harmonàig

_travelers guide
_for discovering harmony in the cosmos

4 voices	14 modes	8 + 4 chords · custom

› then noon = 12 o'clock tags = the panel drawing

four-voice diatonic harmonic quantiser · one cv in, four chord tones out · modal harmonisation, inversion, voicing and four custom chords

01 what it is — hg_01

four voices	one cv in › R 3 5 7 out · the root plus three chord tones
quantiser mode	default · cv picks the root, snapped to the lit keys
performance	the keys become a keyboard · press one to play its chord
swap modes	hold [transpose] + tap [diatonic]

02 the keyboard — hg_02 · 12 keys

white	the note playing right now
amber	enabled · the quantiser may land here
dark	disabled · skipped
no change?	the cv must move far enough to reach the next lit key

__fig.04 : the quantiser — cv → lit keys



dashed = the cv going in · gold = the root it snaps to · gaps are skipped keys

03 diatonic button — hg_03 · the big one

off · auto	each root gets the chord its mode gives it · knob and cv ignored
lit · manual	chord quality knob + cv pick one chord for every root
custom 1 – 4	only reachable when lit · the last four ring LEDs

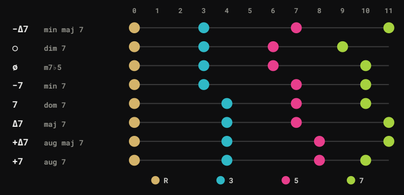
10 first flight — hg_10 · first chord

1. four oscillators tuned in unison (see 08)
2. R 3 5 7 into their 1 V/oct ins
3. a sequence into cv · attenuverter up
4. gate to an envelope › filter + vca
5. [diatonic] off · move inversion and voicing
6. hold [transpose] and try another mode

04 chord quality — hg_04 · fig.01 · ccw → cw

–Δ7 · ○ · ø	minor major 7 · diminished 7 · half diminished (m7♭5)
–7 · 7 · Δ7	minor 7 · dominant 7 · major 7
+Δ7 · +7	augmented major 7 · augmented 7
1 – 4	your custom chords
cv	0 – 5 V, adds to the knob

__fig.01 : chord qualities — semitones above the root



05 inversion · voicing — hg_05 · fig.02

inversion	root · 1st · 2nd · 3rd · lowest note jumps up an octave each step
voicing	close · drop 2 · drop 3 · open · same notes, wider spread
cv	both 0 – 5 V, added to the knob · audio rate works too

__fig.05 : inversions — C Δ7 · inversion knob



C Δ7 · each step moves the lowest note up an octave

__fig.02 : voicings — C Δ7 · root position



06 transpose — hg_06 · button cycles the fader

off	fader does nothing
amber	quantised offset · ±2 V, adds to the cv, stays in the scale
soft white	global offset in semitones · all four outs · retunes the key
white	global fine tune · ±1 V unquantised
note	both global modes time out · fader LED lights off centre

__fig.06 : transpose fader — four modes



press transpose to cycle · LED colour = mode · global modes time out

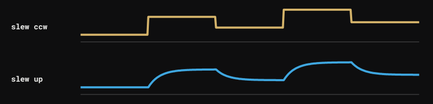
07 modal scales — hg_07 · hold transpose

[transpose]	opens the menu · bright key = current mode
[diatonic]	flips between ionian and harmonic minor sets
pick	press a key · press [transpose] to leave
ionian set	C ionian · D dorian · E phrygian · F lydian · G mixolydian · A aeolian · B locrian
harm. minor	C aeolian ♯7 · D locrian ♯6 · D♯ ionian ♯5 · F dorian ♯4 · G phrygian ♯3 · G♯ lydian ♯2 · B super locrian

12 outputs — hg_12

R	root · quantised cv
3 5 7	offsets from the root set by chord, inversion and voicing
slew	one glide knob per output · full ccw = stepped
gate	quantiser: trigger on each new note · performance: high while a key is held

__fig.07 : slew — per output



one glide knob per output · glide only some voices for moving inner lines

08 hidden moves — hg_08

[transpose] + [diatonic]	quantiser ↔ performance mode
[transpose] + 2× [C]	reset both global transposes
[diatonic] + [transpose] + 2× [C]	unison: all four outs equal, for tuning · tap [C] to leave
trigger gate	clear every key in quantiser mode, then enter performance

11 custom chords — hg_11 · slots 1 – 4

1 · select — diatonic lit
turn chord quality to slot 1 – 4 · unpatch its cv

2 · open — hold transpose
then double-tap diatonic · keep holding

3 · build — press keys
chosen notes pulse · multi-tap the lowest note to clear

4 · save — let go
release transpose · kept until you write over it

13 patch ideas — hg_13 · manual

east coast chords — quantiser
random or sequence into cv · gate fires one envelope for filter and vca

chord keyboard — performance
keys play roots · gate clocks two S&Hs into inversion and voicing cv

audio-rate swarm — atten full cw
an oscillator into cv · toggle keys to change the timbre

__fig.03 : the panel — numbers match the legend



in	cv in · attenuverter · the voltage to quantise
trs	transpose button · fader · off · offset · global · fine
out	R · 3 · 5 · 7 · the four chord tones
slw	slew · gate · glide per output · pulse per note
inv	inversion · root · 1st · 2nd · 3rd
vce	voicing · close · drop 2 · drop 3 · open
cq	chord quality · diatonic · cv · auto or chosen chord
key	keyboard · scale notes · roots · modes

09 specs — hg_09

size	18 hp · 27 mm deep
power	120 mA +12 V · 20 mA –12 V
cv in	±10 V (20 octaves) · mod ins 0 – 5 V
outs	±10 V · gate +10 V, 5 ms trigger