







Team P15043 Bill of Materials

Part #	Part Name	Description	Qty	Units [number sold in one pack]	Photo	Source / Company	Lead Time	Unit Cost (USD)	Bulk Unit Cost (USD)	Cost	Shipping
1	E2-MB1020	Sonar Sensors	1	1		sparkfun.com/MaxBotix	2-3 Business Days	\$ 27.95	\$ 22.36	\$ 27.95	\$4.01
2	Pololu item #: 994	298-1 Micro Metal Gear motor HP	2	1		http://www.pololu.com/product/994	3-5 Business Days	\$15.95	\$ 11.96	\$ 31.90	\$3.95
3	INA K3X6X7TN	Bearing for haptic feedback (button)	2	1		Amazon	1-2 Months	\$ 3.88	\$ 3.88	\$ 7.76	
4	91585A076	3mm Diam, 40 mm long	1	25		McMaster-Carr	5-7 Business Days	\$ 10.57		\$ 10.57	
5	89215K425	High Strength Al bar 1/2ft x 1" x 1/2"	1	1		McMaster-Carr	5-7 Business Days	\$ 13.65		\$ 13.65	
6	MMA2240KEG	Accelerometer	1	1		digkey.com		\$ 6.57	\$ 4.75	\$ 6.57	
7	7804K124	Double Shielded Bearing	1	1		McMaster-Carr	5-7 Business Days	\$ 6.79		\$ 6.79	
8	Tenenergy Li-Ion 18650	Battery	1	1		Amazon		\$ 12.50	\$ 12.50	\$ 12.50	
9	ABS Filament	ABS - Filament	1	2.2lb pack		MakerBot		\$ 9.11	\$ 9.11	\$ 9.11	\$0.00
10	LMR10515X	Buck Converter IC	1	1		digkey.com		\$ 1.31	\$ 0.69	\$ 1.31	
11	TPS61252	Boost Converter IC	1	1		digkey.com		\$ 2.48	\$ 1.36	\$ 2.48	
12	ATMEGA328	uController IC	1	1		digkey.com		\$ 3.51	\$ 2.08	\$ 3.51	
13	DRV8839DSSR	H-Bridge IC	2	1		digkey.com		\$ 1.62	\$ 0.88	\$ 3.24	
14	RMCF0603FT10K0	10k Resistor	3	1		digkey.com		\$ 0.10	\$ 0.01	\$ 0.30	
15	ERJ-3EKF6042V	60.4k Resistor	1	1		digkey.com		\$ 0.10	\$ 0.01	\$ 0.10	
16	ERJ-3EKF6651V	6.65k Resistor	1	1		digkey.com		\$ 0.10	\$ 0.01	\$ 0.10	
17	ERJ-3EKF7683V	768k Resistor	1	1		digkey.com		\$ 0.10	\$ 0.01	\$ 0.10	
18	ERJ-3EKF2433V	243k Resistor	1	1		digkey.com		\$ 0.10	\$ 0.01	\$ 0.10	
19	ERJ-3GEYJ105V	1M Resistor	1	1		digkey.com		\$ 0.10	\$ 0.01	\$ 0.10	
20	RMCF0603JT1K00	1k Resistor	4	1		digkey.com		\$ 0.10	\$ 0.00	\$ 0.40	
21	744042004	4.7u Inductor	1	1		digkey.com		\$ 1.63	\$ 1.24	\$ 1.63	
22	NLV25T-1R5J-PF	1.5u Inductor	1	1		digkey.com		\$ 0.27	\$ 0.15	\$ 0.27	
23	08056D475KAT2A	4.7u Capacitor	1	1		digkey.com		\$ 0.18	\$ 0.05	\$ 0.18	
24	1206YD106KAT2A	10u Capacitor	2	1		digkey.com		\$ 0.48	\$ 0.15	\$ 0.96	
25	6R3R15X226KV4E	22u Capacitor	1	1		digkey.com		\$ 0.88	\$ 0.33	\$ 0.88	
26	C1608COG1H101J080AA	100p Capacitor	1	1		digkey.com		\$ 0.10	\$ 0.01	\$ 0.10	
27	C1608X8R1E104K080AA	0.1u Capacitor	7	1		digkey.com		\$ 0.15	\$ 0.04	\$ 1.05	
28	598-8070-107F	LED	1	1		digkey.com		\$ 0.45	\$ 0.11	\$ 0.45	
29	571-1981568-1	MicroUSB port	1	1		mouser.com		\$ 1.63	\$ 1.16	\$ 1.63	
30	HG4020R-50-4	Collapsible Graphite Cane	1	1		Ambutech	1 wk.	\$ 32.00	\$ 23.29	\$ 32.00	\$10.00
31	L102011MS02Q	Switch	1	1		digkey.com		\$ 1.83	\$ 1.20	\$ 1.83	

MANUFACTURING COST Bulk Cost	
\$	22.36
\$	23.92
\$	7.76
\$	10.57
\$	13.65
\$	4.75
\$	6.79
\$	12.50
\$	9.11
\$	0.69
\$	1.36
\$	2.08
\$	0.88
\$	0.01
\$	0.01
\$	0.01
\$	0.01
\$	0.01
\$	0.01
\$	0.00
\$	1.24
\$	0.15
\$	0.05
\$	0.15
\$	0.33
\$	0.01
\$	0.01
\$	0.04
\$	0.11
\$	1.16
\$	23.29
\$	1.20

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32	http://www.mcmaster.com/#91251A135	4-40 1/8"	1	50		McMaster-Carr		\$ 10.60		\$ 10.60	
33	MBR0520L	Schottky Diode	1	1		digkey.com		\$ 0.36	\$ 0.10	\$ 0.36	
34	GRM188R71H103KA01D	10000 p Capacitor	1	1		digkey.com		\$ 0.10	\$ 0.01	0.1	\$ 0.10
35	PTS645SM43SMTR92_LFS	SWITCH TACTILE	1	1		digkey.com		\$ 0.21	\$ 0.16	0.21	\$ 0.21
36	M20-9980346	3x2 header	1	1		digkey.com		\$ 0.23	\$ 0.13	0.23	\$ 0.23
Total			51							\$191.02	\$ 209.52

MANUFACTURING COST Bulk Cost	
\$	10.60
\$	0.10
\$	0.01
\$	0.16
\$	0.13
\$	146.05
\$	136.05
Add G&A	
Add Overhead	