU SOS**

Example workflow

- Use **ModFX Interval Karplus**
- Feed it rhythmic triggers or short bursts
- Dial in a stable interval
- Send stereo output to **FSU Dual Head** or **Dual Pitch**

Now you have: - a generated dyad or harmonic gesture - which can be looped, replayed, pitch-shifted, and layered

Result

This can create: - ostinatos - pseudo-sequenced string patterns - ambient pluck loops - evolving harmonic motifs

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6. Use formants to make melodies read more clearly

Melody is not just pitch; it's also **timbre articulation**. ModFX has several programs that help notes speak.

Most useful

- **Ahh Detuned**
- **Formant Ping Pong Delay**
- **Tape Filter**
- **Many 1 Pole**
- **Quad Bandpass LFO**

Why they help

A simple saw melody can become: - vowel-like - more vocal - more animated - more separated in the mix

Patch idea

Rich oscillator → ModFX Ahh Detuned

Use: - **Filter/Fdback** to tune formants - **Rate** and **Depth** to detune left/right

This gives you choir-like pseudo-vocals for leads and melodic drones.

Then send that into: **FSU Frozen Plate** for a sustained vocal cloud.

The best module orderings

ModFX → FSU

Use this when ModFX is creating the initial melodic identity.

Best for: - Karplus plucks into looping/granular processing - chorused leads into varispeed/granular warp - formant voices into SOS looping

Example

Noise burst → ModFX Chord Resonator → FSU Random Grains

Result: - pitched chordal resonances - chopped into moving granular melodic particles

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FSU → ModFX

Use this when FSU is generating fragments and ModFX is beautifying or stabilizing them.

Best for: - warped loops into chorus - glitch pitch into vibrato/ensemble - SOS phrases into stereo imaging

Example

Melody source → FSU Glitch Pitch → ModFX Dimension

Result: - unpredictable pitch movement - polished into a wide stereo melodic texture

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Feedback loop between both

This is where things get very interesting.

Example

Source → ModFX Karplus/Resonator → FSU Many Head Pitch Feedback → back to source mixer/send

You can get: - cascading tuned resonances - harmonically smeared repeats - self-building melodic ambience

Keep levels controlled.

Best melodic patch recipes

A. Stereo plucked duet

- Trigger sequence into short noise burst
- Into **ModFX Dual Karplus**
- CV sequence to **Rate** and **Depth** for left/right pitch
- Moderate **Filter** for decay
- Into **FSU Tape Saturation**

Result: stereo plucked melody with warmth and attack.

B. Harmonized loop canon

- Record a short melody into **FSU SOS Dual Pitch**
- Set one side unison, the other fifth or octave
- Send to **ModFX Tri Stereo Chorus**

Result: wide harmonized hook line.

C. Choir lead

- Saw oscillator or wavetable source
- Into **ModFX Ahh Detuned**
- Tune formants with Filter
- Add subtle detune on left/right
- Into **FSU Frozen Plate**

Result: vocal-like sustained melodic voice.

D. Broken tape arp

- Arpeggio from oscillator into **FSU Varispeed Grains**
- Modulate speed slowly and unevenly
- Send output into **ModFX Dimension** or **6 Voice Chorus**

Result: unstable but lush melodic repeats and shimmer.

E. Chord percussion to melody

- Triggered clicks or percussive bursts
- Into **ModFX Chord Resonator**
- Tune resonance and damping
- Feed result into **FSU Random Grain Fb2**

Result: struck chord fragments evolving into melodic clouds.

F. Animated stereo lead

- Clean VCO melody into **FSU Pitch Grain**
- Dial moderate pitch shift and grain movement
- Into **ModFX Vintage Ensemble**
- Mix mostly wet

Result: a lead that sounds layered, unstable, and lush.

CV strategies for melodic use

Both modules have **3 CV inputs mapped to the 3 DSP parameters**, which is very important.

Best modulation sources

- stepped random for note-like jumps

- quantized CV
- slow LFO for drift
- envelopes for per-note movement
- sample & hold
- sequencer rows

Smart melodic modulation targets

On ModFX

- **Karplus pitch controls** with quantized CV
- **Chord type / interval** with stepped CV
- **Formant tuning** with slow or sequenced CV
- **Feedback/decay** with envelopes for expressive phrasing

On FSU

- **Pitch shift amount** with quantized CV
- **Playback position** with stepped voltage
- **Varispeed** with bipolar CV for forward/reverse gestures
- **Grain spread** with envelopes or random for note density changes

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Best source materials for melodic results

These modules become more melodic when you feed them the right material.

Especially good sources

- short filtered noise bursts
- trigger clicks
- plucky envelopes through a VCA
- simple waveforms: saw, pulse, triangle

- speech/vocal snippets
- short melodic loops
- percussion with strong transients

Less ideal sources

- dense full mixes
- already heavily reverberant sources
- harmonically cluttered audio if you want clear pitch

Programs most useful specifically for melody

Top ModFX programs

1. **Dual Karplus**
2. **Interval Karplus**
3. **Chord Resonator**
4. **Vintage Ensemble**
5. **Tri Stereo Chorus**
6. **Ahh Detuned**
7. **Formant Ping Pong Delay**
8. **Haas Detune**

Top FSU programs

1. **SOS Dual Pitch**
2. **SOS Varispeed**
3. **SOS Dual Head**
4. **Glitch Pitch**
5. **Pitch Grain**
6. **Varispeed Grains**
7. **Random Grain Fb2**

8. **Frozen Plate**

Practical musical roles in a patch

Lead voice enhancer

- Oscillator voice → ModFX chorus/vibrato
- Optional FSU saturation or grain after

Plucked melodic generator

- Trigger/noise burst → ModFX Karplus
- FSU for looping, pitch layering, degradation

Harmonizer / doubler

- Melody → FSU Dual Pitch
- ModFX stereo chorus after

Vocal/formant melody shaper

- Rich waveform → ModFX Ahh Detuned / Formant Ping Pong Delay
- FSU Frozen Plate after

Ambient melodic looper

- Short phrase → FSU SOS
- ModFX chorus/phaser/filter for movement

My recommended pairings

Best “musical” pairing

ModFX Interval Karplus → FSU Dual Pitch

Creates tuned plucks, then harmonizes or mirrors them.

Best “lush lead” pairing

FSU Pitch Grain → ModFX Tri Stereo Chorus

Creates broken/pitched fragments, then turns them into a polished stereo synth line.

Best “ambient melody” pairing

ModFX Chord Resonator → FSU Frozen Plate

Turns percussive hits into resonant chord tones suspended in reverb-like space.

Best “vocal melody” pairing

ModFX Ahh Detuned → FSU SOS Varispeed

Creates choir-like tones and then stretches/reverses them into phrases.

Bottom line

These modules can work together melodically in three major ways:

1. **ModFX generates or emphasizes pitch**
2. especially with Karplus, resonators, detune, formants, and chorus

3. **FSU captures, transposes, fragments, and repeats melodic material**

4. especially with SOS, pitch/grain, and varispeed modes

5. **Together they turn simple sources into full melodic textures**

6. plucks
7. harmonized loops
8. vocal-like leads
9. evolving stereo hooks
10. granular melodic atmospheres

If you want, I can also turn this into: - a **“best melodic patches” cheat sheet** - a **signal-flow diagram** - or a **program-by-program ranking for ambient / techno / IDM / soundtrack use**

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