HOOK FM

drones, chords and cities for the m-vave fm-1. a generative drone that is always breathing, chords that always fit it, and 21 cities to play them in.



GUIDE

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HELLO

hook fm turns the fm-1 into a little instrument that plays itself. switch it on and a drone fades in. wait a few bars and chords start to arrive on their own. touch a key and you take over. leave it and it carries on.

everything is tuned to a city. there are 21 of them, from brooklyn to cusco, each with its own key, its own scale, its own sound and its own picture on the screen. the chords always fit the drone, so there are no wrong notes.

WHAT'S INSIDE

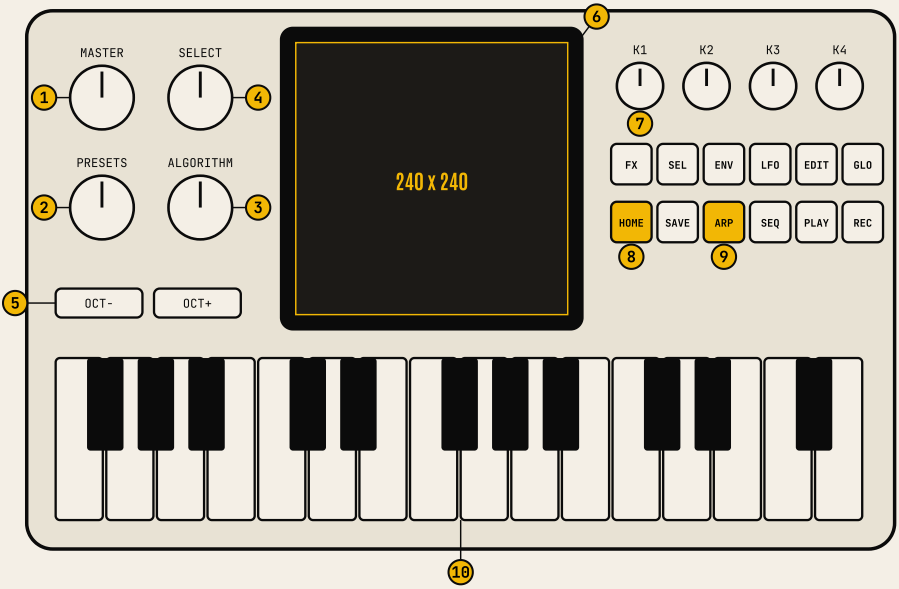
drone	moog-style ladder or arp 2600-style
chords	a cs-80-style voice, two layers a note
wander	picks the next chord every few bars
arp	six speeds, four patterns, up to 3 octaves
fx	two ms-20-style filters, two tape delays
patterns	64 slots, the whole sound in each
cities	21, with their scales and pictures

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the one rule: **every button opens its own screen. press it again on that screen and it does that screen's job.** the four knobs k1 to k4 change with the screen, and their names are always along its bottom.

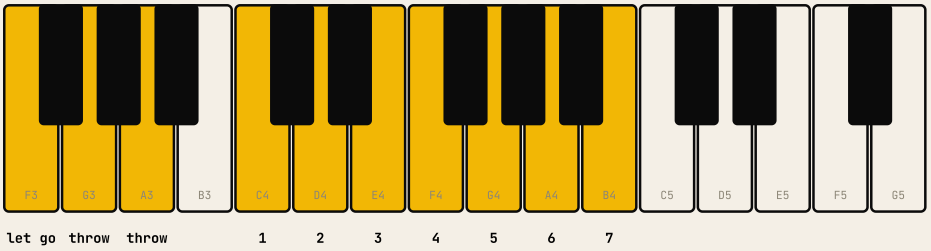
01 THE PANEL



1. **master** volume
2. **presets** knob: the city
3. **algorithm** knob: chord brilliance
4. **select** knob: arp gate
5. **oct- oct+**: the chords' octave, 2 down to 2 up
6. **the screen**: one for every button
7. **k1 to k4**: change with the screen
8. **the buttons**: each opens a screen
9. lit button: the screen you're on, and arp / wander when they're on
10. **the keys**: chords, let go, throws

the second button reads sel on the fm-1 and scl in the emulator. same button.

02 THE KEYS



C4 and up: **the city's chords**, one a key. pentatonic cities have 5, seven-note cities have 7, then they repeat up the keyboard.

F3 **let go**: the chords stop, the drone glides home.

G3 held: **throw the drone** into its tape delay.

A3 held: **throw the chords** into theirs. let go and the echoes trail off.

03 QUICK START

1. switch on. it starts in brooklyn and the drone fades in.
2. wait a few bars. wander starts playing chords by itself.
3. press a white key from c4 to take over. your chord, your timing.
4. press ARP twice: the arp screen, then the arp on. turn k1 for speed.
5. hold A3 for a dub throw on the chords.
6. turn **presets** for the next city. the whole sound changes with it. OCT- OCT+ move the chords' octave.
7. like it? REC a white key for a slot, REC again. saved.

04 THE SCREENS



HOME PLAY

the city, alive. windows flicker and water shimmers with the sound, rain and clouds follow weather, sparks rise off every chord. the chord's name sits on top, the pads below.

k1 weather
k2 drone color
k3 chord filter
k4 chord echo

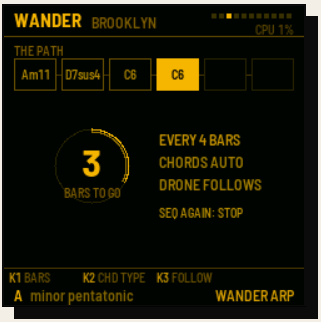


ARP ARP

the chord's notes on a ring, fired one by one: every note throws sparks off its step. the speed big in the middle, the notes lighting up on the keyboard below.

k1 speed: 1/4 1/8 1/8t 1/16 1/16t 1/32
k2 up, down, up-down, random
k3 octaves, 1 to 3
k4 gate, short to long

press again: **arp on / off**



SEQ WANDER

where the chords have been, and a ring counting down the bars to the next one.

k1 every 2, 4, 8 or 16 bars
k2 chord type: auto or a fixed one
k3 drone follows the chords, or stays

press again: **wander on / off**



PLAY TRANSPORT

the tempo, four beat lights, playing or stopped. the arp, wander and both delays all follow the tempo.

k1 tempo, 50 to 140 bpm
k2 drone level
k3 chord level

press again: **start / stop**

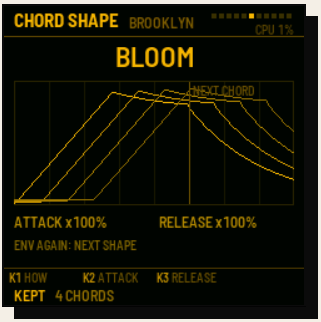


REC PATTERNS

64 slots in 4 banks. the 16 white keys are the bank's slots: press one to pick it, a filled one loads and plays. more on page 10.

k1 bank a, b, c, d
k2 slot

press again: **save the whole sound here**



ENV CHORD SHAPE

how a chord's notes come in and fade, drawn. bloom lets each note swell in one after another, strum rolls them, harp plucks up two octaves, hold just holds.

k1 hold, strum, bloom, harp
k2 attack, faster or slower
k3 release, shorter or longer

press again: **next shape**

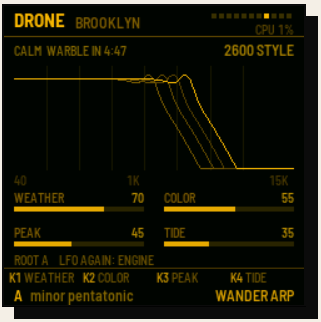


EDIT CHORD VOICE

the cs-80-style voice: its two layers, their waves, how each one's filter swells open, and the vibrato that fades in.

k1 strings, brass, velvet
k2 brightness
k3 vibrato depth

press again: **next tone**



LFO DRONE

the drone's four voices, each filter breathing on its own, slowly. it stays calm for five minutes, with a countdown, then the warble eases in by itself: on the 2600, a dot shows the sample-and-hold.

k1 weather, still to storm
k2 color, dark to open
k3 peak, soft to howling
k4 tide, the slow swell

press again: **ladder / 2600**



FX EFFECTS

both chains. each has a dj filter with ms-20 bite, one knob both ways like a club mixer: left is low-pass, the middle is off (it clicks), right is high-pass. drawn as its curve, with a dial. and a tape delay, drawn as two reels spinning with the time and wobbling with the wear. they flash on a throw.

k1 drone filter: lp, off, hp
k2 drone echo
k3 chord filter: lp, off, hp
k4 chord echo



GLO WORLD

a map of the world with all 21 cities. the one playing has crosshairs and a ring that breathes, its name, key, scale and mood below. the presets knob changes city from any screen too.

k1 city

press again: **next city**



SEL SETUP

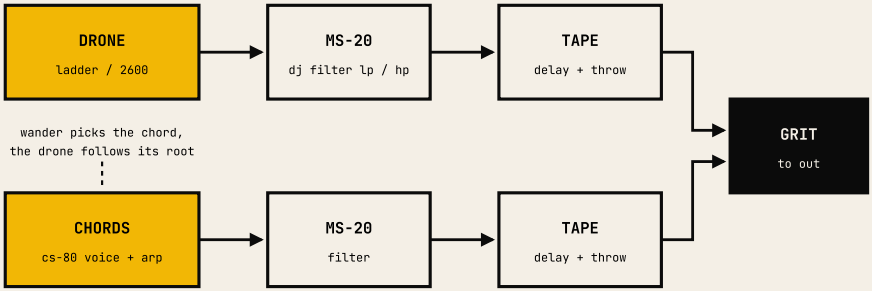
the drone engine, grit, tape wear, the output level, and how hard the chip is working. late means the sound ran out of time: a crackle.

k1 grit, the sp-1200-style crunch
k2 engine
k3 drone filter peak
k4 tape wear, both delays

ALWAYS, ON ANY SCREEN

OCT- OCT+	the chords' octave, -2 to +2. the drone stays put. lit when shifted
SAVE	remember this city for next time
presets knob	the city
algorithm knob	chord brilliance
select knob	arp gate

05 THE SOUND



two chains, so the drone and the chords each get their own filter and their own echo

THE DRONE

ladder: three detuned oscillators into a warm 24 db filter, moog style. **2600**: two oscillators bending each other, a ring modulator and a sample-and-hold on the filter. weather sets how deep the slow motion goes, tide how much it swells. everything moves on slow waves, 20 to 90 seconds a breath, made to sit with. the warble (the 2600's sample-and-hold, cross and ring modulation) waits five minutes, eases in over four, then ebbs and returns. a new city starts the calm again.

THE CHORDS

cs-80 style: two layers a note, each with its own high-pass and low-pass filter, a filter swell, and vibrato that fades in. the root is left to the drone, so the chords float above it.

THE ARP

plays the chord on the tempo's grid instead of holding it, through the chord chain, so the filter, the echo and the throw all hit it.

FILTERS, TAPE, GRIT

the dj filters go both ways from one knob: low-pass to the left, high-pass to the right, off in the middle. they have ms-20 bite: push the peak and they scream instead of ringing clean. the tape delays wobble, get darker on every repeat and can run away. grit is an sp-1200-style crunch over everything.

06 PATTERNS



64 patterns: 4 banks of 16. a pattern is the whole sound, frozen.

the city, the tempo, every knob, the arp, the chord shape and voice, both filters and delays, the chords' octave and the last 8 chords you played. load it and the chords play back in their order, on the wander clock.

they're kept when you switch off.

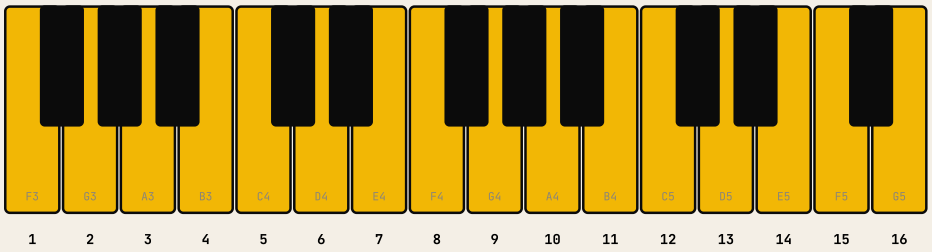
SAVE ONE

1. play some chords you like. the last 8 are kept.
2. press REC for the patterns screen.
3. k1 picks the bank. a white key picks the slot.
4. press REC again. saved.

PLAY ONE

1. press REC, k1 to the bank.
2. press the white key. the city, the sound and the chords come back, and it plays.
3. change city by hand and the pattern lets go: you're free again.

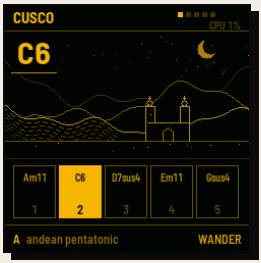
on the patterns screen the white keys are slots, not chords. press HOME to play chords again.



07 THE CITIES







CITY	KEY	SCALE	CHORDS	DRONE	VOICE	MOOD
madrid	D	phrygian dominant	5	ladder	velvet	iberian gold
paris	C	lydian	5	ladder	velvet	cafes + gaudi refs
medellin	D	major pentatonic	5	ladder	velvet	comuna color
brooklyn	A	minor pentatonic	5	2600	brass	warehouse brick
berlin	G	dark phrygian	5	2600	strings	concrete brutalism
tokyo	D	hirajoshi	5	ladder	velvet	lantern hirajoshi
st. louis	A	blues mixolydian	5	ladder	brass	arch of return
mexico city	E	major pentatonic	5	ladder	velvet	altitude + altars
oaxaca	A#	aeolian pentatonic	5	ladder	strings	mezcal and mole
tulum	D	lydian pentatonic	5	ladder	velvet	jungle cenote
rishikesh	C	raga yaman	5	ladder	strings	ganges at dawn
varanasi	A	raga bhairavi	5	2600	strings	oldest city
bombay	C	bilawal	7	2600	brass	rickshaw thunder
addis ababa	D	tezeta pentatonic	5	ladder	velvet	ethio-jazz + coffee
lagos	G	dorian	7	2600	brass	afrobeat shrine
accra	D	mixolydian	7	ladder	velvet	palm-wine highlife
kingston	A	aeolian	7	ladder	brass	sound system sundown
cusco	A	andean pentatonic	5	ladder	strings	altitude + ancestors
salvador	D	dorian	7	2600	brass	pelourinho heat
rio	D	mixolydian	7	ladder	velvet	bossa soft, baile hard
buenos aires	A	harmonic minor	7	ladder	strings	bandoneon melancholy

the cities and their scales come from hop pyramid, on thespacepit practice site. each one's sound is a first draft. tune it, then save it as a pattern.

08 INSTALL

TRY IT FIRST, IN THE BROWSER

1. open joakimeriksson.github.io/fm1-emu
2. set clock to **240 mhz**, the real fm-1's speed. at 100 it can crackle.
3. **open .fwsc**, pick hookfm.fwsc, press start.

EMULATOR KEYS

a s d f g h j	chords from c4	**1 2 3 4**	fx sel env lfo
z x	chord octave	**5 6 7 8**	edit glo home save
space	play	**9 0**	arp seq
r	rec	**mouse**	knobs, f3 g3 a3

ON YOUR FM-1

connect it to a computer over usb. install hookfm.fwsc with the fm-1 firmware hub (thefirmwarehub.com) or the fm1-base installer. it takes about a minute.

GOING BACK

install m-vave's own firmware the same way, any time. if the fm-1 ever won't start, **hold oct- while switching it on**: it waits for an update over usb.

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custom firmware is installed at your own risk. hook fm is not made or supported by m-vave.

NOTES

hook fm	nick hook / thespacepit. the app, the sound engine, the screens and the city art are ours, all rights reserved.
built on	fm1-base by charles vestal and felucca-bsp by leo kuroshita / hugelton instruments, mpl-2.0.
world map	natural earth, public domain.
emulator	fm1-emu by joakim eriksson.
fm-1	m-vave. fm-1 is a trademark of its owner.

VERSION

firmware v1, november 2026. 11 screens, 21 cities, 64 patterns.

COMING

the room and spring reverbs, texture slots for your own samples, and the other guides in this set: hop, and little ears.

SEE U
IN THE PIT

thespacepit.com