

Wobble (prototype)

fuzzySynths

This Eurorack module generates 3 channels of varying control voltages.

There are six waveforms available: envelope, sine, triangle, pulse, random and direct pot control of output (CV). A further aspect of each waveform can be altered by holding the button while moving the pot.

Each pot controls channel rate, varying from 1 cycle every 30 seconds to around 20Hz.

An incoming (rising) gate input or short button press restarts the wave.

Inputs can be tied, so a signal on one triggers other channels, allowing complex polyrhythmic effects.

Wave select

Press and hold the channel button to change waveform. The pot scrolls through the available waveforms, the colour alternating to show which wave is being selected. Press the button again to select that waveform.



Tweaking the wave

Holding the button while turning the pot changes a secondary parameter of the waveform:

envelope time until peak varies, from fast attack, slow release, to slow attack, fast release

sine changes phase (starting point)

triangle changes midpoint, from ramp down to triangle to ramp up

pulse changes duty cycle, from pulse to square to pulse

random tweaking this waveform instead controls minimum output level; this persists across the other waveforms (except CV).

CV tweaking this waveform controls maximum output level; this persists across the other waveforms (except CV).

Inputs are tied together by holding down the incoming channel button and pressing the button of the channel below it to be triggered. These can be untied in the opposite way, by holding the lower button and pressing the upper one, which cancels the tie. Settings are not remembered when power is off.

Envelope and triangle look ostensibly similar; but the envelope triggers once, while the triangle is an LFO and will keep repeating. The envelope is slower when the knob is turned clockwise. LFOs instead go faster when the knob is clockwise.

Setting the pot fully counter clockwise turns off the LFO waveforms (sine, tri, pulse, random), which are then triggered only by button press or trigger input. Pulse mode instead toggles between minimum and maximum values with each trigger ('flip-flop').

Changing the levels attenuates the output if needed. Setting the minimum level to max, and max to min inverts the waveform. Similar levels for both will mean the output is very limited. Rebooting will fix it, as these settings are not remembered on power down.

Summary of controls for each channel

turn knob to change frequency

hold then release button to alter waveform, move knob to choose, press button again to select:








 envelope sine triangle pulse random CV

hold button and press a button below it to tie the inputs; do the opposite to untie

hold button and turn knob to change secondary parameters:

envelope peak changes, from fast attack, slow release to slow attack, fast release

sine phase (starting point) changes

triangle midpoint changes, from ramp down to triangle to ramp up

pulse duty cycle changes, from pulse to square and back

random changing while in this waveform controls minimum output level

CV changing while in this waveform controls maximum output level. CV output itself is not affected by these level changes

