

❖ Materials List

➤ Wood for frame

Part Name	Quantity	Length	Dimensions
Long Bases and Pillars	4	2'	3.5"x3.5"
Short Base	2	1'6	3.5"x3.5"
Top Bar	1	25.5"	2.5" x 1.5"
Mid Bar	1	18"	2.5" x 1.5"
ball bearings plates	5	3"	2.5" x .5"
large ball bearing plates	3	4"	2.5" x .5"
ball bearing risers	6	2.5"	.75"x 1.5"
limit pressers blocks	5	1.5"	.75"x 1.5"
z movement block	1	4.5"	.75"x 1.5"
x movement block	1	3"	.75"x 1.5"
Y movement block	1	4"	2.5" x 1.5"
XZ tray	1	24"	8"x.5"
X tray	1	8"	8"x.5"
Y tray	1	16.15"	12.5"x.5"
Y tray risers	2	18"	1.5" x 1/8"
XZ Tray Risers	2	22.5"	.75"x 1.5"
XZ Tray Sides	2	8"	.75"x 1.5"

■ Assorted Wood Screws

- .5" - 3" of varying diameter

➤ Mechanics

- Threaded rods:
 - 1 - 12" Length 1/4" Diameter
 - 2- 27" Length 1/4" Diameter
- Nuts and Bolts
 - 10 - 1/4" Tee Nuts
 - 2 - 1/4" Threaded End Caps
- Motors
 - 3 - Nema 23 Stepper Motors - [Link](#)
 - 3 - 1/4"-1/4" Flexible Couplings
- Movement
 - 6 - 7/8" Outer Diameter Ball bearings
 - 4 - 12" → 24" Drawer Slides (Come in pairs)
 - 2 - 8" Two-Way Drawer Slides (Come in pairs)
- Electronics
 - Stepper Motor Control Kit - [Link](#)
 - 1 - Arduino Uno
 - 1 - Arduino CNC Shield
 - 3 - stepper motor drivers (Buy Spares!)
 - 6 - Limit Switches
 - 1 - Multimeter
 - 1 - Thermal Epoxy - [Link](#)
 - For Attaching heatsinks to stepper motor drivers
 - 1 - 24v Power Supply - [Link](#)
 - Assorted Jumper Wires
 - 4x1 Female-Female
 - 1x1 Female-Female
 - Jumper Caps
- Drilling Tools
 - 1 - Makita RT0701C 1-1/4 HP Compact Router
 - 1 - Router Mount - [Link](#)
 - Assorted router bits of your choosing