

# Bill Of Materials for NeoVCO Core

<b>Design Title</b>	NeoVCO Core
<b>Author</b>	Dustin Stroh (J3RK)
<b>Document Number</b>	
<b>Revision</b>	2.3
<b>Design Created</b>	Thursday, August 17, 2023
<b>Design Last Modified</b>	Thursday, August 17, 2023
<b>Total Parts In Design</b>	117

## 0 Modules

<a href="#">Quantity</a>	<a href="#">References</a>	<a href="#">Value</a>	<a href="#">PCB Package</a>	<a href="#">Notes</a>
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Sub-totals:

## 21 Capacitors

<a href="#">Quantity</a>	<a href="#">References</a>	<a href="#">Value</a>	<a href="#">PCB Package</a>	<a href="#">Notes</a>
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5	C1-C3,C12-C13	10nF	CAP10	C0G/NP0 MLCC / Ceramic / Film
1	C4	3.3nF	CAP20	Polypropylene Recommended
1	C5	100nF	CAP20	Polypropylene Recommended
5	C6-C8,C14-C15	22pF	CAP10	C0G/NP0 MLCC / Ceramic / Film
1	C9	47pF	CAP10	C0G/NP0 MLCC / Ceramic / Film
2	C10-C11	330nF	CAP10	C0G/NP0 MLCC / Ceramic / Film
4	C16-C19	100nF	CAP10	C0G/NP0 MLCC / Ceramic / Film
2	C20-C21	4.7uF	CAP10	

Sub-totals:

## 46 Resistors

<a href="#">Quantity</a>	<a href="#">References</a>	<a href="#">Value</a>	<a href="#">PCB Package</a>	<a href="#">Notes</a>
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1	R1	340R	RES40	1% (100PPM / 50PPM Recommended)
3	R2,R31,R45	10K	RES40	1% (100PPM / 50PPM Recommended)
2	R3-R4	499K	RES40	1% (100PPM / 50PPM Recommended)
1	R5	56.3K	RES40	1% (100PPM / 50PPM Recommended)
1	R6	267R	RES40	1% (100PPM / 50PPM Recommended)
1	R7	4.32K	RES40	1% (100PPM / 50PPM Recommended)
1	R8	267K	RES40	1% (100PPM / 50PPM Recommended)
1	R9	27K	RES40	1% (100PPM / 50PPM Recommended)
6	R10,R37,R39-R41,R44	100K	RES40	1% (100PPM / 50PPM Recommended)
6	R11,R13-R14,R16-R17,R19	40K	RES40	1% (100PPM / 50PPM Recommended)
6	R12,R15,R18,R25-R26,R33	20K	RES40	1% (100PPM / 50PPM Recommended)
4	R20-R22,R36	100R	RES40	1% (100PPM / 50PPM Recommended)
1	R23	3.0K	RES40	1% (100PPM / 50PPM Recommended)
1	R24	330R	RES40	1% (100PPM / 50PPM Recommended)
1	R27	75K	RES40	1% (100PPM / 50PPM Recommended)
2	R28,R32	2.2K	RES40	1% (100PPM / 50PPM Recommended)
2	R29-R30	4.7K	RES40	1% (100PPM / 50PPM Recommended)
2	R34-R35	12K	RES40	1% (100PPM / 50PPM Recommended)
1	R38	51K	RES40	1% (100PPM / 50PPM Recommended)
2	R42-R43	1M	RES40	1% (100PPM / 50PPM Recommended)
1	R46	2.2M	RES40	

Sub-totals:

## 9 Integrated Circuits

<a href="#">Quantity</a>	<a href="#">References</a>	<a href="#">Value</a>	<a href="#">PCB Package</a>	<a href="#">Notes</a>
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1	U1	LM4040-2.5	TO92	Type A, B, or C
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1	U2	J2131	SO16	SSI2131 SOIC
3	U3-U4,U7	TL072	SO8	U3 and U4 Recommend OPA2132 / OPA2134 / OPA1656 / AD8034
1	U5	TL071	SO8	LED Driver Op Amp (Any single op amp will work here.)
1	U6	SSM2212	SO8	LS318 / LS38 / SSM2212
1	U8	7805	TO220	TO220 (1.5A used to support extra function sub PCBs)
1	U9	7905	P1	TO220 (1.5A used to support extra function sub PCBs)

Sub-totals:

0 Transistors

<a href="#">Quantity</a>	<a href="#">References</a>	<a href="#">Value</a>	<a href="#">PCB Package</a>	<a href="#">Notes</a>
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Sub-totals:

0 Diodes

<a href="#">Quantity</a>	<a href="#">References</a>	<a href="#">Value</a>	<a href="#">PCB Package</a>	<a href="#">Notes</a>
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Sub-totals:

41 Miscellaneous

<a href="#">Quantity</a>	<a href="#">References</a>	<a href="#">Value</a>	<a href="#">PCB Package</a>	<a href="#">Notes</a>
14	+12V,+2.5V,+5V,-12V,-5V,0V,HSY,LF,PULSE,SAW,SINE,SSY,TRI,WC	CONN-SIL1	CONN-SIL1	On PCB Solder Pads. (no component needed)
1	BIAS1	5K	CONN-SIL3	Bourms 3362P (actual brand name) recommended. (Avoid knockoffs.)
10	BP1-BP10	100nF	0805	Decoupling / Bypass SMT 0805 Capacitors. COG/NP0 Preferred
3	COARSE,LINFM1,PWM1	100K	CONN-SIL3	Panel Pots (Linear)
2	FB1-FB2	1R	RES40	Ferrite Beads Recommended
2	FINE,WCVL1	100k	CONN-SIL3	Panel Pots (Linear)
1	J1	SIL-156-04	SIL-156-04	MTA-156 Friction Lock Power Header.
1	LED1	LED-GREEN	CONN-SIL2	2 Lead BiColor LED
2	PF1-PF2	10uF	ELEC-RAD13	Power Filtering Electrolytic Capacitors
4	RATE,UB1-UB3	SW-SPST	CONN-SIL2	SPST / SPDT Toggle Switch. NKK Recommended.
1	VO	VOCT1	CONN-SIL1	On PCB Solder Pads. (no component needed)

Sub-totals:

Totals:

Thursday, August 17, 2023 9:17:31 AM