



Project Spindle Carriage For CNC
Title **cnc_milling_carriage_v1.SLDASM**
Designer Vladimir Tyrkin
File CARRIAGE_BOM.xlsx
Date 17 December 2022

Project Link [GitHub](#)
Project Number **000**
Drawn by Vladimir Tyrkin

Rev. 1

Dwg.	Item No.	Qty	Scem	Description	Material	Manufacturer	Part Number	Manufacturer Link	Weight	Total Weight
001		2		Linear Motion Shaft	52100 Alloy Steel	McMaster-Carr	5033N132	McMaster-Carr	58.89	117.78
						McMaster-Carr	4920N11	McMaster-Carr		
						CHINA	none	Aliexpress		
002	1	1		Lead Screw	AISI 1020	CHINA	none	Aliexpress	62.17	62.17
				Note: must be pair to item 2						
011		1		Stepper Base	Polycarbonate (PC)	McMaster-Carr	8574K281	McMaster-Carr	37.88	37.88
				Files: Drawings/parts for cnc.DWG & Drawings/parts for cnc.CDR						
012		1		Vertical Plate	Polycarbonate (PC)	McMaster-Carr	8574K281	McMaster-Carr	120.14	120.14
				Files: Drawings/parts for cnc.DWG & Drawings/parts for cnc.CDR						
025		2		ThreadedRodMotor	AISI 1035 Steel (SS)	McMaster-Carr	94595A215	McMaster-Carr	4.7	9.4
031		1		TensionerBasePlate	6061 Alloy	McMaster-Carr	9146T14-9146T141	McMaster-Carr	4.5	4.5
032		1		Standoff threaded round spacer	6063-T6	CHINA	none	Aliexpress	0.48	0.48
081		2		SensorMount	6063-T6	McMaster-Carr	4630T135	McMaster-Carr	2.19	4.38
None		2		Corner Bracket 40x40L	AISI 1035 Steel (SS)	Soberizavod	H49	Soberizavod	49	98
None		4		SK8 SC8UU LINEAR RAIL ORIGINAL	Multimaterial	CHINA	none	Aliexpress	25	100
None		2		Pillow Block	Multimaterial	CHINA	none	Aliexpress	37	74
None		2		Limit Switch	Multimaterial	DIGIKEY	none	DIGIKEY	1.6	3.2
None		1		Nema 17HS4401 Stepper Motor	Multimaterial	CHINA	none	Aliexpress	315	315
None		5		Cable tie 3 mm width	Nylon 101	McMaster-Carr	7130K31	McMaster-Carr	0.16	0.8
None		1		Belt	Rubber	CHINA	none	Aliexpress	1.34	1.34
None		1		Heat shrink tube	Rubber	McMaster-Carr	7496K85	McMaster-Carr	0.12	0.12
None		1		Power cable 9Amp max.	Wire	McMaster-Carr	9700T61	McMaster-Carr	7.93	7.93
None		1		DC 775 Motor	Multimaterial	CHINA	none	Aliexpress	314	314
None		2		2GT 20Teeth Pulley	Multimaterial	CHINA	none	Aliexpress	5.11	10.22
None		1		ER11 collet	Multimaterial	CHINA	none	Aliexpress	49	49
None		1		Pulley 20T W10 B5 With Teeth	Multimaterial	CHINA	none	Aliexpress	10	10
None		4		LM8UU Lineare bearing	Multimaterial	CHINA	none	Aliexpress	16	64
None		1		Cable Top End Sensor (230mm)	Multimaterial	McMaster-Carr	9697T1	McMaster-Carr	3.05	3.05
None		1		Cable Bottom End Sensor (290mm)	Multimaterial	McMaster-Carr	9697T1	McMaster-Carr	2.29	2.29
None		1		3 CIRCUIT RECEPTACLE MOLEX	Multimaterial	MOUSER	none	Mouser	1	1
None	2	1		Movement Nut	Brass	CHINA	none	Aliexpress	11.5	11.5
				Note: must be pair to item 1						
									Total weight 1422.2	

3D printed parts

021		1		Bottom motor cover	PET-G	McMaster-Carr	3462N1	McMaster-Carr	93	93
				File: FilesForPrint/Bottom motor cover.STL						
022		1		Top motor cover	PET-G	McMaster-Carr	3462N1	McMaster-Carr	87.98	87.98
				File: FilesForPrint/Top motor cover.STL						
024		2		Spacer	PET-G	McMaster-Carr	3462N1	McMaster-Carr	5.97	11.94
				File: FilesForPrint/Spacer.STL						
026		1		Cable holder	PET-G	McMaster-Carr	3462N1	McMaster-Carr	1.21	1.21
				File: FilesForPrint/WiresHolder.STL						
									Total weight	194.13

Dwg.	Item No.	Qty	Scem	Description	Material	Manufacturer	Part Number	Manufacturer Link	Weight	Total Weight
Screws										
None		1		Self Tap. Cross recessed Screw 2.6x10mm	AISI 304	CHINA	none	Aliexpress	0.23	0.23
None		6		M3 NYLOC DIN 985	AISI 304	CHINA	none	Aliexpress	0.65	3.9
None		4		M4 NYLOC DIN 985	AISI 304	McMaster-Carr	none	McMaster-Carr	1.29	5.16
None		22		M5 NYLOC DIN 985	AISI 304	McMaster-Carr	none	McMaster-Carr	1.6	35.2
None		6		Low Profile Hex Screw M5x30	AISI 1035 Steel (SS)	CHINA	none	Aliexpress	3.63	21.78
						McMaster-Carr	none	McMaster-Carr		
None		4		Rounded Head Thread-Forming Screw M3x20mm	18-8 Stainless Steel	McMaster-Carr	99461A947	McMaster-Carr	0.73	2.92
None		1		M5x20 DIN 7991, ISO 10642	18-8 Stainless Steel	McMaster-Carr	92125A214	McMaster-Carr	3.162	3.162
None		4		M5x16 DIN 7991, ISO 10642	18-8 Stainless Steel	McMaster-Carr	92125A212	McMaster-Carr	2.65	10.6
None		4		ISO 4762 M4 x 20 - 20N	18-8 Stainless Steel	McMaster-Carr	91292A121	McMaster-Carr	2.65	10.6
None		17		Washer DIN 125 - A 5.3	Zinc Plated Steel	McMaster-Carr	none	McMaster-Carr	0.44	7.48
None		4		Washer DIN 125 - A 4.3	Zinc Plated Steel	McMaster-Carr	none	McMaster-Carr	0.3	1.2
None		7		Washer DIN 125 - A 3.2	Zinc Plated Steel	McMaster-Carr	91166A210	McMaster-Carr	0.12	0.84
None		2		ISO 4762 M3 x 16 - 16N	18-8 Stainless Steel	McMaster-Carr	none	McMaster-Carr	1.16	2.32
None		2		ISO 7380 - M3 x 10 - 10N	316 Stainless Steel	McMaster-Carr	90943A113	McMaster-Carr	0.7	1.4
None		4		ISO 7380 - M5 x 16 - 16N	18-8 Stainless Steel	McMaster-Carr	92095A212	McMaster-Carr	2.9	11.6
None		3		ISO 7380 - M3 x 8 - 8N	18-8 Stainless Steel	McMaster-Carr	92095A181	McMaster-Carr	0.6	1.8
None		3		ISO 7046-1 - M3 x 8 - Z - 8N	18-8 Stainless Steel	McMaster-Carr	92010A118	McMaster-Carr	0.47	1.41
None		4		ISO 7046-1 - M3 x 10 - Z - 10N	18-8 Stainless Steel	McMaster-Carr	For DIN 965: 92010A120	McMaster-Carr	0.53	2.12
None		4		DIN EN ISO 7045 - M3 x 10 - Z - 10N	Zinc-Plated Steel	McMaster-Carr	92005A120	McMaster-Carr	1.27	5.08
None		4		ISO 7046-1 - M5 x 20 - Z - 20N	Zinc-Plated Steel	McMaster-Carr	For DIN 965: 91420A328	McMaster-Carr	2.86	11.44
Total weight									140.24	