

Raspberry Pi CNC Machine Cost And Part List:

Materials Cost:

-My tech teacher and I paid half each. This can be different a price depending on what you do. Also, got the sheets at Lenco Lumber.

-1/2 inch 5X5 sheet Baltic Birch Plywood (\$27.77)

-3/4 inch 5X5 sheet Baltic Birch Plywood (\$44.77)

-(55) cross nuts, (10) t-nuts and (100) 1-1/2 inch phillips head bolts at Hector's Hardware. I don't know how much each of these cost but I know the total.

Hardware (\$47.85)

-MDF 4X8 sheet at The Home Depot (\$32.00)

-Spring assortment for anti-backlash nuts at The Home Depot (\$4.37)

-(4) 5/16 Hex nuts at The Home Depot (\$1.20)

-(2) 5/16 Threaded rod 18TPR 36 inches long at The Home Depot (\$5.26)

-(50pk) 5/16 hex bolts 3/4 inch long for angle aluminum carriages at The Home Depot (\$6.78)

-(100pk) 5/16 hex nuts for angle aluminum carriages at The Home Depot (\$15.97)

-(7) 2X4's 8ft long at The Home Depot (\$16.94)

-(Optional) Bucket Head Wet/Dry VAC at The Home Depot (\$24.00)

-(5ft) 3/4 inch angle aluminum 1/8 inch thick at The Home Depot or at any metal store (~\$10.00)

-(13ft) 1 inch angle aluminum 1/8 inch thick at The Home Depot or at any metal store (~\$18.00)

-(30) Skate bearings for carriages on Ebay.com (\$20.00)

-(4) roller casters at Harbor Freight, if you are going to build the cart (\$17.36)

-(1) 1/4 inch trim router at Harbor Freight with %20 off (\$26.00)

-(18) 1-1/2 inch long sheet metal screws at The Home Depot (\$2.00)

-(58) 3/4 inch long flat head stainless steel screws,(they don't have to be stainless steel that's just what i had) at Harbor Freight (\$35)

-(12) 1 inch long wood screws to hold the anti-backlash nut housings, at The Home Depot (\$5.00)

-(18) 1/4 by 3/4 inch long flat head phillips head screws and nuts at The Home Depot (\$7.67)

-(4) Nylon standoffs any size 1-1/2 to 2 inches for the Z-axis stepper motor (\$2.79)

-(4) sheet metal screws 1-3/4 inch long 1/8 inch wide to hold down the stepper motor for Z-axis at The Home Depot (\$4.96)

-(8) 3/4 inch long screws to hold in the X and Y axis stepper motors at The Home Depot (\$3.98)

-(1) sheet of 1/4 inch plywood for the enclosure to the cart at The Home Depot (\$20.00)

-(4) 6 inch long bolts 3/4 inch wide construction bolts at The Home Depot (\$10.00)

-(6)2-1/2 inch long 1/4 inch phillips screws at The Home Depot (\$3.95)

Total: (\$413.62)

Electronics cost:

-(1) TinyG v8 Microcontroller board from Synthetos.com (\$136.00 including shipping)

-(3) NEMA 23 stepper Motors from Stepperonline.com +

-(2) 1/4 inch to 5/16 flexible couplers from Stepperonline.com +

-(1) 1/4 inch to 3/8 inch flexible coupler from stepperonline.com (\$87.78 including shipping)

-(1) Optional Raspberry Pi on Amazon.com (\$30-\$35)

-(1) 24 volt power supply on Ebay.com (\$27.00)

-(Optional) TV monitor for displaying the Raspberry Pi, I found one laying around my house

-Total: (\$285.78)

Note: This sheet will be updated as new additions are added to the machine.

