

Electrical BOM
2025-01-25
D. Iacobacci

[Google Sheets Link](#)

Tr	Category	Tr	Attachment	Tr	Item	#	Quantity	Approx. Unit Cost	Approx. Total Cost	Tr	Notes	Purchased
Accessory	N/A				NeoPixel 1/4 60 Ring - 5050 RGBW LED w/ Integrated Drivers - Cool White - ~6000K	4		\$11.95	\$47.80			<input type="checkbox"/>
Accessory	N/A				HDMI 5" 800x480 Display Backpack - With Resistive Touchscreen	1		\$74.95	\$74.95			<input type="checkbox"/>
Accessory	N/A				Micro Limit Switch	6		\$0.28	\$1.68			<input type="checkbox"/>
Accessory	N/A				Lidar <TBD>	0	\$ -		#VALUE!			<input type="checkbox"/>
Battery	N/A				Zeee 2S Lipo Battery 8000mAh 7.4V	1		\$39.59	\$39.59			<input type="checkbox"/>
Battery	N/A				Fireproof Explosionproof Large Capacity Battery Storage Guard Pouch	1		\$13.49	\$13.49			<input type="checkbox"/>
Battery	N/A				Tenergy TB-6AB Balance Charger Discharger 1S-6S Digital Battery Pack Charger	1		\$39.99	\$39.99			<input type="checkbox"/>
Battery	N/A				XT60 to Deans Connector	1		\$3.83	\$3.83		Alternatively, you could change the deans connector on the battery to an XT60	<input type="checkbox"/>
Component	N/A				Momentary Switch	1		\$5.00	\$5.00			<input type="checkbox"/>
Component	N/A				Power Switch	1		\$1.40	\$1.40			<input type="checkbox"/>
Component	Main				1k ohm Resistor - 0805 SMD	1		\$0.01	\$0.01			<input type="checkbox"/>
Component	Main				200 ohm Resistor - 0805 SMD	1		\$0.01	\$0.01			<input type="checkbox"/>
Component	Main				Red LED - 0805 SMD	1		\$0.07	\$0.07			<input type="checkbox"/>
Component	Main				Blue LED - 0805 SMD	1		\$0.07	\$0.07			<input type="checkbox"/>
Component	Main				3.3v to 5v Logic Converter (SN74LVC1T45DBVR)	1		\$0.52	\$0.52			<input type="checkbox"/>
Component	Main				Voltage Divider (MPMT10014001AT1)	1		\$4.81	\$4.81			<input type="checkbox"/>
Component	Main				TALL GPIO FEMALE HEADERS - 2X20	1		\$1.95	\$1.95			<input type="checkbox"/>
Component	Main				Header Pins - 1 x 24	2		\$0.22	\$0.45			<input type="checkbox"/>
Component	Main				Mini Blade Fuse Block Holder (3557-2)	1		\$1.25	\$1.25			<input type="checkbox"/>
Component	Main				30A Mini Blade Fuse	1		\$0.34	\$0.34			<input type="checkbox"/>
Component	Main				DC-DC Buck Converter (DFR0753)	1		\$8.50	\$8.50			<input type="checkbox"/>
Connector	Leg, Main				JST-XH-02 - Pair	7		\$0.03	\$0.21		Any JST-XH kit will work	<input type="checkbox"/>
Connector	Leg, Main				JST-XH-03 - Pair	19		\$0.03	\$0.57		Any JST-XH kit will work	<input type="checkbox"/>
Connector	Main				JST-XH-04 - Pair	1		\$0.03	\$0.03		Any JST-XH kit will work	<input type="checkbox"/>
Connector	Leg, Main				JST-XH-06 - Pair	12		\$0.03	\$0.36		Any JST-XH kit will work	<input type="checkbox"/>
Connector	Main				XT30PW-M	3		\$0.96	\$2.88			<input type="checkbox"/>
Connector	Main				XT30-U	3		\$0.85	\$2.55			<input type="checkbox"/>
Connector	Main				XT60PW-M	1		\$2.00	\$2.00			<input type="checkbox"/>
Controller	N/A				Xbox Core Wireless Gaming Controller	1		\$47.00	\$47.00			<input type="checkbox"/>
Cooling	Raspberry Pi				Aluminum Heatsinks	3		\$0.30	\$0.90			<input type="checkbox"/>
Cooling	N/A				Noctua NF-A8 5V PWM, Premium Quiet Fan with USB Power Adaptor Cable, 4-Pin, 5V Version (80mm, Brown)	1		\$16.95	\$16.95			<input type="checkbox"/>
Compute	Raspberry Pi				128 GB SD Card	1		\$23.00	\$23.00		Any size over 32 GB should work	<input type="checkbox"/>
Compute	Main				Teensy 4.1	1		\$33.08	\$33.08			<input type="checkbox"/>

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T _r	Category	T _r	Attachment	T _r	Item	#	Quantity	Approx. Unit Cost	Approx. Total Cost	T _r	Notes	Purchased
PCB	Main				Main Board		1	\$2.18	\$2.18		Depends on how many you order	<input type="checkbox"/>
PCB	Leg				Leg Board		6	\$0.48	\$2.88		Depends on how many you order	<input type="checkbox"/>
Servos	N/A				30KG Digital servo high Torque Full Metal Gear		18	\$15.67	\$282.06		Cheaper on AliExpress; Using average of Amazon and AliExpress Price	<input type="checkbox"/>
Compute	Raspberry Pi				Raspberry Pi 5 - 8 GB RAM		1	\$80.00	\$80.00			<input type="checkbox"/>
Wiring	N/A				Micro HDMI to HDMI Wire <TBD>		0	\$ -	#VALUE!			<input type="checkbox"/>
Wiring	N/A				Main to Leg Connections <TBD>		0	\$ -	#VALUE!			<input type="checkbox"/>
Wiring	N/A				12 Gauge Wire		1	\$0.66	\$0.66		Used for the power switch as it has the full battery current; Could likely go with a lower gauge	<input type="checkbox"/>
									\$720.23		Note: This price is based on you being able to order exact amounts; If you are purchasing everything from scratch it will be much higher	<input type="checkbox"/>