

# **ASHIKO**

see-saw VCA



ASHIKO is a quad stereo VCA and panner designed to create multi-directional sounds starting with mono sources.



## why

- To instantly create a stereo image with a mono source and a single CV input.
- To CV switch a sequence and send it alternatively to two different oscillators.
- To direct the movements in a quadrophonic system.
- To control up to 4 sources with independent CVs and send them to 8 different outputs.

## with

- LFOs perfect as CV inputs.
- Oscillators to enhance them in the stereo field.
- Delays instant ping-pong effect.
- Samples manipulate their presence in the mix with addition modulations.

#### how

Plug an input into "I" and a LFO in "V". Connect the two outputs "O" into a mixer / output module. The switch at the bottom is used to set the mono (down) or stereo (up) mode of the VCA. The other toggle is to select between a hard (down) and a soft (up) pan curve. Visual feedback of which of the two output is currently open is given with two blue LEDs on the right.

"It's called see-saw VCA because when an output is linearly opening the other one is alternately closing following the behaviour of the CV source. Different kind of controls – pulses, envelopes, complex waves - will make the VCA react in a distinctive way."

With stereo mode active connect a triangle wave from an LFO in the **V** cv input. Rise the frequency of the LFO to speed up the opening-closing action of the VCAs, resulting in a faster stereo and phasing effect. Make this panning harder or softer with the other toggle switch.

Experiment with all kind of input waves to get unique results.

### features

- 4 Stereo full range VCAs (-10v+10v).
- Transistors based CV inputs designed to give the best results with LFOs.
- Individual toggle switches to activate mono or stereo mode.
- Selectable hard/soft switching curve.
- Input and CV are normalled and they flow top to bottom when no jack is inserted.
- Works with audio and CV sources.
- "Whatever" power connector a.k.a. don't mind the polarity.

#### specs

- current draw  $\implies$  +12V 85ma, -12V 70ma
- dimensions ⇒ width 6HP, depth 25mm

Demos and build documentation at *jolin.tech/ashiko*