

# PrismX 3D Printer Bill of Materials

Quantity	Part	Remarks
1	printed and/or molded plastic parts for PrismX 3D Printer	see Terawatt's PrismX github repo
9	aluminum tie extrusion 20x20x400	
100	T-nuts M4 for slotted aluminum extrusions	
		You will need an ATX power supply. It should have short-circuit and over-current protections. It needs to supply 30A of power on two (2) 12v rails. Almost all modern ATX supplies meet this criteria. Wattage isn't as important but usually a 300-350 watt or higher PSU will supply roughly 30A of 12v power. The ATXPSUDevBoard is optional but strongly recommended. Without it you'll need to hack your PSU to power the printer. With it you can use any ATX PSU; swap in a different PSU anytime; and access 3.3 v, 5v, and -12v lines for additional gadgets.
1	ATX Power Supply with ATXPSUDevBoard adapter board	
4	Kysan Stepper Motor, NEMA 17	
1	2 mm (GT2) Pitch, 497 Teeth, 6mm wide Single Sided Neoprene Belt with Fiberglass Cords	z-axis
2	2 mm (GT2) Pitch, 590 Teeth, 6mm wide Single Sided Neoprene Belt with Fiberglass Cords	x and y axes
2	2 mm (GT2) Pitch,36 Teeth, 5mm Bore, Brass Insert, Polycarbonate Timing Pulley for 6mm Wide Belt	x and z axes
2	2 mm (GT2) Pitch,36 Teeth, 8mm Bore, Brass Insert, Polycarbonate Timing Pulley for 6mm Wide Belt	z-axis
1	2 mm (GT2) Pitch,48 Teeth, 5mm Bore, Brass Insert, Polycarbonate Timing Pulley for 6mm Wide Belt	y-axis
1	Reprap MK2 Heatbed w/LEDs, resistor, and thermistor	
1	00str00der Belt-Driven Extruder	see reprap wiki for BOM
1	MK-VB Hotend	or any J-head compatible hotend
12	LM8UU 8mm Linear Ball Bearing	
1	Universal Y-Axis Plate Aluminum 0.1-inch thick	or acrylic, or use our template on github to make your own
1	Arduino MEGA 2560	other electronics like replicape will work
1	RAMPS 1.4	other electronics like replicape will work
4	A4988 Stepper Controller for RAMPS 1.4	other electronics like replicape will work
6	8.03mm Bore, 15.9mm Panel hole dia, Self Lubricating Acetal Bearing.	z-axis bottom and top
4	608-2RS Black Skateboard/Inline Skate/Rollerblade/Hockey Bearing Bronze Cage Ball Bearings	
2	8mm Shaft 406mm Straight Rail Linear Motion	
4	8mm Shaft 495mm Straight Rail Linear Motion	
2	lead screw straight 330mm	original PrismX X-ends are designed for Terawatt leadscrew nut
2	lead screw nut flanged	original PrismX x-ends are designed for Terawatt leadscrew nut
3	Black Heat Shrink Tubing (4.5mm) 1m	cable mgmt
2	Black Heat Shrink Tubing (6mm) 1m	cable mgmt
4	Thrust Bearing 8x19x7 Miniature Thrust Bearings	z-axis
1	Fiberglass Sleeveing, 3/8 In 1200 F Fiberglass, 1 Ft	extruder wiring

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1	Fiberglass Sleeving, 1/4 In 1200 F Fiberglass, 1 Ft	extruder wiring
2	80mm Fan	(optional, almost) 1 for RAMPS, 1 for y-axis motor
1	40mm Fan	(optional) for print cooling
1	Reprap Wiring Kit	
16	Hi-temperature wire for RepRap heatbed and extruder heating elements - 1 FT. LENGTH	8 wires, 750mm each, 4x 18AWG for heaters, 4x 22-28AWG for thermistors