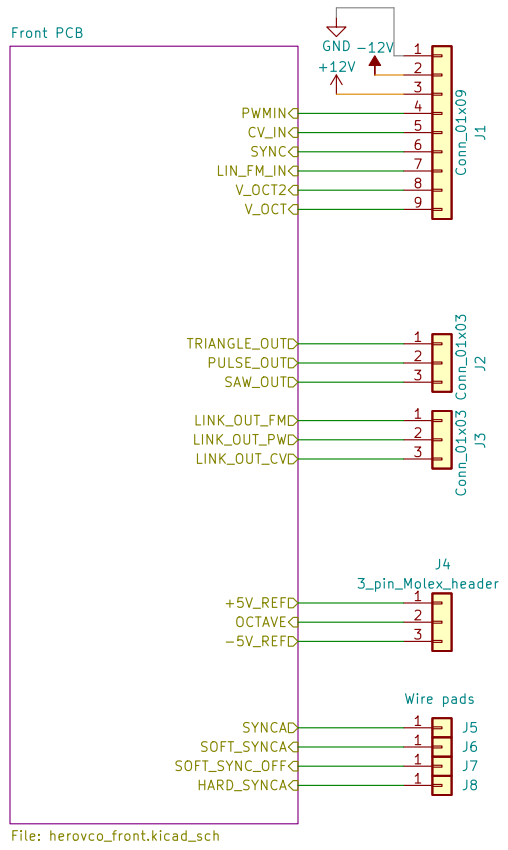
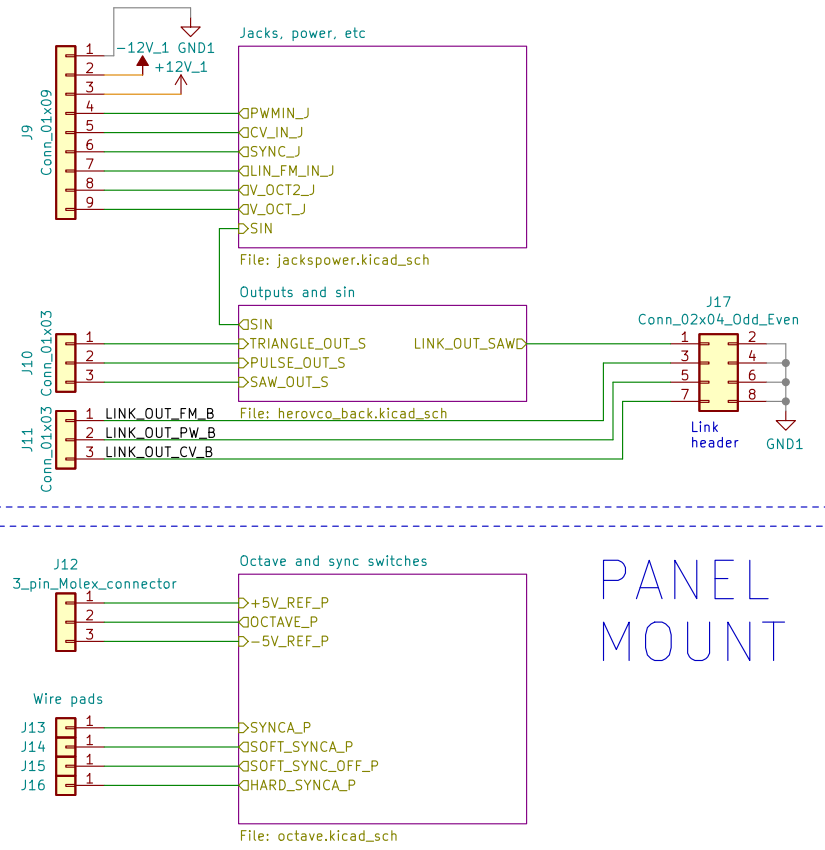


FRONT PCB



BACK PCB



PANEL MOUNT

Partly based on designs by Kassutronics, Thomas Henry, and LMNC
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Rich Holmes / Analog Output

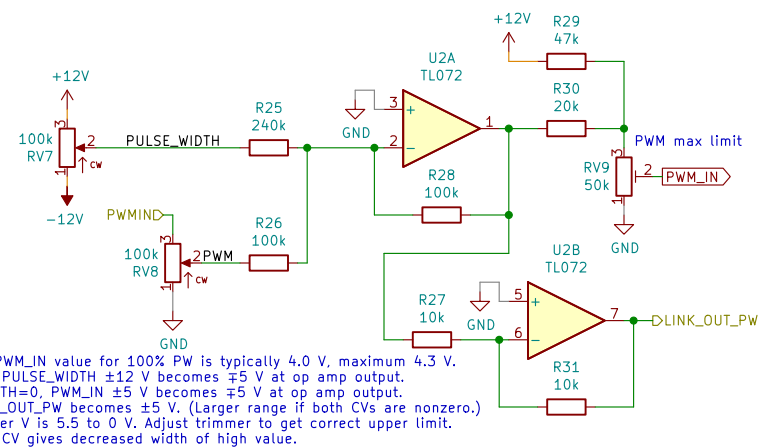
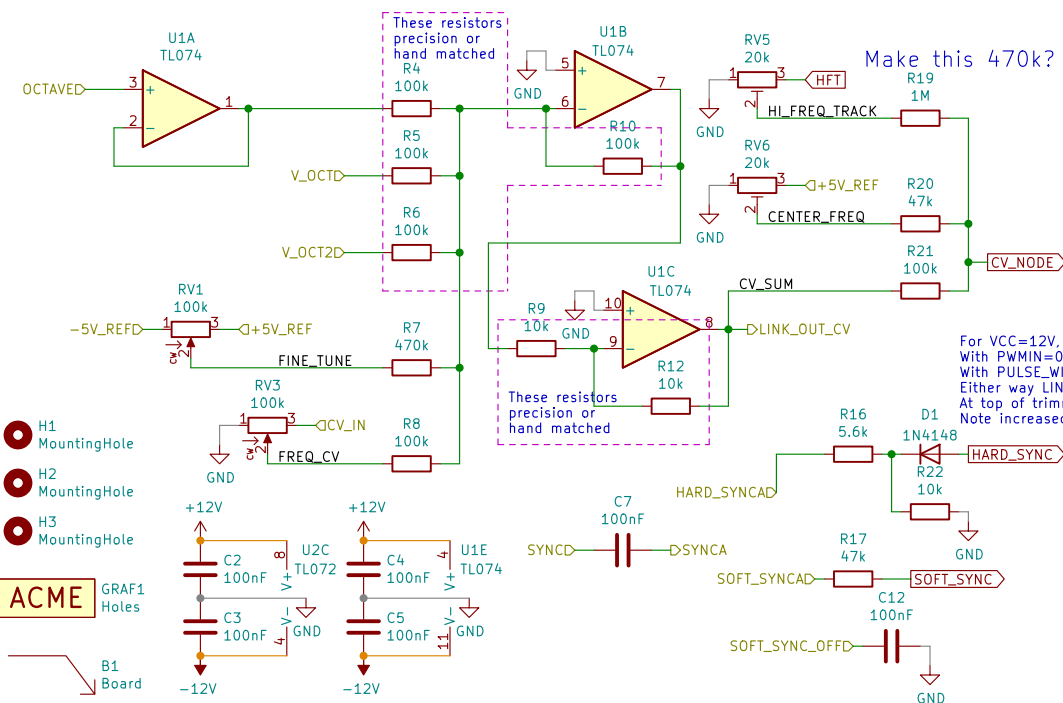
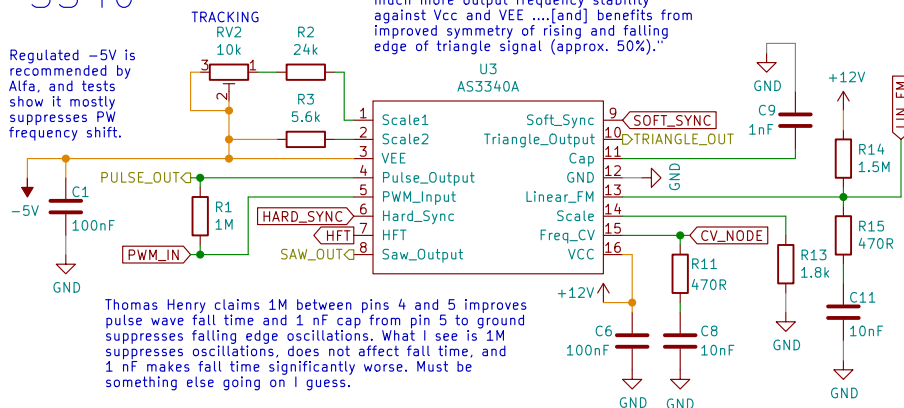
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Title: Hero VCO

Size: USLetter	Date: 2021-11-16	Rev:
KiCad E.D.A. kicad 6.0.5-a6ca702e91-116-ubuntu20.04.1		Id: 1/5

regulated -5V is recommended by JESD78A, and tests show it mostly suppresses PW frequency shift.

Use AS3340 or AS3340A. "AS3340A [has] much more output frequency stability against Vcc and VEE[and] benefits from improved symmetry of rising and falling edge of triangle signal (approx. 50%)."



For VCC=12V, PWM_IN value for 100% PW is typically 4.0 V, maximum 4.3 V. With PWMIN=0, PULSE_WIDTH ± 12 V becomes ± 5 V at op amp output. With PWM_WIDTH=0, PWM_IN ± 5 V becomes ± 5 V at op amp output. Either way LINK_OUT_PW becomes ± 5 V. (Larger range if both CVs are nonzero.) At top of trimmer V is 5.5 to 0 V. Adjust trimmer to get correct upper limit. Note increased CV gives decreased width of high value.

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Rich Holmes / Analog Output

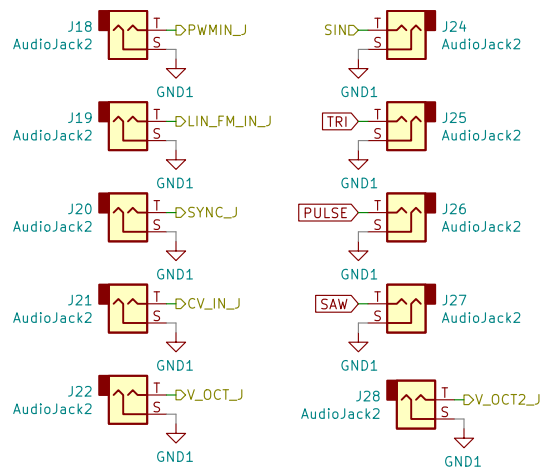
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Title: Hero VCO

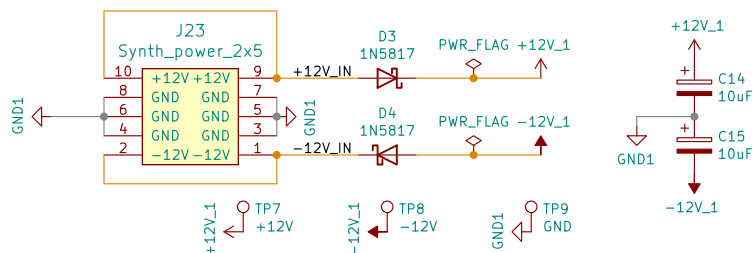
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Rev:
Id: 2/5

JACKS



POWER



- H4 MountingHole
- H5 MountingHole
- H6 MountingHole

ACME	GRAF2 Holes	B2 Board
ACME	GRAF3 AO logo	
ACME	GRAF4 CC0 logo	

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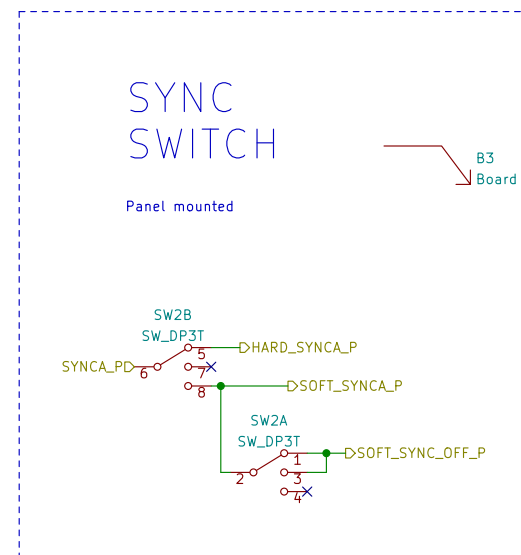
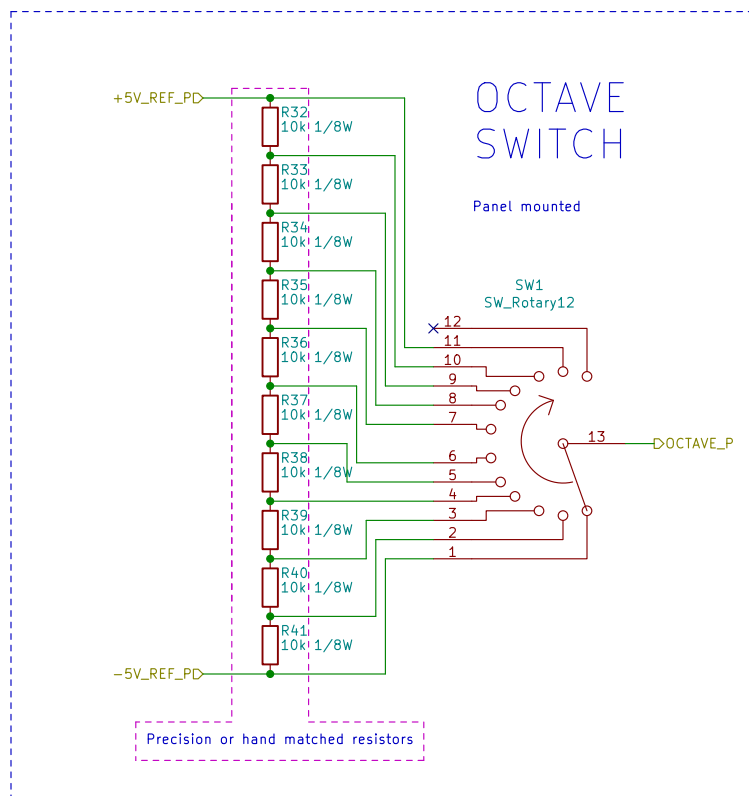
Rich Holmes / Analog Output

Sheet: /Jacks, power, etc/
File: jackspower.kicad_sch

Title: Hero VCO

Size: USLetter Date: 2021-11-16
KiCad E.D.A. kicad 6.0.5-a6ca702e91-116-ubuntu20.04.1

Rev:
Id: 3/5



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Rich Holmes / Analog Output

Sheet: /Octave and sync switches/
File: octave.kicad_sch

Title: Hero VCO

Size: USLetter Date: 2021-11-16
KiCad E.D.A. kicad 6.0.5-a6ca702e91-116-ubuntu20.04.1

Rev:
Id: 4/5

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Title: Hero VCO	
Size: USLetter	Date: 2021-11-16
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