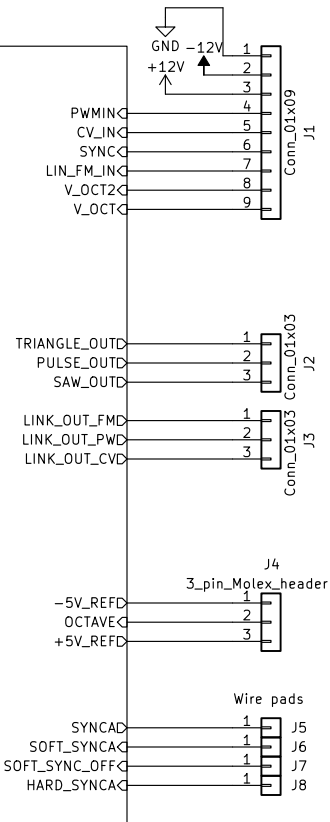


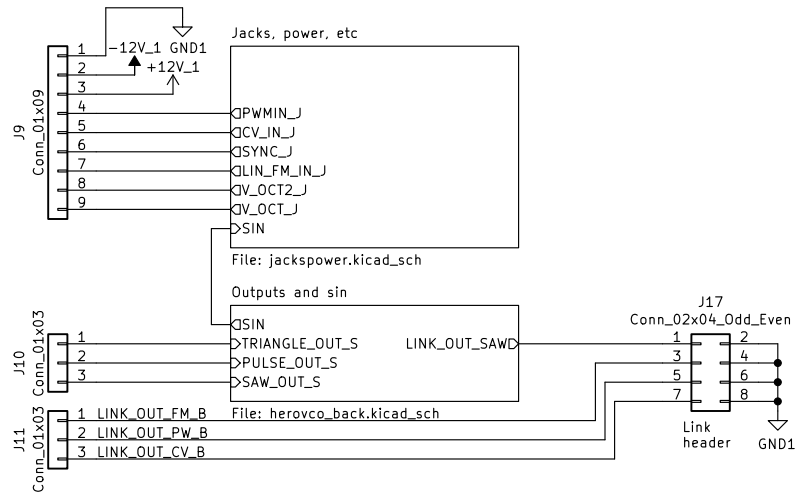
FRONT PCB

Front PCB



File: herovco_front.kicad_sch

BACK PCB



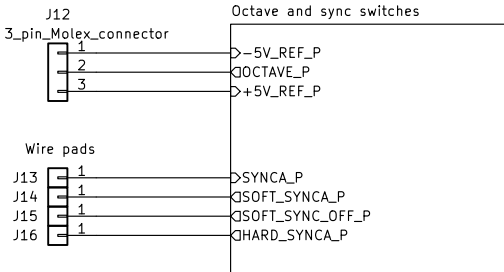
Jacks, power, etc

File: jackspower.kicad_sch

Outputs and sin

File: herovco_back.kicad_sch

PANEL MOUNT



File: octave.kicad_sch

Partly based on designs by Kassutronics, Thomas Henry, and LMNC
To the extent possible under law, Richard Holmes has waived all copyright and related or neighboring rights to this work. Published from United States.

Rich Holmes / Analog Output

Sheet: /

File: herovco.kicad_sch

Title: Hero VCO

Size: USLetter Date: 2021-11-16

KiCad E.D.A. kicad 6.0.1-79c1e3a40b-116-ubuntu20.04.1

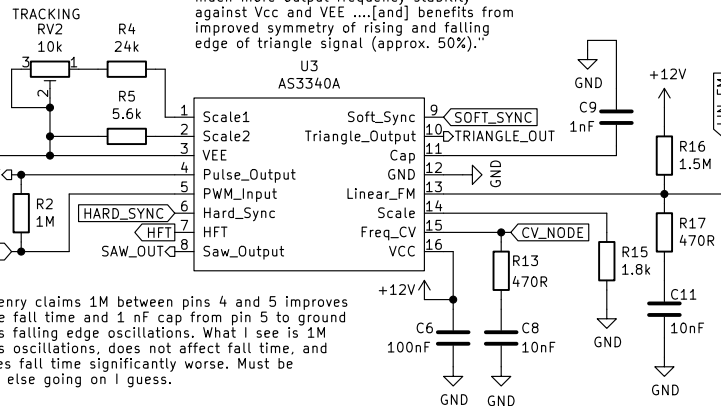
Rev:

Id: 1/5

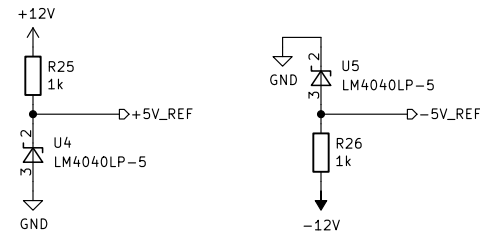


3340

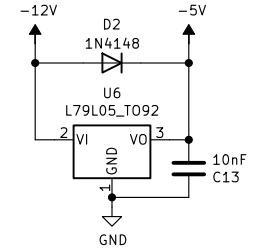
Regulated -5V is recommended by Alfa, and tests show it mostly suppresses PW frequency shift.



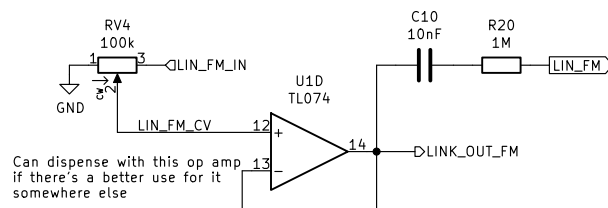
±5 V REFERENCES



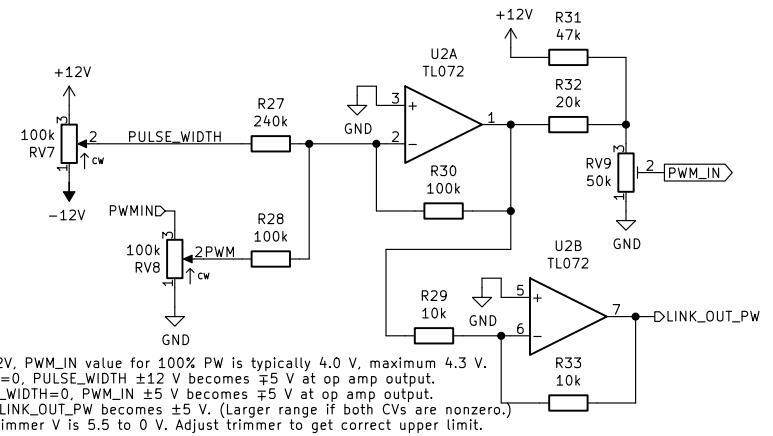
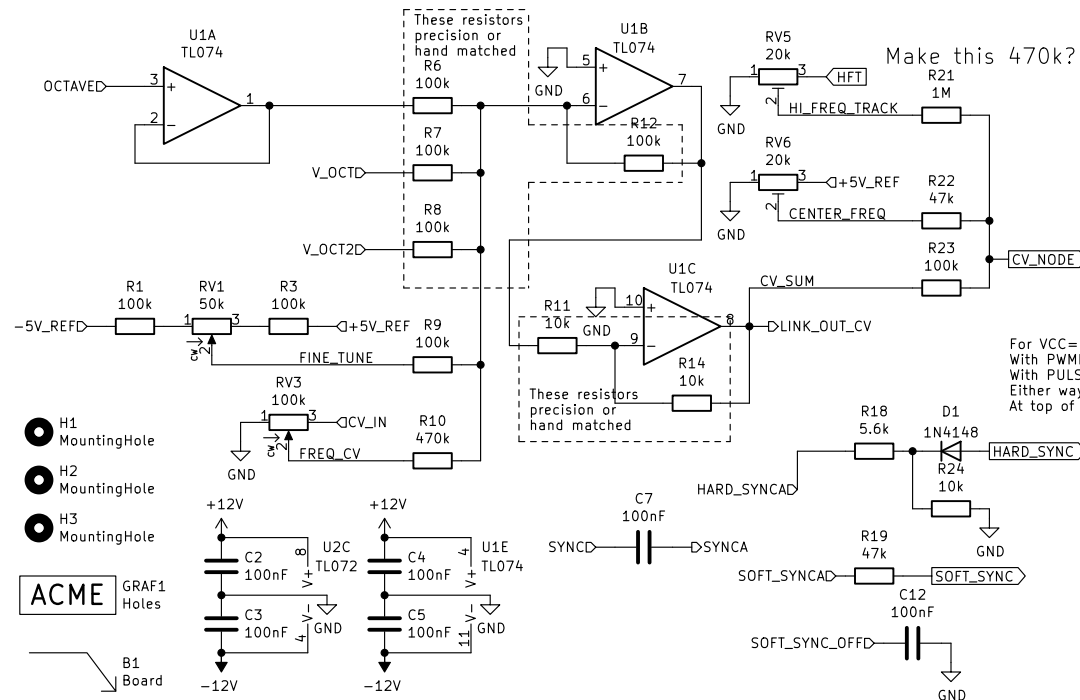
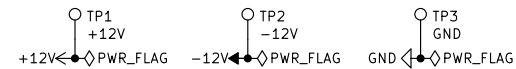
-5V reg



CONTROL VOLTAGES



POWER CONNECTIONS



Partly based on designs by Kassutronics, Thomas Henry, and LMNC
To the extent possible under law, Richard Holmes has waived all copyright and related or neighboring rights to this work. Published from United States.

Rich Holmes / Analog Output

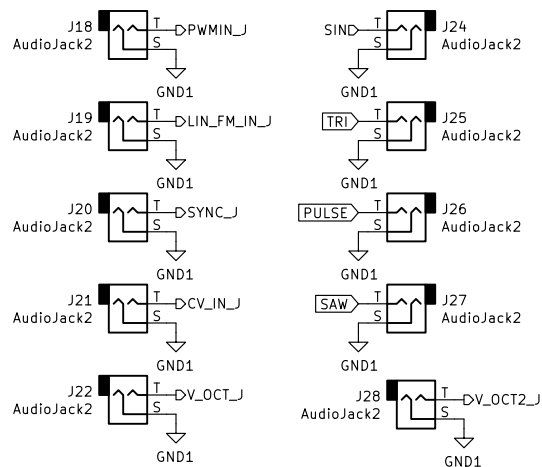
Sheet: /Front PCB/
File: herovco_front.kicad_sch

Title: Hero VCO

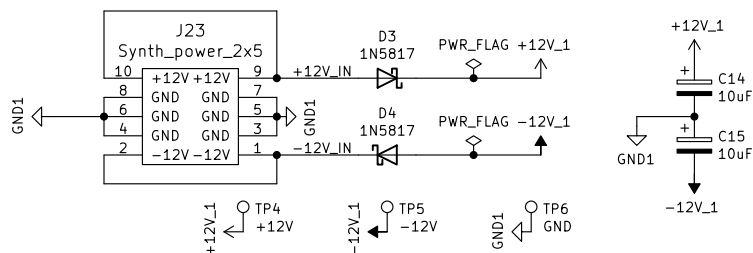
Size: USLetter Date: 2021-11-16
KiCad E.D.A. kicad 6.0.1-79c1e3a40b-116-ubuntu20.04.1

Rev:
Id: 2/5

JACKS



POWER



- H4 MountingHole
- H5 MountingHole
- H6 MountingHole

ACME GRAF2 Holes

ACME GRAF3 AO logo

ACME GRAF4 CC0 logo

B2 Board

Partly based on designs by Kassutronics, Thomas Henry, and LMNC
To the extent possible under law, Richard Holmes has waived all copyright and related or neighboring rights to this work. Published from United States.

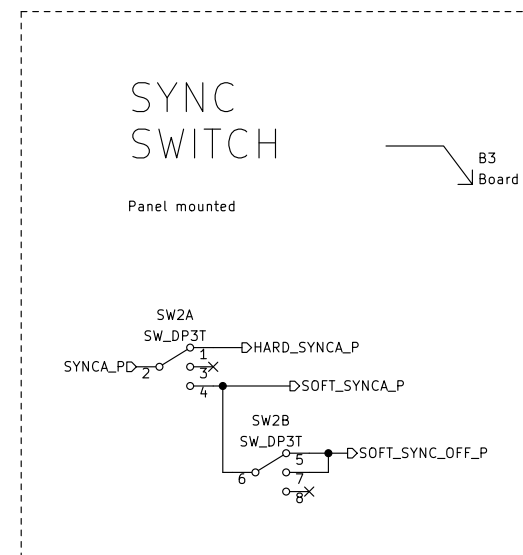
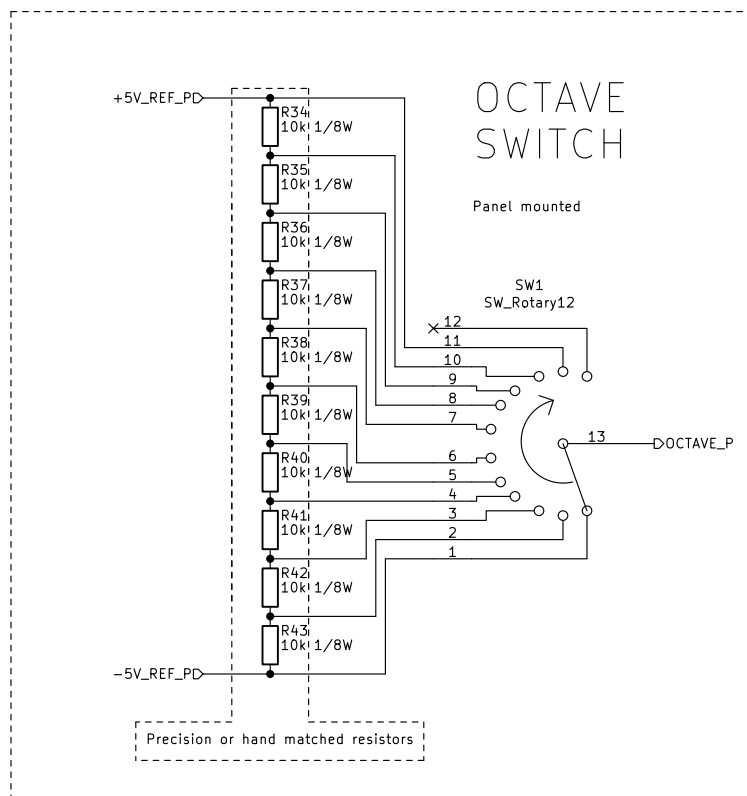
Rich Holmes / Analog Output

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

Title: Hero VCO

Size: USLetter Date: 2021-11-16
KiCad E.D.A. kicad 6.0.1-79c1e3a40b-116-ubuntu20.04.1

Rev:
Id: 3/5



Partly based on designs by Kassutronics, Thomas Henry, and LMNC
To the extent possible under law, Richard Holmes has waived all copyright and related
or neighboring rights to this work. Published from United States.

Rich Holmes / Analog Output

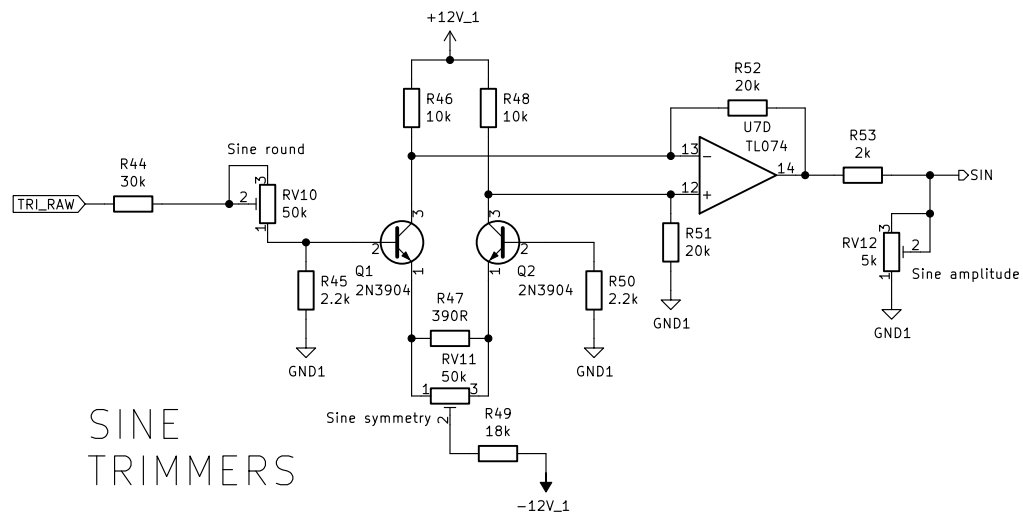
Sheet: /Octave and sync switches/
File: octave.kicad_sch

Title: Hero VCO

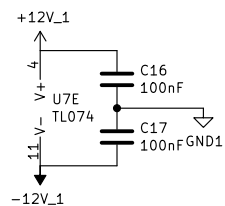
Size: USLetter | Date: 2021-11-16
KiCad E.D.A. kicad 6.0.1-79c1e3a40b-116-ubuntu20.04.1

Rev:
Id: 4/5

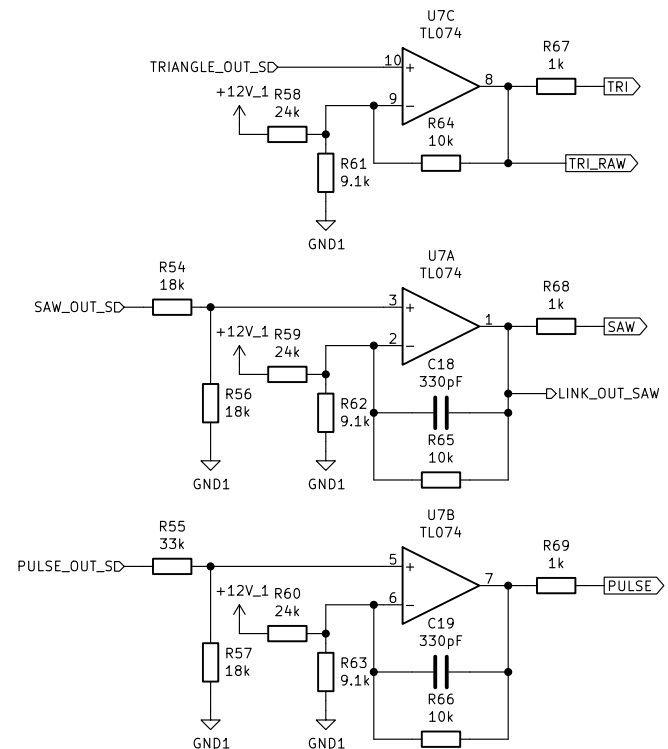
SINE SHAPING



SINE TRIMMERS



OUTPUT CONDITIONING



Kassutronics used 100k feedback resistors and similarly large values for voltage divider resistors. AS3340 datasheet calls for a 51k pull down on pin 4, so I reduced the voltage divider resistances by a factor of 10. Then stabilization caps were increased more to make $1/(2\pi RC) \sim 50\text{kHz}$.

Partly based on designs by Kassutronics, Thomas Henry, and LMNC
 To the extent possible under law, Richard Holmes has waived all copyright and related or neighboring rights to this work. Published from United States.

Rich Holmes / Analog Output

Sheet: /Outputs and sin/
 File: herovco_back.kicad_sch

Title: Hero VCO

Size: USLetter Date: 2021-11-16
 KiCad E.D.A. kicad 6.0.1-79c1e3a40b-116-ubuntu20.04.1

Rev:
 Id: 5/5