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PARTS LIST AND BILL OF MATERIALS

1 Plastic printed parts

Part Number	Name	Material	Weight (infill 60%)
1	RollerMK7	TPU	1,22 g
2	X-CarriageMK7	PETG	43,34 g
3	ExtruderBodyMK7	PETG	54,76 g
4	TopCoverMK7	PETG	17,51 g
5	FrontTrapMK7	PETG	14,29 g
6	BackTrapMK7	PETG	5,21 g
7	SliderCartMK7	PETG	3,46 g
8	BearingFixAMK7	PETG	0,31 g
9	BearingFixBMK7	PETG	0,39 g
10	Blade HolderMK7	PETG	0,64 g
11	Cutter LeverMK7	PETG	2,04 g
12	PlugMK7	PETG	1,38 g

The ExtruderBody and the X-Carriage were designed starting from step files of the original PRUSA parts published by jzkmath that can be found [here](#).

As this is a mechanism with moving parts, all printed parts must have certain quality. Tolerances have been set so printing and assembly are simple enough but you must make sure that the relevant surfaces (sliding or rotating parts) are clean enough to perform properly.

2 Bill of Materials

You will need all the usual MK3 hardware and...

- A- 3 M3 x 30 bolts (Better Allen head but not compulsory)
- B- 3 square M3 nuts
- C- 1 M3 x 12 mm normal slotted or philips bolt (NOT Allen, neither Hex) (i.e. ISO 1207 and many others)
- D- 1 M3 x 18 Bolt (Better Allen head but not compulsory. M3 x 20 will do too)
- E- 1 M5 nut (better brass)
- F- 1 M3 x 12 bolt (Better Allen head but not compulsory)
- G- 1 M3 x 4 bolt (Better Nylon6, but not compulsory)
- H- 1 [Bearing OD 6 mm ID 3 mm thickness 2 mm](#) [1]
- I- 4 [Neodymium magnets diameter 10 mm x thickness 2 mm](#) [2]
- J- 3 [Neodymium magnets diameter 3 mm x thickness 2 mm](#) [3]
- K- 1 Blade 8 mm x 8 mm aprox

Regarding the blade.

The blade is not meant to cut the filament, but only the hairs, therefore it has to be very sharp, just like new. If it has been already working cutting filament it is better to use a new one.

The size of the blade is the same as the one that PRUSA provides with the MMU2.

Incidentally, this is the same size as all the small cutters you will find for school kids, so if you lost your PRUSA's useless blade, don't worry. They are easy to replace without contacting them.

Just for fun about PRUSA's shop prices, have a look at these two links of basically the same product: the pulley gears, and I do not imply that they are the same quality.

[4] <https://shop.prusa3d.com/es/mk3-printer-parts/210-bondtech-drivegear.html>

[5] <https://www.aliexpress.com/item/Funssor-stainless-steel-hobbed-pulley-driver-gear-Prusa-i3-MK3-Extrusion-Wheel-Cloned-Btech-Dual-Gears/32904909191.html?spm=a2g0s.9042311.0.0.ed404c4dPPPC8C>

LINKS

1 – Bearing Aliexpress: https://www.aliexpress.com/item/10Pcs-High-quality-MR63ZZ-2-ball-bearing-3x6x2-mm-deep-groove-ball-bearing/32829923066.html?spm=2114.search0104.3.1.b1d6626fHVlohy&ws_ab_test=searchweb0_0.searchweb201602_3_10065_10068_10547_319_10891_317_10548_10696_453_10084_454_10083_10618_431_10307_10820_10301_10821_10303_537_536_10059_10884_5736015_10887_100031_321_322_10103_5736115.searchweb201603_56.ppcSwitch_0&algo_expid=4e89440a-e4bd-47ba-86fc-616304724ed6-0&algo_pvid=4e89440a-e4bd-47ba-86fc-616304724ed6&transAbTest=ae803_4

2 – Magnet Aliexpress: https://www.aliexpress.com/item/HYSAMTA-50pcs-Neodymium-magnet-10x2-Rare-Earth-small-Strong-Round-permanent-10-2-mm-fridge-Electromagnet/32922351656.html?spm=2114.search0104.3.8.733a4060GeZ0ix&ws_ab_test=searchweb0_0.searchweb201602_3_10065_10068_10547_319_10891_317_10548_10696_453_10084_454_10083_10618_431_10307_10820_10301_10821_10303_537_536_10059_10884_5736015_10887_1

[00031_321_322_10103_5736115-10891.searchweb201603_56.ppcSwitch_0&algo_expid=ffe3bbb1-b1fb-44ee-a675-8130ec215cc1-1&algo_pvid=ffe3bbb1-b1fb-44ee-a675-8130ec215cc1&transAbTest=ae803_4](https://www.aliexpress.com/item/50pcs-3-x-2-mm-N50-Grade-Small-Mini-Disc-Super-Strong-Magnet-Powerful-Round-Rare/32463749658.html?spm=2114.search0104.3.29.40b02187yL1vSq&ws_ab_test=searchweb0_0.searchweb201602_3_10065_10068_10547_319_10891_317_10548_10696_453_10084_454_10083_10618_431_10307_10820_10301_10821_10303_537_536_10059_10884_5736015_10887_100031_321_322_10103_5736115.searchweb201603_56.ppcSwitch_0&algo_expid=1a1ecb82-9afb-4aa8-9744-ffab0f8bdf68-4&algo_pvid=1a1ecb82-9afb-4aa8-9744-ffab0f8bdf68&transAbTest=ae803_4)

3 – Magnet Aliexpress: https://www.aliexpress.com/item/50pcs-3-x-2-mm-N50-Grade-Small-Mini-Disc-Super-Strong-Magnet-Powerful-Round-Rare/32463749658.html?spm=2114.search0104.3.29.40b02187yL1vSq&ws_ab_test=searchweb0_0.searchweb201602_3_10065_10068_10547_319_10891_317_10548_10696_453_10084_454_10083_10618_431_10307_10820_10301_10821_10303_537_536_10059_10884_5736015_10887_100031_321_322_10103_5736115.searchweb201603_56.ppcSwitch_0&algo_expid=1a1ecb82-9afb-4aa8-9744-ffab0f8bdf68-4&algo_pvid=1a1ecb82-9afb-4aa8-9744-ffab0f8bdf68&transAbTest=ae803_4

4 – Pulley Bear PRUSA's shop

5 – Pulley Gears Aliexpress