	Item	Source	Qty.	Unit Cost	Shipping	Ext. Cost	Link	Comments	Additional Comments
Frame	V Slot Extrusion	SMW3D						Frame sized for 200x200mm bed and 225mm print height	
	- 20x20x1500mm	SMW3D	2	$15.00		$30.00	V Slot Linear Rail	Includes front rail for bed support.	
	- 20x40x1500mm	SMW3D	2	$19.50		$39.00	V Slot Linear Rail		
	- 20x40x1000mm	SMW3D	2	$13.00		$26.00	V Slot Linear Rail		
Electrical	E3D v6 Lite Hot End 1.75 w/ Bowden extras	Filastruder	1	$34.99	$4.00	$38.99	1.75 E3D v6 w/bowden extras		
	Nema 17 Stepper Motor	AutomationDirect	5	$8.99	$10.35	$55.30	Stepper Motor		
	12V/29A Power Supply	Amazon	1	$48.00	$0.00	$48.00	Power Supply		
	RAMPS 1.4 w/ LCD	Ebay	1	$45.00	$0.00	$45.00	MKS Base v1.2 Kit		
	MK3 ALU-Heated Bed Dual Power	SMW3D	1	$14.34		$14.34	PCB Heat Bed		
	Solid State DC Relay	Amazon	1	$10.68	$0.00	$10.68	SSR DC DC Relay	Don't confuse with the SS AC relay, they look similar, read the label	
	100k 3950 Thermistor for bed	SMW3D	1	$0.99		$0.99	100K 3950 with lead thermistor	For heated bed temperature	
	Endstop 3 pack, v1.2	SMW3D	3	$1.25		$3.75	Endstops		
	40mm cooling fans	SMW3D	2			$0.00	40mm fan	Ducted print fan and Ramps board cooling - Should have at the lab.	
	Alternate fan for E3Dv6 heatsink	Digi-key	1			$0.00	30mm Fan	Optional, Alternate quieter fan for the E3D V6 heatsink	
	Wire	SMW3D	4	$0.50		$2.00	22 gauge wire for endstops, motors, and sensors	22awg wire for motors, endstops, fans, thermistors.	14awg wire for heated bed and Ramps supply
	Receptacle/Switch for 120v power	SMW3D	1	$3.99		$3.99	10A 250v Inlet Module Plug Power Socket	Optional	
	12v 5050 LED Strip ~45"	Amazon	1	$8.99	$0.00	$8.99	5m 5050 LED Strip	Optional	Optional controller w/ remote. LED strip can also be connected directly to 12v supply
Mechanical	V-Slot Mini V Wheel	Open Builds Store	16	$0.90		$14.40	Mini V Wheel	Select the 20pk for a price break	
	8mm OD x 5.1mm ID x 7mm aluminum spacers	Aluminumspacers.com	32	$0.34		$10.88	Aluminum Spacers	$6 shipping	
	Mini V Wheel Precision Shim	Open Builds Store	16	$0.20		$3.20	Mini V Wheel Precision Shim		
	MR105ZZ 5mmx10mmx4mm bearings (10 pk)	Ebay	5	$4.99		$24.95	Wheel Bearings 10pk	Need 44, order 5x 10pk	
	F623ZZ Flange Bearing 3x10x4mm (10 pk)	FolgerTech	2	$4.99		$9.98	Flanged Bearing	Need 16, order 2x 10pk	
	8mm lead Screw, 300 mm	Amazon	2	$9.99	$0.00	$19.98	Lead Screw	Comes with nut	
	625ZZ Bearing	SMW3D	1	$1.89		$1.89	625ZZ Bearing	For Extruder	
	5mm x 8mm Flex Coupling	SMW3D	2	$3.30		$6.60	Flex Coupling	Order 2pk	
	Kit, 2 GT2 Pulley and 2m GT2 belt	Amazon	1	$11.99		$11.99	Pulleys and Belt	Comes with (2) GT2 16t Pulley and (1) 2m GT2 Belt	
	GT2 Belt, 2m	Amazon	1	$9.49		$9.49	GT2 Belt	Total of 2x2m belts needed	
	1.75mm MK8 drive pulley	Amazon	1	$2.97	$0.00	$2.97	1.75mm MK8 Pulley		
	Cast Aluminum Corner Brackets	Amazon	2	$10.00		$20.00	Cast Corner Brackets for 20mm Aluminum Extrusion (10-pk)	Need 18, order 2x 10pk	
Misc.	Spring Kit	SMW3D	5	$0.15		$0.75	Springs	Four bed leveling springs and one extruder tensioner spring	
	Thermal adhesive	Amazon	1	$4.99		$4.99	For heatsinks, thermistors		
	Rubber Feet	Menards	1	$1.89		$1.89		4 pack	
	Insulation for bottom of bed	Amazon	1	$8.50		$8.50	Cork Sheet	Already have some	
	Wire Spiral Wrap, 3m	Amazon	1	$5.99		$5.99	Wiring Tube	Optional, For wire management	
	Borosilicate Glass	Ebay	1	$7.95	$6.67	$14.62	Borosilicate Glass 214x200x3mm		
Hardware	6mm plastic stand-off	SMW3D	4	$0.25		$1.00	Plastic Stand-off		
	M3 Socket Bolt, 8mm	MrMetric	24	$0.07		$1.68	M3 x 8mm Bolt		
	M3 Socket Bolt, 10mm	MrMetric	6	$0.07		$0.42	M3 x 10mm Bolt		
	M3 Socket Bolt, 20mm	MrMetric		$0.11		$0.00	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		$0.14		$0.00	M4 x 30mm Bolt		
	M4 washer	MrMetric	0	$0.01		$0.00	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	28	$0.20		$5.60	M5 x 40mm Bolt		
	M5 Socket Bolt, 75mm	MrMetric	0	$0.46		$0.00	M5 x 75mm Bolt		
	M5 Nut	MrMetric	31	$0.03		$0.93	M5 Nut		
	M5 Nyloc Nut	MrMetric	0	$0.07		$0.00	M5 Nylock Nut		
	M5 Square Nut	MrMetric	126	$0.04		$5.04	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		
			766						
	See sheet two for hardware detail	quantities, order extra if needed.							

$95.00	Frame Total	
$232.03	Electrical Parts Total	
$116.33	Mechanical Parts Total	
$36.74	Miscellaneous Parts Total	
$38.91	Hardware Total	
$519.01	**Grand Total**	