Thank you for purchasing Midi Waves by Ned Rush and Isotonik Studios.

What is Midi Waves?

Midi Waves is a Max for Live midi note generator that uses a variety of modulation sources in order to generate midi events. A single midi note is a list of various numbers and I've simply unpacked that list and given each item in that list its own LFO and then packed it back together in order to create a midi event this can lead to some interesting melodic phrases and ideas that maybe would not come about using perhaps more traditional methods for midi note generation such as midi effects or a midi keyboard.

Because each item in the list has its own LFO, each of those LFOs can be offset from each other to create these unusual cascading events that go in and out of phase and go off kilter with each, other but are still snapped to a musical scale so they can sound quite pleasing and can enable you to come up with very interesting, beautiful phrases or perhaps weird ones or scary ones or perhaps nothing at all. It's entirely up to you so let's have a look at how Midi Waves works.
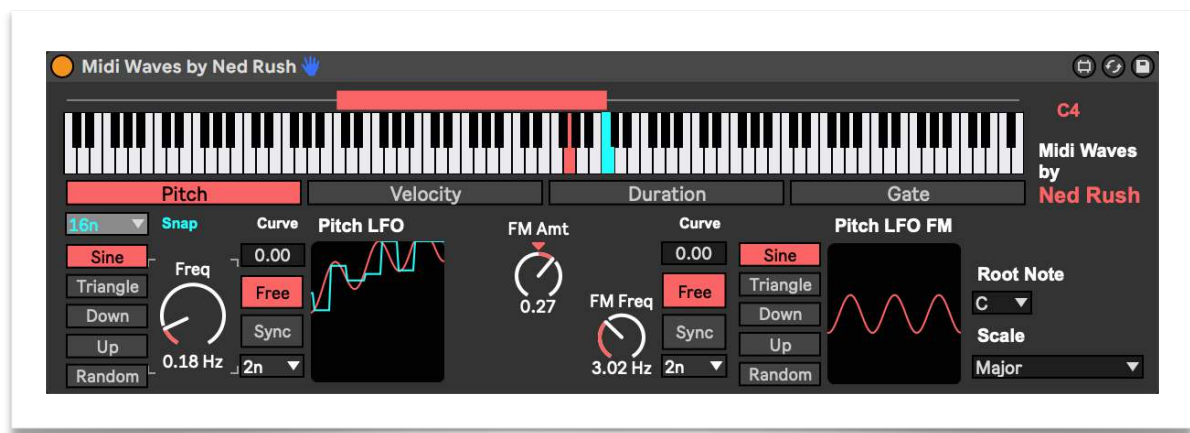
Midi Waves has 4 pages for pitch, velocity, duration and gate and each page its accessible via the Live tab labelled accordingly.
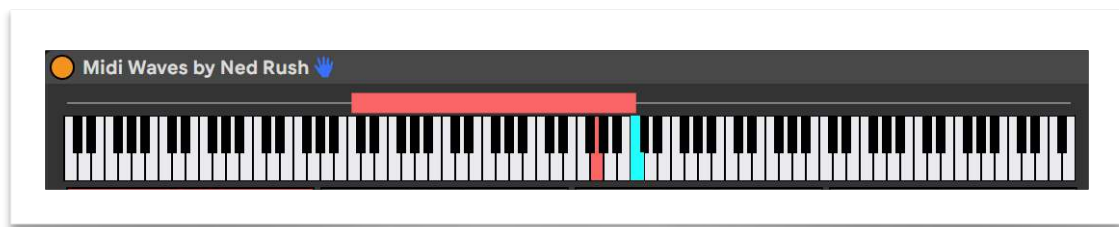
The keyboard along the top is a visual cue to show which notes are being triggered. The pink notes as the notes currently being modulated by the LFO. The blue notes are the notes that have been snapped and turned into a midi note that is being output. The pink range slider across the top selects the range on the keyboard that the pitch LFO will modulate between. Click and drag the range slider to set a range of midi notes.

The LFOs for pitch, velocity and duration work the same way, so I will focus on the pitch page to explain how they work. The snap is a tempo synced sample and hold that grabs the current midi note in the phase of the LFO and sends it out as a midi note.

This tab selects the waveform for the LFO.

The Freq dial sets the frequency of the LFO when in Free Mode. When the LFO is in Sync Mode, this dial is disabled.

The curve parameter adds options for the shaping the curve of the LFO. The Free and Sync tab selects between the LFO running constantly free from the transport and in Hz. Sync sets the LFO to run in sync with Live's transport. This means that the LFO will not run unless Live is playing. The menu beneath sets the sync rate. The scope colour scheme is the same as the keyboard. The pink lfo is the raw lfo. The blue is the lfo shape that is being snapped and output as a midi note.

The FM section for each page works the same as the main LFO. Included is an FM Amount dial to set how much FM is applied.
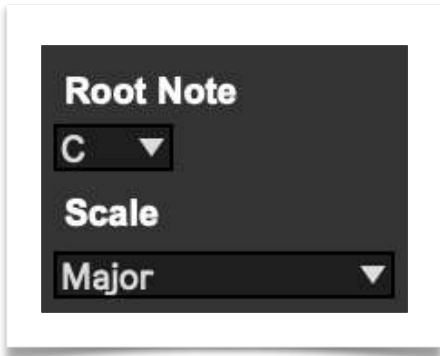
This is the quantizer/scaler for the outputting midi notes. Select from a wide range of scales for Midi Waves to be scaled to. This part of the patch was kindly provided by Mark Towers (he has special powers).

The Gate page works also the same as the other pages, however there are a few other features, including a simple 8 step sequencer to set gates, and a pulse width on the FM section. When the Gate LFO is in free mode, the Gate FM LFO works as expected by modulating the frequency of the main LFO. When in sync mode, the FM works more as a gate for the gate?@?@!!. Think of it as the FM LFO gate opening and closing a gate to let the
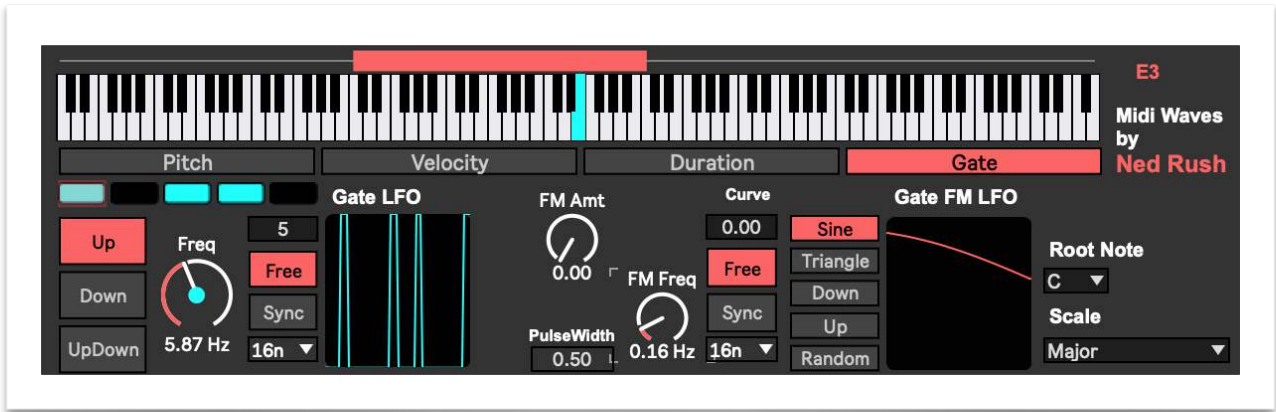
Gate LFO through. ?!?@!@? Just trust me. It makes more sense to just play with it.

I hope you enjoy Midi Waves and if you make anything cool with it feel free to post it to Instagram and tag @MrNedRush.

Enjoy.