

Modular Synthesizer

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First developed in the 1920s, analog synthesizers produce musical pitches electronically. The earliest analog synthesizers contained different electronic modules, such as oscillators, amplifiers, filters, arpeggiators, and much more, that could be connected together by patch cables. This style of synthesizer were ultimately replaced by analog modular synthesizers, where all the modules were integrated in the same machine. I plan on building a analog modular synth that includes a keyboard input, power supply, built in amplifier and speakers, and 1/4" output jacks, along with the sound processing system. The sound processing system will most likely consist of several analog oscillators for producing sine waves, square waves, sawtooth waves, and noise, envelope generators, high and low pass filters, and other modules to be determined in my advisor meeting. In addition to the keyboard control, many modern synths have two wheels next to their keyboard that control pitch and modulation. I plan on attempting to create a 2D touchpad to control these two elements.