

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

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

David Haillant

Sheet: /  
File: mfos slms.sch

**Title: SoundLab MiniSynth – Eurorack SMD Edition**

Size: A4

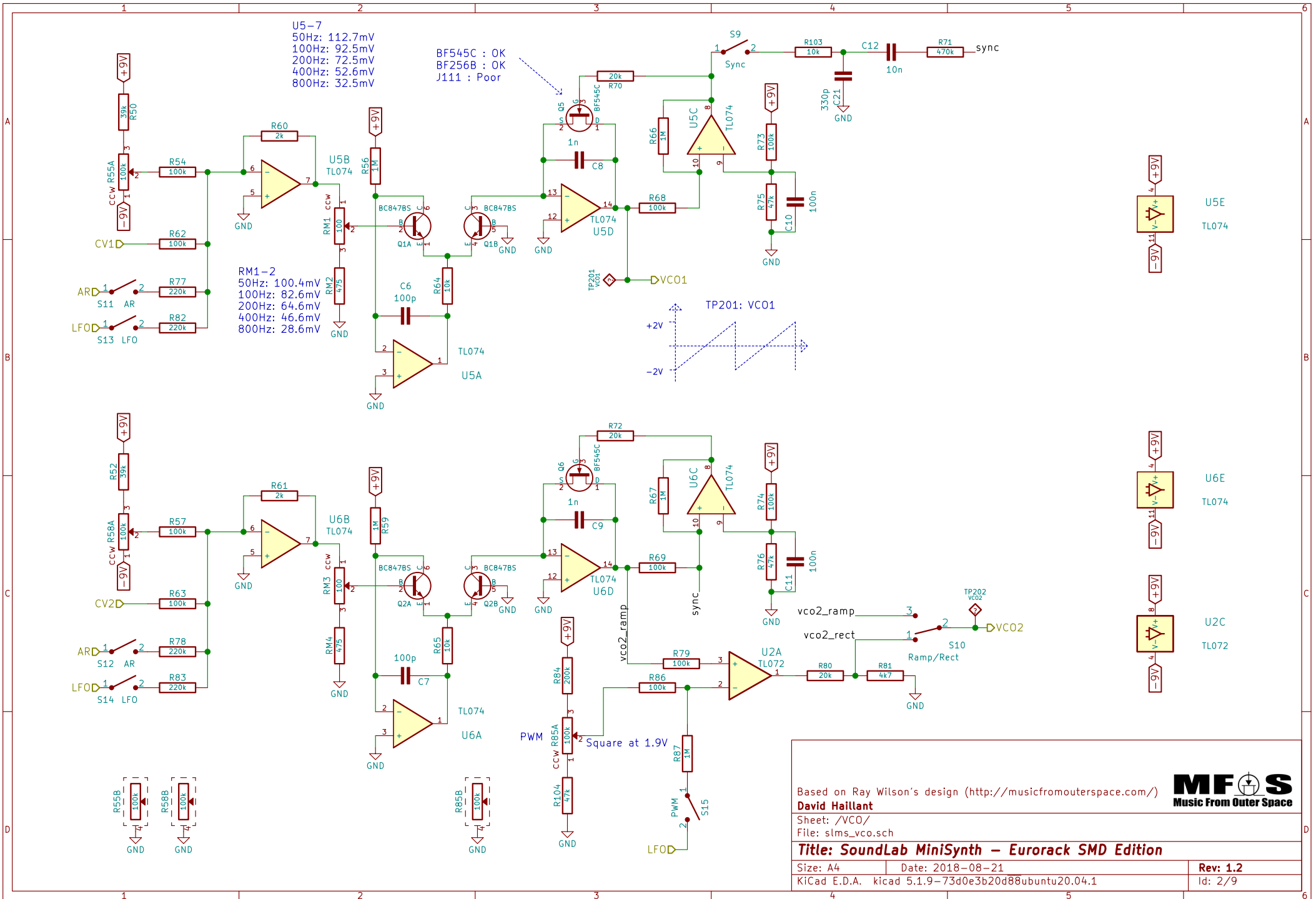
Date: 2018-08-21

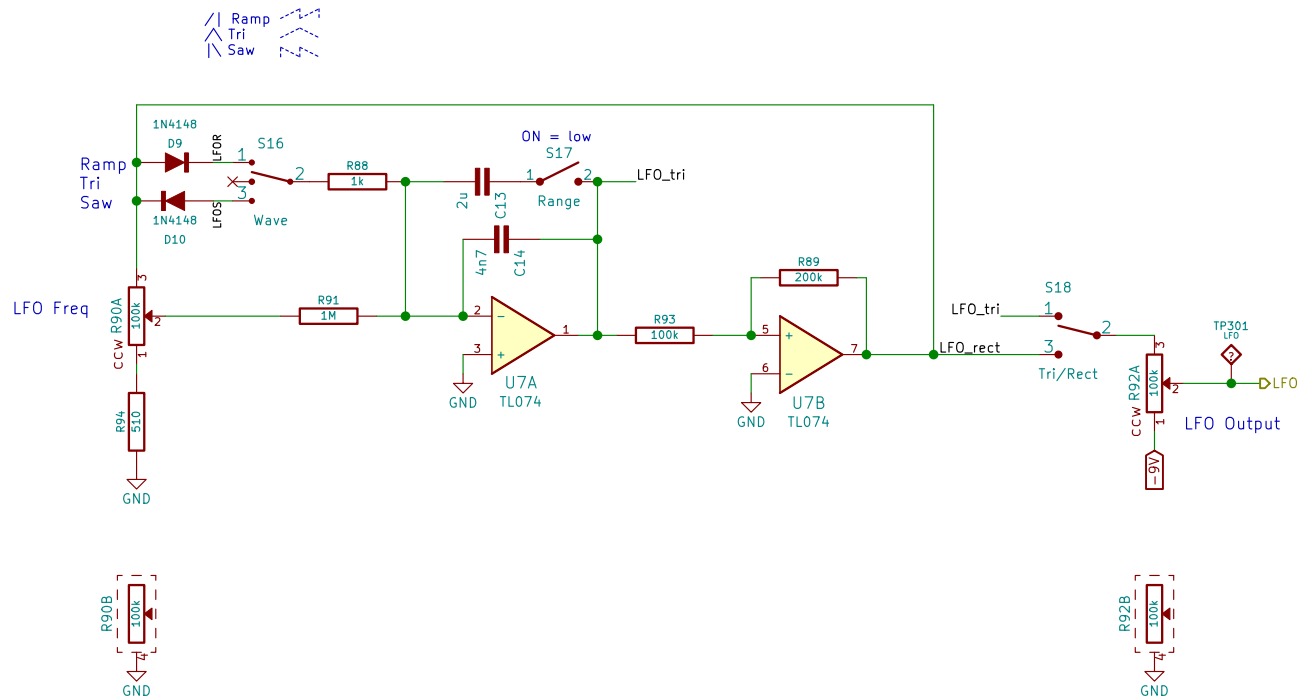
Rev: 1.2

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Id: 1/9







<http://tinyurl.com/yc3zqwhl>

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

David Hailant

Sheet: /LFO/

File: slms\_lfo.sch

**Title: SoundLab MiniSynth – Eurorack SMD Edition**

Size: A4

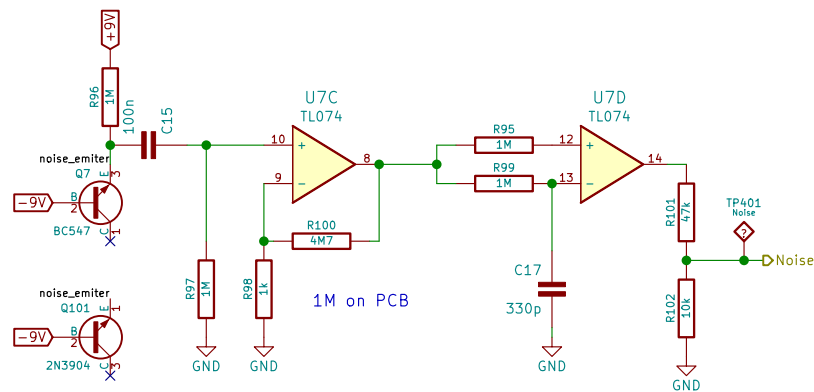
Date: 2018-08-21

Rev: 1.2

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V1.2 – Q101 changed from 2N1711 to 2N3904

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David Hailant

Sheet: /Noise Gen/

File: slms\_noise.sch

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Size: A4

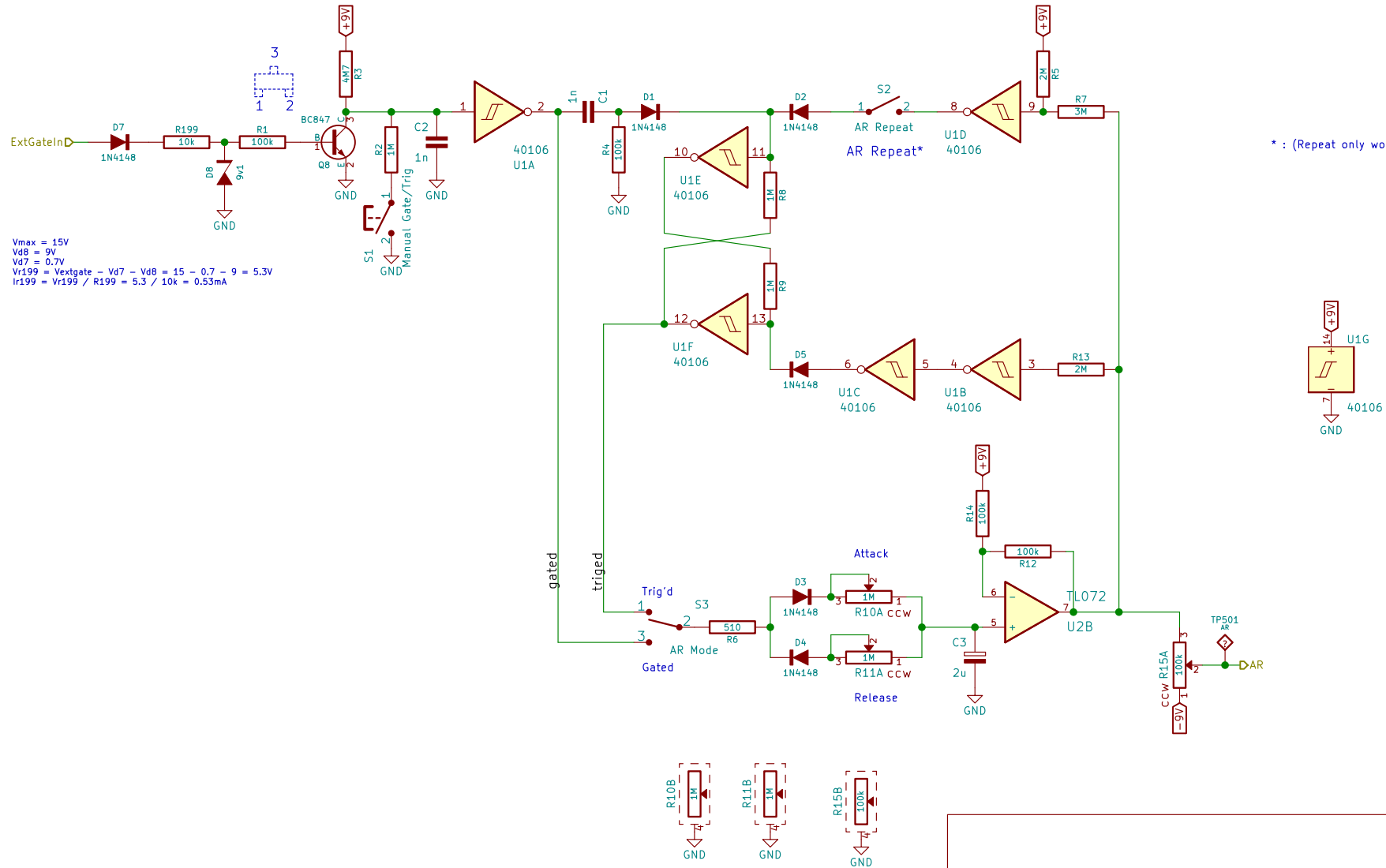
Date: 2018-08-21

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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)

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

David Hailant

Sheet: /Attack Release Envelope Generator/  
 File: slms\_argen.sch

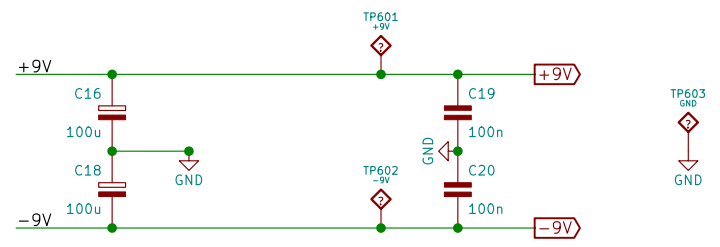
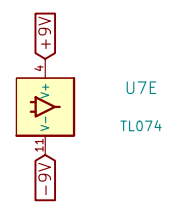
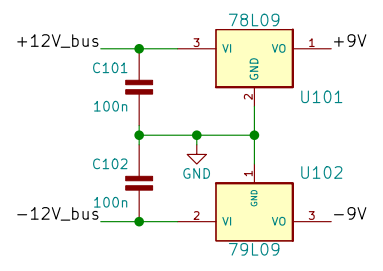
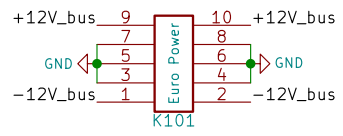
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Size: A4 | Date: 2018-08-21  
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**David Hailant**

Sheet: /Power Supply/

File: slms\_power.sch

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Size: A4

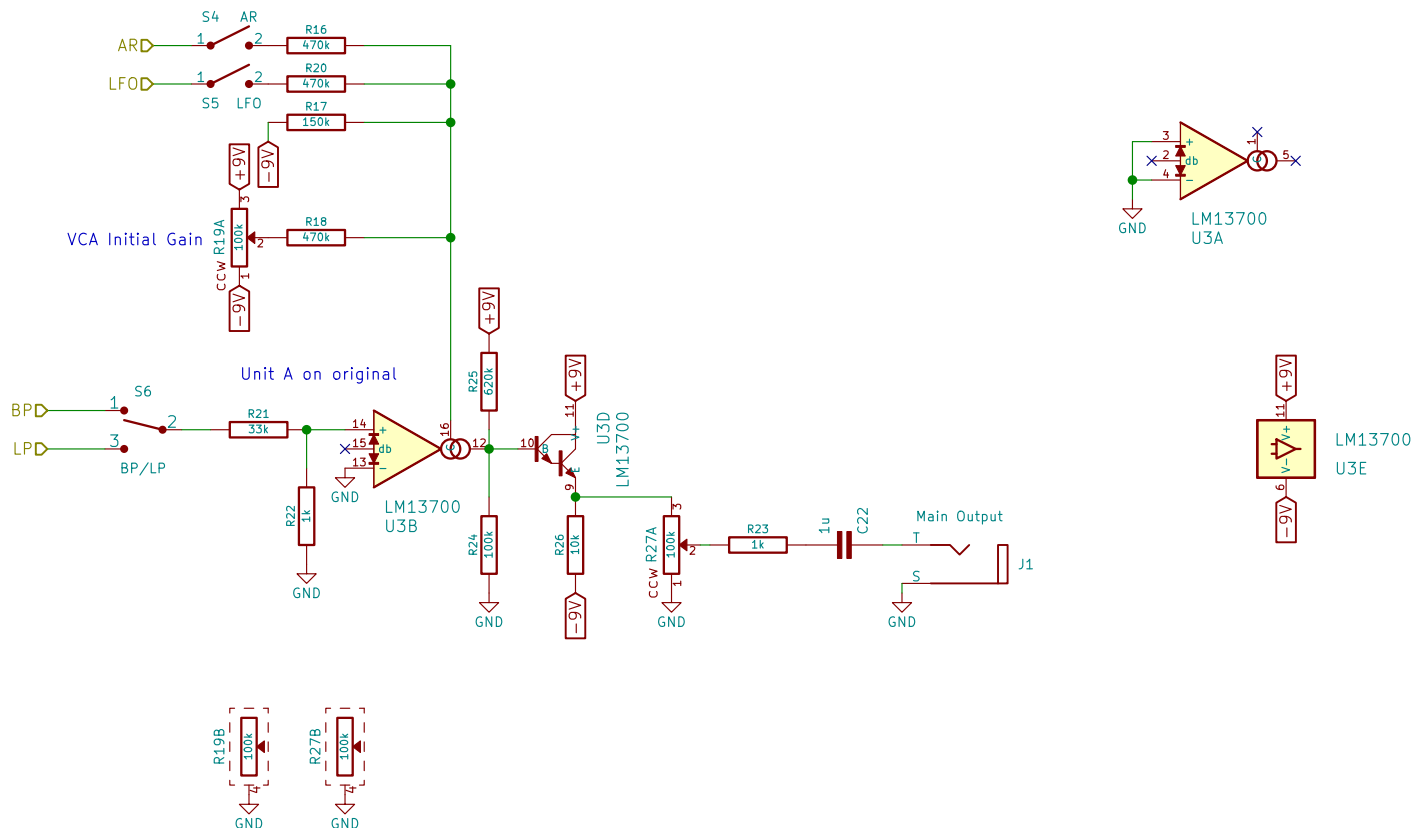
Date: 2018-08-21

Rev: 1.2

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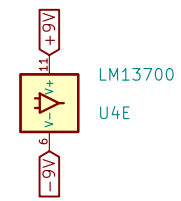
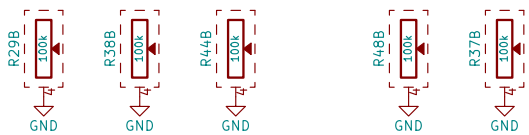
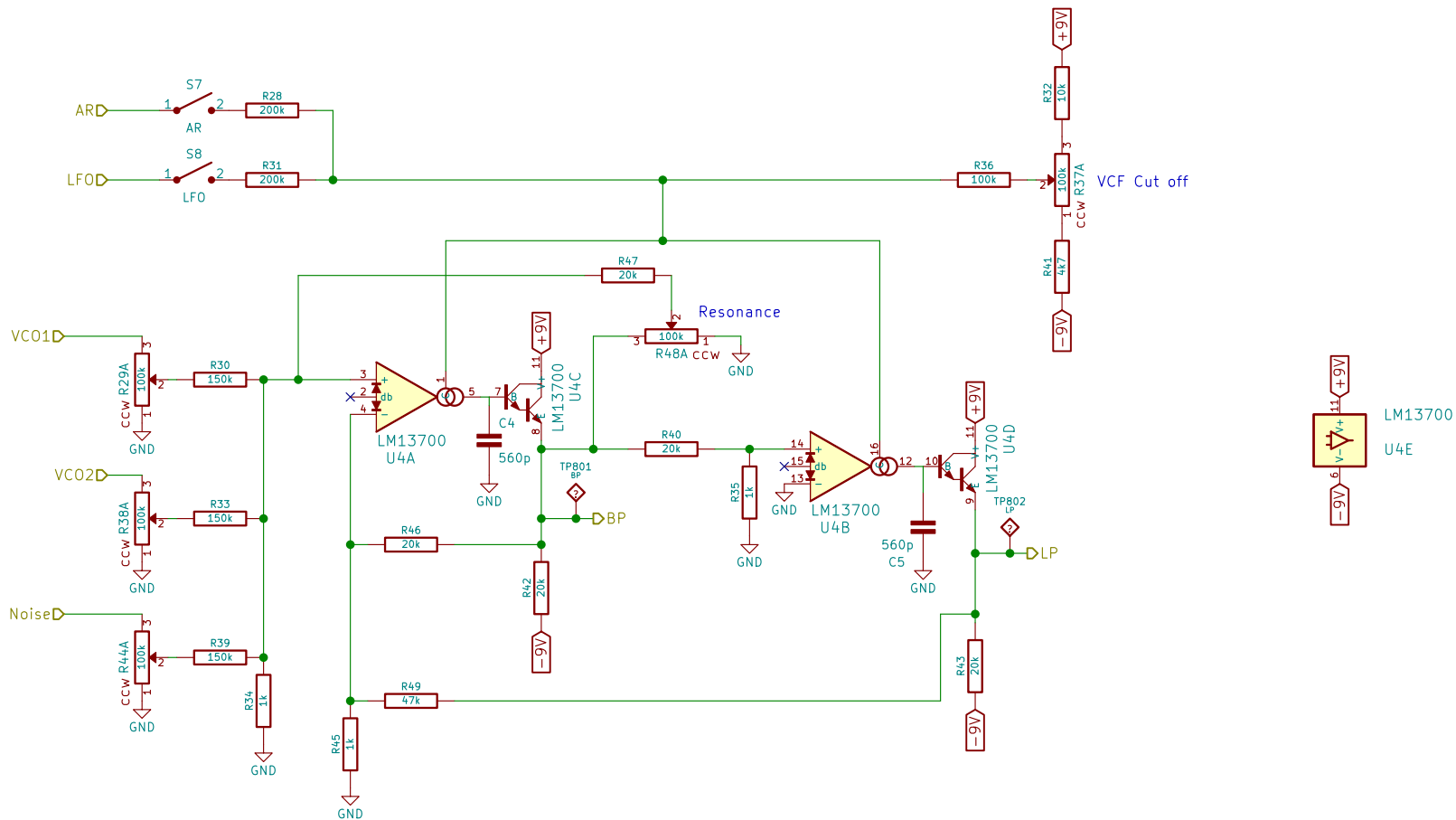
Based on Ray Wilson's design (<http://musicfromouterspace.com/>)  
**David Hailant**  
 Sheet: /VCA/  
 File: slms\_vca.sch

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 Sheet: /VCF/  
 File: slms\_vcf.sch




**MFOS**  
 Music From Outer Space

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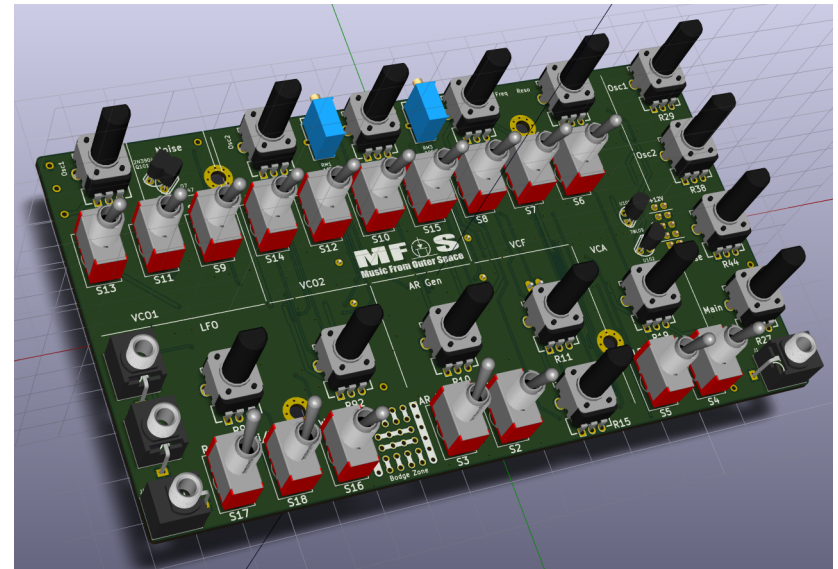
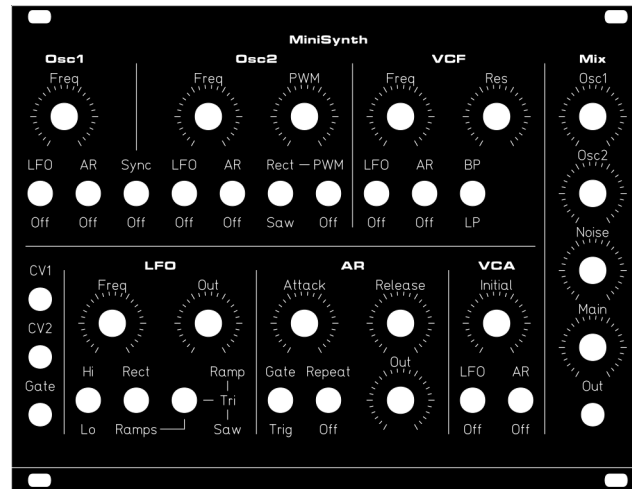
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| Size: A4   | Date: 2018-08-21 | Rev: 1.2 |
| KiCad E.D.A. kicad 5.1.9-73d0e3b20d88ubuntu20.04.1 |                  | Id: 8/9  |



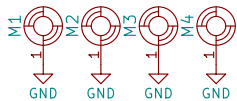
Additional Hardware:

-  Front panel
-  PCB
-  label

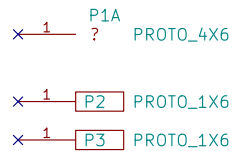
Suggested Front Panel Layout:



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/>

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

David Haillant

Sheet: /Hardware parts/

File: hardware.sch

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