

Bill Of Materials				
	Raw Materials, Parts or Components	(\$) Unit Cost	make/buy	Primary vendor
1	3 Axis force sensor	320.57	buy	zhimin
2	ODrive S1	148.00	buy	Odriverrobotics
3	16384 CPR Absolute RS485 Encoder with Cable for ODrive Pro or S1	59	buy	Odriverrobotics
4	Heat Spreader Plate	12	buy	Odriverrobotics
5	Harness Build Kit	9	buy	Odriverrobotics
6	Dual Shaft Motor - D5312s 330KV	59.00	buy	Odriverrobotics
7	PLA (3Kg)	49.71	buy	Amazon
8	drylin® lead screw, dryspin® high helix thread, right-hand thread, 1.4301 (304) stainless steel	64.8	buy	Roton
9	dryspin® lead screw nut, high helix thread, RSRM	48.02	buy	Roton
10	2x OVONIC 3S Lipo Battery 15000 mAh 130C 11.1V LIPO battery with EC5 plug for 1/8 RC truck	138.38	buy	ovonic
11	Raspberry Pi 5 8GB	80	buy	electromaker
12	Arduino UNO R4	27.5	buy	Amazon
13	Strap	8.99	buy	industrialsafety
14	6.5x3 touch LED screen	0	buy	waveshare
15	Ball bearings	8.99	buy	harborfreight
16	DC power supply	33.94	buy	Amazon
17	Suction cup	12	buy	Amazon
18	Fishing line	10.98	buy	Amazon
19	C-Clamp	5	buy	Home depot
20	screws	18.98	buy	Home depot
21	linear ball bearings	5.83	buy	misumi
22	Amplifier Load cell	6.99	buy	Amazon
23	Uxcell 10mm OD 8mm Inner Dia 400mm Length 6063 Aluminum Tube	6.22	buy	harfington
24	Dc power stepper	6.99	buy	Amazon
25	terminal block distribution	12.99	buy	Amazon
26	Breadboard	9.99	buy	Amazon

Dontated Items:	Total Cost:	Supplied By:
Miscellaneous connectors and bolt accessories	\$34.83	Justin Joy
Teensy	\$31.94	Ryan Donnellan
12 Gauge stranded wire	\$29.75	Ryan Donnellan

M3 Bolt Kit	\$7.43	Ryan Donnellan
Miscellaneous wire crimps	\$0.15	Ryan Donnellan
CONBOLA Suction Cups-Heavy Duty- (2 Pack)	\$11.99	Joey Mathews
BOJACK 16-pin Stepper Motor Driver Controllers- (10 Pack)	\$8.99	Joey Mathews
LUXEBELL Digital Luggage Scale	\$9.99	Joey Mathews
Husky 2in C-Clamp	\$3.78	Joey Mathews
BESSEY Clutch Clamp 6in x 2-1/2 in	\$14.97	Joey Mathews
5/8 inch Roller Ball Bearings	\$3.96	Joey Mathews
8mm x 400mm (0.32" x 15.75") Case Hardened Chrome Plated Aluminum Linear Motion Rods- (2 Pack)	\$12.99	Joey Mathews
Linear Ball Bearings: 8mm Bore, 15mm OD, 24mm Length, Double Rubber Seals- (12 Pack)	\$10.99	Joey Mathews
1.5mm Hex Key- (60 Pack)	\$4.99	Joey Mathews
Deep Groove Ball Bearings, 30mm Bore, 42mm Diameter, 7mm Width Double Sealed Steel- (2 Pack)	\$6.19	Joey Mathews
SanDisk ImageMate 64GB SDXC Flash Memory Card	\$12.88	Joey Mathews
Mini Breadboard	\$1.00	Joey Mathews
Total Cost of Donated Items:		\$206.82

Manufacturer	lead time	Part Status	QTY	(\$) Total cost
zhimin	Arrived	on hand	1	320.57
Odriverrobotics	2 week	on hand	4	592
Odriverrobotics	2 week	on hand	4	236
Odriverrobotics	3 week	on hand	3	36
Odriverrobotics	4 week	on hand	4	36
Odriverrobotics	2 week	on hand	4	236
creality	2 days	on hand	1	49.71
Roton	1.5 weeks	on hand	1	64.8
Roton	2months	on hand	1	48.02
ovonic	1 week	on hand	1	138.38
raspberrypi	Arrived	on hand	1	80
ELEGOO	Arrived	on hand	1	27.5
industrialsafety	1 week	on hand	1	8.99
waveshare	2 weeks	on hand	1	0
harborfreight	3 days	on hand	1	8.99
Nice-Power	3days	on hand	1	33.94
Airhead	3 days	on hand	3	36
Beyond Braid Braided	3 days	on hand	1	10.98
Amerella	3 days	on hand	3	15
Amerella	3 days	on hand	1	18.98
misumi	1 week	on hand	1	5.83
amazon	3 days	on hand	1	6.99
harfington	1 week	on hand	2	12.44
Amazon	2 week	on hand	1	6.99
OOMO	3 days	on hand	1	12.99
amazon	Arrived	on hand	1	9.99
			Total=	2353.09
			Remaining:	1396.91

links	
https://www.zhiminsensor.com/3-axis-load-cell_p79.html	teensy
https://shop.odriverobotics.com/collections/motor-controllers/products/odrive-s1	
https://shop.odriverobotics.com/collections/encoders/products/cui-amt212b-v-od	
https://shop.odriverobotics.com/products/heat-spreader-plate-for-odrive-s1	
https://shop.odriverobotics.com/collections/cables/products/harness-build-kit-for-odrive-s1	
https://shop.odriverobotics.com/collections/motors/products/dual-shaft-motor-d5212s-300kv	
https://www.amazon.com/Crealty-Filament-No-Tangling-Dimensional-Gray/dp/B0BLGQWN35/ref=sr_1_3?dib=eyJ2	
https://www.igus.com/product/drylin_SD_DST_LS_R_ES?artnr=DST-LS-20X20-R-ES	
https://www.igus.com/product/drylin_SD_DST_RSRM_SF?artnr=DST-RSRM-304540DS20X20	
https://hobbyking.com/en_us/turnigy-high-capacity-16000mah-6s-12c-multi-rotor-lipo-pack-w-xt90.html?wrh_pdp=	
https://www.electromaker.io/shop/product/raspberry-pi-5-board-2gb?gad_source=1&gbraid=0AAAAAB8F3FnxLyiSX	
https://www.amazon.com/ELEGOO-Project-Tutorial-Controller-Projects/dp/B01D8KOZF4/ref=asc_df_B01D8KOZF4?	
RPB NV2042 Hand Strap	
https://www.waveshare.com/7inch-hdmi-lcd-c-with-bicolor-case.htm?gQT=0	
https://vxb.com/products/r-412-miniature-ball-bearing-1-2mm-x-4mm-x-1-8mm?variant=43551021662443	
https://www.amazon.com/NICE-POWER-Adjustable-Switching-Regulated-Adjustments/dp/B0CDW12H3X/ref=sr_1	
https://us.misumi-ec.com/vona2/detail/110300026810/?HissuCode=LMUD10&gad_source=1&gbraid=0AAAAADtM	
https://www.harfington.com/products/p-1465934?currency=USD&variant=44237854015737&utm_source=google&	

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