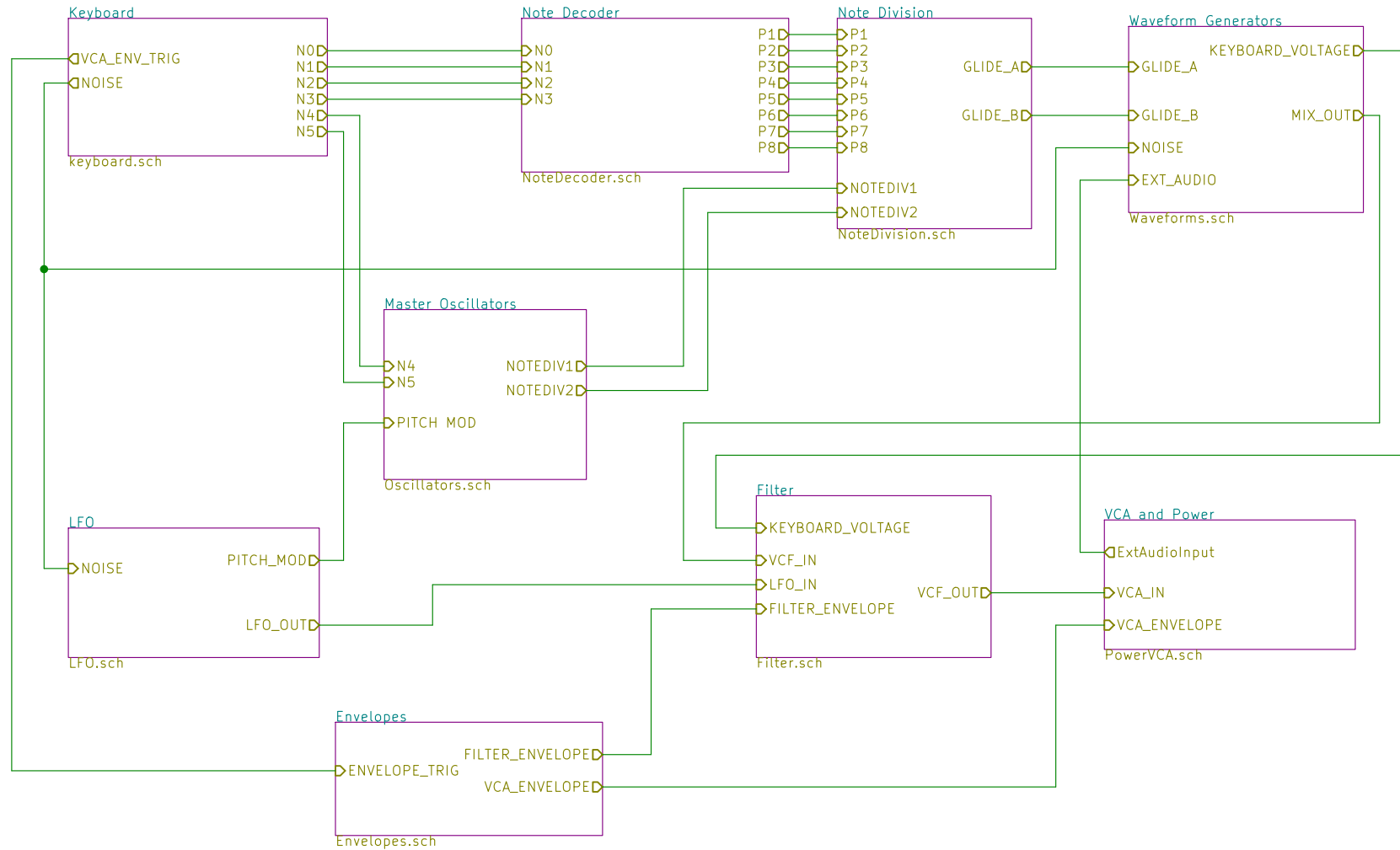


# Jasper 2016

EDP Wasp Synthesiser Clone



Layout and amendments by J Lane  
Based on EDP Wasp of 1978

**J Lane**

Sheet: /  
File: Wasp2015.sch

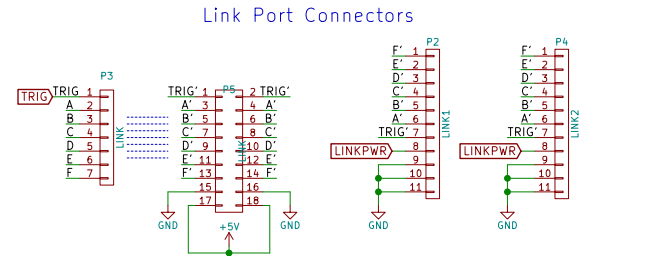
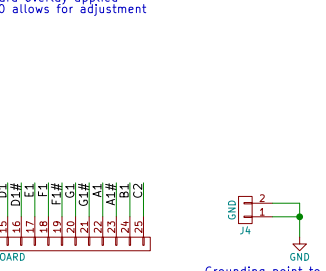
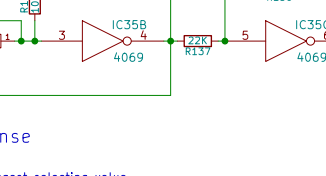
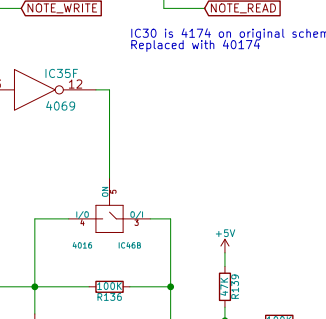
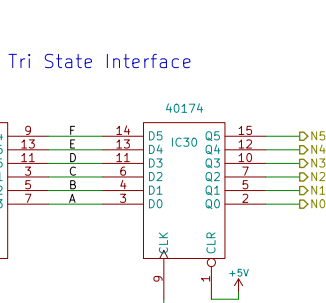
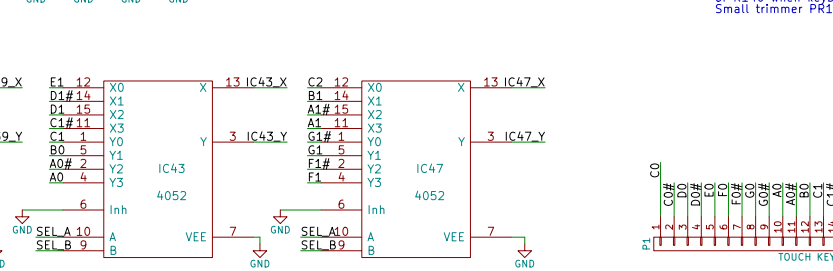
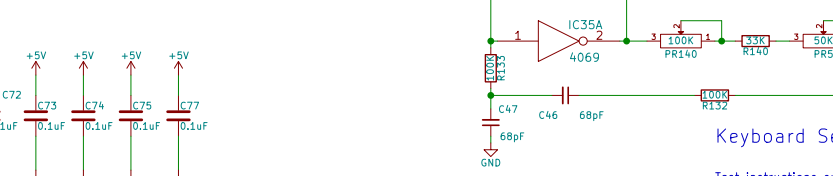
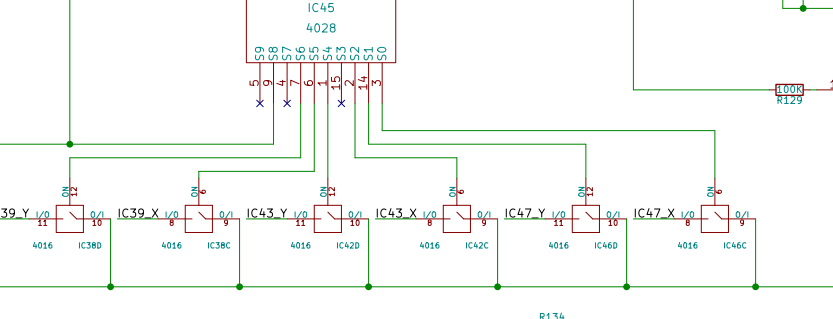
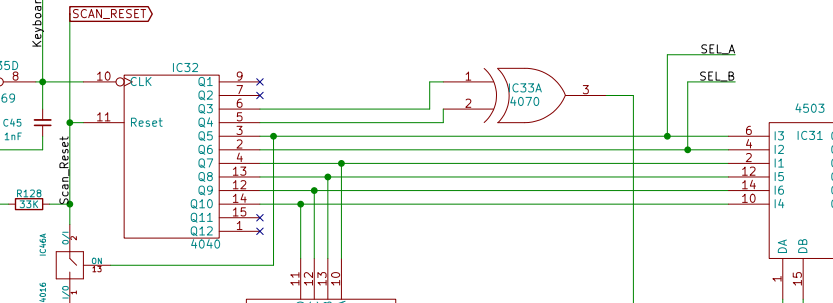
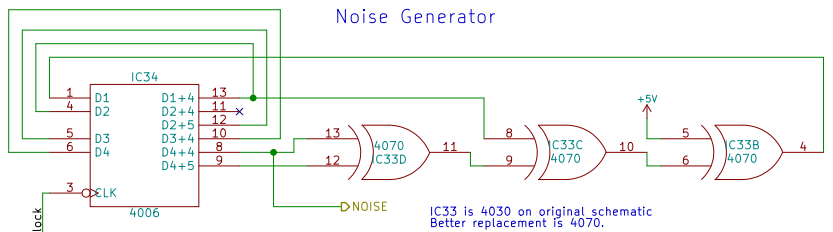
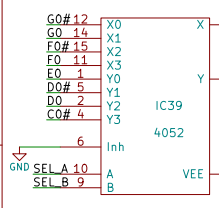
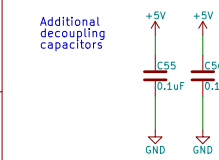
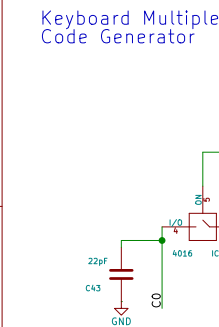
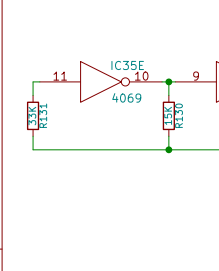
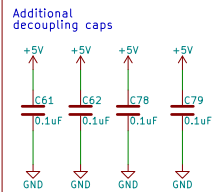
**Title: Jasper Synth 2016**

Size: A4 Date: 2016-01-24

KiCad E.D.A. kicad 4.0.1-stable

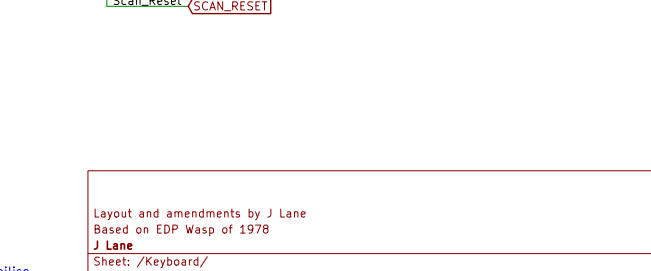
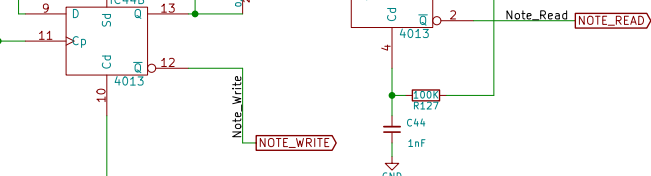
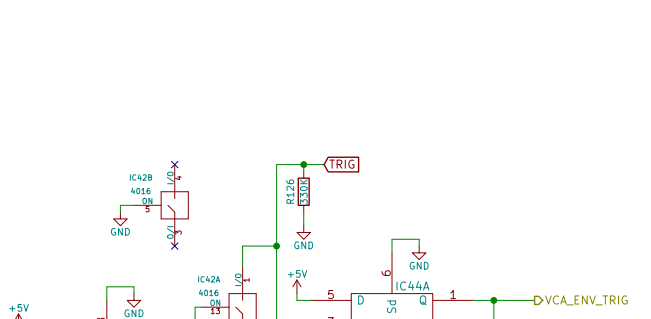
**Rev: 1.0**

Id: 1/10

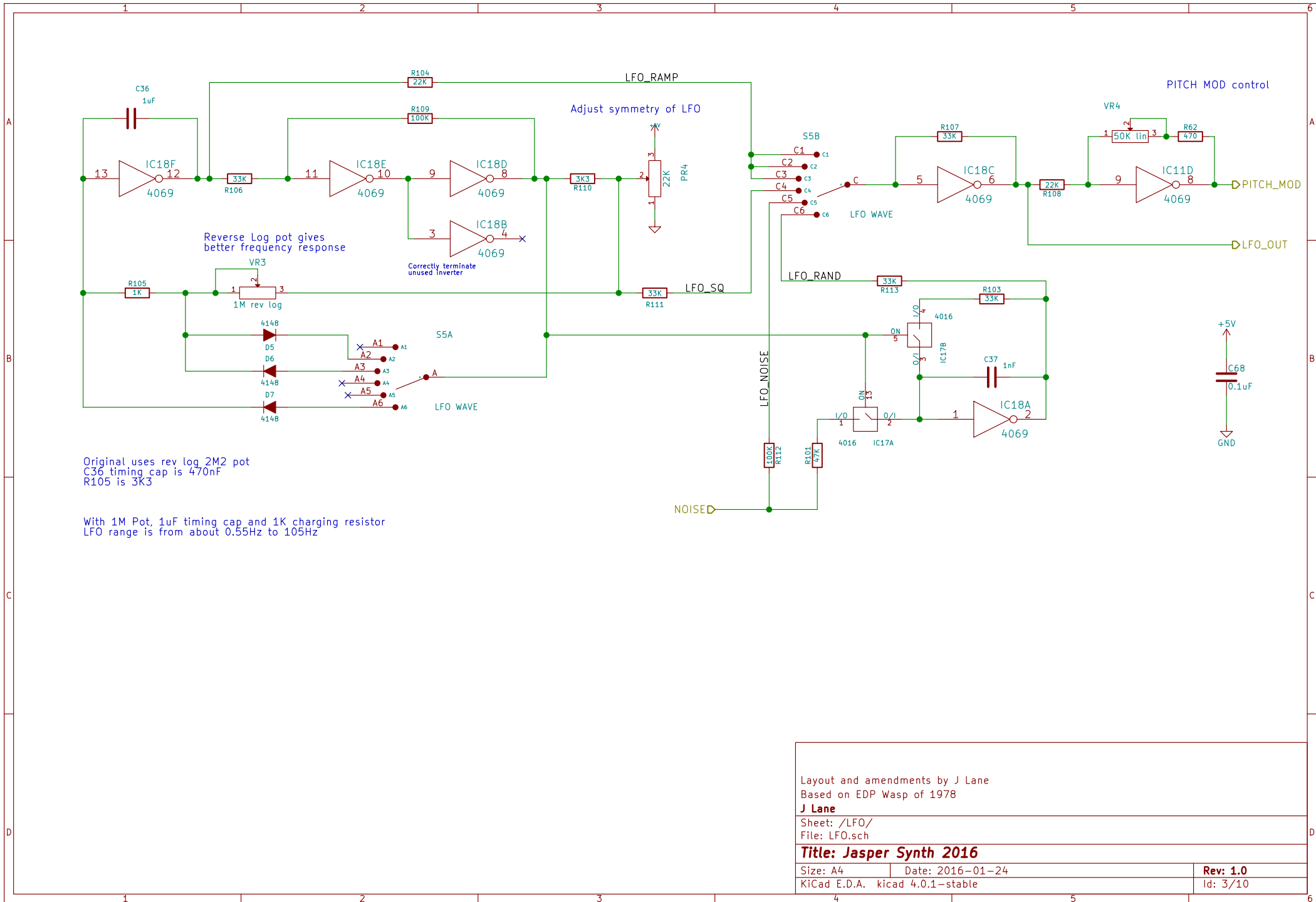


Ribbon cable from centre of board to Link Port connectors on edge of PCB Extra GND pin for shielding

Link Ports are 8pin Mini DIN. Additional pin can be used as power supply for other devices.



Layout and amendments by J Lane  
Based on EDP Wasp of 1978  
J Lane  
Sheet: /Keyboard/  
File: keyboard.sch  
**Title: Jasper Synth 2016**  
Size: A3 Date: 2016-01-24 Rev: 1.0  
KiCad E.D.A. kicad 4.0.1-stable Id: 2/10



Layout and amendments by J Lane  
 Based on EDP Wasp of 1978

**J Lane**

Sheet: /LFO/  
 File: LFO.sch

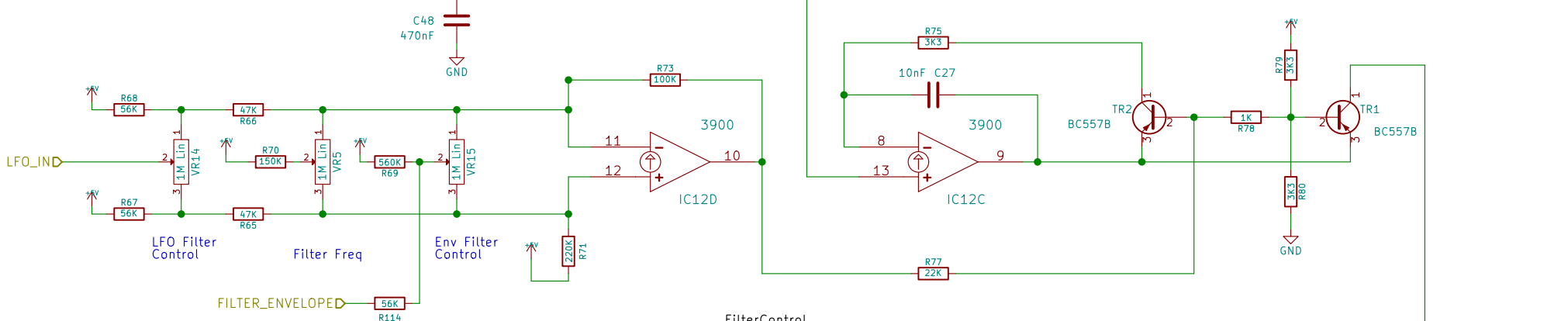
**Title: Jasper Synth 2016**

Size: A4 Date: 2016-01-24  
 KiCad E.D.A. kicad 4.0.1-stable

Rev: 1.0  
 Id: 3/10

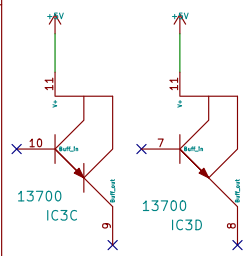
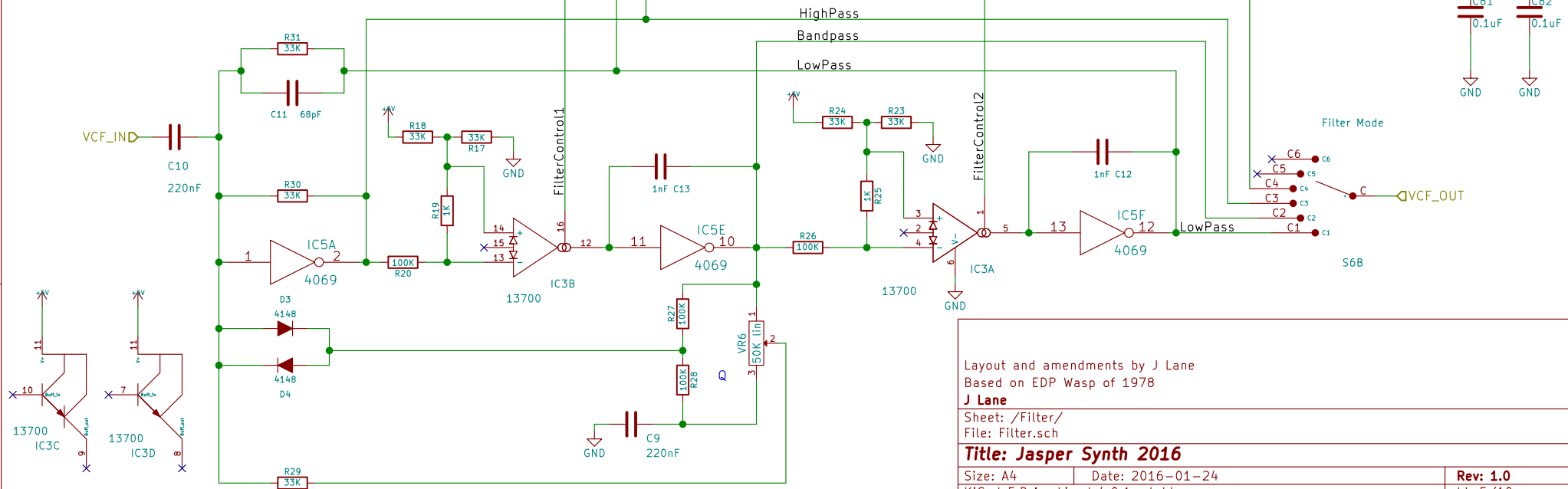


# Filter Controller

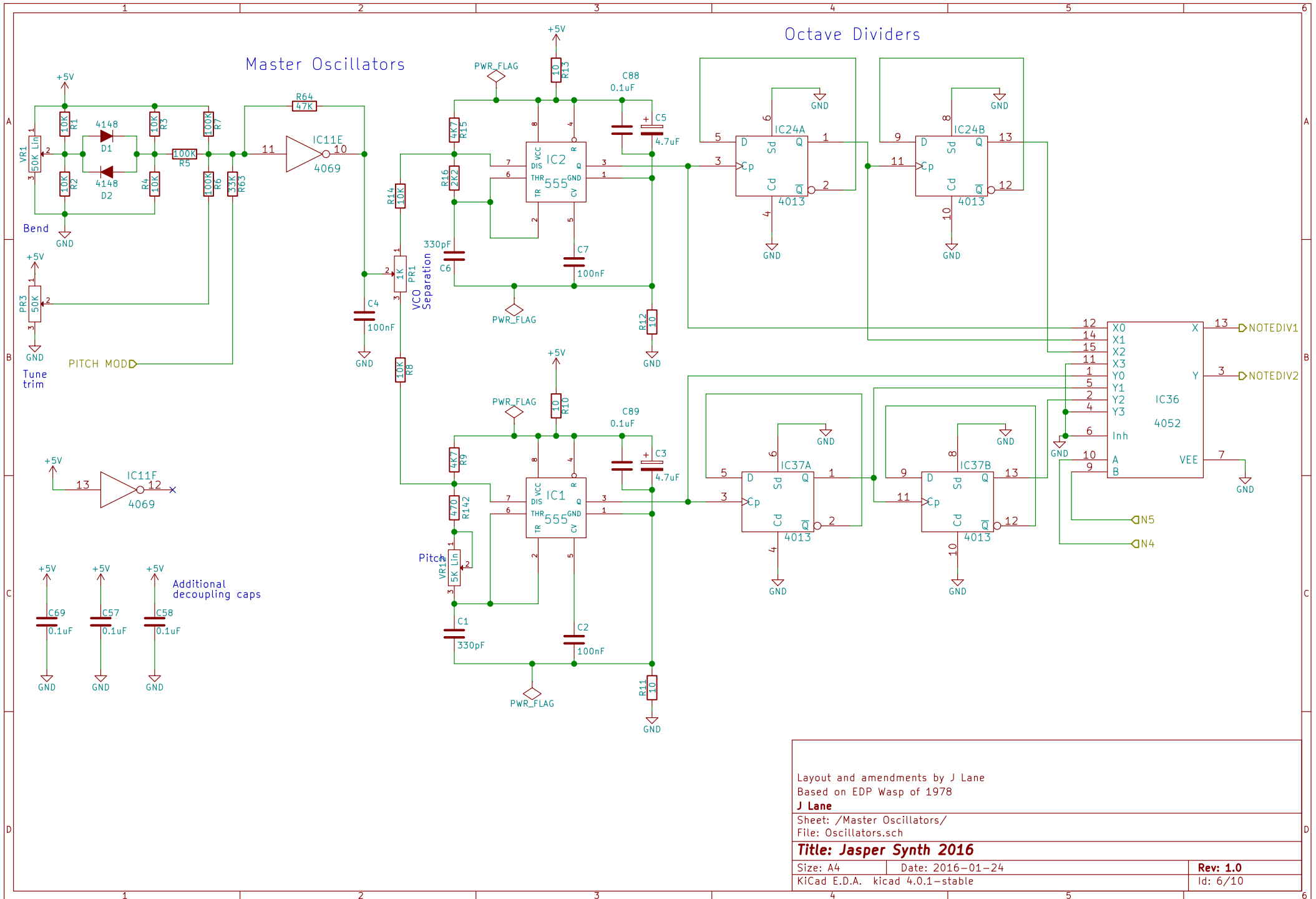


# Filter

Uses LM13700 dual OTA in place of 2x CA3080 in original.  
 Added Notch filter (add HP & BP) using a spare section if IC5 as per Juergen Haible's Wasp Filter clone



Layout and amendments by J Lane	
Based on EDP Wasp of 1978	
<b>J Lane</b>	
Sheet: /Filter/	
File: Filter.sch	
<b>Title: Jasper Synth 2016</b>	
Size: A4	Date: 2016-01-24
KiCad E.D.A. kicad 4.0.1-stable	Rev: 1.0
	Id: 5/10



Layout and amendments by J Lane  
Based on EDP Wasp of 1978

**J Lane**

Sheet: /Master Oscillators/  
File: Oscillators.sch

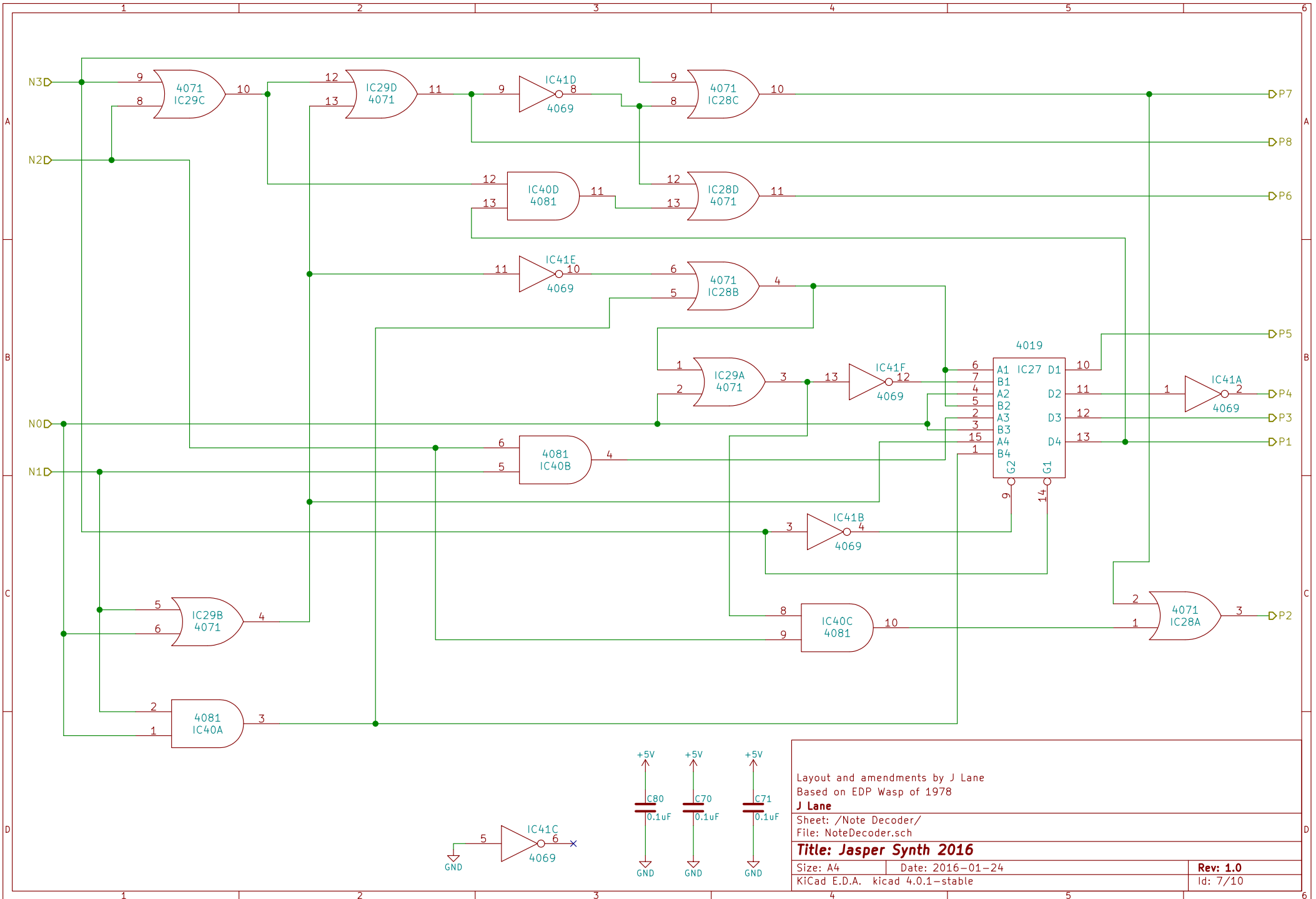
**Title: Jasper Synth 2016**

Size: A4 Date: 2016-01-24

KiCad E.D.A. kicad 4.0.1-stable

**Rev: 1.0**

Id: 6/10



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Based on EDP Wasp of 1978

**J Lane**

Sheet: /Note Decoder/  
File: NoteDecoder.sch

**Title: Jasper Synth 2016**

Size: A4 Date: 2016-01-24

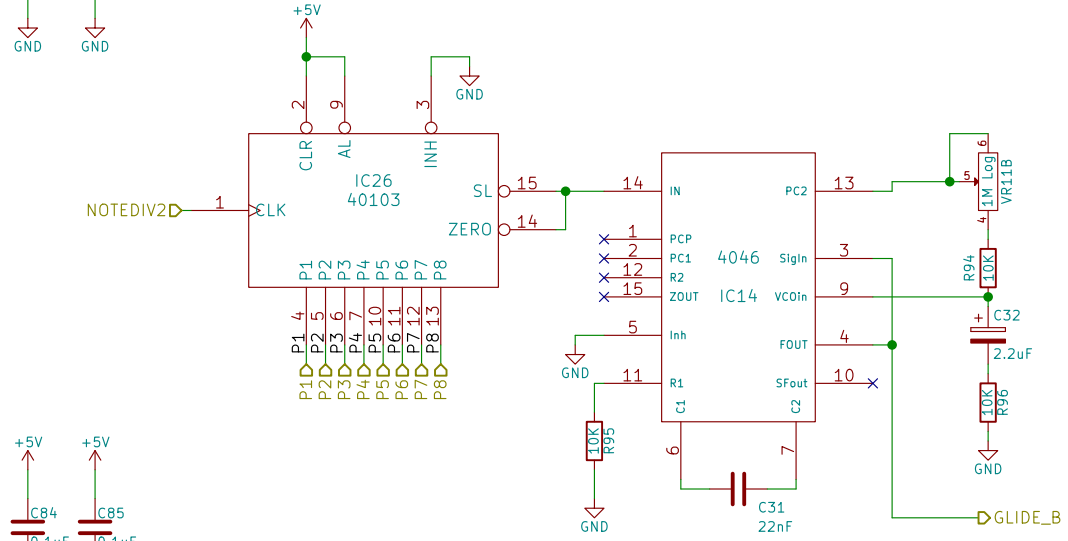
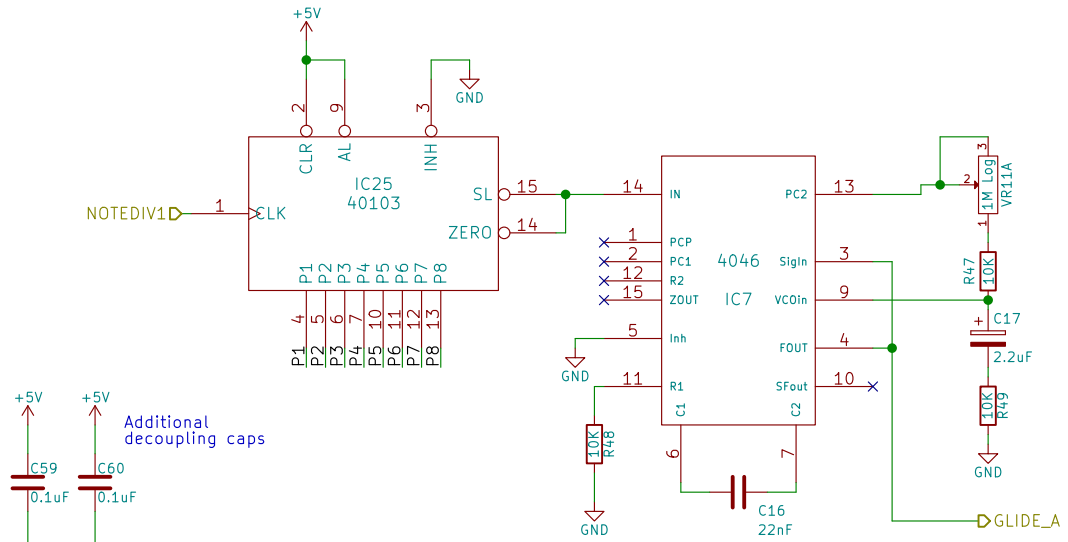
KiCad E.D.A. kicad 4.0.1-stable

Rev: 1.0

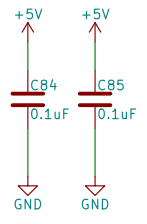
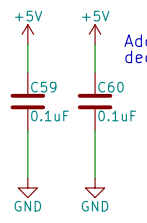
Id: 7/10

Note Dividers

Glide Circuits



Additional decoupling caps



Layout and amendments by J Lane  
Based on EDP Wasp of 1978

**J Lane**

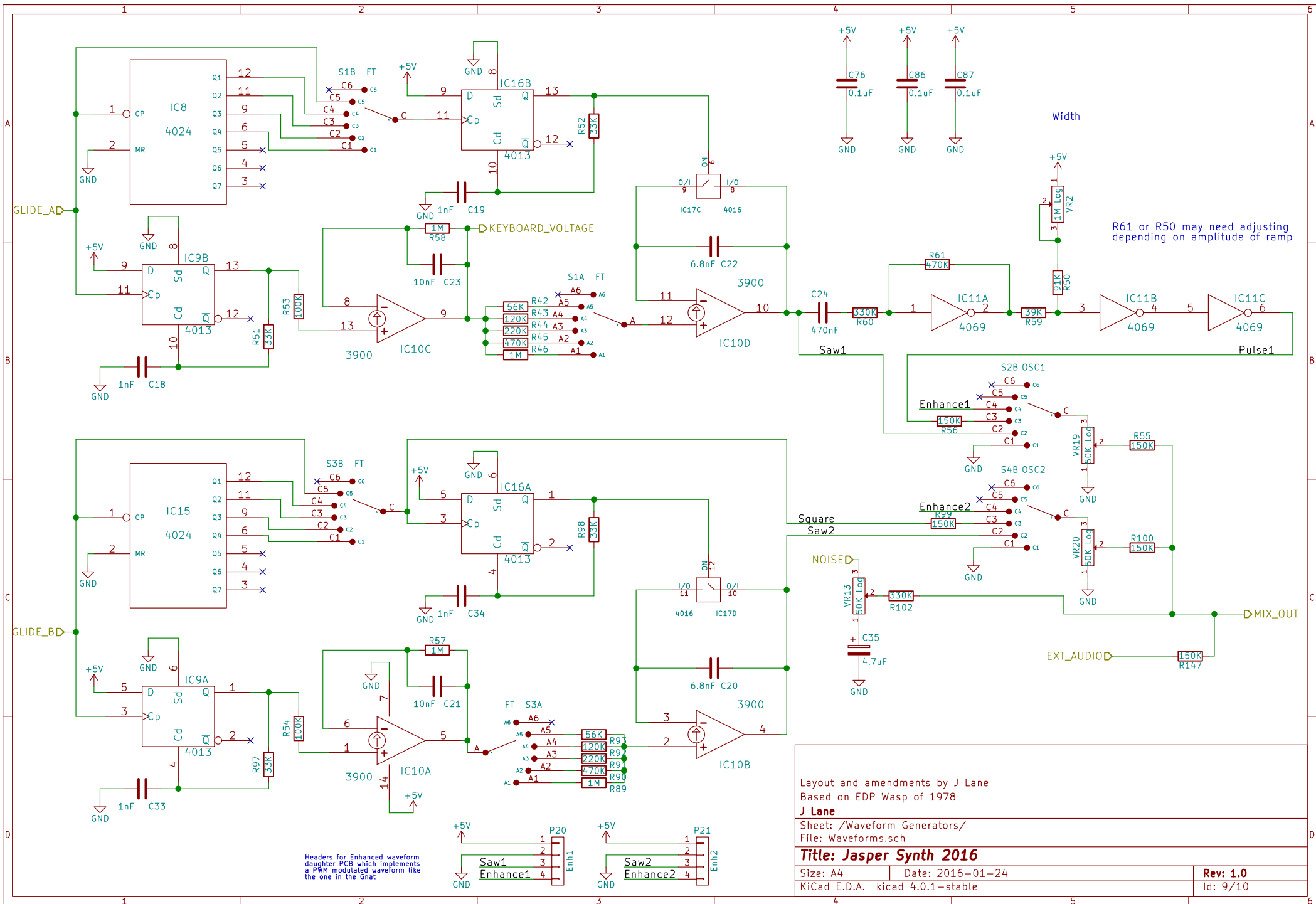
Sheet: /Note Division/  
File: NoteDivision.sch

**Title: Jasper Synth 2016**

Size: A4 Date: 2016-01-24  
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Rev: 1.0  
Id: 8/10





Headers for Enhanced waveform daughter PCB which implements a PWM modulated waveform like the one in the Gnat

Layout and amendments by J Lane  
Based on EDP Wasp of 1978

**J Lane**

Sheet: /Waveform Generators/  
File: Waveforms.sch

**Title: Jasper Synth 2016**

Size: A4 Date: 2016-01-24

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**Rev: 1.0**

Id: 9/10

# Jasper Synth 2016

EDP Wasp Synthesiser Clone

## Power Input and Regulator

Battery negative is disconnected when DC jack inserted

If using PCB battery holders  
Jumper the two connectors  
P15 & P16

Optional power over  
8pin Link connector

A few extra decoupling caps

## VCA

Extra resistor to bias VCA Envelope CV higher. Improves repeat and sustain. If VCA doesn't close fully, increase this resistor or leave out completely.

Uses Omeg Eco16 pots with DPST switch

Uses LM13700 instead of CA3080

Properly terminate unused half of 13700

## LINE OUT

Mix to allow stereo out

## POWER AMP

## M3 PCB mounting holes

10uF Cap for additional bypass filtering on LM386  
22pF cap required to stop LM386 oscillating at about 200kHz

Ground pin for grounding a metal control panel

## External Audio Input

Spare inverters on IC22 to mix a stereo input and provide buffer and variable gain. If jack not plugged, ext audio input is grounded by switches on Cliff socket.

Twinned shielded cable to VR21  
Only connect signal wires to 100K log pot

Layout and amendments by J Lane  
Based on EDP Wasp of 1978

**J Lane**

Sheet: /VCA and Power/  
File: PowerVCA.sch

**Title: Jasper Synth 2016**

Size: A4 Date: 2016-01-24

KiCad E.D.A. kicad 4.0.1-stable

Rev: 1.0

Id: 10/10