Hybrid Synth
by Synthesize Me

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Overview

- Hybrid Synth is an Analog Synthesizer

- The synthesizer will consist of a digital part and an analog part.

  * Digital part is the control system for analog part / Will accept MIDI input, outputting a control voltage for oscillators and low frequency oscillators (LFOs) to modulate analog signal.

  * Analog segment is the synthesizer system, consisting of 2 voltage controlled oscillators (VCO), a signal mixer, a voltage controlled filter (VCF) with an envelope generator, and a voltage controlled amplifier (VCA) with an envelope generator.
Digital Block Diagram

- MIDI Input
- LFO(s)
- MicroP
- D-to-A
- GV
- CV
- LFO Signal
Division of Labor

<table>
<thead>
<tr>
<th>Jamie Madaris</th>
<th>Jack Nanney</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Research / Testing</td>
<td>Preliminary Research / Testing</td>
</tr>
<tr>
<td>MIDI-to-CV µP Programming</td>
<td>VCO, VCA, VCF, ADSR Envelope</td>
</tr>
<tr>
<td>D/A Programming</td>
<td>design</td>
</tr>
<tr>
<td>Test / Debug</td>
<td>Test / Debug</td>
</tr>
<tr>
<td>Presentation, Documentation &amp;</td>
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</tr>
<tr>
<td>Meetings</td>
<td>Meetings</td>
</tr>
</tbody>
</table>

List of Parts

- ATMEL 8515
- D-A Converters
- Various Resistors
- Various Capacitors
- Operational Amplifiers
- LM13700 Transconductance Amplifier
- Potentiometers
- Power Supply
- Knobs, jacks, etc
Progress to Date

- Researched Synthesizer
- Decided how to implement system
- Researched analog modules
- Researched digital options
Current Work

- Starting Oscillator and Filter design
- Starting code to read MIDI device and output control and gate voltage
Gantt Chart