arbhar

_travelers guide
_for catching stardust

88 grains | **6** layers | **10 s** each

[shift] press **[shift]** hold › then noon = 12 o'clock cw / ccw = clockwise / counter

granular audio processor · two engines, 88 grains · six 10-second layers · onset capture

arbhar · 18 hp · firmware 2.0

rust = hold

01 capture

ar_01 · **[capture]**

[capture]	records from the start · again = stop · ● while on · survives power off
[capture] in	momentary: records while high · latching: rise on, rise off
[shift] **[capture]** + dub	ccw = momentary · cw = latching

02 accumulative

ar_02 · collage

[capture] + **[shift]**	on / off · capture pauses the head, no reset · ● pulses
paused 10 s	head goes back to the start
move head	double-tap-hold **[shift]** + **[capture]** = start · + **[strike]** = scan

03 layers

ar_03 · **[layer]**

α β γ δ ε ζ	six layers, 10 s each · picked per grain
Ω	fully cw: all six end to end, scan walks them
[shift] + layer	**record lock**: record ●, listen ○ · Ω rejoins

04 two engines

ar_04 · 44 + 44 grains

[intensity]	noon = most · ccw = even, in time · cw = random, loose · ends = off
[strike]	one grain per press or pulse · 15% louder
per grain	settings lock as each grain starts

__fig.01 : one grain

window · direction · length



each grain takes its window, direction and length the moment it starts

05 grain shape

ar_05 · fig.01

[window]	noon = gaussian · ccw › square · cw › saw
[direction]	ccw = forward · noon = 50 / 50 · cw = reverse
[length]	4 ms to 3 s · noon = 750 ms · ccw end = wavetable

06 scan · spray

ar_06 · fig.04

[scan]	where grains start · park it to freeze
[scan] cv	±5 v · knob at noon = whole layer
[spray]	random offset ahead of scan, wraps · full = anywhere

07 pitch

ar_07

[pitch] **[1v/oct]**	per grain · 1v/oct ±5 v
[deviation]	ccw = random · noon = none · cw = quantised, wider each step
cw steps	−2/+1 · −1/+2 · −4/+3 · −3/+4 · −7/+5 · −6/+6 · −5/+7 · −9/+8 · −8/+9 · −11/+10 · −10/+11 · −12/+12 semitones · editable in preset.txt
track + hold	pitch snaps to semitones, layer LEDs show it

__fig.05 : onset modes

[shift] **[capture]** + layer

	onset starts recording	pulse out	onset LED
α	yes	trigger with every grain	● amber · off while held
β	yes	gate for the hold time	● amber
γ	–	grain triggers + a trigger per onset	○ white
δ	–	gate for the hold time, per onset	○ white
ε	–	trigger when strike is pressed	○ white
ζ	–	end of loop in follow mode	○ white

stereo input: α and β stop recording on onsets (they act like γ and δ, LED white)

11 wavetable

ar_11 · **[length]** fully ccw

[pitch]	noon = C2 · both direction LEDs ●
[scan] **[spray]**	pick the cycle · direction = morph speed
[intensity]	ends: silent, strike plays notes

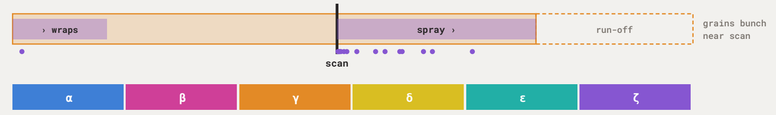
12 mod cv

ar_12 · set in preset.txt

pan	+ = toward mono · – = random › fixed stereo
hold	adds to hold and the follow loop
reverb	+ = dry + verb, frozen at +5 v · – = wet shimmer
delay	+ = 80 ms–1 s echoes · – = 25–1 ms, karplus

__fig.04 : scan, spray, Ω

[scan] **[spray]**



scan sets the start · spray scatters ahead of it · at Ω the scan knob walks across all six layers

14 usb · presets

ar_14

folders	_arbhar_library · _arbhar_scenes · 36 slots each
preset.txt	in the root › loads, renamed preset_was_loaded
factory 1–6	classic · delay · stereo · follow · pan · accumulative

15 in · out

ar_15 · 18 hp · 48 khz

normals	mic › onset in › in
[in level]	10:00 ≈ unity · past it, analogue limiter
[shift] **[capture]** + window	ccw = mono in · cw = stereo, onset = right
[shift] **[capture]** + hold	ccw = out 2 inverted (mono) · cw = corrected

13 clone · load · save

ar_13

1. hold **[shift]** **[capture]** **[strike]** in order › menu (again = leave)
2. **[capture]** / **[strike]** turn pages: magenta + violet = layers · yellow + red = load scene · orange + green = save
3. layer knob = slot · past ζ, Ω ● = usb banks
4. double-tap **[shift]** = go · hold shift = preview

09 dub · undo · reset

ar_09

[dub]	ccw = replace · noon = old at half · cw = keep all
[shift] + **[strike]**	● flash = undo overdub · ○ = erase layer
[shift] **[capture]** + **[strike]** ×7	factory reset, then reboot

10 follow mode

ar_10

[shift] **[capture]** + scan	ccw = follow, strike ○ · cw = scan
[scan]	speed: 20× ccw to 1/20× cw, pitch stays
[capture] / **[strike]**	record + play / play, from the start
[hold]	loop length

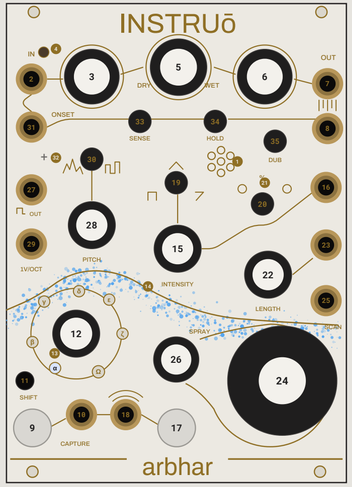
08 onset

ar_08 · fig.05

[sense]	attack threshold · stereo: input 2 level
[hold]	5 ms–10 s, noon ≈ 2.5 s · min record or pulse gap · follow loop
[shift] **[capture]** + layer	onset mode α to ζ

__fig.03 : front panel

numbered as in the manual



1 **mic** · feeds onset + in	13 **layer LEDs** · which layer	25 **scan** · cv ±5 v
2 **in** · audio, ac	14 **stream** · grains · colour	26 **spray** · scatter
3 **in level** · 10:00 = unity	15 **intensity** · how many	27 **pulse out** · +5 v
4 **in LED** · level	16 **intensity** · cv ±5 v	28 **pitch** · per grain
5 **dry / wet** · equal power	17 **strike** · one grain	29 **1v/oct** · ±5 v
6 **out level**	18 **strike in** · trig a grain	30 **deviation** · random pitch
7 **out 1** · main	19 **window** · envelope	31 **onset in** · analysis
8 **out 2** · normalled to 1	20 **direction** · fwd ‹› rev	32 **onset LED** · armed
9 **capture** · record	21 **dir LEDs** · fwd · rev	33 **sense** · threshold
10 **capture in** · gate · trig	22 **length** · 4 ms–3 s	34 **hold** · 5 ms–10 s
11 **shift** · second layer	23 **length** · cv ±5 v	35 **dub** · keep old audio
12 **layer** · α–ζ · Ω	24 **scan** · start · speed	

LED codes

stream	●●●●●● layer α–ζ · ● shift held · ● track + hold
capture	● recording · ● pulsing = accumulative pause · ○ flash = pulse in
strike	○ follow mode · + shift ● undo · ○ erase
direction	○ continuous grain · ● strike grain · ●● wavetable
onset	● will record · ○ won't · ○ waiting out hold
layer	● record lock · usb bank · ○ listening · slot