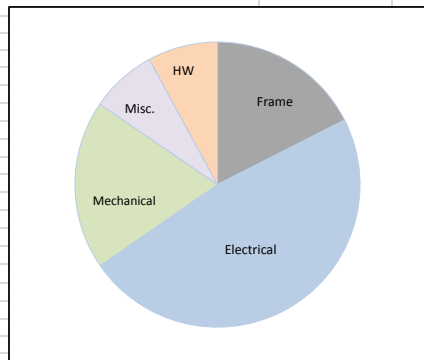


	Item	Source	Qty.	Unit Cost	Ext. Cost	Link	Comments	Additional Comments
Frame	V Slot Extrusion	Open Builds Store					Frame sized for 200x300mm bed and 325mm print height	OpenBuilds occasionally has free shipping promos
	- 20x20x1500mm	Open Builds Store	2	\$15.00	\$30.00	V Slot Linear Rail		
	- 20x40x1500mm	Open Builds Store	2	\$19.50	\$39.00	V Slot Linear Rail		
	- 20x40x1000mm	Open Builds Store	2	\$13.00	\$26.00	V Slot Linear Rail		
Electrical	E3D v6 Hot End 1.75 w/ Bowden extras	Filastuderer	1	\$78.89	\$78.89	1.75 E3D v6 w/bowden extras	E3Dv6 with bowden tube and coupling	For half the cost, E3D v6 lite would work well for PLA, PETG, ABS (any plastic below 245c)
	Nema 17 Stepper Motor	Amazon	5	\$9.98	\$49.90	Stepper Motor		
	Ramps 1.4 Kit	Ebay	1	\$32.00	\$32.00	Ramps 1.4 kit	Ebay links expire too often to update every time but look at the link for a reference to see what to look for	
	Heated Bed	Ebay	1	\$24.00	\$24.00	PCB Heated Bed	200mmx300mm (~8"x12") 12v	This heated bed works for 60C but it has difficulty maintaining 100C. Consider alternative if printing ABS.
	Endstop 3 pack, v1.2	Ebay	1	\$4.49	\$4.49	Endstop Pack	3 pack	Alternate link - Faster shipping but more expensive
	XH2.54 Connector Kit	Ebay	1	\$2.00	\$2.00	XH2.54 4 Pin Connectors	To plug into the three endstop jacks	Requires a crimping tool, or careful soldering of wire to each pin
	100k 3950 Thermistor for bed	Ebay	1	\$1.00	\$1.00	Single 3950 Thermistor	For heated bed temperature	Alternate link - Faster shipping but more expensive
	Alternate fan for E3Dv6 heatsink	Digi-key	1			30mm Fan	Optional, Alternate quieter fan for the E3D V6 heatsink	
	40mm cooling fans	Amazon	2	\$2.04	\$4.08	40mm fan	Ducted print fan and Ramps board cooling	
	12V/30A Power Supply	Amazon	1	\$19.98	\$19.98	Power Supply		
	Solid State DC Relay	Banggood	1	\$11.22	\$11.22	SSR DC DC Relay	Don't confuse with the SS AC relay, they look similar, read the label	
	2.54mm Connector kit	Amazon	1	\$10.00	\$10.00	2.54 Connector Kit Example	For 1, 2, 3, 4 pin connections to Ramps board headers	Requires a crimping tool, or careful soldering of wire to each pin
	Wire	Amazon	1	\$10.00	\$10.00	Wire Kit Example	22awg wire for motors, endstops, fans, thermistors.	14awg wire for heated bed and Ramps supply
	Receptacle/Switch for 120v power	Amazon	1	\$4.05	\$4.05	IEC320 Male Jack with Switch	Optional, also needs a 5A fuse	5A Fuse
	12v 5050 LED Strip ~45"	Amazon	1	\$8.00	\$8.00	5m 5050 LED Strip	Optional	Optional controller w/ remote, LED strip can also be connected directly to 12v supply
	V-Slot Mini V Wheel	Open Builds Store	20	\$0.90	\$18.00	Mini V Wheel	Select the 20pk for a price break	
	Mini V Wheel Precision Shim	Open Builds Store	20	\$0.20	\$4.00	Precision Shims	Alternate option is to use printed shims	
	MR105Z 5mmx10mmx4mm bearings	Ebay	40	\$0.38	\$15.00	Wheel Bearings 10pk	Need 40, order 4x 10pk	
	F623ZZ Flange Bearing 3x10x4mm	Ebay	16	\$0.79	\$12.58	Flanged Bearing	Need 16, order 2x 10pk	Alternate link - Faster shipping but more expensive.
8mm lead Screw, 400 mm	Amazon	2	\$13.23	\$26.46	Lead Screw	Comes with nut		
625Z2 Bearing	Amazon	1	\$1.98	\$1.98	625Z2 Bearing	For Extruder		
5mm x 8mm Flex Coupling	Amazon	2	\$2.50	\$5.00	Flex Coupling	Order 2pk		
Kit, 2 GT2 Pulley and 2m GT2 belt	Amazon	1	\$9.59	\$9.59	Pulleys and Belt	Comes with (2) GT2 16t Pulley and (1) 2m GT2 Belt		
GT2 Belt, 2m	Amazon	1	\$9.00	\$9.00	GT2 Belt	Total of 2x2m belts needed		
1.75mm MK8 drive pulley	Amazon	1	\$2.29	\$2.29	1.75mm MK8 Pulley			
Spring Kit	Hardware Store	1	\$2.00	\$2.00	Spring Kit	Four bed leveling springs and one extruder tensioner spring		
Glass to match heated bed	Hardware Store	1	\$6.00	\$6.00		Size to fit onto the heated bed PCB		
Binder clips	Desk Drawer	8	\$0.10	\$0.80	Binder Clips	Raid your local office supply cabinet or desk drawer		
Thermal adhesive	Amazon	1	\$2.00	\$2.00	For heatsinks, thermistors			
Rubber Feet	Amazon	4	\$0.50	\$2.00	Rubber Feet	Need 4, ordered 5pk		
Insulation for bottom of bed	Amazon	1	\$2.00	\$2.00	Corkboard	Optional, Attach corkboard to bottom of heated bed with JBweld		
Wire Spiral Wrap, 3m	Amazon	1	\$3.00	\$3.00	Wiring Tube	Optional, For wire management		
PLA Spool, 1kg	Amazon	1	\$22.98	\$22.98	Hatchbox 1.75mm Green	At least one spool is needed to print all parts		
M3 Socket Bolt, 8mm	MrMetric	33	\$0.07	\$2.31	M3 x 8mm Bolt			
M3 Socket Bolt, 10mm	MrMetric	9	\$0.07	\$0.63	M3 x 10mm Bolt			
M3 Socket Bolt, 20mm	MrMetric	13	\$0.11	\$1.43	M3 x 20mm Bolt			
M3 Socket Bolt, 25mm	MrMetric	15	\$0.18	\$2.70	M3 x 25mm Bolt			
M3 Nut	MrMetric	32	\$0.02	\$0.64	M3 Nut			
M3 Nyloc Nut	MrMetric	17	\$0.02	\$0.34	M3 Nylock Nut			
M3 Washer	MrMetric	82	\$0.03	\$2.46	M3 Washer			
M4 Bolt, 30mm	MrMetric	4	\$0.14	\$0.56	M4 x 30mm Bolt			
M4 washer	MrMetric	4	\$0.01	\$0.04	M4 Washer			
M5 Socket Bolt, 10mm	MrMetric	196	\$0.08	\$15.68	M5 x 10mm Bolt			
M5 Socket Bolt, 12mm	MrMetric	1	\$0.17	\$0.17	M5 x 12mm Bolt			
M5 Socket Bolt, 20mm	MrMetric	1	\$0.14	\$0.14	M5 x 20mm Bolt			
M5 Socket Bolt, 40mm	MrMetric	22	\$0.20	\$4.40	M5 x 40mm Bolt			
M5 Socket Bolt, 75mm	MrMetric	1	\$0.46	\$0.46	M5 x 75mm Bolt			
M5 Nut	MrMetric	9	\$0.03	\$0.27	M5 Nut			
M5 Nyloc Nut	MrMetric	14	\$0.07	\$0.98	M5 Nylock Nut			
M5 Square Nut	MrMetric	185	\$0.04	\$7.40	M5 Square Nut	The equivalent amount of OpenBuilds T-nuts is \$40.	Square nuts are used instead because they are much cheaper and function nearly the same.	
M5 Washer	MrMetric	205	\$0.01	\$2.05	M5 Washer			
M5 Washer 15mm OD	MrMetric	2	\$0.03	\$0.06	M5 Washer 15mm OD			
M5 Phillips Flathead Bolt, 8mm	MrMetric	2	\$0.16	\$0.32	M5 x 8mm Phillips Flathead	Optional, for printed cable chain ends		

See sheet two for hardware detail These are all **minimum** quantities, order extra if needed.



\$95.00	Frame Total
\$259.61	Electrical Parts Total
\$103.90	Mechanical Parts Total
\$40.78	Miscellaneous Parts Total
\$43.04	Hardware Total
\$542.33	Grand Total

