

	Vendor	Qty	Part #	Description	Unit price	Price					
DEVICE HARDWARE											
	ThorLabs	1	MB1530/M	150mmx300mm Breadboard, M6 Double-Density Taps	\$ 135.66	\$ 135.66					
	ThorLabs	5	TR50/M	Ø12.4mm 50mm optical posts	\$ 5.19	\$ 25.95					
	ThorLabs	1	TR150/M	Ø12.4mm 150mm optical post	\$ 6.91	\$ 6.91					
	ThorLabs	1	TR20/M	Ø12.4mm 20mm optical post	\$ 4.74	\$ 4.74					
	ThorLabs	1	MS05R/M	Ø6mm 13 mini series optical post	\$ 6.02	\$ 6.02					
	ThorLabs	1	MS1R/M	Ø6mm 25mm mini series optical optical	\$ 6.38	\$ 6.38					
	ThorLabs	4	AP6M4M	M4/M6 adapters	\$ -	\$ -					
	ThorLabs	1	HW-KIT1/M	M4x6mm screw and washer (part of kit)	\$ -	\$ -					
	ThorLabs	1	HW-KIT3	M3 set screw (part of kit)	\$ -	\$ -					
	ThorLabs	1	TR30/M-P5	Ø12.7mm 30mm optical post	\$ 21.33	\$ 21.33					
NEW!!!	ThorLabs	1	PH40/M	Ø12.7 mm Post Holder L=40 mm	\$ 7.44	\$ 7.44					
	ThorLabs	2	RC1	dovetail rail carriers	\$ 25.40	\$ 50.80					
R150	ThorLabs	1	RLA150/M	150mm dovetail rail	\$ 43.10	\$ 43.10					
R75	ThorLabs	1	RLA075/M	75mm dovetail rail	\$ 29.07	\$ 29.07					
	ThorLabs	3	AP4M3M	M3/M4 adaptors	\$ 1.98	\$ 5.94					
	ThorLabs	1	HW-KIT2/M	M6 screws, washers, and 1 set screw (part of kit)	\$ -	\$ -					
S440	McMaster	8	92196A112	4-40 screws	\$ 4.53	\$ 36.24					
S1032	McMaster	4	92196A271	10-32 screws	\$ 10.34	\$ 41.36					
	McMaster	4	90145A537	0.25" dowel pins	\$ 3.62	\$ 14.48					
	McMaster	2	91292A014	M2.5x10mm screws	\$ 4.94	\$ 9.88					
	McMaster	2	91292A262	1.6x5mm screws	\$ 11.58	\$ 23.16					
	McMaster	4	9262K166	6mm ID, 2mm wide O-rings	\$ 6.77	\$ 27.08					
	McMaster	1	91292A021	M3x3mm screw	\$ 11.11	\$ 11.11					
	McMaster	1	91239A117	M3 x 12mm button head screw FUTURE: need 8mm or 10mm, TBD	\$ 8.50	\$ 8.50					
NEW!!!	McMaster	1	8041A19	Miniature wrench kit (contains 3/16" wrench)	\$ 34.13	\$ 34.13					
	New Way Air Bearings	2	S300601	Air Bushings 0.25 Inch ID	\$ 195.00	\$ 390.00					
	New Way Air Bearings	1	S90F054	barbed brass fitting, "T" style	\$ 5.00	\$ 5.00					
	New Way Air Bearings	1	S90F045	barbed brass fitting, "elbow" style	\$ 5.00	\$ 5.00					
	Amazon	1	B01EZ6MVS8	Teflon tape	\$ 1.25	\$ 1.25					
	Amazon	1	B004KVZ15C	4.75 pound test nylon fishing line	\$ 4.95	\$ 4.95					
	Amazon	1	B002E7LKLA	Thomson shaft [two shafts trimmed to 200mm each; see "Shaft 200 mm" in	\$ 12.15	\$ 12.15					
	Cole Parmer	1	EW-96400-13	"thick tubing"	\$ 44.80	\$ 44.80					
	Cole Parmer	1	EW-95920-13	"thin tubing"	\$ 33.40	\$ 33.40					
	Harvard Apparatus	1	72-1508	elbow-shaped barbed fitting (also in kit 72-1410)	\$ -	\$ -					
	Harvard Apparatus	1	72-1443	barbed luer connector (also in kit 72-1407)	\$ -	\$ -					
	Micro-Epsilon	1	ILD1320-100	laser displacement sensor [analog not USB]	\$ 1,095.00	\$ 1,095.00					
	Futek	1	FSH03871	load cell LSB200, 250g	\$ 600.00	\$ 600.00					
	Firgelli	1	L12-50-50-12-I	linear actuator	\$ 90.00	\$ 90.00					
	Grainger	1	4ZE39	M4/M8 adaptor	\$ 15.85	\$ 15.85					
	Custom machining	1	n/a	base plate; see /Assembly/Drawings/ folder of repository on GitHub	\$ -	\$ -					
	Custom machining	2	n/a	front block; see /Assembly/Drawings/ folder of repository on GitHub	\$ -	\$ -					
	Custom machining	2	n/a	bushing adapter; see /Assembly/Drawings/ folder of repository on GitHub	\$ -	\$ -					
	Custom machining	1	n/a	rail bridge; see /Assembly/Drawings/ folder of repository on GitHub	\$ -	\$ -					
				Total	\$	2,846.68					
DEVICE ELECTRONICS											
	Digi-Key	1	497-1446-5-ND	8V Linear Voltage Regulator 1.5A	\$ 0.51	\$ 0.51					
	Digi-Key	4	1276-6794-1-ND	4.7µF ±10% 35V Ceramic Capacitor for 5V and 8V regulator	\$ 0.62	\$ 2.48					
	Digi-Key	7	ARFX1905-ND	BNC Connector Receptacle, Female Socket	\$ 2.87	\$ 20.09					
	Digi-Key	1	1528-1786-ND	USB 2.0 Cable Micro B Female to Micro B Male	\$ 4.95	\$ 4.95					
	Digi-Key	1	SC3511-ND	Power Barrel Connector Jack 2.10mm ID	\$ 5.39	\$ 5.39					
	Digi-Key	1		XLR4							
	Digi-Key	1		XLR5							
	Digi-Key	1		XLR6							
	Digi-Key	1		XLR4 female							
	Digi-Key	1		XLR5 female							
	Digi-Key	1		XLR6 female							
	Digi-Key	1	36-1472-ND	HEX NUT 3/8" BRASS	\$ 0.32	\$ 0.32					
	Digi-Key	1	1470-3168-ND	24V 24W AC/DC External Wall Mount Adapter	\$ 14.50	\$ 14.50					
	Digi-Key	1	67-1188-ND	LED Panel Indicator Red	\$ 1.18	\$ 1.18					
	Digi-Key	1	360-1801-ND	Toggle Switch SPDT Panel Mount	\$ 3.55	\$ 3.55					
	Digi-Key	1	576-2248-ND	5V Linear Voltage Regulator 250mA	\$ 2.47	\$ 2.47					
	Digi-Key	2	445-14550-1-ND	0.47µF ±20% 35V Ceramic Capacitor for 5V regulator	\$ 0.35	\$ 0.70					
	Digi-Key	1	CN230B-50-ND	4 Conductor Multi-Conductor Cable	\$ 17.09	\$ 17.09					
	Digi-Key	1	Q967-ND	USB 2.0 Cable A Male to Micro B Male	\$ 3.33	\$ 3.33					
	Digi-Key	1	USR2G-250R	250 Ohms ±0.01% 0.6W Resistor [for laser scaling]	\$ 23.42	\$ 23.42					
	Digi-Key	1	53J500E-ND	500 Ohms ±5% 3W Resistor [for LED]	\$ 0.63	\$ 0.63					previously had been Y0785-500A-ND 500 Ohms ±0.01% 0.6W Resistor
	Digi-Key	4	1772-1596-ND	Hex Standoff Threaded #2-56	\$ 0.52	\$ 2.08					
	Digi-Key	1	H700-ND	1/4 inch long 2-56 screws	\$ 0.08	\$ 0.08					
	Digi-Key	1	H723-ND	2-56 nut	\$ 0.05	\$ 0.05					
	Digi-Key	1	H733-ND	#2 washer	\$ 0.04	\$ 0.04					
	Digi-Key	3	1568-1098-ND	DIP Adapter	\$ 0.95	\$ 2.85					
instead of 2 below		1	EA-T220-38E	OHMITE Heatsink							
	Amazon	1	B074MVHPRL	TO-220 Heatsink	\$ 8.79	\$ 8.79					
	Amazon	1	B079WGMNBF	TO-220 Heatsink Mounting/Insulating Kit	\$ 7.95	\$ 7.95					
	Amazon	1	B00006RSP1	Industrial Strength Velcro tape	\$ 16.13	\$ 16.13					
	McMaster	1	8505K742	Scratch-Resistant Acrylic, 12" x 24" x 1/8" [SELECT BLACK]	\$ 14.27	\$ 14.27					
	McMaster	2	92196A079	2-56 screws + washers + nuts [for hex standoffs, and to connect 8V lin re	\$ 6.73	\$ 13.46					
	Mouser	6	81-RDE5C1H104J	0.1µF capacitor	\$ 0.65	\$ 3.90					
	Mouser	3	684-LT1797CS5#1	operational amplifiers	\$ 2.54	\$ 7.62					
	Mouser	1	833-BZV55C9V1-19	1V diode	\$ 0.33	\$ 0.33					
	Leo Bodnar	1	Item 199	Standalone Load Cell Amplifier, uni-directional [https://goo.gl/uWoCpd]	\$ 19.52	\$ 19.52					
	Lansing Instrument Corp.	1	ET1B7B-B1B4-F	Electronics enclosure, 5.53" x 7"	\$ 39.29	\$ 39.29					
	National Instruments	1	USB-6001	USB DAQ: 8 AI, 2 AO, 13 DIO	\$ 216.00	\$ 216.00					
				Total	\$	452.96					
				Grand total	\$	3,299.64					