

Purchased Parts

Category	Part Number	Description	Supplier	Qty	Price/ea	Total	
Hardware	91290A228	M5x12mm SHCS, (sold in packs of 100, 2 packs needed)	McMaster	2	6.89/pack	13.78	
	93070A123	M5x12mm SHCS Low Head (sold in packs of 50)	McMaster	1	9.63/pack	9.63	
	91290A334	M6x35mm SHCS (sold in packs of 100)	McMaster	1	10.16/pack	10.16	
	N/A	8-32 Machine Screws with nuts	lowes	1	\$1.00	\$1.00	
	N/A	3/8"-24 x 4" Threaded Rod with nuts and washers	lowes	4	\$10.00	\$40.00	
CNC Specific Parts	N/A	1/4"-20 x 1.5" Bolts with nuts and washers	lowes	6	\$5.00	\$30.00	
	AC12105-LN	1/2"-10, 5 start Acme clamping shaft collar	dumpsterCNC	3	\$25.00	\$75.00	
	AC12105-TC	1/2"-10, 5 start Acme anti-backlash nut	dumpsterCNC	3	\$10.25	\$30.75	
	9889T201	Oldham coupler, 1/4" bore, clamping	McMaster	3	\$15.75	\$47.25	
	9889T204	Oldham coupler, 1/2" bore, clamping	McMaster	3	\$15.75	\$47.25	
	59985K63	Oldham Coupler Disc	McMaster	3	\$5.02	\$15.06	
	99030A704	1/2"-10, 5 start Precision Acme Screw, 6ft long	McMaster	1	\$57.50	\$57.50	
	6157K14	1/2" bore clamping shaft collar	McMaster	3	\$2.47	\$7.41	
	2938T11	1/2" bore bronze bushing w/ flange	McMaster	6	\$0.63	\$3.78	
	N/A	Router mount	k2CNC	1	\$55.00	\$55.00	
	N/A	Bosch Colt Hand Held Router	Amazon	1	\$100.00	\$100.00	
	N/A	Linear Rails and Bearings	linearmotionbearings, Ebay	1	\$223.00	\$223.00	
	Electronics	G540	G540 Stepper Motor Controller	Danmauch, Ebay	1	\$240.00	\$240.00
		G723-280-4	Gecko 280oz-in Stepper motor, dual shaft	Gecko	3	\$60.00	\$180.00
		295929	48V 12.5A Power Supply	Jameco	1	\$114.95	\$114.95
15748		DB9 Male Connector, Solder	Jameco	3	\$0.55	\$1.65	
15771		DB9 Female Connector, Solder	Jameco	3	\$0.55	\$1.65	
15722		DB9 connector Hood	Jameco	6	\$0.49	\$2.94	
645722		Cat 5e Cable, 100ft (only about 30ft is needed)	Jameco	1	\$14.95	\$14.95	
611928		48V Relay	Jameco	2	\$4.49	\$8.98	
1945268		Lever Switch	Jameco	6	\$1.35	\$8.10	
69792		Combination Power Switch with light	Lowes	1	\$7.99	\$7.99	
70684		Outlet	Lowes	1	\$0.48	\$0.48	
56592		8ft 12-3 power cord	Lowes	1	\$10.00	\$10.00	
246922		grounded(3 prong) powerconector	Lowes	1	\$2.77	\$2.77	
103392		Enclosure	Lowes	1	\$35.00	\$35.00	
Material		N/A	1x2x.065" Steel Tubing (24ft total length)	Industrial Tube and Steel	1	\$48.00	\$48.00
	N/A	1x1x0.120" Steel Tubing (6ft total length)	Industrial Tube and Steel	1	\$15.00	\$15.00	
	8975K683	Aluminum 6061, 1/4" Thick X 2-1/2" Wide X 3' Length	McMaster	1	\$17.88	\$17.88	
	8975K441	Aluminum 6061, 3/8" Thick, 6" Width, 1' Length	McMaster	2	\$17.72	\$35.44	
	1658T43	Aluminum Tube, 3/8" OD x 0.145" ID x 8ft long	McMaster	1	\$6.61	\$6.61	
	8975K713	Aluminum 6061, 1/4" Thick X 2" Wide X 3' Length	McMaster	1	\$17.23	\$17.23	
	37461	4x8x3/4" MDF Sheet	Lowes	1	\$32.00	\$32.00	
					Total	\$1,568.19	

Tools

Tool Description	Part Number	Supplier	Price
5/8" Dia. Reduced Shank Drill Bit	2933A28	McMaster	\$20.37
Drill Tip Counter Bore for M5 SHCS	29445A23	McMaster	\$15.78
Hand Tap, 5mmx0.8mm Pitch	8305A36	McMaster	\$5.90
Dykem Layout Fluid	2131A15	McMaster	\$7.79
Tap Magic Cutting Fluid	10015K16	McMaster	\$9.69
De-burring Tool	4289A35	McMaster	\$7.15
Scribe	6808A14	McMaster	\$3.86
Right Angle Welding Clamp	190939	Northern Tool	\$50.00
		Total	\$120.54

Other Tools

Horizontal Bandsaw
Drill Press
Center Punch
Hammer
Tap Handle
4.5" Angle Grinder
Combination Square
Flux Core Welder
Transfer Punch Set

Fabricated Parts

Part	Description	Qty
X-01	X-axis frame	1
X-02	X-axis drive nut mount	1
G-01	Gantry Upright	2
G-02	Gantry Mount	4
Y-01	Y-axis Rail Mount	2
Y-02	Y-axis Upright	2
Y-03	Y-axis drive nut mount	1
Z-01	Z-axis mounting plate	1
Z-02	Z-axis drive nut mount	1
Z-03	Z-axis screw end mount	1
R-01	Router mounting plate	1
SA-01	Stepper Mounting Plate	4
SA-02	Z Axis Stepper Mounting Plate	1
SA-03	standoff	12