

Vendor	Item	# of Units	URL
McMaster-Carr	Opaque Cast Acrylic Sheet	5	https://www.mcmaster.com/8505K741-8505K117/
McMaster-Carr	1/4" Diameter Acetal Rod	2	https://www.mcmaster.com/8572K51/
Pololu	Mini Gearmotor, 80 RPM	2	https://www.pololu.com/product/1593
Pololu	Mini Gearmotor, 120 RPM	2	https://www.pololu.com/product/1511
Sparkfun	Large Slide Potentiometer	2	https://www.sparkfun.com/products/9119
Digikey	Angle Sensor	2	https://www.digikey.com/product-detail/en/ams/AS5601-ASOM/AS5601-ASOMCT-ND/5032390
Sparkfun	Arduino Mega	1	https://www.sparkfun.com/products/11061
Adafruit	Shield Stacking Headers	1	https://www.adafruit.com/product/85
Adafruit	Adafruit Motor Shield	1	https://www.adafruit.com/product/1438
Digikey	I2C Switching Buffer	1	https://www.digikey.com/products/en/integrated-circuits-ics/interface-signal-buffers-repeaters-splitters/756?k=tca4311a&k=&pkeyword=tca4311a&pv7=2&pv16=6548&sf=0&quantity=&ColumnSort=0&page=1&pageSize=25
Digikey	Diametric Magnet	2	https://www.digikey.com/product-detail/en/radial-magnet-inc/9050/469-1076-ND/6030787
Sparkfun	8-Pin SOIC to DIP Adapter	2	https://www.sparkfun.com/products/13655
Jameco	20-wire 8" M-F ribbon cable	0.5	https://www.jameco.com/z/ZW-MF-20-Busboard-Prototype-Systems-ZipWire-40-Piece-20cm-Male-to-Female-Colored-Jumper-Wires_2260754.html
Digikey	SOIC TO DIP ADAPTER 8PIN 1=4 PCS	1	https://www.digikey.com/product-detail/en/sparkfun-electronics/BOB-13655/1568-1123-ND/5528943
Digikey	TCA4311ADR I2C Buffer	2	https://www.digikey.com/products/en/integrated-circuits-ics/interface-signal-buffers-repeaters-splitters/756?k=tca4311a&k=&pkeyword=tca4311a&pv7=2&pv16=6548&sf=0&quantity=&ColumnSort=0&page=1&pageSize=25
Digikey	1µF ±10% 16V Ceramic Capacitor X8L 0603	2	https://www.digikey.com/product-detail/en/tdk-corporation/CGA3E1X8L1C105K080AC/445-175260-1-ND/7930955
Digikey	Magnet Neodymium Iron Boron (NdFeB) N35SH 0.315" Dia x 0.098" H (8.00mm x 2.50mm)	2	https://www.digikey.com/product-detail/en/radial-magnet-inc/9050/469-1076-ND/6030787

Digikey	AS5601 Magnetic Position Sensor	2	https://www.digikey.com/product-detail/en/ams/AS5601-ASOM/AS5601-ASOMCT-ND/5032390
Digikey	10000pF ±10% 50V Ceramic Capacitor X7R Radial	2	https://www.digikey.com/product-detail/en/vishay-bc-components/K103K15X7RF53L2/BC5134-ND/2820436
Pololu	Breakaway Male Header: 1x40-Pin, Right Angle	2	https://www.pololu.com/product/967
Pololu	1x2 Female Header, Straight	2	https://www.pololu.com/product/1012
Pololu	6" Black M-F Jumpers	5	https://www.pololu.com/product/1720
Pololu	6" Red M-F Jumpers	5	https://www.pololu.com/product/1722
Pololu	6" Orange M-F Jumpers	1	https://www.pololu.com/product/1723
Pololu	6" Yellow M-F Jumpers	1	https://www.pololu.com/product/1724
Pololu	6" Green M-F Jumpers	5	https://www.pololu.com/product/1725
Pololu	6" Blue M-F Jumpers	5	https://www.pololu.com/product/1726
Pololu	6" Gray M-F Jumpers	2	https://www.pololu.com/product/1728
Pololu	6" White M-F Jumpers	2	https://www.pololu.com/product/1729
Pololu	12" Black M-F Jumpers	3	https://www.pololu.com/product/1750
Pololu	12" Red M-F Jumpers	3	https://www.pololu.com/product/1752
Pololu	12" Orange M-F Jumpers	1	https://www.pololu.com/product/1753
Pololu	12" Yellow M-F Jumpers	1	https://www.pololu.com/product/1754
Pololu	12" Green M-F Jumpers	1	https://www.pololu.com/product/1755
Pololu	12" Blue M-F Jumpers	1	https://www.pololu.com/product/1756
Pololu	12" Gray M-F Jumpers	1	https://www.pololu.com/product/1758
Pololu	12" White M-F Jumpers	1	https://www.pololu.com/product/1759
Pololu	2-pin connector housings	2	https://www.pololu.com/product/1910
Pololu	4-pin headers	2	https://www.pololu.com/product/1014
Pololu	6-pin headers	1	https://www.pololu.com/product/1016
Pololu	8-pin headers	1	https://www.pololu.com/product/1018
Pololu	18-pin headers	8	https://www.pololu.com/product/1656
Pololu	3" Green M-F Jumpers	1	https://www.pololu.com/product/3315
Pololu	3" Blue M-F Jumpers	1	https://www.pololu.com/product/3316

Note: Some vendors will only sell in units of >1 (e.g., the 6" Orange M-F Jumpers only come in sets of 2, so there would be one left over from the robot construction).

The vendors are only suggestions. It is not necessary to purchase the parts as listed if suitable alternatives are found.

Because of price fluctuations, the prices are not listed. The approximate price for one robot for the listed parts as of April 13, 2021 is about \$150.

The vendors and URLs are current as of April 13, 2021.