

In this series of patches we will be covering classic Drummachine sound-synthesis using the extensive timbral palette of TheBateleur42hpSystem for a unique approach and fresh results. Everybody got the CLAP!

We'll be modulating our noise source/sub square mix. The modulation source is the VCO's pulse into Through-Zero FM being cross PWM'ed by the VCF in self-oscillation. The result is thundery, crisp and sassy.

Suggested settings: short attack, decay for body/weight, release for reverberation.

Fine-tune the MODULATOR and CARRIER timbre to sit in the mix with your composition.

The VCO's pulse is our main MODULATOR signal. Set Pulse Width manually to something "thin".

Orange LED = Mixed Characteristic 1 for an extra snappy attack-phase. Toggle through the Envelope Generator's Curvature characteristics by pressing mode + time toggles simultaneously.

Optionally we can add (stackable cables or summing circuits) the velocity information we're extracting from our incoming MIDI data on top of the Envelope CV for a more humanized feel.

TZFM modulation input, highly sensitive, threshold detection active immediately upon flicking the switch**.

The modulation depth control will set the sensitivity of the Through-Zero circuit input gain, by default the TZFM mode has a minimum threshold already active even at the "off" setting (all the way anti-clockwise), use judiciously.

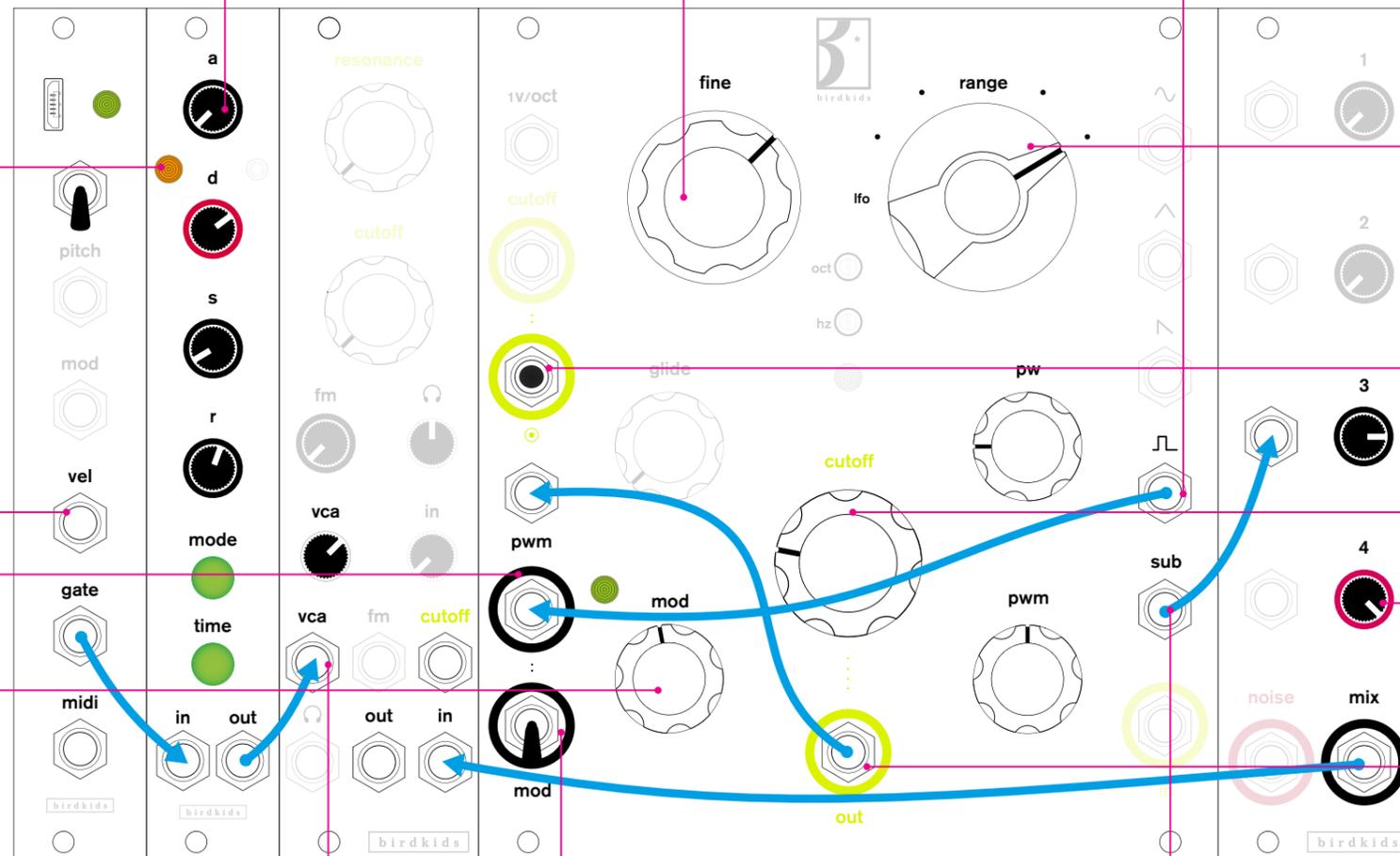
*Green LED = Through-Zero FM mode.

**Consult VCO technical specifications on modulation modes and switch positions as well as input ranges.

As usual, the VCA modulation input is normalized to the cutoff modulation input on the Expander module. For this patch, we want to avoid the Envelope CV affecting our VCF's cutoff frequency, we can either set the cutoff control to 0 or use a dummy cable to break normalization.

Set the modulation mode switch to the DOWN position for TZFM mode. The modulation status LED* will give us an indication on the type of modulation we're applying.

Adding the sub-square to the noise will give us some body and "whip"



VCO range switch in the 5th position.

Set the VCF mode switch to the MID or DOWN position for self-oscillation.

Cutoff Frequency control will determine the MODULATOR's pitch.

We'll be using the analog noise source in combination with the sub-octave square as our CARRIER signal.

VCF in self-oscillation output (Sinusoid waveform) as a basis to cross-modulate the pulse's Pulse Width. The MODULATOR becomes modulated :)