Elliott Williams, Lauren Gresko, Elaine McVay 6.101

Title: Analog Modular Synthesizer

Team Members: Elliott Williams, Lauren Gresko, Elaine McVay

Description:

An analog synthesizer (synth) is an electronic system that uses analog circuits to generate a wide range of sounds to produce music. A modular synth is a collection of modules that can be connected (patched) in almost limitless configurations to produce unique and interesting sounds. These modules include (but are not limited to) voltage controlled oscillators, voltage controlled amplifiers, voltage controlled filters, envelope generators, four quadrant multipliers, and more. We plan on building a complete analog synthesizer system that will be controlled by a keyboard. This system will contain its own power system and speaker system in addition to the signal processing system. Elliott will design the signal processing systems, Elaine will design the power amplifier to drive a speaker, and Lauren will design the power system to drive the system. Specifics about the scope of the project (number and types of modules, power consumption and efficiency of the amplifier, and energy source) will be determined with our mentor.