

Revision History:
1.0: initial release

- 1.1:
- * reversed Attack / Decay pots
 - * removed connection to GND on U3A pin 1
 - * changed Q8 footprint (BEC instead of CBE)
 - * changed Jack footprints to WQP-PJ398SM
- 1.2:
- * changed NPN BC547 to BC847BS (Dual matched NPN in SOT363)
 - * changed THT capacitors to SMT (C3, C13, C16, C18)
 - * changed Q101 from 2N1711 to 2N3904
- 1.3:
- * removed Regulators 78L09 and 79L09 due to availability issues
 - * added decoupling capacitors
 - * added Hi Freq trimmers for VCOs

Based on Ray Wilson's design (<http://musicfromouterspace.com/>)

David Hailant

Sheet: /
File: mfos slms.sch

Title: SoundLab MiniSynth – Eurorack SMD Edition

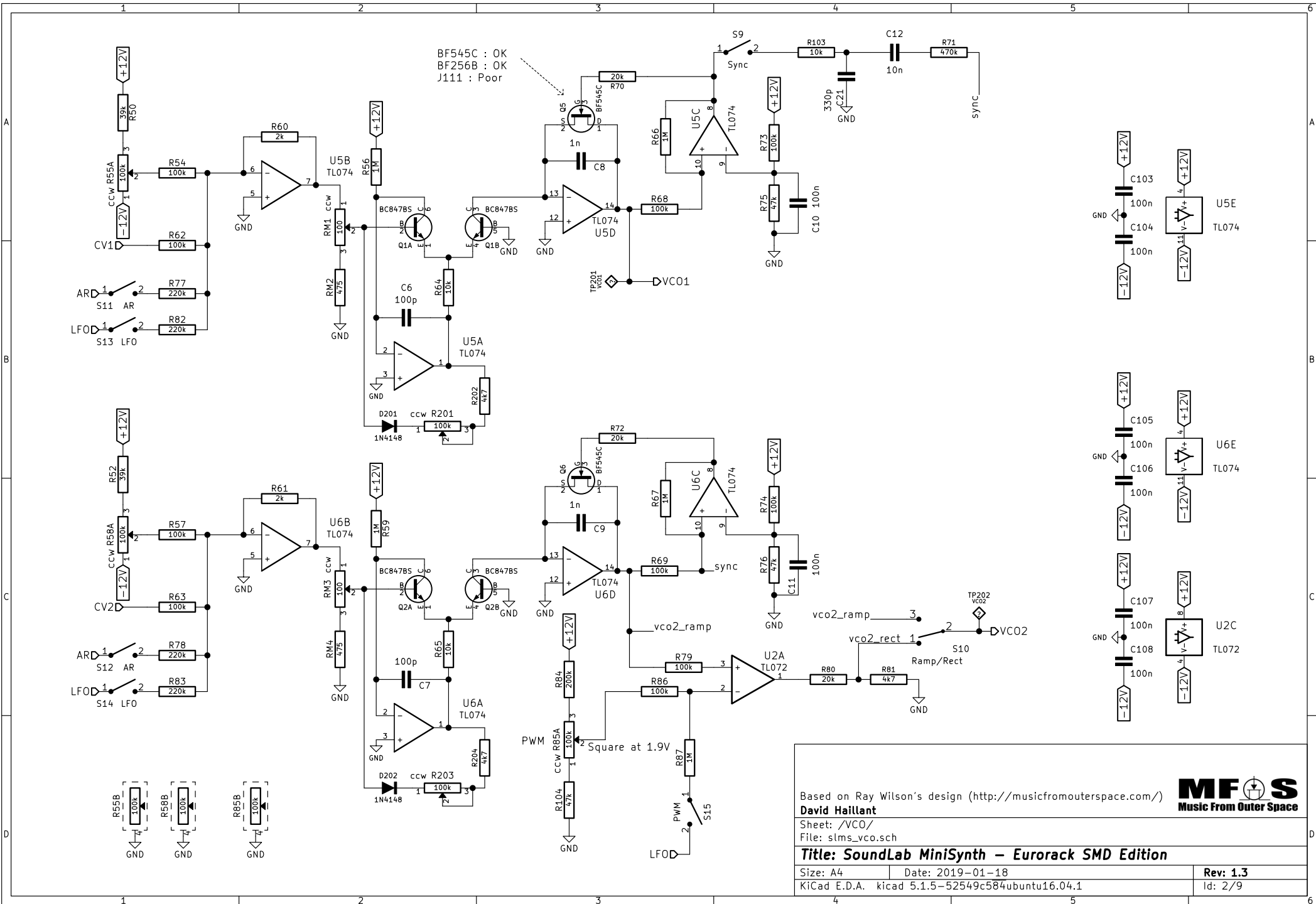
Size: A4 | Date: 2019-01-18

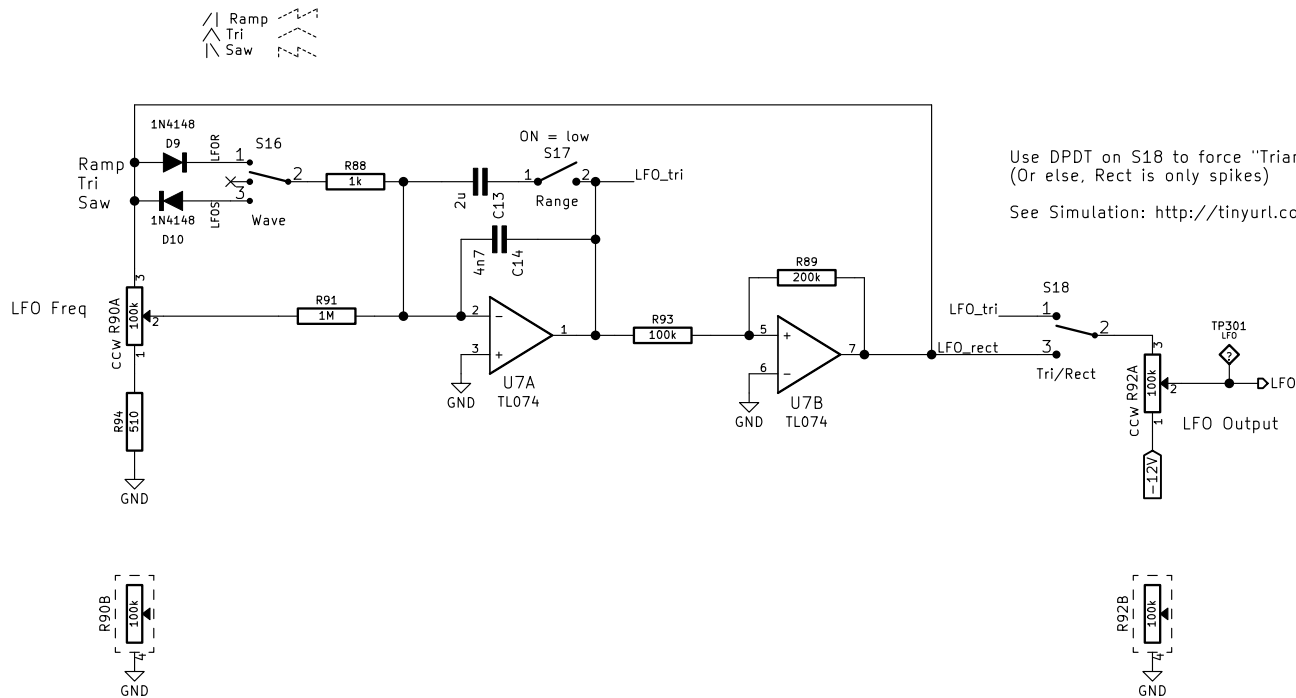
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Sheet: /LFO/

File: slms_lfo.sch

Title: SoundLab MiniSynth – Eurorack SMD Edition

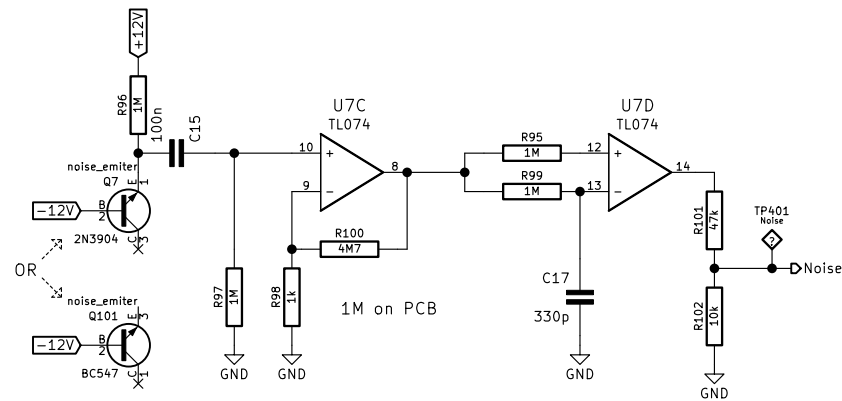
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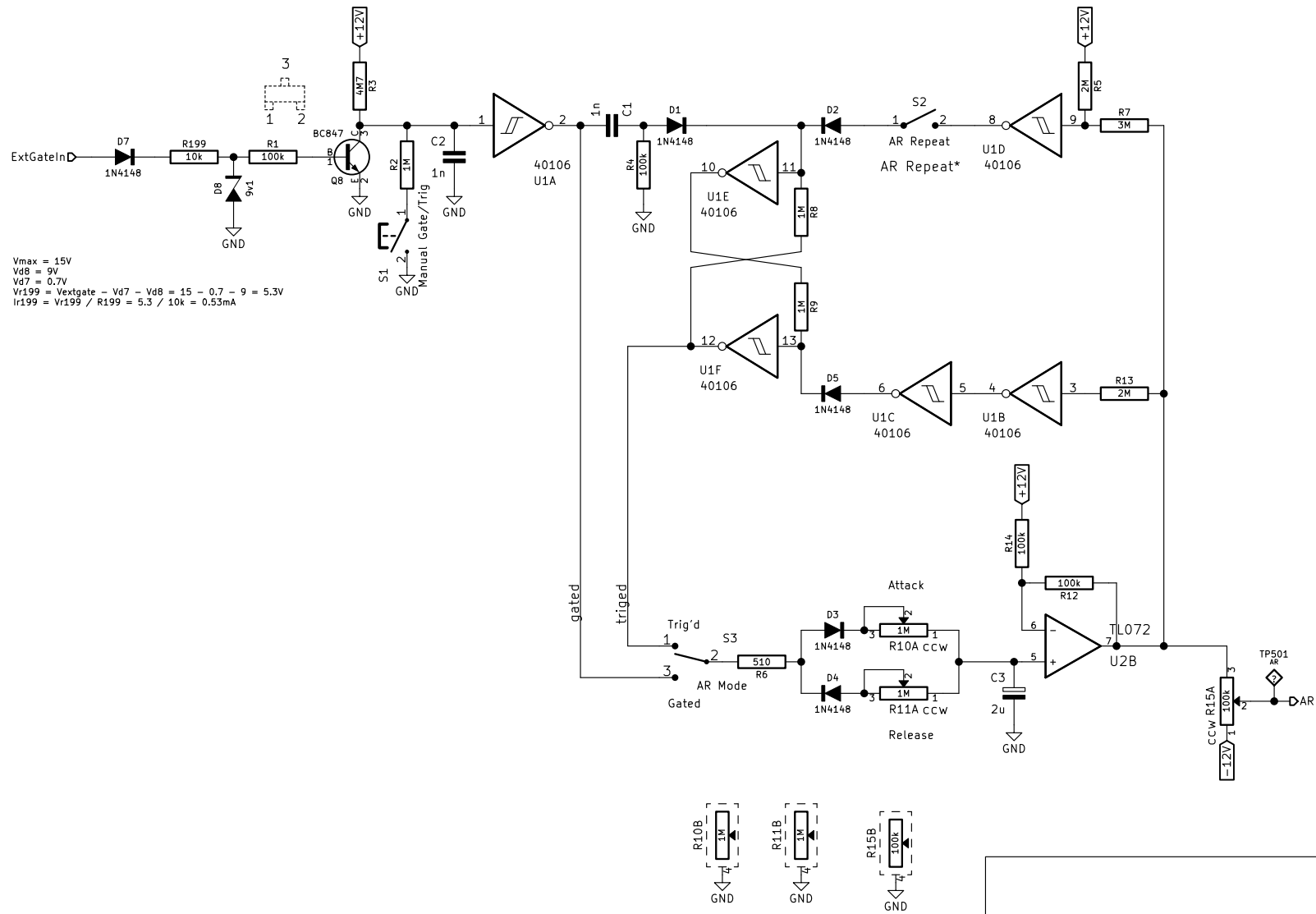




Use either Q7 or Q101

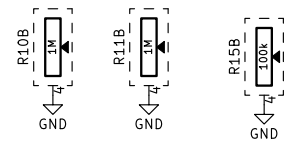
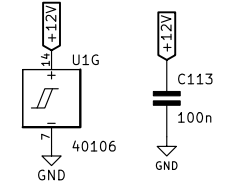
V1.2 - Q101 changed from 2N1711 to 2N3904
 V1.3 - Q7 and Q101 swapped

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Sheet: /Noise Gen/ File: slms_noise.sch		
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$V_{max} = 15V$
 $V_{d8} = 9V$
 $V_{d7} = 0.7V$
 $V_{r199} = V_{extgate} - V_{d7} - V_{d8} = 15 - 0.7 - 9 = 5.3V$
 $I_{r199} = V_{r199} / R_{199} = 5.3 / 10k = 0.53mA$

* : (Repeat only works in Trig'd mode)



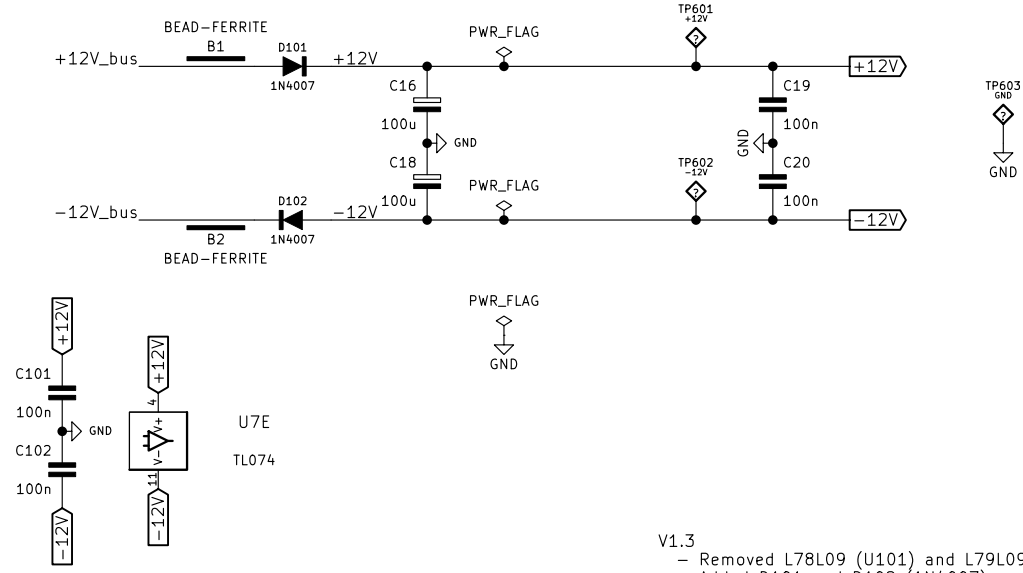
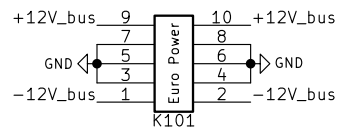
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Sheet: /Attack Release Envelope Generator/
 File: slms_argen.sch

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- V1.3
- Removed L78L09 (U101) and L79L09 (U102)
 - Added D101 and D102 (1N4007)
 - Added optional Bead Ferrites B1 and B2

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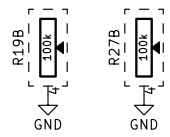
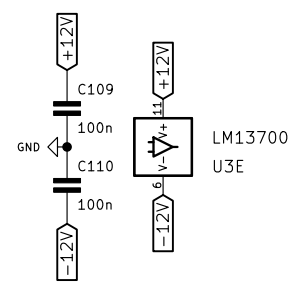
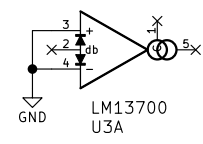
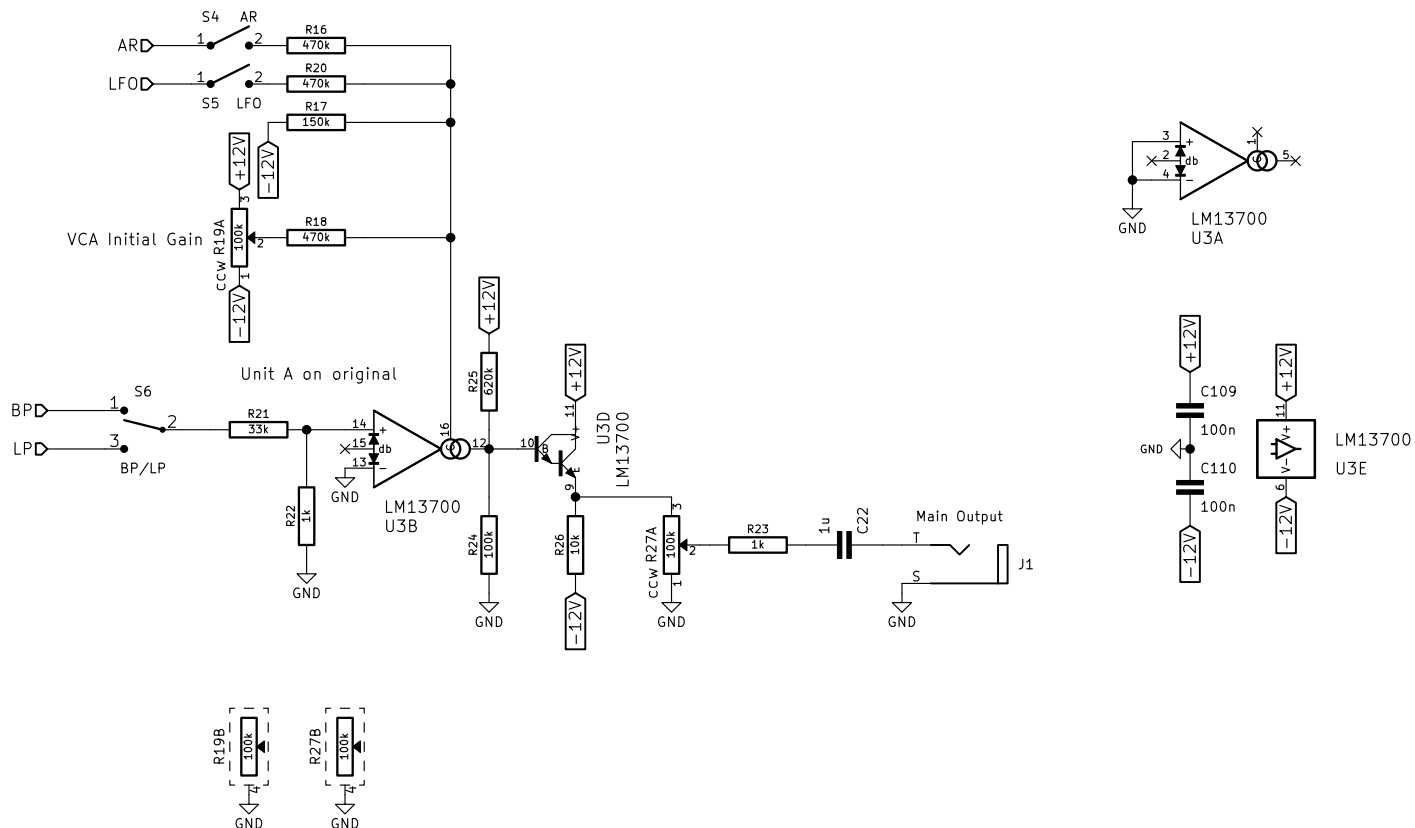
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Sheet: /Power Supply/
File: slms_power.sch

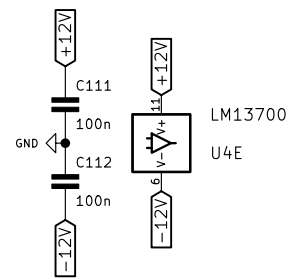
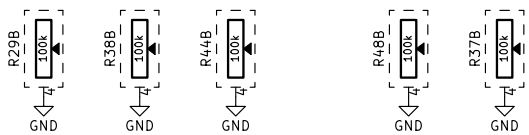
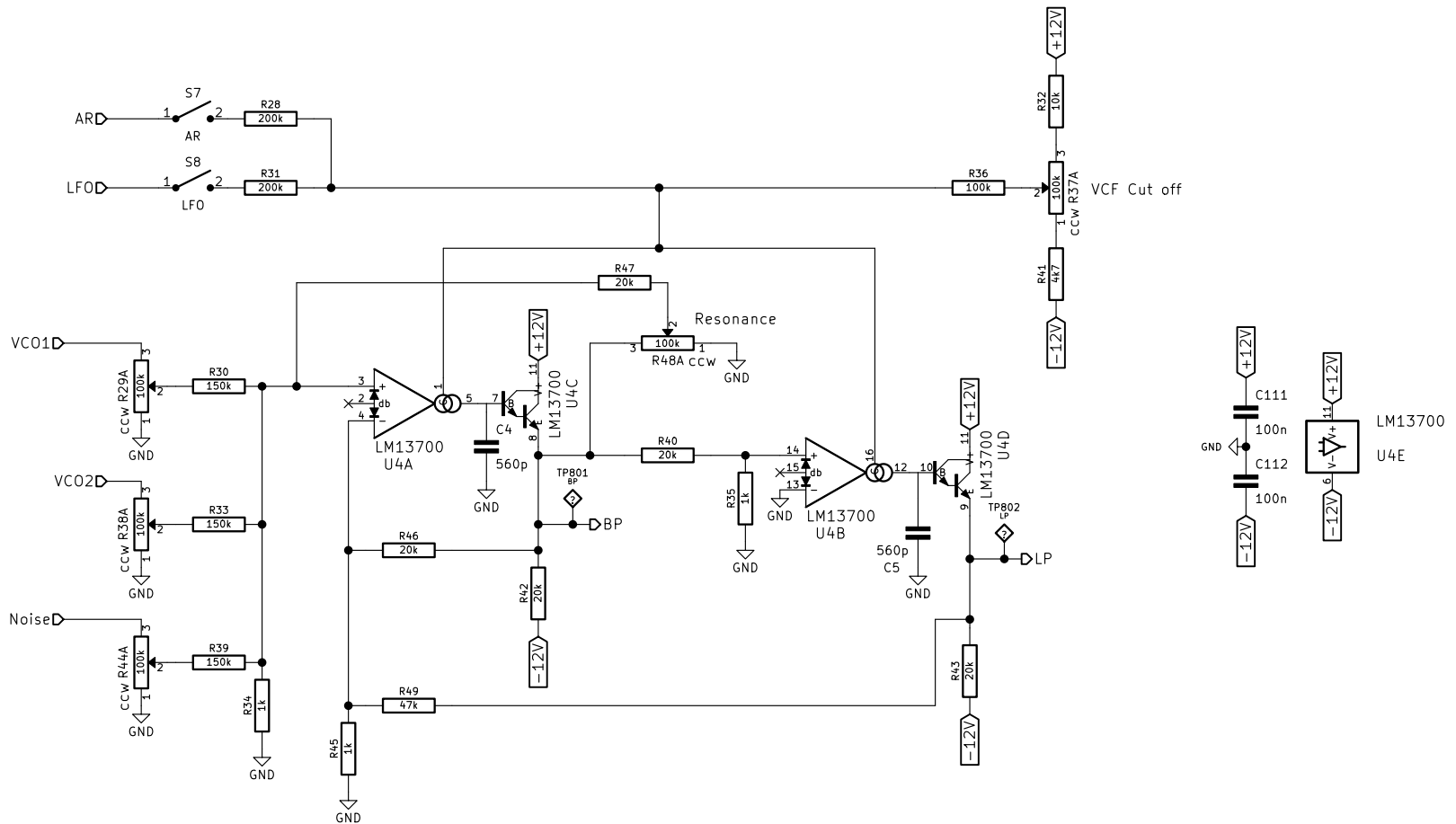
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Sheet: /VCA/		
File: slms_vca.sch		
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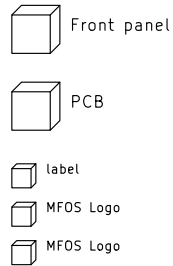
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 Sheet: /VCF/
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MFOS
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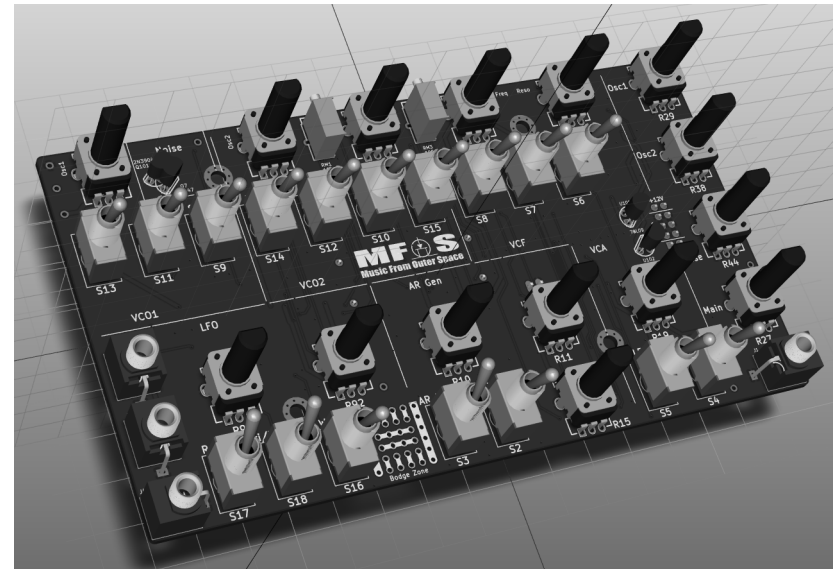
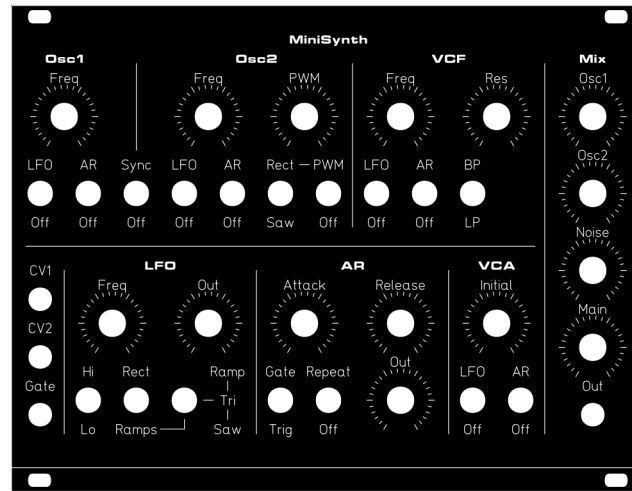
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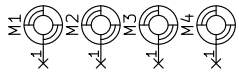
Additional Hardware:



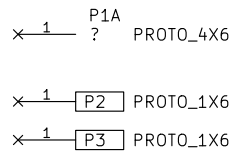
Suggested Front Panel Layout:



Mounting Holes:



Proto Area Connections:



Sources for Special Hardware:

Potentiometers:
<https://www.thonk.co.uk/shop/alpha-9mm-pots/>
<http://smallbear-electronics.mybigcommerce.com/alpha-single-gang-9mm-right-angle-pc-mount/>
<https://www.musikding.de/Pot-9mm-100k-lin-Print-vertical>
<https://erthenvar.myshopify.com/collections/9mm-potentiometers/products/smooth-shaft-vertical-pot>

Jacks (10mm H)
<http://www.qingpu-electronics.com/en/products/WQP-PJ398SM-362.html>
<https://erthenvar.myshopify.com/collections/accessories/products/3-5mm-inline-jacks>
<https://www.thonk.co.uk/shop/3-5mm-jacks/>

Suggested Buttons:
<https://www.musikding.de/Nose-Knob-orange>
<http://smallbear-electronics.mybigcommerce.com/knurled-colored-caps/>

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Sheet: /Hardware parts/

File: hardware.sch

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