

Bill of Materials: 4-H Kit: Learn to Use the Force! Electromagnets

Component Name	Quantity Per Kit	Supplier	Description	Supplier Qty	Supplier Cost	Cost Per Kit	URL
Paper clips	20	Staples	Staples® Jumbo Paper Clips, Nonskid, 10/Pack with 100/box (A7026606/72577)	1,000	\$10.16	\$0.20	https://www.staples.com/Staples-Jumbo-Paper-Clips-Nonskid-1-000-Pack/product_472514
Marble	1	Amazon	60PCS Colorful Glass Marbles,9/16 inch Marbles Bulk for Kids Marble Games,DIY and Home Decoration	60	\$8.99	\$0.15	https://www.amazon.com/60PCS-Colorful-Marbles-Marble-Decoration/dp/B087CTGZR6/
Cardstock paper (half sheet)	2	Amazon	Neenah White Index, Heavyweight Cardstock, 300 Sheets, 110 lb/199 gsm, 94 Brightness, 8.5" x 11" -	600	\$13.99	\$0.05	https://www.amazon.com/Neenah-Cardstock-Heavyweight-Brightness-SHEETS/dp/B07QQ3L753
Compass	1	Amazon	BBTO 100 Pieces Mini Survival Compass Outdoor Camping Hiking Pocket Compass Liquid Filled Mini	100	\$24.99	\$0.25	https://www.amazon.com/BBTO-Survival-Paracord-Bracelet-Necklace/dp/B07ZRDRPL4/
Bolts	2	Fastenal	3/8"-16 x 6" Grade 5 Plain Finish Hex Cap Screw - TAA Certified	1	\$1.34	\$2.68	https://www.fastenal.com/products/details/11105469
Washers	2	Fastenal	3/8" x 1.250" OD Low Carbon Zinc Finish Steel Fender Washer	1	\$0.28	\$0.56	https://www.fastenal.com/products/details/33219
Nut	1	Fastenal	3/8"-16 Plain Finish Grade 5 Finished Hex Nut	1	\$0.12	\$0.12	https://www.fastenal.com/products/details/36305
Housing box / conduit box	1	Grainger	Conduit Box	1	\$4.90	\$4.90	https://www.grainger.com/product/RACO-Extension-Ring-2DDA7
Sandpaper (half sheet)	1	Grainger	Sanding Sheet, 100 Grit, Aluminum Oxide, 11 in Length, 9 in Width, Fine, PK 50	100	\$90.90	\$0.91	https://www.grainger.com/product/NORTON-Sanding-Sheet-1KUK6
Battery holder	2	Digi-Key	BATT HOLDER AA 2 CELL 6" LEADS	1	\$2.78	\$5.56	https://www.digikey.com/en/products/detail/mpd-memory-protection-devices/BA2AAW/459328
Switch	1	Digi-Key	SWITCH PUSH SPST-NO 4A 14V	1	\$2.28	\$2.28	https://www.digikey.com/en/products/detail/40-4314-00/539PB-ND/717947
Alligator clips (1 pack)	1	Digi-Key	TEST LEAD GATOR TO GATOR 12" 5PC	1	\$5.56	\$5.56	https://www.digikey.com/en/products/detail/BU-00286/314-1133-ND/304404
PVC pipe (4.5" piece)	1	McMaster-Carr	Hard CPVC Plastic Tubing for Drinking Water	13	\$11.81	\$0.91	https://www.mcmaster.com/5037K32/
Battery (8x AA)	8	McMaster-Carr	AA battery	144	\$58.15	\$3.23	https://www.mcmaster.com/71455K58/
Copper wire (8oz spool)	1	Temco	16 AWG Copper Magnet Wire MW0136 - 8 oz Magnetic Coil Amber GP/MR-200	1	\$14.63	\$14.63	https://temcoindustrial.com/16-awg-copper-magnet-wire-mw0136-8-oz-magnetic-coil-amber-gp-mr-200/
Totals	45				\$250.88	\$41.99	