

**Bill of Materials for Dynasty 3D Printer [V1.0 10.05.2022]**

Category	Subcategory	Component	Quantity	Price per Unit	Price	Link
Printed Parts	Filament	Primary Color (Black)	1	28.40 USD	28.40 USD	Fiberlogy ABS+
		Secondary Color (Blue)	1	28.40 USD	28.40 USD	Fiberlogy ABS+
Frame	Structure	Aluminum Profile 2020 Type B Slot 6 180mm	4	1.06 USD	4.24 USD	Motedis
		Aluminum Profile 2040 Type B Slot 6 480mm	5	4.82 USD	24.10 USD	Motedis
		Aluminum Profile 2040 Type B Slot 6 520mm	6	5.22 USD	31.32 USD	Motedis
		Aluminum Profile 2040 Type B Slot 6 530mm	2	5.32 USD	10.64 USD	Motedis
		Aluminum Profile 2040 Type B Slot 6 800mm	4	8.03 USD	32.12 USD	Motedis
	Feet	Threaded Rod M6x40 for Ball Feet, Steel, Series 10	4	1.12 USD	4.48 USD	Motedis
		Base 40 for Adjustable Feet, PA, Series 10	4	1.43 USD	5.71 USD	Motedis
		Anti-slip Plate 40 for Adjustable Feet, Series 10	4	1.27 USD	5.07 USD	Motedis
	Plate	Plate L 2020 3mm 5 Holes	4	1.16 USD	4.63 USD	Motedis
		Plate L 2040 4mm 7 Holes	8	0.96 USD	7.68 USD	Aliexpress
		Plate L 4040 3mm 12 Holes	8	1.57 USD	12.60 USD	Motedis
		Plate T 2020 3mm 5 Holes	4	1.16 USD	4.63 USD	Motedis
		Plate T 4040 3mm 12 Holes	2	1.54 USD	3.09 USD	Motedis
	Bracket	Bracket 2020 B-Type Slot 6 (with fixing kit)	13	1.44 USD	18.72 USD	Motedis
		Bracket 2040 B-Type Slot 6 (with fixing kit)	19	2.37 USD	45.03 USD	Motedis
	Panels	Dynasty Panels Kit 3mm & 4mm	1	220.10 USD	220.10 USD	Coldzero
Motion System	XY axe	Carbon fiber tube 20x20x18 500mm	1	11.50 USD	11.50 USD	Aliexpress
		MGN12H 400mm linear rail Z1 preloaded block	3	65.00 USD	195.00 USD	Aliexpress
		Belt 2GT 9mm – 600mm	1	18.80 USD	18.80 USD	RatRig
		Idler Pulley - Smooth for 2GT-20T - 9mm Belt - 5mm Bore (Compressible)	8	4.30 USD	34.40 USD	RatRig
		Idler Pulley - Toothed for 2GT-20T - 9mm Belt - 5mm Bore (Compressible)	2	4.45 USD	8.90 USD	RatRig
		Timing Pulley - 2GT (2mm) - 20 Tooth - For 9mm Belt	2	2.16 USD	4.32 USD	RatRig
		High Torque Nema17 Motor 0.9°	5	15.92 USD	79.60 USD	E3D
	Z axe	MGN12H 450mm linear rail Z1 preloaded block	3	71.40 USD	214.20 USD	Aliexpress
		Lead Screw Flexible Coupler	3	4.87 USD	14.61 USD	Aliexpress
		Lead Screw T8 PTFE 450mm	3	16.84 USD	50.52 USD	Aliexpress
		Anti-Backlash Nut Block for 8mm Lead Screw	3	5.79 USD	17.37 USD	RatRig
		Thrust Bearing F8-16M	3	1.83 USD	5.49 USD	RatRig
	Bed	FlexPlate Powder Coated PEI 310x310mm	1	51.98 USD	51.98 USD	RatRig
		Bed Plate 329*329*6mm	1	58.68 USD	58.68 USD	RatRig
		Aluminium Spacer 6mm	3	0.24 USD	0.72 USD	RatRig
		Steel Ball 12mm M5	3	1.05 USD	3.15 USD	RatRig
		Dowel Pin 3x35mm	6	0.42 USD	2.52 USD	RatRig
		Magnet 20x10x5mm Two hole M3	3	2.10 USD	6.30 USD	RatRig
Electric	Hotend	Dragon High Flow Hotend	1	80.11 USD	80.11 USD	Aliexpress
		Orbiter Extruder V1.5	1	55.18 USD	55.18 USD	Aliexpress
		Sunon 4010 12V Fan	1	4.62 USD	4.62 USD	Digikey
		Sunon 5015 12V Fan	1	8.51 USD	8.51 USD	Digikey
		Heater Cartridge 24V 40W	1	1.94 USD	1.94 USD	Aliexpress
		Semitec 104GT-2 ATC thermistor	2	2.34 USD	4.68 USD	Aliexpress
		Omron Endstop	2	2.98 USD	5.96 USD	Digikey
		BLTouch	1	42.10 USD	42.10 USD	3Djake
		Accelerometer ADXL345	1	21.00 USD	21.00 USD	Distrelec
		PFA Tube 2m	1	8.84 USD	8.84 USD	Aliexpress
	Bed	C-LIN SSR 40A	1	22.01 USD	22.01 USD	RatRig
		Silicone Heater Bed Pad 280x280mm 220V 600W	1	66.50 USD	66.50 USD	RatRig
		Thermal Fuse 15A 125°C	1	3.09 USD	3.09 USD	Aliexpress
	Electronics	Shurter Plug C14 250V	1	4.36 USD	4.36 USD	Distrelec
		Metal Switch 22mm 220V Self-Reset	1	3.33 USD	3.33 USD	Aliexpress
		Cable Socket 22mm	1	1.14 USD	1.14 USD	Aliexpress
		Eaton Emergency Switch	1	41.93 USD	41.93 USD	Distrelec
		Crouzet SSR 50A	1	56.88 USD	56.88 USD	Digikey
		CUI Inc. 24V Power Supply VGS-320D-24-B	1	55.55 USD	55.55 USD	Digikey
		DC/DC Converter DIN Rail 5V 3A	1	25.09 USD	25.09 USD	Distrelec
		BTT Octopus V1.1 Motherboard with TMC2209	1	67.63 USD	67.63 USD	Aliexpress

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		Younuon 6010 Fan 24V	1	8.97 USD	8.97 USD	Aliexpress
		BTT Smart Filament Sensor	1	11.52 USD	11.52 USD	Aliexpress
		Noctua NF-F12 iPPC-2000	1	34.50 USD	34.50 USD	LDLC
		Hepa Cover Filter Set Zortrax	1	36.85 USD	36.85 USD	3Djake
		LED Strip RGBNW 1m 60 IP65 White PCB	1	9.37 USD	9.37 USD	Aliexpress
		Raspberry Pi 3 B+	1	43.42 USD	43.42 USD	Mouser
		Winsinn 4010 fan 24V	1	2.41 USD	2.41 USD	Aliexpress
		0.5m USB Cable	1	2.69 USD	2.69 USD	Aliexpress
		Flexible Cable 1m Raspebrry Pi	1	0.53 USD	0.53 USD	Aliexpress
		BTT PI TFT50 Screen	1	47.15 USD	47.15 USD	Aliexpress
		Logitech Streamcam	1	125.00 USD	125.00 USD	Digitec
		Adapter USB 3.0 to USB-C	1	9.20 USD	9.20 USD	Digitec
	Mounting	Wiring Duct 40x40mm 2m	1	16.05 USD	16.05 USD	Distrelec
		Rail DIN omega 1m 35x7.5mm	2	4.50 USD	9.00 USD	Distrelec
		SSR DIN Rail Clamp	2	2.26 USD	4.52 USD	Aliexpress
		Self-closing braided wire sheath	2	2.70 USD	5.40 USD	Aliexpress
		Bearing 608	1	5.01 USD	5.01 USD	Aliexpress
Fasteners	Set	Set Insert M2,M3,M4,M5	1	11.33 USD	11.33 USD	Aliexpress
		Set M3 SHCS Screws & Nuts	1	17.82 USD	17.82 USD	Aliexpress
		Set M2,M3,M4,M5 BHCS Screws, Shim & Nuts 880	1	24.54 USD	24.54 USD	Aliexpress
		Set M2,M3,M4,M5 SHCS Screws, Shim & Nuts 880	1	25.66 USD	25.66 USD	Aliexpress
		Set M2,M3,M4,M5 FHCS Screws, Shim & Nuts 880	1	23.43 USD	23.43 USD	Aliexpress
	M2	M2x10 SHCS	2	0.64 USD	1.28 USD	Aliexpress
	M3	M3x8 BHCS	12	0.00 USD	0.00 USD	Set M2,M3,M4,M5 BHCS Screws, Shim & Nuts
		M3x12 BHCS	3	0.00 USD	0.00 USD	Set M2,M3,M4,M5 BHCS Screws, Shim & Nuts
		M3x20 BHCS	2	0.00 USD	0.00 USD	Set M2,M3,M4,M5 BHCS Screws, Shim & Nuts
		M3x8 SHCS	134	0.14 USD	18.14 USD	Motedis
		M3x10 SHCS	8	0.00 USD	0.00 USD	Set M3 SHCS Screws & Nuts
		M3x12 SHCS	32	0.05 USD	1.63 USD	Aliexpress
		M3x16 SHCS	12	0.00 USD	0.00 USD	Set M3 SHCS Screws & Nuts
		M3x20 SHCS	12	0.00 USD	0.00 USD	Set M3 SHCS Screws & Nuts
		M3x30 SHCS	2	0.00 USD	0.00 USD	Set M3 SHCS Screws & Nuts
		M3x40 SHCS	12	0.00 USD	0.00 USD	Set M3 SHCS Screws & Nuts
		M3x12 FHCS	3	0.00 USD	0.00 USD	Set M2,M3,M4,M5 FHCS Screws, Shim & Nuts 880
		M3x20 FHCS	2	0.00 USD	0.00 USD	Set M2,M3,M4,M5 FHCS Screws, Shim & Nuts 880
		M3 T Nut	148	0.05 USD	6.85 USD	Aliexpress
		M3 Nut	30	0.00 USD	0.00 USD	Set M2,M3,M4,M5 SHCS Screws, Shim & Nuts 880
	M4	M4x12 BHCS	8	0.00 USD	0.00 USD	Set M2,M3,M4,M5 BHCS Screws, Shim & Nuts 880
		M4x20 BHCS	4	0.00 USD	0.00 USD	Set M2,M3,M4,M5 BHCS Screws, Shim & Nuts 880
		M4x8 SHCS	4	0.00 USD	0.00 USD	Set M2,M3,M4,M5 SHCS Screws, Shim & Nuts 880
		M4 Shim	8	0.00 USD	0.00 USD	Set M2,M3,M4,M5 SHCS Screws, Shim & Nuts 880
		M4 Nut	12	0.00 USD	0.00 USD	Set M2,M3,M4,M5 SHCS Screws, Shim & Nuts 880
	M5	M5x8 BHCS	300	0.14 USD	40.62 USD	Motedis
		M5x10 BHCS	34	0.14 USD	4.60 USD	Motedis
		M5x12 BHCS	20	0.14 USD	2.71 USD	Motedis
		M5x16 BHCS	22	0.14 USD	2.98 USD	Motedis
		M5x12 SHCS	4	0.00 USD	0.00 USD	Set M2,M3,M4,M5 SHCS Screws, Shim & Nuts 880
		M5x16 SHCS	16	0.16 USD	2.60 USD	Motedis
		M5x20 SHCS	5	0.00 USD	0.00 USD	Set M2,M3,M4,M5 SHCS Screws, Shim & Nuts 880
		M5x30 SHCS	8	0.16 USD	1.30 USD	Motedis
		M5x35 SHCS	2	0.16 USD	0.32 USD	Motedis
		M5x40 SHCS	10	0.16 USD	1.62 USD	Motedis
		M5x45 SHCS	8	0.16 USD	1.30 USD	Motedis
		M5x16 FHCS	4	0.00 USD	0.00 USD	Set M2,M3,M4,M5 FHCS Screws, Shim & Nuts 880
		M5 Shim	18	0.00 USD	0.00 USD	Set M2,M3,M4,M5 SHCS Screws, Shim & Nuts 880
		M5 T Nut B-Slot Type 6	424	0.19 USD	80.35 USD	Motedis
		M5 Nut	43	0.00 USD	0.00 USD	Set M2,M3,M4,M5 SHCS Screws, Shim & Nuts 880
		Mini Precision Shim M5	20	0.26 USD	5.20 USD	RatRig
	M6	M6x16 BHCS	48	0.14 USD	6.50 USD	Motedis
Total:				2,501.83 USD		