Dubtron

Experimental Bass Synth

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Introduction

Dubtron is an Experimental Bass Synth designed for dubstep wobble bass, and more obscure bass sounds.

- 2 Unison Pulse Oscillators with multiple wave shapes
- 1 Sub Oscillator with FM capabilities
- 2 Filters with Graphical Envelopes
- Wub section for each filter, produces the classic dubstep wobble
- Randomizer for wub rate, filter cutoff and Sub FM
- FX section ranging from flanger to bathtub style delay
- Wub speed is set to key range and can be reversed
- Wub can be retriggered by each bar to ensure beat matching

Oscillators

The Oscillator section is made up of two unison oscillators. Although they both have multiple wave shapes, they operate like pulse oscillators, in that they can width controls. The width controls are split into three voices, to widen each unison voice while detuned. The 'Drift' control creates a slow drifting of the width settings for a phasing type sound. The 'Sync' switch between the two oscillators will sync the pitch of the two for creating a grittier sound in certain situations.

Each oscillator also has a Graphical Envelope. To adjust, grab the small square at each breakpoint and move into position. Dragging the 2nd point will adjust the attack, while moving the 3rd will set the release time. Moving the points up or down adjusts the decay and sustain. Click on each stage to change the shape.

Sub Oscillator

The Sub Oscillator produces a smooth bass tone to fill out the overall sound. Waveforms include: Sine, Triangle and Soft Ramp. The three knobs to the right control the FM parameters. The 'FM' knob adjusts the FM level, while 'Tune' sets the pitch of the modulator. The knob labeled '2x' controls the volume of a 2nd modulator that follows the first. This 2nd modulator is double the 1st, meaning when audible, the 'FM' and 'Tune' controls will have double the effect of the 1st modulator. In other words, when '2x' is turned down, you will hear a subtle FM effect, creating a flutter type sound. Turn '2x' up for a more extreme FM sound to layer the first.

The 'Dcy' knob adjusts the amp decay, while the 'Hold' switch functions as a 'sustain hold', similar to turning the sustain all the way up. When this switch is deactivated, the decsay will be more apparent.

Filters

Each oscillator has it's own filter section, each with a Graphical Envelope that can be doubled in length using the '2x' switch. The four knobs, 'Cut', 'Res', 'Env', and 'Vel' control the Filter's cutoff, resonance, envelope depth and velocity rate. Each filter can choose between Low Pass, High Pass, Band Pass and Band Reject modes.

The other half of the filter is a dedicated 'Wub' section. This is similar to an LFO with a few key differences. First, the Wub is tuned to have a specific speed for use with keytracking to produce a specific sound known as a dubstep 'Wobble'. The 'Wub' is keytracked, meaning the speed will increase with upper keys on a midi keyboard. This can also be reversed depending on the key range setting in the Master Controls section. Another difference is the syncing feature that, when set to 'Bar' will ensure the wubs will follow any beat according to your host by restarting the shape with each bar. This setting can also be found in the Master Controls section. The large knob labeled 'Wub' adjusts the level of the effect, while 'Rate' controls the speed and 'Phase' offsets the starting point of the shape. There are several shapes to choose from. The hold switch below the shape is just an extra lagniappe thrown in for fun.

Randomizer

The Randomizer section gives added effect to the Filter Wub and Cutoff, as well as the Sub's FM parmeters. The 'Rate' selector controls the BPM synced speed of randomization.

There are two knobs each to control the randomization level of the 'Wub' and the 'Cut', divided into A/B sections which represent oscillators A and B. The two 'Sub' controls will effect the Sub's FM in two ways: Flutter and Haywire. The 'Flutter' control to the left will randomize the subtle tuning of the first FM modulator, while 'Haywire' will randomize the extreme pitch of the '2x' modulator. For a more detailed explanation of the FM controls, see the Oscillator section above.

FX

At the bottom right is a basic FX section that can be used as a Flanger or for very short 'Bathtub' delays. The three controls do exactly what they say. The 'Rate' or speed of the delay, the 'Feed' or feedback, and the overall level of the effect.

Master Controls

The last section on the bottom right of the GUI is for universal controls such as the main volume, portamento and retrigger, which retriggers envelopes. The Wub section here has options for Key Range, which spreads the Wub's speed range across the keyboard, from Hi to Lo or from Lo to Hi. Wub Sync selects weather the Wubs are retriggered by note on (Key) or by the start of each bar according to your host (Bar).

Credits

Dubtron was developed by Psychic Modulation using SynthEdit.

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Chris Kerry - www.chriskerry.f9.co.uk
David Haupt - www.dehaupt.com

SynthEdit by Jeff McClintock

VST Plugin Technology by Steinberg

Support Information

Homepage: **www.psychicmodulation.com**

Visit the official KVR support forum:
http://www.kvraudio.com/forum/viewforum.php?f=78

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