

Pre-production version

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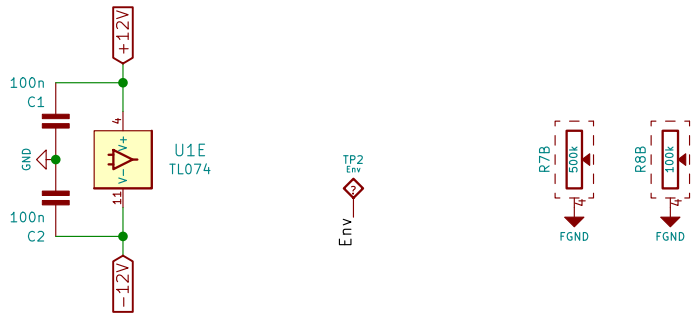
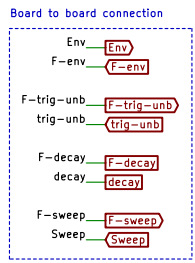
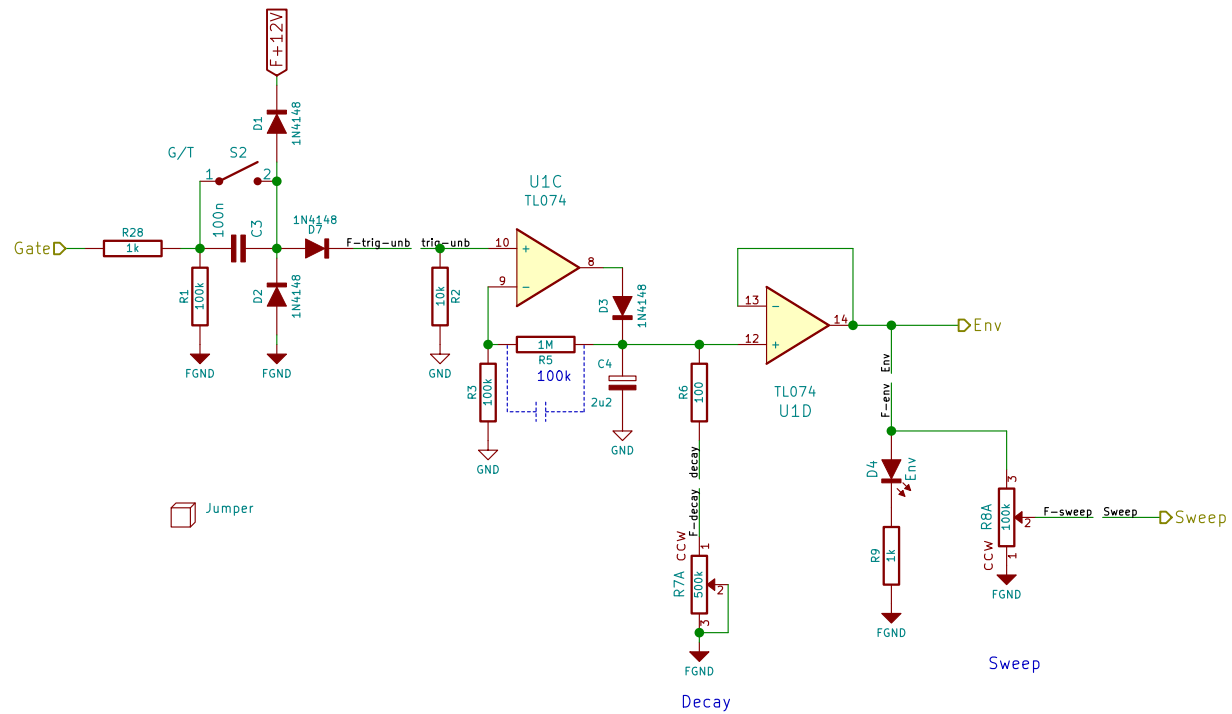
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Sheet: /

File: dm77.sch

Title: Drum Module 77

Size: A4	Date: 2019-04-26	Rev: 0.5
KiCad E.D.A. kicad 5.1.4-e60b26684ubuntu16.04.1		Id: 1/9



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Sheet: /Input/

File: input.sch

Title: Drum Module 77

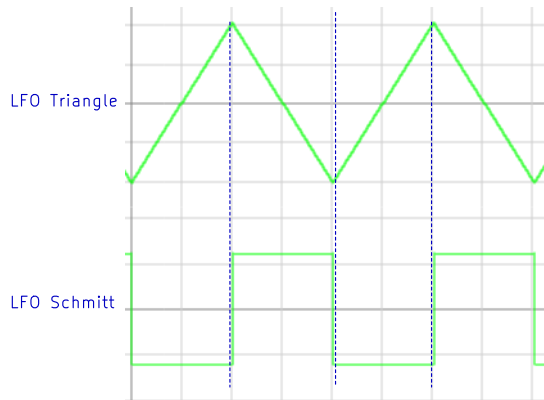
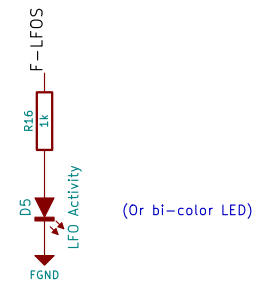
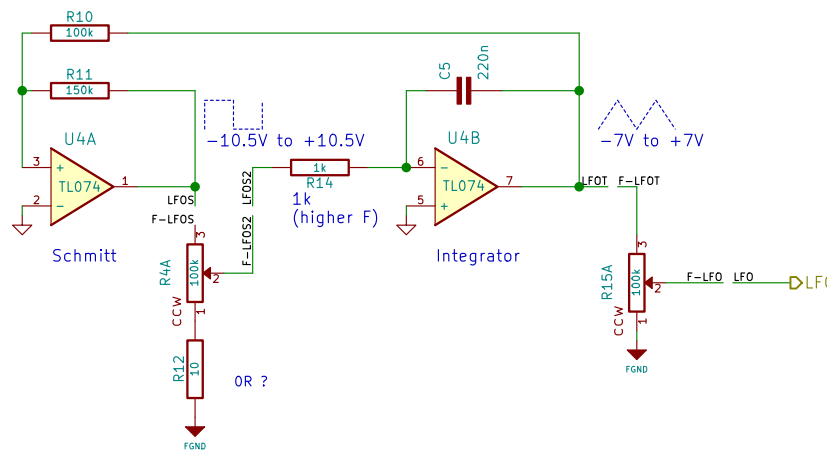
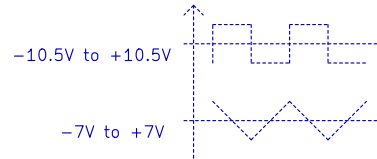
Size: A4

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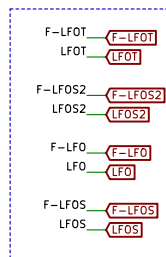
<http://tinyurl.com/y982m8vn>

LFO Rate
100k

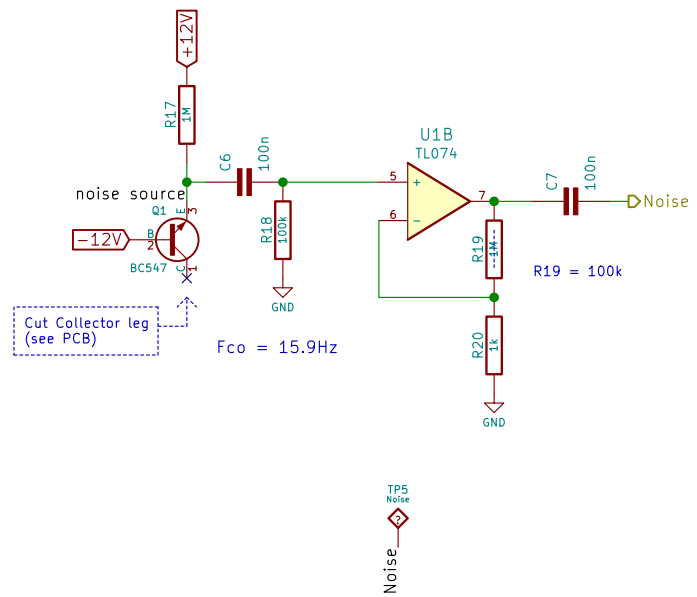
LFO Mod.
50k LOG



Board to board connection



Inspired by ASM-1 LFO	
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Sheet: /LFO/	
File: lfo.sch	
Title: Drum Module 77	
Size: A4	Date: 2019-04-26
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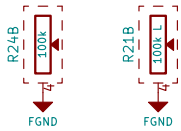
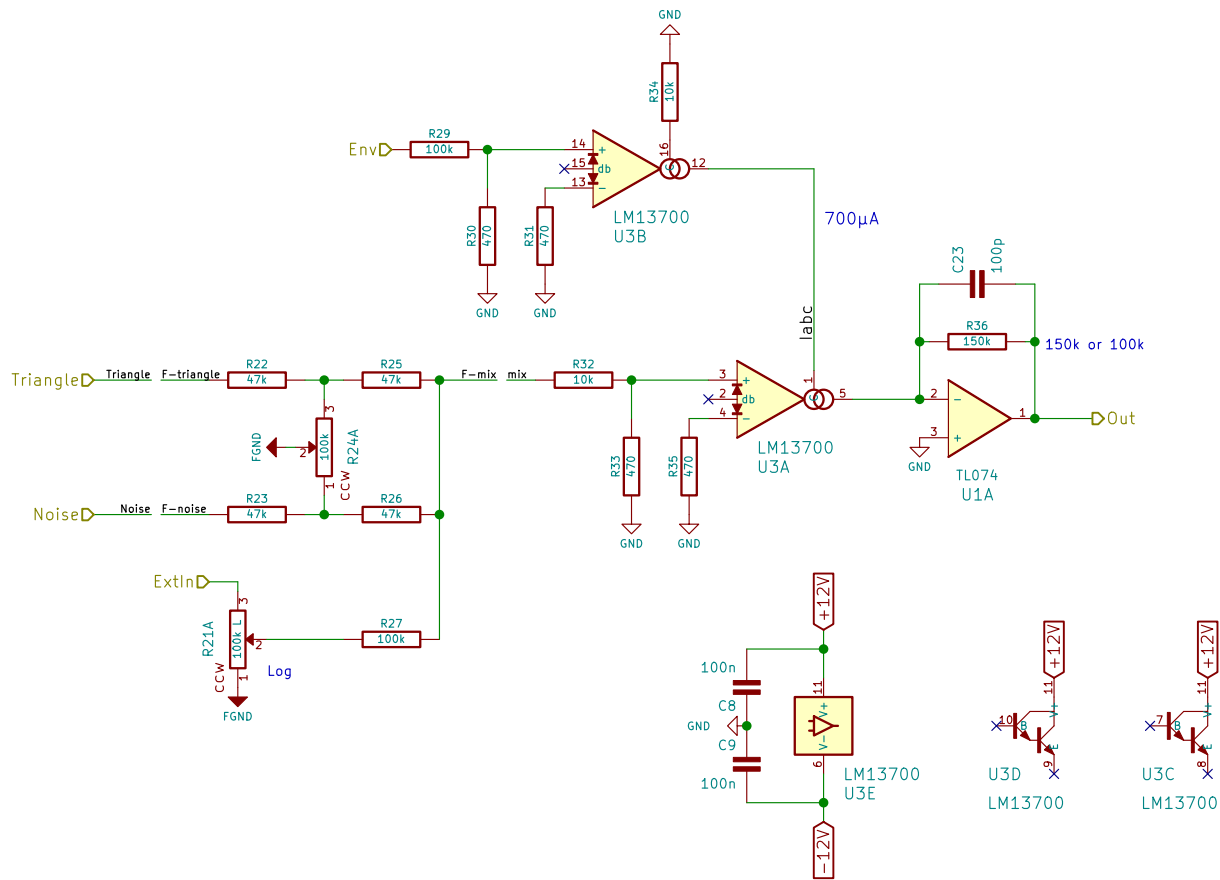
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Sheet: /Noise generator/
File: noise_gen.sch

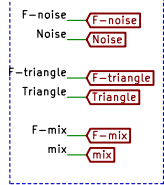
Title: Drum Module 77

Size: A4 Date: 2019-04-26
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Rev: 0.5
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Board to board connection



0.2
 - C23 added for high frequency noise suppression when output loaded

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Sheet: /VCA/

File: vca.sch

Title: Drum Module 77

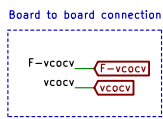
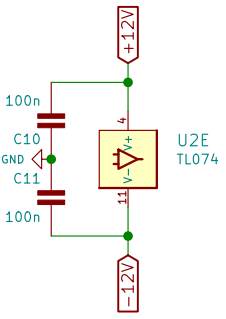
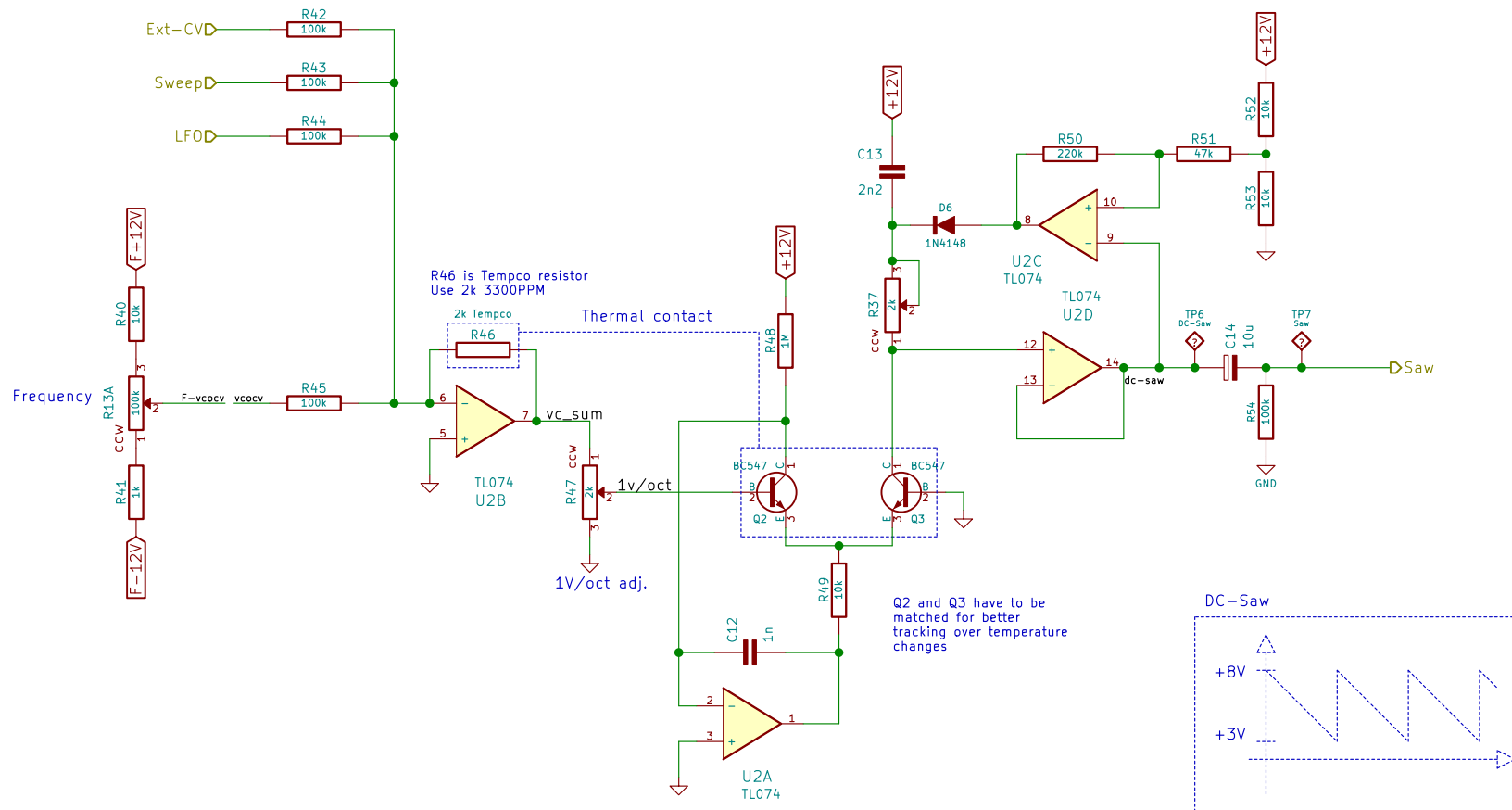
Size: A4

Date: 2019-04-26

Rev: 0.5

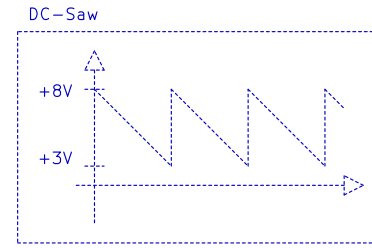
KiCad E.D.A. kicad 5.1.4-e60b26684ubuntu16.04.1

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Calibration procedure:
 Set a low Freq. (Eg. 100Hz) then apply 1V CV.
 Frequency MUST exactly double.
 If lower, turn R47 to make freq. LOWER.
 If higher, turn R47 to make freq. HIGHER.
 Remove CV. Set again to low freq (100Hz) and apply 1V CV.
 Repeat until frequency doubles for each volt added on CV.

Q2 and Q3 have to be matched for better tracking over temperature changes



Revision History
 0.2:
 - reversed R47. Turn clockwise = increase CV effect.

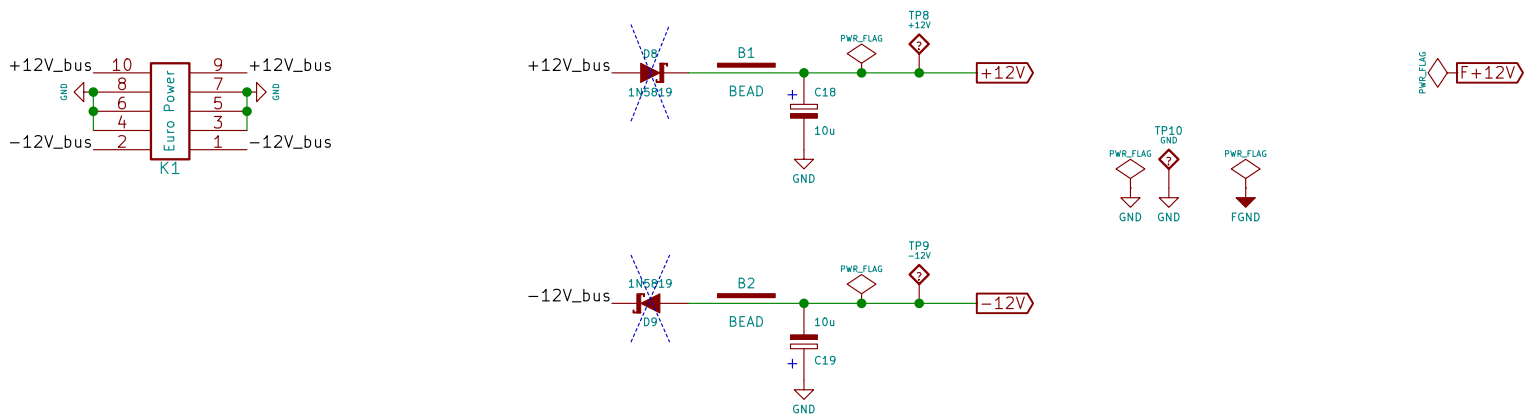
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 Sheet: /Oscillator/
 File: oscillator.sch

Title: Drum Module 77

Size: A4 Date: 2019-04-26
 KiCad E.D.A. kicad 5.1.4-e60b26684ubuntu16.04.1

Rev: 0.5
 Id: 6/9

Remove and shunt Diodes to reduce LFO switching noise on Power Rail voltages (typically for the White Noise Gen)



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Sheet: /Power/

File: power.sch

Title: Drum Module 77

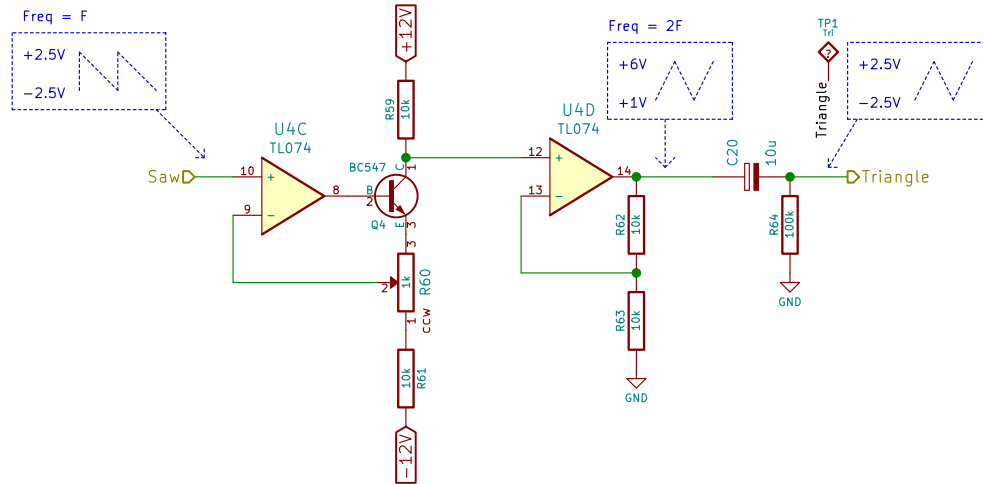
Size: A4

Date: 2019-04-26

Rev: 0.5

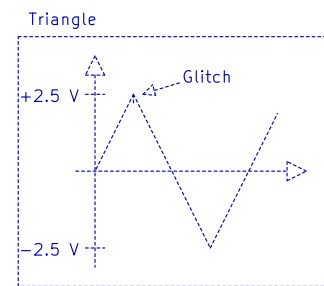
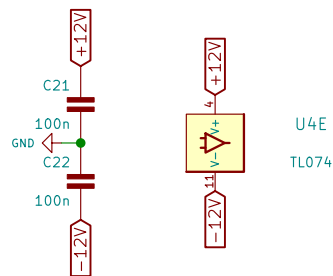
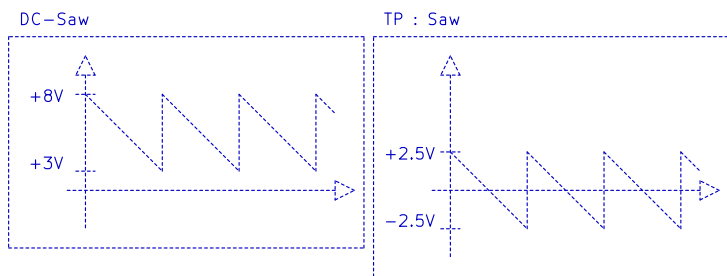
KiCad E.D.A. kicad 5.1.4-e60b26684ubuntu16.04.1

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Adjustment procedure:
Turn R60 until high frequency content fades out.

<http://tinyurl.com/y839wjb5>



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Sheet: /Saw to Triangle/

File: saw2tri.sch

Title: Drum Module 77

Size: A4

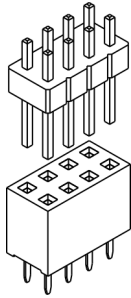
Date: 2019-04-26

Rev: 0.5

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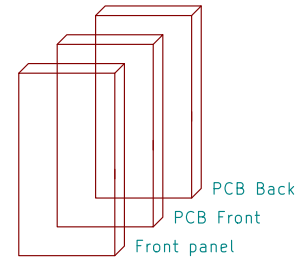
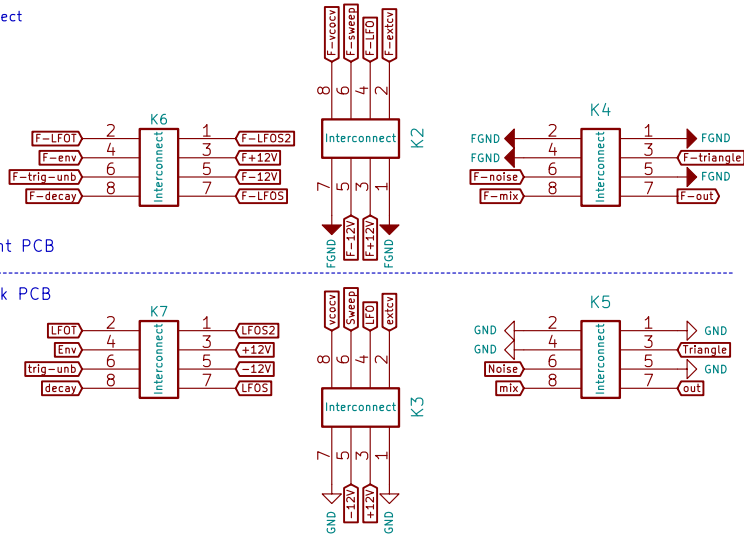
Id: 8/9

Board to Board Interconnect

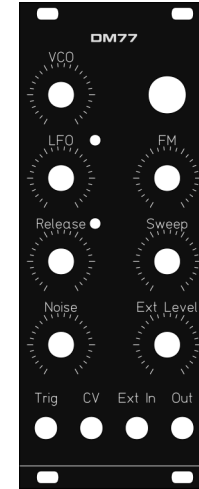


Front PCB

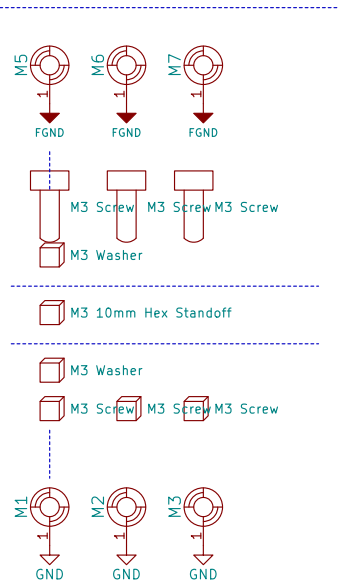
Back PCB



frontpanel:dm77-10hp-20190312-fcad



- DIL Socket 14
- DIL Socket 14
- DIL Socket 14
- DIL Socket 16



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>

Buttons:

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

Jacks (WQP-PJ398SM):

- <http://www.qingpu-electronics.com/en/products/WQP-PJ398SM-362.html>

Jacks (PJ301BM):

- <https://www.thonk.co.uk/shop/3-5mm-jacks/>
- <http://www.qingpu-electronics.com/en/products/wqp-pj3010bm-34.html>

Revision History

- 0.2:
- Added missing links LFOS, ENV.

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Sheet: /Hardware parts/
File: hardware.sch

Title: Drum Module 77

Size: A4 Date: 2019-04-26
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Rev: 0.5
Id: 9/9

