

✓	Description/Item	Qty	Basic Vender Info	Kit Bin #	Price Per Kit
	General Kit Items				
	Kit Box Storage Box, 22-Compartment, 16.53 " x 13.18 " x 2.44 "	1	Newark	n/a	\$7.76
	Paper Ruler mm and cm	1	Free web source	16	Free
	Stanley 64-170 100 Plus Pocket Screwdriver 0 Pt. Phillips Tip	1	Amazon	16	\$1.25
Separate	Mini Phillips Screwdriver, 5.0mm Cross Head with Non-Slip Handle	1	Amazon	n/a	\$0.90
	3D Printed 5.5 mm Wrench	1	n/a	16	\$1.32
	Base w/ grid and holes	1	Professional Plastic	n/a	\$3.50
	Clear Adhesive Bumper Pads	5	Amazon	9	\$0.25
	General Microcontroller Items				
	Cypress PSoC Controller - CY8CKIT-043	1	Mouser Supplier #:727-CY8CKIT-043 Mfg. #: CY8CKIT-043	15	\$9.78
	USB Cable 1-Foot, Type A, Male to Female	1	Amazon	15	\$2.03
	Header Strip 40 Position Header Connector 0.100" (2.54mm) Through Hole	2	Mouser Supplier # 910-HDR100IMP40FGVTH Mfg. # HDR100IMP40F-G-V-TH	16	\$1.38
	Solderless Breadboard Terminal Strip 3.20" L x 2.00" W (81.3mm x 50.8mm)	1	Amazon	16	\$1.67
	120pcs Multicolored Dupont Wire 40pin Male to Female, 40pin Male to Male, 40pin Female to Female Breadboard Jumper Wires Ribbon Cables Kit	1	Amazon	11	\$6.98
	6 volt Power Items				
	6V 1A Power Supply Adapter AC 100-240V to DC 6 Volt Transformers DC Connector Jack 5.5mmx2.1mm US Plug	1	Amazon	12	\$5.19
	Power Barrel Connector Jack 2.50mm ID (0.098"), 5.50mm OD (0.217") Through Hole	1	Digi-Key Supplier # 839-54-00287-ND Mfg. # 54-00287	10	\$0.51
	Red Power Wire (6 inch length) 22 AWG Hook-Up Wire Solid	1	Digi-Key Supplier # 2328-22UL1007SLDRED-ND mfg # 22UL1007SLDRED	10	\$0.08
	Black Power Wire (6 inch length) 22 AWG Hook-Up Wire Solid	1	Digi-Key Supplier # 2328-22UL1007SLDBLA-ND Mfg. # 22UL1007SLDBLA	10	\$0.08
	Heat Shrink Tubing 3 to 1 Black 0.5" (12.70mm) length	2	Digi-Key Supplier # EPS3018K-R5-ND mfg # EPS-300 1/8" BL48"BX	10	\$0.18

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	Servos, Brackets, & Hardware Items				
	Servo Motor MG995 *180 Control Angle *Metal Gear *12 kg/cm @ 6.0V	3	Amazon	13	\$14.99
	25T Metal Servo Disc *Aluminum Alloy *Disk Dia 20mm dia/.8in Dia *Mounting Hole 14mm/0.55in (4x) M3 tapped	3	Amazon	13	\$3.30
	Interconnect Servo Bracket	3	AliExpress RC Model 889 Store	2	\$4.78
	L' Angled Metal Servo Bracket	2	AliExpress RC Model 889 Store	2	\$3.66
	Metal Multi-Purpose Servo Bracket	2	AliExpress RC Model 889 Store	2	\$6.56
	Brass Standoffs Female to Female Brass Hex *30mm tall *4mm hexagon	4	Amazon	4	\$1.80
	Phillips Pan Head Screws M3 x 0.5 mm Thread, 10 mm Long	30	McMaster-Carr	7	\$1.28
	Phillips Pan Head Screws M3 x 0.5 mm Thread, 45 mm Long	4	McMaster-Carr	1	\$0.43
	Steel Hex Nut M3 x 0.5 mm Thread	30	McMaster-Carr	7	\$0.79
	Phillips Pan Head Screws M2 x 0.4 mm Thread, 10 mm Long	4	McMaster-Carr	7	\$0.20
	Steel Hex Nut M2 x 0.4 mm Thread	4	McMaster-Carr	7	\$0.09
	DC Motor Items				
	5V Stepper Motor 28BYJ-48 ULN2003	1	Amazon	3	\$3.00
	ULN2003 Driver Board	1			
	3D Printer Pinion Gear - Stepper Motor	1	n/a	3	\$0.03
	IC SN754410NE Motor / Motion / Ignition Controllers & Drivers Quad Half-Hs	1	Mouser MFG# SN754410NE Mouser# 595-SN754410NE	6	\$2.23
	6V 150:1 Micro Metal Gearmotor w/ Encoder & Cable, 100rpm	2	RobotShop	5	\$8.95
	3D Printed Pinion Gear - Geared Motor	2	n/a	5	\$0.07
	Pan Head Phillips Screws M1.6 x 0.35mm Thread, 6mm Long	4	McMaster-Carr	7	\$0.63
Later	Pan Head Phillips Screws M1.6 x 0.35mm Thread, 4mm Long	2	McMaster-Carr	n/a	\$0.30
	Sensor Items				

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	Adafruit VL53L0X Time of Flight Distance Sensor - ~30 to 1000mm	1	Adafruit	8	\$11.96
	Magnetic contact switch (door sensor)	1	Adafruit	8	\$3.16
	INA169 Analog DC Current Sensor Breakout - 60V 5A Max	1	Adafruit	8	\$7.96
	Items for Labs				
	3D Printed Dry Erase Pen Holder/Base	1	n/a	11	\$0.18
	Dry Erase Pen Black - Fine Tip	1	Amazon	11	\$0.42
	Inductor Coil	1	Digi-Key Supply # SBCP-14HY103B Digi-Key # 399-20029-ND	6	\$1.58
	3D Printed Inductor Holder/Base	1	n/a	6	\$0.10
	3D Printed Rack Arm-Standard	1	n/a	11	\$0.29
	3D Printed Rack Base - Standard	1	n/a	11	
	3D Printed Rack Arm - Long X-Y Setup	1	n/a	11	\$0.65
	3D Printed Long Rack Arm Support X-Y Setup	1	n/a	11	\$0.32
	3D Printed Risers X-Y Setup	4	n/a	1	\$2.34
	3D Printed Rack Arm-Traveling X-Y Setup	1	n/a	11	\$0.49
	3D Printed Rack Base w Sensor Mount	1	n/a	11	\$0.16
	3D Printed Magnetic Contact Switch Spacer X-Y Setup	1	n/a	6	\$0.03
	Items for AI Lessons				
	UBS Web Camera * Dynamic resolution: 640 * 480p * Frame rate: 30fps * Focal length: 8mm unlimited	1	DHGate	14	\$6.57
Later	Colored Shaped -Large and Small Square, Circle, Triangle -Red, Blue, Green	1		n/a	
			Total Cost per Kit		\$132.15