Bobs Logic Gated Synth   01/15/17

Ok basically this is your standard synth configuration except for one thing that I will explain further ahead. It has 2 oscillators each having an inverted and non-inverted outputs, 4 ADSR's , one for each oscillator and one for each of the inverted outputs, so a total of 4 ADSR's. The 2 oscillators are in a stereo configuration, so there are also 2 filters. There's an envelope follower that controls both filters, and 3 LFO's. The first LFO is for a Tremolo effect that controls both channels and there is a volume control for each left and right channel, the second LFO adds a Wah Wah effect to both filters, and the third LFO is for cross fader modulation. Centering this knob sets the synth to a mono mode. Next are a stereo reverb and a stereo delay. Also provided is a scope for viewing your waveforms shape. Now what really makes this synth different is 4 logic gated VCA's. You can select between 6 different types of gating, xor, xnor, or, nor, and, & nand. These are logic gates, so if you are not familiar with their functions, just Google them. The -1 to 1 knob kind of acts as a trigger point in some modes. The best thing to do is just play with them and you will see what they can do by viewing the scope. Ok then, the way this thing works is the top 2 oscillators for each channel provide the basic waveform, sine, triangle, square, etc.. Then they are feed to the gated vca's and modulated by the lower 2 oscillators for each channel. Note also that each gated vca on it's modulation input can be inverted. The little dot (button) to the right of each oscillator. Check out some of the presets and you should soon see what it does by viewing the scope and listening to the sounds. There are literally thousands of combinations here, so take your time and have fun.

Enjoy, BobF