

QuickBot Parts List For Control of Mobile Robots MOOC 2014

SparkFun PromoCode: EDUMobileRobotsMOOC14 (and free shipping on orders over \$60)

	Part	Name	Quantity	Price Per Unit	Discount	Discounted Price Per Unit	Total Part Cost	Vender	URL
	Jumper Wires M/M	Breadboard jumper wire 75pcs pack	1	\$ 5.29	0%	\$ 5.29	\$ 5.29	Amazon	http://www.amazon.com/Breadboard-jumper-wire-75pcs-pack/dp/B004D0E9RM/ref=sr_1_2?ie=UTF8&qid=1390147243&sr=8-2&keywords=jumper+wires
	Wifi	Compact USB Wi-Fi Adapter with 4" Antenna	1	\$ 12.95	0%	\$ 12.95	\$ 12.95	Logic Supply	http://www.logicsupply.com/products/vw200
	VR Regulator	5.0V 3A Voltage Regulators 5.0V 3A Positive - LD108VS50	1	\$ 1.55	0%	\$ 1.55	\$ 1.55	Mouse Electronics	http://www.mouse.com/Search/ProductDetail.aspx?Pr=LD108VS50&urlkey=51120000&urlkey5111LD108VS50
	Cap 100uF	Electrolytic Capacitors - Leaded 100uF 25V	1	\$ 0.09	0%	\$ 0.09	\$ 0.09	Mouse Electronics	http://www.mouse.com/ProductDetail/Nchicon/JV21E101M1D1U/?q=gsApMqMZMmW25b25v100YX7DmNk0uJgh01JubHqA3853d
	Cap 10uF	Electrolytic Capacitors - Leaded 10uF 16V	1	\$ 0.08	0%	\$ 0.08	\$ 0.08	Mouse Electronics	http://www.mouse.com/ProductDetail/Xicon/140-MLL16V10-TB/?q=gsApMqMZMm2In09vR2J2cra0UXgK6jd0d5H20Y9L3d
	Cap 0.1uF	Ceramic Capacitors - Leaded 0.1uF 50V	1	\$ 0.10	0%	\$ 0.10	\$ 0.10	Mouse Electronics	http://www.mouse.com/ProductDetail/AVN/SR205E10DMMAR/?q=gsApMqMZMmW971LBX0KMY1wWwHBY8CR9HwM2ALu3d
	Diode	Rectifier diode 1N4007	1	\$ 0.14	0%	\$ 0.14	\$ 0.14	Mouse Electronics	http://www.mouse.com/ProductDetail/Frenchbird/Semiconductor/11N4007/?q=gsApMqMZMm2Qd0UKL7W4VW9L23u1U8R1G
	Resistor 20K	Resistors - Through hole 1/4W 20k ohm	7	\$ 0.06	0%	\$ 0.06	\$ 0.42	Mouse Electronics	http://www.mouse.com/ProductDetail/KOA-Speer/MP1-4DCTS2R20027/?q=gsApMqMZMmIub2bdiHB1G3V8Bmbuq5v2520w4700KTNP4N3d
	Resistor 10K	Resistors - Through hole 1/4W 10k ohm	7	\$ 0.06	0%	\$ 0.06	\$ 0.42	Mouse Electronics	http://www.mouse.com/ProductDetail/KOA-Speer/MP1-4DCTS1A10027/?q=gsApMqMZMmIub2bdiHB1G3V8Bmbuq5v2520w4700KTNP4N3d
	Micoprocessor	BeagleBone Black	1	\$ 44.95	10%	\$ 40.46	\$ 40.46	SparkFun	https://www.sparkfun.com/products/12076
	Power Jack	DC Barrel Jack Adapter - Female	2	\$ 3.00	10%	\$ 2.70	\$ 5.40	SparkFun	https://www.sparkfun.com/products/10288
	Battery Holder	Battery Holder - 4AAA Square	1	\$ 2.50	10%	\$ 2.25	\$ 2.25	SparkFun	https://www.sparkfun.com/products/5835
	Chassis Kit	Magician Chassis	1	\$ 14.95	10%	\$ 13.46	\$ 13.46	SparkFun	https://www.sparkfun.com/products/10825
	Encoder	RedBot Wheel Encoder	1	\$ 10.00	10%	\$ 9.00	\$ 9.00	SparkFun	https://www.sparkfun.com/products/12617
	Mini Breadboard	Breadboard - Mini Modular (White)	1	\$ 3.95	10%	\$ 3.56	\$ 3.56	SparkFun	https://www.sparkfun.com/products/12043
	Medium Breadboard	Breadboard - Self-Adhesive (White)	1	\$ 4.95	10%	\$ 4.46	\$ 4.46	SparkFun	https://www.sparkfun.com/products/12202
	Jumper Wires M/F	Jumper Wires Premium 6" M/F Pack of 10	1	\$ 3.95	10%	\$ 3.56	\$ 3.56	SparkFun	https://www.sparkfun.com/products/9140
	Mounting Screws (long)	Screw - Phillips Head 1/2" - 4-40, 10 pack	2	\$ 1.50	10%	\$ 1.35	\$ 2.70	SparkFun	https://www.sparkfun.com/products/10452
	Mounting Screws (short)	Screw - Phillips Head 1/4" - 4-40, 10 pack	2	\$ 1.50	10%	\$ 1.35	\$ 2.70	SparkFun	https://www.sparkfun.com/products/10453
	Mounting Nuts	Nut - Metal (4-40, 10 pack)	2	\$ 1.50	10%	\$ 1.35	\$ 2.70	SparkFun	https://www.sparkfun.com/products/10454
	Motor Controller	H-Bridge Motor Driver 1A	1	\$ 2.35	10%	\$ 2.12	\$ 2.12	SparkFun	https://www.sparkfun.com/products/115
	Heatsink	Heatsink TO-220	1	\$ 0.90	10%	\$ 0.81	\$ 0.81	SparkFun	https://www.sparkfun.com/products/1221
	Switch	Rocker Switch - SPST (right-angle)	1	\$ 0.95	10%	\$ 0.86	\$ 0.86	SparkFun	https://www.sparkfun.com/products/8837
	QuickBot Total (w/o IR Sensors)			39			\$ 115.05		
	IR Sensor	Infrared Proximity Sensor Short Range	5	\$ 14.00	10%	\$ 12.60	\$ 63.00	SparkFun	https://www.sparkfun.com/products/8959
	IR Connector	JST Jumper 3 Wire Assembly	5	\$ 1.50	10%	\$ 1.35	\$ 6.75	SparkFun	https://www.sparkfun.com/products/9915
	IR Brackets	Angle Bracket - 4-40	10	\$ 0.45	10%	\$ 0.41	\$ 4.05	SparkFun	https://www.sparkfun.com/products/10228
	QuickBot Total (w/ IR Sensors)			20			\$ 188.85		
Batteries									
	Rechargeable Batteries	AmazonBasics 8 Pack AA Ni-MH Rechargeable Batteries	1	\$ 18.17	0%	\$ 18.17	\$ 18.17	Amazon	http://www.amazon.com/gp/product/B00K8781ZC/ref=oh_details_o0_d01_00?ie=UTF8&psc=1
	Rechargeable Battery Charger	EBL 808A 8 Bay AAA Battery Charger for Ni-MH Ni-Cd	1	\$ 9.99	0%	\$ 9.99	\$ 9.99	Amazon	http://www.amazon.com/gp/product/B00CWNMVG6/ref=oh_details_o0_d01_00?ie=UTF8&psc=1
	Batteries Total			2			\$ 28.16		
Tools									
	Needlenose pliers	Stanley 84-096 5-Inch Needle Nose Plier	1	\$ 4.00	0%	\$ 4.00	\$ 4.00	Amazon	http://www.amazon.com/Stanley-84-096-5-Inch-Needle-Plier/dp/B00011W5D9/ref=sim_indust_13
	Soldering Iron	Dt. Meter 60 Watts High-Performance Soldering Iron	1	\$ 9.00	0%	\$ 9.00	\$ 9.00	Amazon	http://www.amazon.com/Meter60Watts-High-Performance-Soldering-Iron/dp/B007K0C4IE/ref=sim_h1_5
	Solder	Lead-Free Solder 5" Roll - LT-99	1	\$ 4.00	0%	\$ 4.00	\$ 4.00	Amazon	http://www.amazon.com/Lead-Free-Solder-5-Roll-LT-99/dp/B00024LVMH/ref=sim_4_0?ie=UTF8&qid=1380235098&sr=8-6&keywords=solder
	Wire cutters	Febaco tools Wire Cutter Pliers Yellow 4.5 Inch 125 Mm	1	\$ 6.50	0%	\$ 6.50	\$ 6.50	Amazon	http://www.amazon.com/Febaco-Professional-Tools-Cutter-Yellow/dp/B005D6AKVC/ref=sr_1_5?ie=UTF8&qid=138673196&sr=1-5&keywords=wire+cutters
	Electrical tape	Electrical tape	1	\$ 0.95	10%	\$ 0.86	\$ 0.86	SparkFun	https://www.sparkfun.com/products/1008
	Tools Total			5			\$ 24.36		
Misc.									
	SD card	Sandisk 4GB MicroSDHC Memory Card with SD Adapter	1	\$ 6.50	0%	\$ 6.50	\$ 6.50	Amazon	http://www.amazon.com/Sandisk-MicroSDHC-Memory-Adapter-Packaging/dp/B000SMV0KH/ref=sr_1_1?ie=UTF8&qid=138479758&sr=8-1&keywords=4gb-micro-sd+card
	DC Power Supply	Wall Adapter Power Supply - 5V DC 1A	1	\$ 5.95	10%	\$ 5.36	\$ 5.36	SparkFun	http://www.sparkfun.com/products/8269
	Micro-HDMI Cable	Micro-HDMI to HDMI Socket Adapter Cable	1	\$ 6.95	0%	\$ 6.95	\$ 6.95	Adafruit	http://www.adafruit.com/products/1358
	Ethernet Cable	CATS 3 ft	1	\$ 1.55	0%	\$ 1.55	\$ 1.55	Adafruit	http://www.amazon.com/V2-Scalable-Moist-Resistant-Network-V7N3CSE-3-FT-BUS/dp/B004U29C0M/ref=sr_1_11?ie=UTF8&qid=1386691145&sr=1-11&keywords=ethernet+cable
	DC Barrel Jack Plug	DC Barrel Jack Plug - Male	1	\$ 0.76	10%	\$ 0.68	\$ 0.68	SparkFun	https://www.sparkfun.com/products/12476
	DC Wall Power Supply	Wall Adapter Power Supply - 12VDC 1A	1	\$ 1.46	0%	\$ 1.46	\$ 1.46	Amazon	http://www.amazon.com/Wall-Adapter-Power-Supply-12VDC/dp/B006GEPUYA/ref=sr_1_3?ie=UTF8&qid=1390579617&sr=8-3&keywords=dc-wall+power+12v
	Multimeter	Digital Multimeter	1	\$ 11.46	10%	\$ 10.31	\$ 10.31	SparkFun	https://www.sparkfun.com/products/9141
	Misc Total			7			\$ 32.81		
Other Items									
	Potentiometer	Panel Mount 10K potentiometer - 10K Linear	1	\$ 0.95	0%	\$ 0.95	\$ 0.95	Adafruit	http://www.adafruit.com/products/562
	Button	Mini Push Button Switch	1	\$ 0.35	10%	\$ 0.32	\$ 0.32	SparkFun	https://www.sparkfun.com/products/927
	LED - Red 5mm	LED - Basic Red 5mm	1	\$ 0.28	10%	\$ 0.25	\$ 0.25	SparkFun	https://www.sparkfun.com/products/2790
	Green LED	LED - Basic Green 5mm	1	\$ 0.28	10%	\$ 0.25	\$ 0.25	SparkFun	https://www.sparkfun.com/products/2592
	Resistors	Resistor 10K ohm 1/8th Watt PTH - 20 pack	1	\$ 0.76	10%	\$ 0.68	\$ 0.68	SparkFun	https://www.sparkfun.com/products/11508
Substitutions									
	Chassis Kit	Magician Chassis	1	\$ 14.95	0%	\$ 14.95	\$ 14.95	Zagros Robotics	http://www.zagrosrobotics.com/shop/item.aspx?itemid=859
	Micoprocessor	BeagleBone Black	1	\$ 45.00	0%	\$ 45.00	\$ 45.00	Adafruit	http://www.adafruit.com/products/1276
	DC Power Supply	5V 2A (2000mA) switching power supply	1	\$ 9.95	0%	\$ 9.95	\$ 9.95	Adafruit	http://www.adafruit.com/products/276
	DC Barrel Jack	2.1mm DC Barrel Jack to Alligator Clips	2	\$ 4.95	0%	\$ 4.95	\$ 9.90	Adafruit	http://www.adafruit.com/products/1328
	Breadboard	Tiny breadboard	1	\$ 4.00	0%	\$ 4.00	\$ 4.00	Adafruit	http://www.adafruit.com/products/1010
	Jumper Wires M/F	Phantom Y0to 40p duPont cable 200mm male to female	1	\$ 5.69	0%	\$ 5.69	\$ 5.69	Amazon	http://www.amazon.com/Phantom-Y0to-40p-duPont-cable-female/dp/B00A5SDG6C/ref=sim_e_3
	Diode	Diode rectifier 1N4001	1	\$ 0.15	10%	\$ 0.14	\$ 0.14	SparkFun	https://www.sparkfun.com/products/8589
	Capacitor	Capacitor Ceramic 0.1uF	1	\$ 0.25	10%	\$ 0.23	\$ 0.23	SparkFun	https://www.sparkfun.com/products/8475
	Capacitor	Capacitor Electrolytic 10uF	1	\$ 0.45	10%	\$ 0.41	\$ 0.41	SparkFun	https://www.sparkfun.com/products/9123
	Capacitor	Capacitor Electrolytic 100uF	1	\$ 0.35	10%	\$ 0.32	\$ 0.32	SparkFun	https://www.sparkfun.com/products/96
	Jumper wires M/M	Jumper Wires Premium 6" M/M Pack of 10	2	\$ 3.95	10%	\$ 3.56	\$ 7.11	SparkFun	https://www.sparkfun.com/products/9431
	Jumper Wires M/M	Jumper Wires Standard 7" M/M Pack of 30	1	\$ 4.95	10%	\$ 4.46	\$ 4.46	SparkFun	https://www.sparkfun.com/products/11026
	Batteries	1.500 mAh Alkaline Battery - AA	8	\$ 0.50	10%	\$ 0.45	\$ 3.60	SparkFun	https://www.sparkfun.com/products/1010
	Lipo Battery	Turnigy 1500mAh 3S 25C Lipo Battery	1	\$ 6.16	0%	\$ 6.16	\$ 6.16	HobbyKing	http://www.hobbyking.com/hobbyking/store/?id=9164_Turnigy_1000mAh_3S_25C_Lipo_Pack.html
	Battery Connector	JST Connector	1	\$ 0.46	0%	\$ 0.46	\$ 0.46	Amazon	http://www.amazon.com/NEWWEPC24AE-Battery-Plug-Connector-Pair/dp/B00D1RH4M4/ref=sr_1_5?ie=UTF8&qid=1381410081&sr=8-5&keywords=jst-connector
	Upo Charger	IMAX BA Compact 35W 4A Auto Balance Charger 2*4S Lipo	1	\$ 11.25	0%	\$ 11.25	\$ 11.25	HobbyKing	http://www.hobbyking.com/hobbyking/store/uh_viewitem.asp?dproduct=1636
	Upo Charger Power Supply	1.2v-6v Adapter Power Supply	1	\$ 8.00	0%	\$ 8.00	\$ 8.00	Amazon	http://www.amazon.com/Adapter-Power-Supply-1.2V-6V/dp/B003TUNW6G/ref=sr_1_11?ie=UTF8&qid=138433067&sr=1-11&keywords=1.2v-4a+power+supply
	SD card	SD/MicroSD Memory Card (4 GB SDHC)	1	\$ 7.95	0%	\$ 7.95	\$ 7.95	Adafruit	http://www.adafruit.com/products/202