



Bear X axis and Extruder

Bill of Materials

Hardware BOM For Prusa Printers

Check the spare parts bags from your Prusa, you might already have most of this list.

Part	Quantity	Detail	Link
Original Prusa i3 MK2s, MK2.5s or MK3s printer	1		Prusa
Dow el pin diameter: 2.90-2.95mm length: 15mm to 15.8mm	1	 Cut a M3 screw if you can't find one	
M3x10mm socket head screw (ISO 4762)	14		McMaster-Carr
M3x14mm socket head screw (ISO 4762)	4		McMaster-Carr
M3x18mm socket head screw (ISO 4762)	14		McMaster-Carr
M3x25mm socket head screw (ISO 4762)	2		McMaster-Carr
M3x40mm socket head screw (ISO 4762)	6		McMaster-Carr
M2x12mm socket head screw (ISO 4762)	2	 MK2.5 only	McMaster-Carr
M3 Hex nuts (DIN 934)	14		McMaster-Carr
M3 Hex nylock nuts (DIN 985)	4		McMaster-Carr
M3 Square nuts (DIN 562)	7	1.8mm thick and 5.5mm w ide	
M3 Steel w asher (DIN 125), 0.5mm thick	5		
Zip ties 2.5x100mm	6		

Additional BOM for scratch build

Part	Quantity	Specifications	Link
Bondtech gears	1	1.75mm/5.0mm w ith its 20mm shaft	Bondtech
X axis stepper LDO 42STH38-1004A100CM	1	Datasheet	Prusa
Extruder stepper LDO Cool Pow er 42STH40-1004ASR	1	Datasheet	
Tr8x8 (P2x4) Nuts	1	Datasheet	Prusa
Hotend Fan	1	40x40x10 mm 5V w ith Tachometer (3 w ires) Check recommend fans	
Filament sensor w ith magnets, steel ball and cables	1	1x IR Sensor: GitHub Prusa 1x Steel ball 8mm diameter 1x Magnet 20x6x2	Prusa

		1x Magnet 10x6x2	
2GT 20T idler	1	3mm bore smooth or toothed Check this optional part for E3D idler	
Spring	1	15mm length (relaxed) inside diameter: 3.2mm wire diameter: 0.8mm	Prusa
Smooth rods	2	8mm diameter H6 370mm long	Prusa
Gates LL-2GT RF belt	1	6mm width 880mm long	Prusa

 : You need to have ordered a Prusa printer and need to login on Prusa store to see the articles. Alternatively checkout our [official distributors](#)

Printed Parts BOM

Part	Quantity
cable_guide_back_a	1
cable_guide_back_b	1
extruder_body	1
extruder_cover	1
extruder_idler_bondtech	1
filament_sensor_cover	1
hotend_collet_clip	1
x_carriage	1
x_carriage_back	1
x_end_idler	1
x_end_idler_idler_mount	1
x_end_motor	1