

Assembly	Item	Qty	Description	Cost/ea	Cost x Qty	Vendor
X Gantry	1	2	Nema 17 Stepper Motor 5mm Dia Shaft (20mm length)	\$10.00	\$20.00	ebay
	2	8	M3x10mm hex screws	\$0.05	\$0.40	McMaster
	3	4	M5x60mm threaded screw	\$0.60	\$2.40	McMaster
	4	2	M5x80mm partially threaded screw	\$0.80	\$1.60	McMaster
	5	2	M5 Shaft coupler	\$7.50	\$15.00	ebay
	6	6	16mm Dia Flange bearing 5mm bore	\$0.80	\$4.80	ebay
	7	3	GT2 Pulley 20tooth Count, 5mm bore	\$3.80	\$11.40	ebay
	8	1	3D printer idler pulley	\$0.00	\$0.00	retrobuiltgames
	9	1	Body of balpoint pen	\$0.00	\$0.00	
	10	6	M5 Nylon lock nuts	\$0.70	\$4.20	McMaster
	11	1	GT2 Belt, 260 lenth	\$4.00	\$4.00	ebay
	12	2	Custom Acrylic plates	\$0.00	\$0.00	
	13	1	Stepper Wheel mount 5mm bore	\$4.50	\$4.50	Pololu
	14	1	3Ft Nylon string	\$0.50	\$0.50	HomeDepot
	15	6	M5 washers	\$0.08	\$0.48	
	16	1	M5x30 Bolt	\$0.30	\$0.30	
Claw	17	1	Wood parts kit	\$0.00	\$0.00	
	18	1	Servo Motor, 180 rotation	\$12.00	\$12.00	Adafruit
	19	2	18" servo extension cable	\$3.00	\$6.00	ebay
	20	6	#6-32 x 1" bolt	\$0.06	\$0.36	
	21	7	#6-32 nylon lock nut	\$0.05	\$0.35	
	22	2	#6-32 x 0.75" bolt	\$0.09	\$0.18	
	23	3	#6-32 nuts	\$0.03	\$0.09	
	24	3	#6-32 lock washers (split ring)	\$0.02	\$0.06	
	25	6	#6-32 SAE washer	\$0.03	\$0.18	
	26	3	Flat washers (optional)	\$0.20	\$0.60	
Y Ganty	27	2	Nema 17 Stepper Motor 5mm Dia Shaft (20mm length)	\$10.00	\$20.00	ebay
	28	8	M3x10mm hex screws	\$0.05	\$0.40	
	29	2	Nylon bearing shower door wheels	\$2.50	\$5.00	HomeDepot
	30	8	#8-32 x0.5" truss head screws	\$0.06	\$0.48	
	31	8	#8 nuts	\$0.03	\$0.24	
	32	6	#8 split ring lock washers	\$0.01	\$0.06	
	33	6	Nickel plated brackets, 90degree	\$0.50	\$3.00	McMaster
	34	6	M4x12mm screws hex head	\$0.10	\$0.60	Misumi
	35	6	T inserts for 30x30mm extrusion	\$0.33	\$1.98	Misumi
	36	2	GT2 Pulley 20tooth Count, 5mm bore	\$3.80	\$7.60	ebay
	37	1	30x30mm Al extrusion, 20.25" length	\$8.00	\$8.00	Misumi

Frame	38	19 Linear ft Aluminum Extrusion 30x30mm cross-section (16x20" frame)	\$6.00	\$114.00	Misumi
	39	24 30x30mm All brackets (90 degrees)	\$0.90	\$21.60	
	40	48 M6x12mm hex head screws	\$0.15	\$7.20	
	41	48 M6 T insertes	\$0.40	\$19.20	
	42	70 M4 Tinserts	\$0.40	\$28.00	
	43	70 M4 x 12mm hex head screws	\$0.10	\$7.00	
	44	10 1Sq ft 0.25 Maple Plywood	\$0.82	\$8.20	
	45	1 Coin Acceptor 0.25 denomination	\$29.00	\$29.00	
	46	1 Happ Joystick	\$15.00	\$15.00	
	47	3 Arcade pushbutton 28mm dia	\$2.00	\$6.00	
	48	4 #8 x 1.25" screw Round head	\$0.12	\$0.48	
	49	8 #8 nut	\$0.03	\$0.24	
	50	8 #8 washer	\$0.02	\$0.16	
	51	8 #8 split ring lock washers	\$0.01	\$0.08	
	52	4 Nickel plated brackets, 90degree	\$0.50	\$2.00	
	Circuit	53	1 LCD 4x20	\$12.00	\$12.00
54		1 Arduino Mega (generic brand)	\$15.00	\$15.00	
55		1 5K potentiometer, 270degree turn 6mm shaft	\$5.20	\$5.20	
56		10 1ft wire	\$0.30	\$3.00	
57		1 40 wire x 30cm Female/Female jumper wire	\$7.30	\$7.30	
58		4 ULN2803 darlington array DIP	\$1.12	\$4.48	Newark
59		1 Tip 120 Darington Power Transistor 3A peak	\$1.20	\$1.20	Newark
60		4 18 Pin DIP socket	\$0.28	\$1.12	Newark
61		2 LED Red	\$0.10	\$0.20	ebay
62		1 Protoboard	\$7.20	\$7.20	Adafruit
63		1 Aduino Uno Proto- Sheild	\$3.20	\$3.20	ebay
64		4 Terminal Blocks (6x1) 0.1" pitch, spring lock	\$1.50	\$6.00	Newark
				\$460.82	