



List of the synth engine modules

Highlighted ones will be available later after release (*Additional Modules* stretch goal)

SOUND SOURCES / OSCILLATORS

Physical models

PLUK	Simple plucked string
BOWD	Simple bowed string
BLOW	Simple single-reed wind
FLUT	Simple air-jet flute
Reed	Flexible advanced single-reed wind model
Windsyo	Specific wind instrument models (flute, duduk...)
String resonator	Vibrating string simulator
Modal resonator	Vibrating structure simulator

Meta-exciter	Advanced exciter collection for resonators
Brass	Advanced brass model

Percussive models

BELL	Additive bell sound oscillator
DRUM	Additive metal drum oscillator
KICK	808-style kick drum
SNAR	808-style snare drum
CYMB	808-style cymbals

Virtual analog

Sine wave	Pure tone without any harmonics
Triangle wave	Soft tone with some odds harmonics
Square wave	Harsh, rich tone with many odds harmonics
Sawtooth wave	Very rich tone with many harmonics

SUB	Collection of waveforms + sub-oscillator
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Digital oscillators

BUZZ	One to many sine waves
VOSM	Voice simulator
VOWL	Early speech synthesizer
VFOF	FoF vowel simulator
HARM	Additive oscillator

WTBL	Wavetable oscillator
WMAP	2D wavetable oscillator
WLIN	Interpolated wavetable oscillator
WTx4	Four-voice wavetable oscillator

Noise sources

White noise	Simple white noise generator
NOIS	Filtered noise
TWNQ	Resonant noise
CLKN	Random sample generator
CLOU	Granular cloud generator

PRTC
QPSK

Particle system simulator
Telecommunication data generator

External audio | **Audio input**

External audio input (left, right, or L+R channels)

EFFECTS

Resonators

Modal resonator
String resonator

Vibrating structure simulator
Vibrating string simulator

Filters

SVF
Two-stage resonant filter
(-12 dB/oct)

Lowpass
Highpass
Bandpass
Notch

Ladder
Classic resonant filter

LP4 Lowpass (-24 dB/oct)
HP4 Highpass (-24 dB/oct)

LP1 Lowpass (-6 dB/oct)
LP2 Lowpass (-12 dB/oct)
LP3 Lowpass (-18 dB/oct)
HP1 Highpass (-6 dB/oct)
HP2 Highpass (-12 dB/oct)
HP3 Highpass (-18 dB/oct)
BP1 Bandpass (-6 dB/oct)
BP2 Bandpass (-12 dB/oct)
Notch

Comb filter

Filter bank following an harmonic spectrum

Formant filter

Filter bank following human speech profiles

Simple EQ

Simple equalizer

Parametric EQ

Parametric equalizer

Modulation

Chorus
Phaser
Pitch-shifter

Thickens the input
Six-stage phase shifter
Transposes the input

Flanger

Delay

Delay
Reverb

Delay line with feedback and damping
Mono reverberation effect

Cross-modulation

Cross-folder
Ring modulator
XOR modulator
CMP modulator

Wavefolds two inputs together
Ring-modulates two inputs together
XORs to inputs together bit by bit
Cross-modulates two inputs with digital comparison operators

Mix

Cross-fader

Balances between two inputs

	Cross-fader with drive	Same with individual gain controls
Amplification	VCA	Voltage-controlled amplifier
	Overdrive	Signal distorter
	Compressor	
	Limiter	

MODULATORS

General	Envelope	DAHDSR Envelope generator
	LFO	Low-frequency oscillator (<i>with fade-in & shape variation controls</i>)
	Xform	General-purpose value transform Waveforms: Sine, Triangle/Sawtooth, Square, Stepped Triangle, Noise Controls: Min/Max, Curve, Rise/Fall smooth time
	Envelope follower	Follows the dynamics of an audio signal
Constrain	Clamp	Limit a value to an interval
	Wrap	Wrap a value around an interval
	Fold	Fold a value inside an interval
Shape	Curve	Apply a curve to a value
	Quantize	Reduce the resolution of a value
Combine	Interpolate	Cross-fade between two values
	Morph	Morph between four points
	Calculate	Perform successive operation on a series of values; eg. $(1+2)*3+4$
Change	Smooth	Smooth out the variations of a value
React	Count	Count occurrences of a trigger
	Time	Measure the time since a trigger
	Latch	Capture a value when a trigger occurs
	Minimum	Keep the minimum of a value since a trigger
	Maximum	Keep the maximum of a value since a trigger

