

Most voltage controlled oscillators (VCO) generate several waveforms to provide a variety of timbres. They also typically operate in the audio range. The frequency responds exponentially to the control voltage. They are typically scaled to change one octave for every volt of control voltage. This is referred to as 1V/Octave scaling.

Voltage controlled filters (VCF) are used to filter out parts of the signals applied to there inputs. The cut-off frequency responds exponentially to the control voltage. They are typically scaled to change one octave for every volt of control voltage. This is referred to as 1V/Octave scaling. Low Pass, Band Pass and High Pass are typical filter types. The Q or resonance of the filter can be adjusted to emphasize the cut off frequency resulting in interesting timbres

Analog Synth 101

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Voltage controlled amplifiers (VCA) are used to apply amplitude modulation to the signal. The higher the input voltage the more signal passes through the amplifier. Control voltage sources can be envelope generators, LFOs or VCOs.

