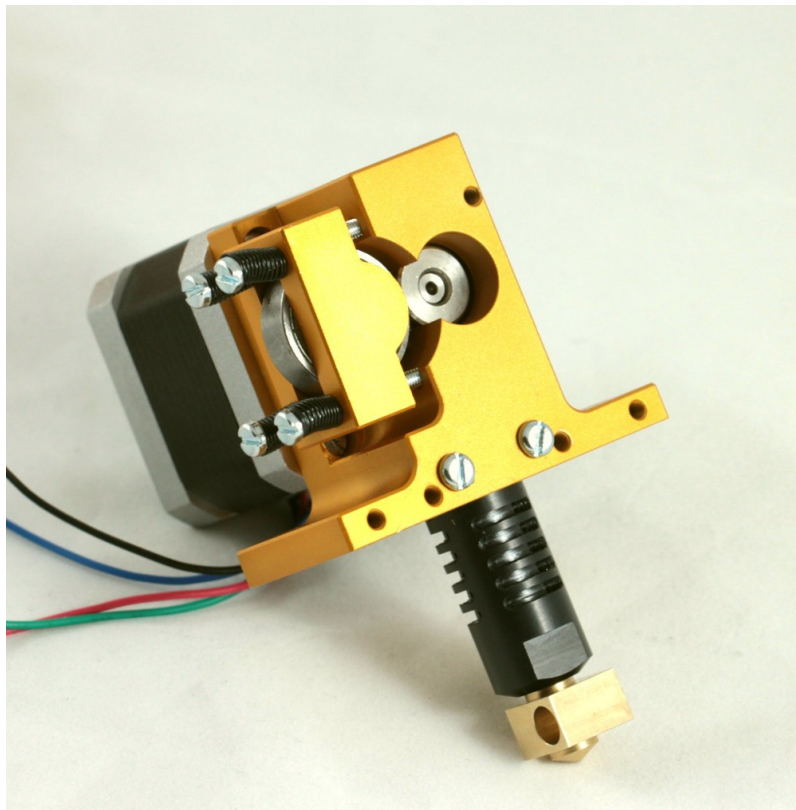




# Metal extruder body Bowden setup

## Assembly manual



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## ABOUT THE FULL METAL EXTRUDER BODY

The first iteration of a full metal cold end with direct driving of 1.75mm filament is now available from ReprapWorld.com. Less wearable parts improves reliability, while a better controlled filament flow improves the quality of you prints.

The body is made from anodized aluminum, professionally made with CNC machines, finished with a nice gold color. It fits on most RepRap carriages by, which comply with the 5cm 3mm holes. The mounting is compatible with a J Head type PEEK holder.

The hot end is sold separately

## CHANGE HISTORY

Document version	Changes
1.0 – 22/01/2014	Initial release
1.1 – 03/06/2014	Added bowden setup



## CONTENTS – FULL METAL COLD END

Item	Contents
	Extruder body Extruder idler Idler bar
	Bearing 608 (1x)
	M3 10mm screws (4x) M3 20mm screws (2x) M3 25mm screws (4x)
	Compression springs 5mm OD (4x)
	MK7-compatible Drive gear 5MM shaft Small m3 grub screw





Small nema 17 Stepper motor

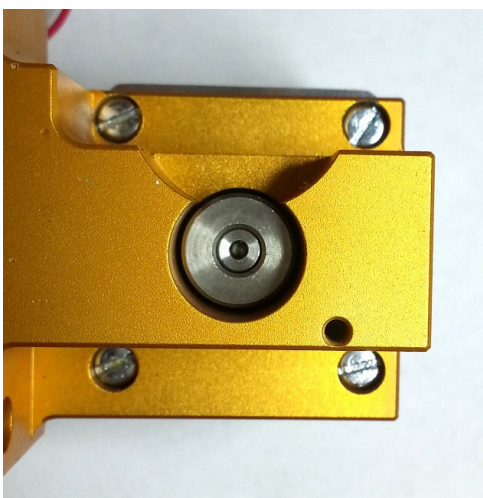


5mm washer

## ASSEMBLY – COLD END

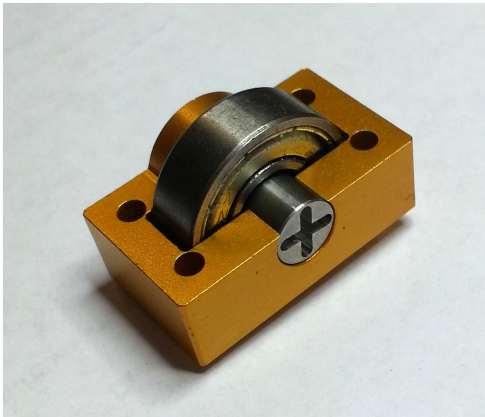


First mount the MK7 drive gear onto the motor shaft. Align it too the filament shaft and fix the grub screw.



Mount the stepper motor to the body using the 10mm M3 screws.





Put the 608 bearing into the idler, and put the idler bar through the hole. Screw it tightly into place.



Put the springs onto the 25mm screws. Put them through the four idler holes and fasten them a bit. Wait till after the filament is inserted, before fastening them more.





Put the 5mm washer into the hotend hole.



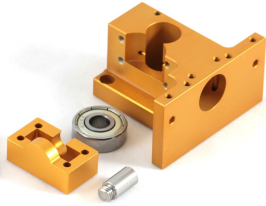



To make sure the hot end is tightly in place the washer adds some distance, but it's hard to screw the 20mm screws into the body to fix the nozzle holder. Vile off a bit of the the corners of the peek nozzle holder, until the screws can be easily screwed into the body, but be careful to not vile of to much to loosen the holder again. Best is to try and vile until it fits nicely.





## CONTENTS – BOWDEN SETUP

With the 2 metal cold ends and the bowden carriage mount, you can build a dual head bowden system. Advantage of this sysem is that the weight of the X axis is greatly reduces, because the stepper motors are placed on the side.

Item	Contents
	2x Full metal cold end (J Head, 1.75mm)
	Bowden setup carriage mount
	PTFE tubing (3m)
	2x Bowden setup - J head comp. plug set (1.75mm)

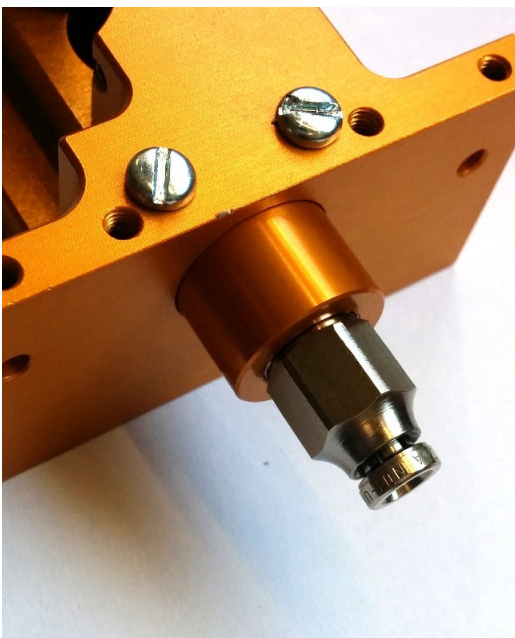
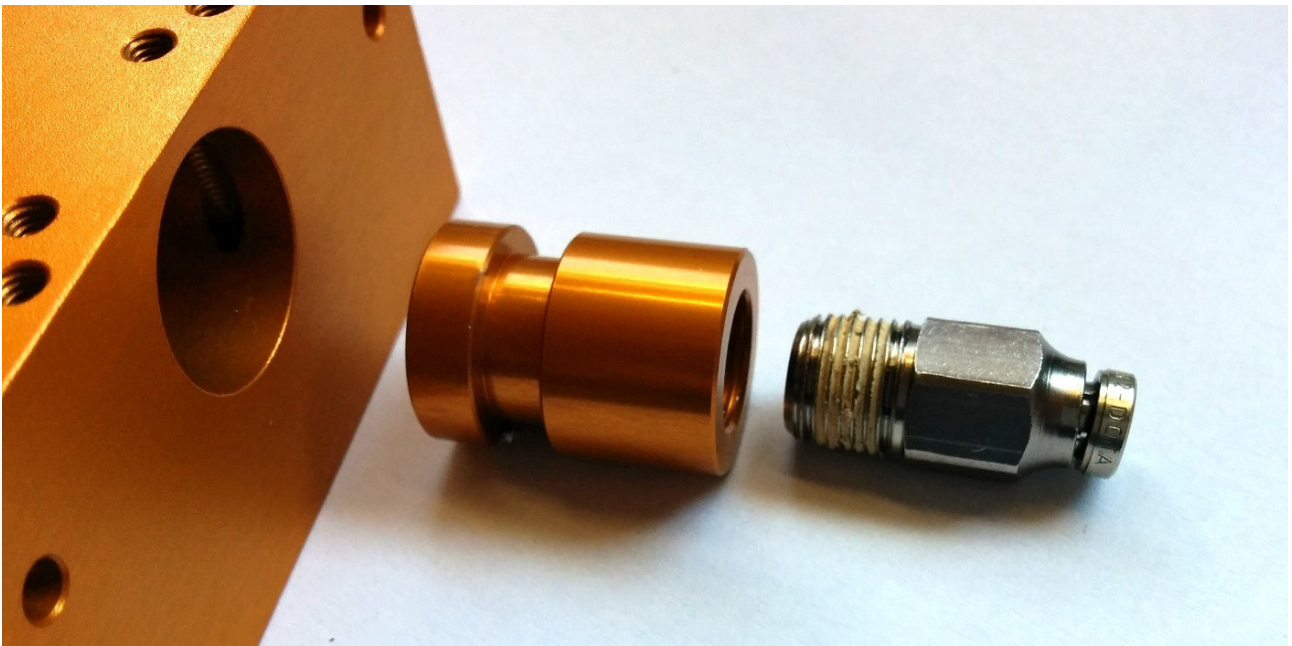


J Head compatible hot end set (1.75mm)

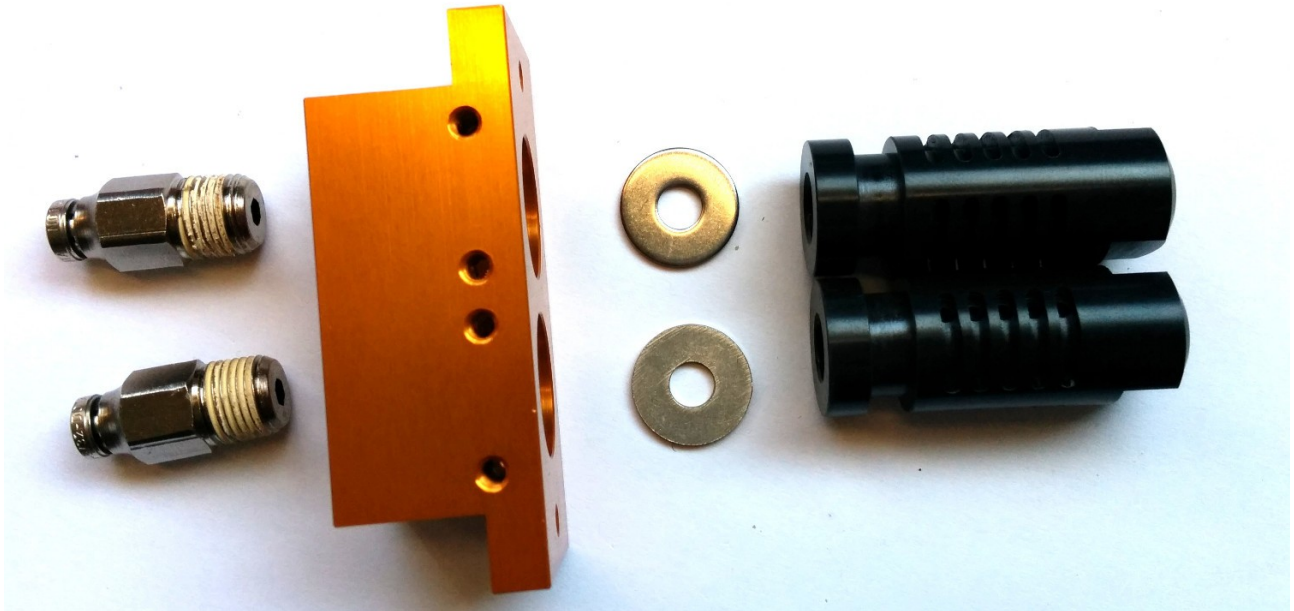
## ASSEMBLY – BOWDEN SETUP

First assemble the cold end as per the assembly instructions, up to page 7. Do not mount the hot end.

First step is to assemble the pneufit adapter into the plug. Fasten it with two m3 screws. The plug may be hard to insert into the body. Just press very hard.



Next assemble the carriage mount. Use the washers to fix the (assembled) hot end very tightly, so it can't move





Finally cut the PTFE tubing to the desired length and put it into the pneufit adapters.

