

## BlueStamp Engineering Student Bill of Materials (BOM)

Please fill this out for all parts that will be required for your project.  
If you cannot find information, move on and ask your instructor when emailing this to them.

Item #	Description	Vendor	Part Number	Qty	Cost (each)	Link to Where to Purchase
1	Elegoo UNO R3 Board w/ USB Cable	Amazon	Uno R3	2	\$11.86	<a href="https://www.amazon.com/Elegoo-EL-CB-001-ATmega328P-ATMEGA16U2-Arduino/dp/B01EWOE0UW/ref=sr_1_4?s=electronics&amp;ie=UTF8&amp;qid=1526830515&amp;sr=1&amp;keywords=arduino+uno">https://www.amazon.com/Elegoo-EL-CB-001-ATmega328P-ATMEGA16U2-Arduino/dp/B01EWOE0UW/ref=sr_1_4?s=electronics&amp;ie=UTF8&amp;qid=1526830515&amp;sr=1&amp;keywords=arduino+uno</a>
2	XBee 1mW Trace Antenna - Series 1 (802.15.4)	Sparkfun	WRL-11215	2	\$24.95	<a href="https://www.sparkfun.com/products/11215">https://www.sparkfun.com/products/11215</a>
3	XBee S2 Shield	Sparkfun	WRL-12847	2	\$14.95	<a href="https://www.sparkfun.com/products/12847">https://www.sparkfun.com/products/12847</a>
4	SparkFun XBee Explorer Dongle	Sparkfun	WRL-11697	1	\$24.95	<a href="https://www.sparkfun.com/products/11697">https://www.sparkfun.com/products/11697</a>
5	Shrink Tubing FR-22 B-1/2	Jameco	FTT-221B-1/2-BK210-VP	4	\$2.19	<a href="https://www.jameco.com/webapp/wcs/stores/en/view/ProductDisplay?history=1093to58%7CfreeText=shrink%2Btubing%5Esearch_type=jamecoall%5EprodPage=1%5Epage=SEARCH%252BNAV/catalogid=10001/manid=1&amp;freeText=F221B1%2F2-BK210&amp;storeId=10001&amp;refine=1&amp;productid=419240&amp;key=https%3AStoreCatalogDrillDownView">https://www.jameco.com/webapp/wcs/stores/en/view/ProductDisplay?history=1093to58%7CfreeText=shrink%2Btubing%5Esearch_type=jamecoall%5EprodPage=1%5Epage=SEARCH%252BNAV/catalogid=10001/manid=1&amp;freeText=F221B1%2F2-BK210&amp;storeId=10001&amp;refine=1&amp;productid=419240&amp;key=https%3AStoreCatalogDrillDownView</a>
6	ELEGOO L298N Dual H Bridge Stepper DC Motor Drive	Amazon	EL-SM-007	1	\$6.99	<a href="https://www.amazon.com/Elegoo-Stepper-Expansion-Development-Arduino/dp/B011NEHF0V/ref=sr_1_5?ie=UTF8&amp;qid=1527261813&amp;sr=8-5&amp;keywords=arduino+dc+motor+driver">https://www.amazon.com/Elegoo-Stepper-Expansion-Development-Arduino/dp/B011NEHF0V/ref=sr_1_5?ie=UTF8&amp;qid=1527261813&amp;sr=8-5&amp;keywords=arduino+dc+motor+driver</a>
7	Flex Sensor 4.0"	Mouser	F37548	4	\$12.91	<a href="https://www.mouser.com/ProductDetail/Spectra-Symbol/F-SL-0112-103-S1?qs=G4pMZWVWpUJ6GQDQ69pQyBwChz5226v31Pcu29W%3d">https://www.mouser.com/ProductDetail/Spectra-Symbol/F-SL-0112-103-S1?qs=G4pMZWVWpUJ6GQDQ69pQyBwChz5226v31Pcu29W%3d</a>
8	Ball Bearings Universal Rotation Caster 5/8 inch 33 lbs	Amazon	B00CFPFYMM	1	\$9.99	<a href="https://www.amazon.com/Trolex-Kera-Tec-Bearings-Universal-Rotation/dp/B07MSS3C2Q/ref=sr_1_1?ie=UTF8&amp;qid=1527261928&amp;sr=1-1&amp;keywords=caster+wheels+robot">https://www.amazon.com/Trolex-Kera-Tec-Bearings-Universal-Rotation/dp/B07MSS3C2Q/ref=sr_1_1?ie=UTF8&amp;qid=1527261928&amp;sr=1-1&amp;keywords=caster+wheels+robot</a>
9	Battery Holder (4AA)	Sparkfun	PRT-12083	1	\$1.95	<a href="https://www.amazon.com/13030900u0911-Plastic-Trolley-1-2-Inch-2-Piece/dp/B00CFPFYMM/ref=sr_1_4?ie=UTF8&amp;qid=1433121118&amp;sr=8-4&amp;keywords=1.2-inch+trolley+wheel">https://www.amazon.com/13030900u0911-Plastic-Trolley-1-2-Inch-2-Piece/dp/B00CFPFYMM/ref=sr_1_4?ie=UTF8&amp;qid=1433121118&amp;sr=8-4&amp;keywords=1.2-inch+trolley+wheel</a>
10	Battery Holder (8AA)	Amazon	COM-00107	1	\$5.30	<a href="https://www.amazon.com/Battery-Holder-Standard-Snap-Connector/dp/B0000FRTIK/ref=sr_1_17?ie=UTF8&amp;qid=1433122702&amp;sr=8-1&amp;keywords=B0000FRTIK">https://www.amazon.com/Battery-Holder-Standard-Snap-Connector/dp/B0000FRTIK/ref=sr_1_17?ie=UTF8&amp;qid=1433122702&amp;sr=8-1&amp;keywords=B0000FRTIK</a>
11	5V Voltage Regulator	Sparkfun	COM-00107	1	\$0.95	<a href="https://www.sparkfun.com/products/1107">https://www.sparkfun.com/products/1107</a>
12	Battery Cables	Amazon		1	\$3.07	<a href="https://www.amazon.com/Parfe-Express-9V-Battery-Clip/dp/B0002ZPFU8/ref=sr_sim_3_3?ie=UTF8&amp;refRID=1YH2RH0J297H03BC346M">https://www.amazon.com/Parfe-Express-9V-Battery-Clip/dp/B0002ZPFU8/ref=sr_sim_3_3?ie=UTF8&amp;refRID=1YH2RH0J297H03BC346M</a>
13	Robotic Claw	Amazon	B01N02QXY8	1	\$19.90	<a href="https://www.amazon.com/SunFounder-Standard-Gripper-Robotic-Rollam/dp/B01N02QXY8">https://www.amazon.com/SunFounder-Standard-Gripper-Robotic-Rollam/dp/B01N02QXY8</a>
14	Servo	Sparkfun	ROB-10333	1	\$10.95	<a href="https://www.sparkfun.com/products/10333">https://www.sparkfun.com/products/10333</a>
15	Spacer Studs	Digkey	732-10384-ND	8	\$2.64 tot.	<a href="https://www.digkey.com/basic/Ordering/AddPart.aspx">https://www.digkey.com/basic/Ordering/AddPart.aspx</a>
16	Mini Pushbutton Switch	Sparkfun	COM-00097	1	\$0.35	<a href="https://www.sparkfun.com/products/97">https://www.sparkfun.com/products/97</a>
17	RC wheels	Pololu	1423	2	\$7.95	<a href="https://www.pololu.com/product/1423">https://www.pololu.com/product/1423</a>
18	Switch	Sparkfun	PR-14330	1	\$1.50	<a href="https://www.sparkfun.com/products/14330">https://www.sparkfun.com/products/14330</a>
19	Aluminum Plate					
20	Cables					
21	Amphenol FCI Clincher Connector (2 Position, Male)	Sparkfun	COM-14195	1	\$1.95	<a href="https://www.sparkfun.com/products/14195">https://www.sparkfun.com/products/14195</a>
22	Tenergy 7.4V Li-Ion 18650 2200mAh Rechargeable Batt	Amazon	B002Y2LJWO	1	\$16.99	<a href="https://www.amazon.com/Tenergy-Li-Ion-2200mAh-Rechargeable-Battery/dp/B002Y2LJWO/ref=sr_1_21?ie=UTF8&amp;qid=1527261824&amp;sr=21&amp;keywords=tenergy+7.4v+battery">https://www.amazon.com/Tenergy-Li-Ion-2200mAh-Rechargeable-Battery/dp/B002Y2LJWO/ref=sr_1_21?ie=UTF8&amp;qid=1527261824&amp;sr=21&amp;keywords=tenergy+7.4v+battery</a>
23	Universal Aluminum Mounting Hub for 4mm Shaft	Pololu	1081	2	\$6.95	<a href="https://www.pololu.com/product/1081">https://www.pololu.com/product/1081</a>
24	Pololu 200 mm Metal Gearmotor Bracket Pair	Pololu	1138	1	\$6.95	<a href="https://www.pololu.com/product/1138">https://www.pololu.com/product/1138</a>
25	Battery Charger	Amazon	B001BEXDRQ	1	\$21.75	<a href="https://www.amazon.com/TLP-2000-Tenergy-Universal-Charger-3.7V-1.4-RV/dp/B001BEXDRQ/ref=pf_lmxy_23_img_2?encoding=UTF8&amp;pd_rd_i=B001BEXDRQ&amp;pd_rd_r=afec88ee-602611e8-9ecd-81ef68363a7b&amp;pd_rd_w=V4CI&amp;pd_rd_wg=CINO&amp;pf_rd_i=desktop-dp-sim&amp;pf_rd_m=ATVPDKIKX0DER&amp;pf_rd_p=3914568618330124508&amp;pf_rd_r=SDMIHKA0IE419N">https://www.amazon.com/TLP-2000-Tenergy-Universal-Charger-3.7V-1.4-RV/dp/B001BEXDRQ/ref=pf_lmxy_23_img_2?encoding=UTF8&amp;pd_rd_i=B001BEXDRQ&amp;pd_rd_r=afec88ee-602611e8-9ecd-81ef68363a7b&amp;pd_rd_w=V4CI&amp;pd_rd_wg=CINO&amp;pf_rd_i=desktop-dp-sim&amp;pf_rd_m=ATVPDKIKX0DER&amp;pf_rd_p=3914568618330124508&amp;pf_rd_r=SDMIHKA0IE419N</a>