Standard Base Parts List

Number of Standard Bases to Build (Used to Calculate Order): 1

Part	Qty Needed / Bot	Vendor	Part Number	Qty / Pack	Price / Pack	Current Inventory	Qty to order for 1 bot(s)	Order Price	Prorated Price for 1 bot	Link / Source
Electronics										
Tackle Sensor (w/ coaxial signal cable and led color signal cable)	1	Brownell	7.2V Tackle Sensor	1	50	0	1	50	50	
LED Strip (measured in feet)	1.5	Adafruit	285	1	16	0	2	32	24	www.adafruit.com/products/285
Sabertooth 2X25 V2	1	Dimension Engineering	10315932798	1	124.99	0	1	124.99	124.99	www.dimensionengineering.com/products/sabertooth2x25
Arduino Uno - R3	2	Adafruit	50	1	24.95	0	2	49.9	49.9	www.adafruit.com/products/50
XBee Pro 60mW Wire Antenna - Series 1	2	Adafruit	964	1	37.95	0	2	75.9	75.9	www.adafruit.com/products/964
XBEE Shield	2	Spark Fun	WRL-12847	1	14.95	0	2	29.9	29.9	www.sparkfun.com/products/12847
USB Shield	1	Circuits@Home	*N/A*	1	25	0	1	25	25	www.circuitsathome.com/products-page/arduino-shields/usb-host-shield-2-0-for-arduino
Screw Terminal Shield	1	Seeed	ACC08101P	1	7.5	0	1	7.5	7.5	www.seeedstudio.com/depot/Screw-Shield-p-1238.html
Terminal Block	0.5	Jameco	215037	1	2.95	0	1	2.95	1.48	www.jameco.com/webapp/wcs/stores/servlet/Product_10001_10001_215037_-1
Shorai-Lithium-Extreme-Rate-Battery-LFX18A1-BS12	1	Amazon	LFX18A1-BS12	1	152.37	0	1	152.37	152.37	www.amazon.com/Shorai-Lithium-Extreme-Rate-Battery-LFX18A1-BS12/dp/B007GR5DXE/
Machine Screws										
Tackle Sensor Screws (#4-40 x 0.625")	4	Fastenal	1128661	100	2.52	0	1	2.52	0.1	www.fastenal.com/web/products/details/1128661
Arduino and Speed Controller Screws (#4-40 x 0.875")	8	Fastenal	28673	1	0.03	0	8	0.24	0.24	www.fastenal.com/web/products/details/28673
Voltage Divider Screws (#4-40 x 1.5")	2	McMaster	90272A119	50	5.22	0	1	5.22	0.21	www.mcmaster.com/#90272a119
Gold Side Plate Screws (#8-32 x 0.5")	8	McMaster	92453A194	100	10.68	0	1	10.68	0.85	www.mcmaster.com/#92453a194
Inserts for Gold Side Plate Screws (#8-32)	8	McMaster	90267A567	50	9.01	0	1	9.01	1.44	www.mcmaster.com/#90267a567
Motor Screws (#10-32 x 0.5")	8	McMaster	90272A829	100	4.22	0	1	4.22	0.34	www.mcmaster.com/#90272a829
Bumper Screws (#10-24 x1")	32	Fastenal	148840	1	0.1308	0	32	4.19	4.19	www.fastenal.com/products/details/0148840
Caster Screws (#10-24 x 2.5")	4	Fastenal	29007	1	0.1072	0	4	0.43	0.43	www.fastenal.com/products/details/29007
Black-Oxide Socket Head Cap Screw (#10-24 x 4")	4	McMaster	91251A088	5	5.19	0	1	5.19	4.15	www.mcmaster.com/#91251a088
Motor Plate Screws (.25"-20 x 1.25")	8	McMaster	91236A544	100	5.59	0	1	5.59	0.45	www.mcmaster.com/#91236a544
Battery Screws (.25"-20 x 2.5")	4	McMaster	92865A552	25	7.89	0	1	7.89	1.26	www.mcmaster.com/#92865a552
Nuts										
#4-40 Lock Nuts	10	McMaster	90631A005	100	2.74	0	1	2.74	0.27	www.mcmaster.com/#90631a005
#10-24 Hex Nuts	4	McMaster	90480A011	100	1.72	0	1	1.72	0.07	www.mcmaster.com/#90480a011
#10-24 Black Oxide Hex Nuts	32	Fastenal	149141	1	0.0605	0	32	1.94	1.94	www.fastenal.com/products/details/0149141
#10-24 Wing Nuts	4	McMaster	90866A011	100	8.86	0	1	8.86	0.35	www.mcmaster.com/#90866a011
.25"-20 Hex Nuts	20	Fastenal	36036	1	0.04	0	20	0.8	0.8	www.fastenal.com/web/products/details/36036
Washers										
#4 Washers	16	Fastenal	1171003	100	2.6	0	1	2.6	0.42	www.fastenal.com/web/products/details/1171003
#10 Washers	12	McMaster	90126A514	100	2.04	0	1	2.04	0.24	www.mcmaster.com/#90126a514
#10 Black Oxide Washers	32	Fastenal	11249248	1	0.0254	0	32	0.81	0.81	www.fastenal.com/products/details/11249248
.25" Washers	28	McMaster	92141A029	100	3.37	0	1	3.37	0.94	www.mcmaster.com/#92141a029
Wheel Components										
RS550 Motor - 12V	2	Bane Bots	M5-RS550-12	1	7.25	0	2	14.5	14.5	banebots.com/p/M5-RS550-12
Wheel, 4-7/8" x 0.8", 1/2" Key Mount, 30A, Black/Green	4	Bane Bots	T80P-493BG-KS4	1	6.8	0	4	27.2	27.2	banebots.com/pc/WHB-WS-498/T80P-493BG-KS4
P60 Gearbox: Stock, Standard Shaft, RS-540/550 Mount, 16:1	2	Bane Bots	P60K-44-0004	1	54.5	0	2	109	109	banebots.com/pc/P60K-S5/P60K-44-0004
Keystock	1	McMaster	98535a130	10	2.07	0	1	2.07	0.21	www.mcmaster.com/#98535a130
Wires, Terminals, and Fuses										
12-10 AWG Insulated Female Push-On Terminal	1	Mouser	19606-0006	1	0.79	0	1	0.79	0.79	www.mouser.com/ProductDetail/Molex/19606-0006/?qs=%2fha2pyFadugKpR2pR0oD94uxintazMqLHax1ukDlFnLT%252bKjNK1OmrXSnwgT%252bBgVb
16-14 AWG Insulated Female Push-On Terminal	2	Mouser	19003-0040	1	0.35	0	2	0.7	0.7	www.mouser.com/ProductDetail/Molex/19003-0040/?qs=sGAEpiMZZMvz8LftK4jeruXJZXIH%2fWf8fALmXgIM%252bUU%3d
12-10 AWG Spade Terminals	1	Mouser	159-1207	1	0.21	0	1	0.21	0.21	www.mouser.com/ProductDetail/Kobiconn/159-1207/?qs=sGAEpiMZZMvIX3nhDDO4AE5DZNL2Ptdbezy4hX9%252btgg%3d
16-14 AWG Spade Terminals	7	Mouser	159-1628	1	0.1	0	7	0.7	0.7	www.mouser.com/ProductDetail/Kobiconn/159-1628/?qs=%2fha2pyFaduj7RIbAISizU3jy7h3R195dWWc0T28Jw%252bc%3d
Inline Blade-Style Fuse Holder	1	McMaster	8110k4	1	3.68	0	1	3.68	3.68	www.mcmaster.com/#8110k4/=vnp4ak
Blade-Style Low-Voltage Fuse Standard, 32V AC/DC, 40 Amps	2	Mouser	0ATO040V	1	0.794	0	2	1.59	1.59	www.mouser.com/ProductDetail/Littelfuse/0ATO040V/?qs=C138OSOqTohQIhXMDwmEmw%3d%3d
14 AWG Red Wire (measured in feet)	3.75	Mouser	602-3079-100-03	100	86.22	0	1	86.22	3.23	http://www.mouser.com/ProductDetail/Alpha-Wire/3079-RD005/?qs=sGAEpiMZZMtW9UaYX5J1tLpnSjwgV3yAisRvGgRdI5g%3d
14 AWG Black Wire (measured in feet)	3.6	Mouser	602-3079-100-02	100	86.22	0	1	86.22	3.1	http://www.mouser.com/ProductDetail/Alpha-Wire/3079-BK005/?qs=sGAEpiMZZMtW9UaYX5J1tLpnSjwgV3yAiZTssr4gQKw%3d
22 AWG Red Wire (measured in feet)	0.33	Amazon	*N/A*	100	10.35	0	1	10.35	0.03	http://www.amazon.com/Stranded-Length-0-0253-Diameter-UL1007/dp/B00NB3SQJU/ref=sr_1_4?ie=UTF8&qid=1426543642&sr=8-4&keywords=22+gauge+red+wire
22 AWG Black Wire (measured in feet)	0.75	Amazon	*N/A*	100	10.35	0	1	10.35	0.08	http://www.amazon.com/Stranded-Length-0-0253-Diameter-UL1007/dp/B00NB3U2BU/ref=pd_sim_indust_4?ie=UTF8&refRID=11Y60KW1GPWYBGAJVGYR
22 AWG Signal Wire (measured in feet)	0.83	Amazon	*N/A*	100	10.35	0	1	10.35	0.09	http://www.amazon.com/Stranded-Length-0-0253-Diameter-UL1007/dp/B00NB3SSJ8/ref=pd_sim_328_2?ie=UTF8&refRID=1QJDT5XJYCTR0E4K5C8C
Solder (measured in % of 1 lb)	0.025	Mouser	533-24-6337-07	1	54.36	0	1	54.36	1.36	http://www.mouser.com/ProductDetail/Kester/24-6337-0007/?qs=m5JL4TdtMhyymKGmYaJhFQ%3d%3d
Miscellaneous										
HDPE Sheet .250" x 48" x 96" Natural Sheet	0.2	MSC Direct	HDPENAT0.250SR48X96	1	75.81	0	1	75.81	15.16	https://www.mscdirect.com/product/details/52421716
HDPE Sheet .500" x 48" x 96" Natural Sheet	0.2	MSC Direct	HDPENAT0.500SR48X96	1	139.7	0	1	139.7	27.94	https://www.mscdirect.com/product/details/52421724
Aluminum	1	Unique Cutting and Metal	*N/A*	1	???	0	1	0	0	Contact Bob Kobayashi: rfkoby@aol.com
Flange-Mount Ball Transfer, Standard, 1" Steel Ball	1	McMaster	5674K14	1	5.5	0	1	5.5	5.5	www.mcmaster.com/#5674k14
Gold Metallic Faux Wax Glue Stick mini X 4" 12 sticks	2.5	Amazon	*N/A*	12	5.99	0	1	5.99	1.25	www.amazon.com/Gold-Metallic-Faux-Stick-sticks/dp/B00AF0M7RO
SPST 12VDC/30A Illuminated Toggle Switch w Red LED	1	Radio Shack	275-026	1	4.04	0	1	4.04	4.04	www.radioshack.com/spst-12vdc-30a-illuminated-toggle-switch-with-red-led/2750026.html#.VMEbRy7F-5I
P-Strip of EPDM Rubber (measured in feet)	5.5	Wefco Rubber	4134	1	2	0	6	12	11	www.wefcorubber.com/extrusions_industrial_pstrips.asp

TOTAL ORDER COST = $1292 + shipping

TOTAL PRORATED COST PER ROBOT = $792 + shipping

SUBSECTION PRORATED COST BREAKDOWN:

- Electronics: $541
- Machine Screws: $14
- Nuts: $3
- Washers: $2
- Wheel Components: $151
- Wires, Terminals, and Fuses: $16
- Miscellaneous: $65