

Ultralight Gantry manual

Suivi des évolutions

Indice	Date	Description de l'évolution	Auteur
0.0	27/06/2022	Création	FBR

BOM :

Printed parts

Joiner L	X1
Joiner R	X1
Clamp	X2
X-endstop	X1

Hardware :

M3 Washer	X20 (depending the X length) TITANIUM
M5x40 (Top rail)	X12 TITANIUM
6mm alu spacer OR 12mm printed spacer	X8 / x4
Hex nut nylstop M5	X2 TITANIUM
M5x30 (under rail)	X8 TITANIUM
F695-ZZ / 2RS	X8
695-ZZ / 2RS	X4
Hex nut nylstop M4	X4 TITANIUM
Shoulder bolts m4D5 45mm	X4
Hex nut (nylstop) M4	X20 (depending the X length)
Washer M5	X4 TITANIUM
M3 8mm	X20 (depending the X length)
Flanged m5 nut	X4 TITANIUM
Microshim 1mm m5	X12

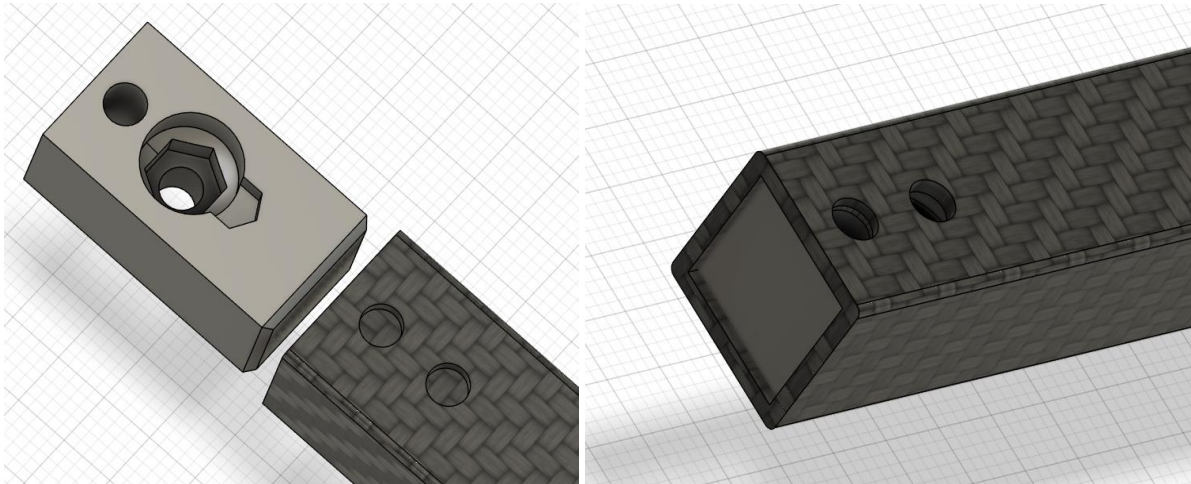
M5x45mm

X2 TITANIUM

Part preparation

The process is the same between the TOP RAIL and the BOTTOM RAIL iterations

CHECK THE CLAMP INSERTS



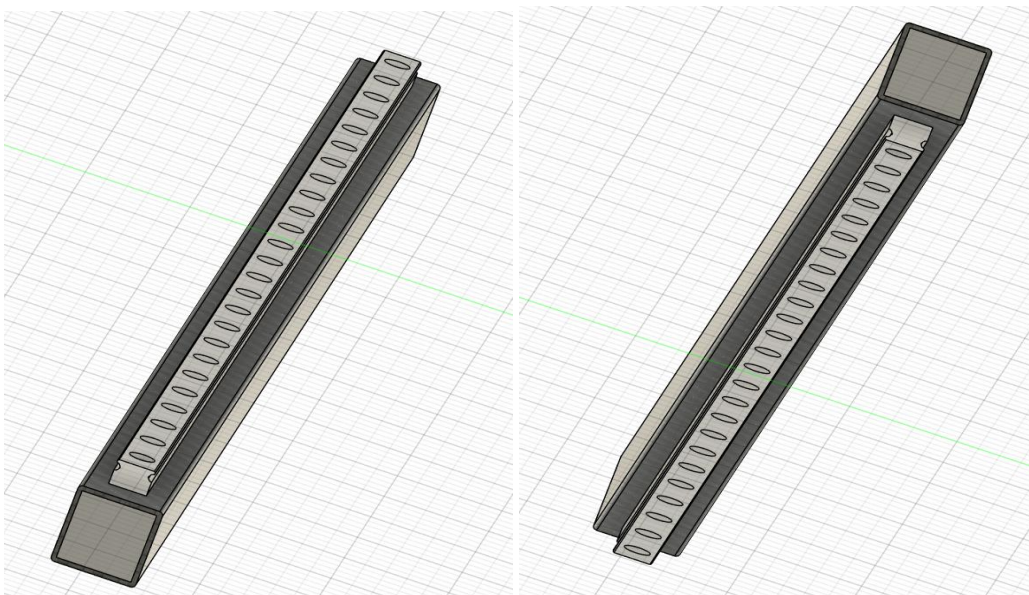
In order to completely secure the CF tube, this clamp goes inside each ends of the tube, to avoid crushings, and allow a very stiff assembly

The Clamp must be printed with 100% infill

It house a flange m5 nut

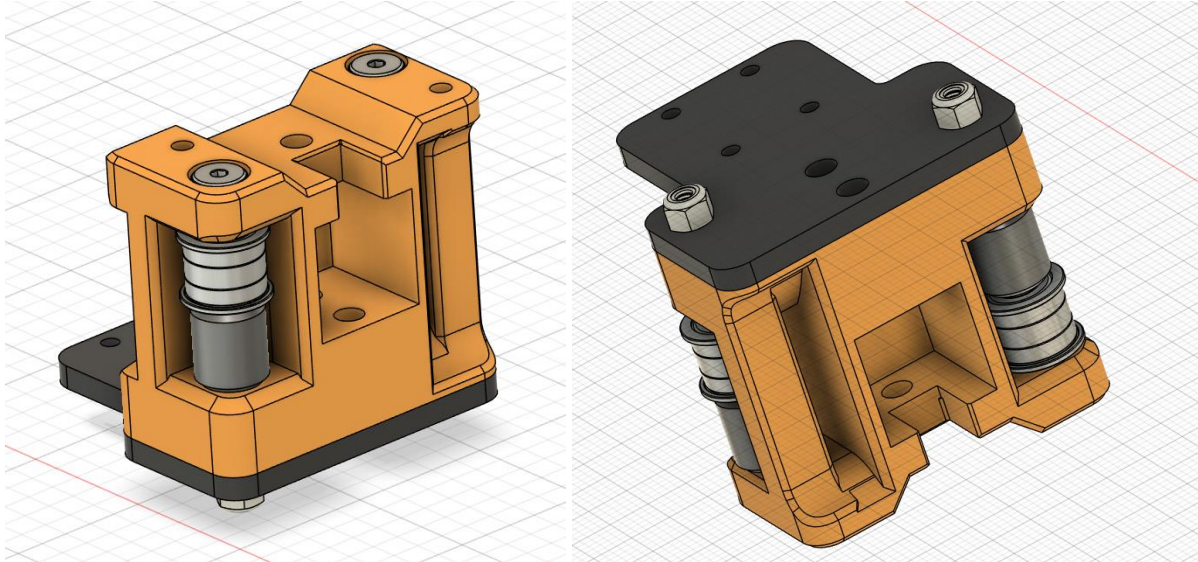
The CAD and the part you received are a bit larger, you will need to sand it a bit to be able to insert it with a bit of a resistance, NO PLAY should occurs

(I assume here you already drilled the CF tube for the MGN rail, and assemble it the way you choosed, top or bottom)

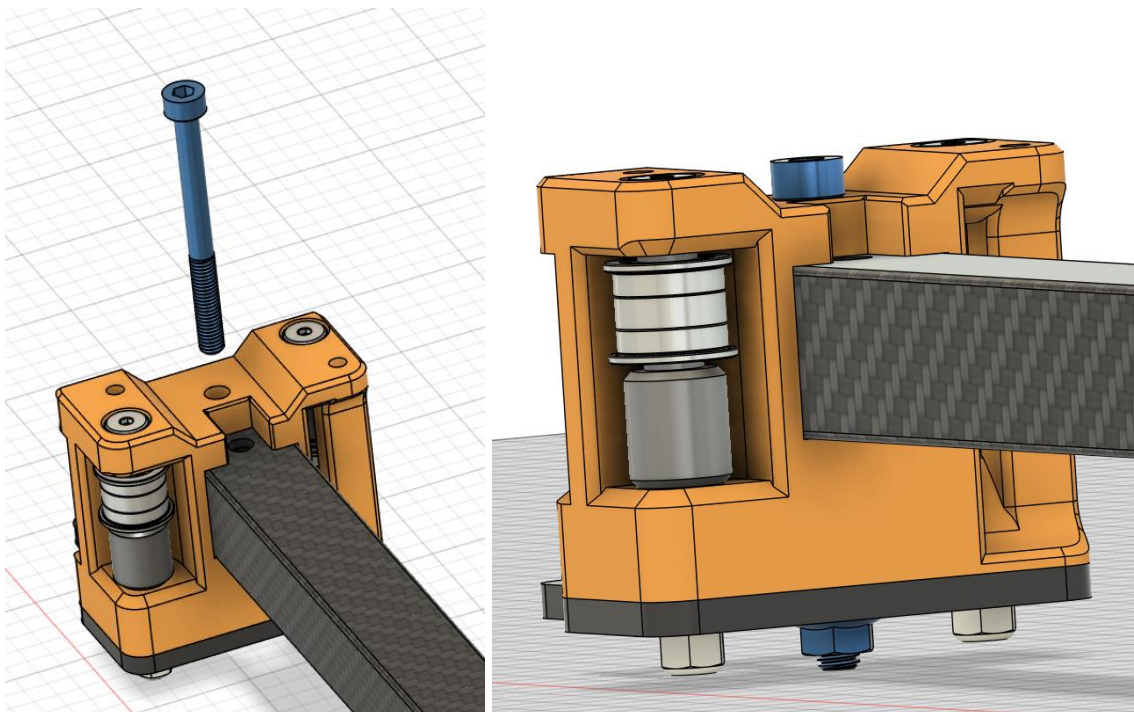


Joiner built

You can assemble the 2 joiners



You can go for standard stock RR idlers, or the better solution of F695 bearings stacks (photos). Use the 2x 45mm shoulder bolts. Don't forget the 2 microshim m5x1mm on each side of each stack. Secure the bolt with the 2 m4 nyloc, no need to crush it!

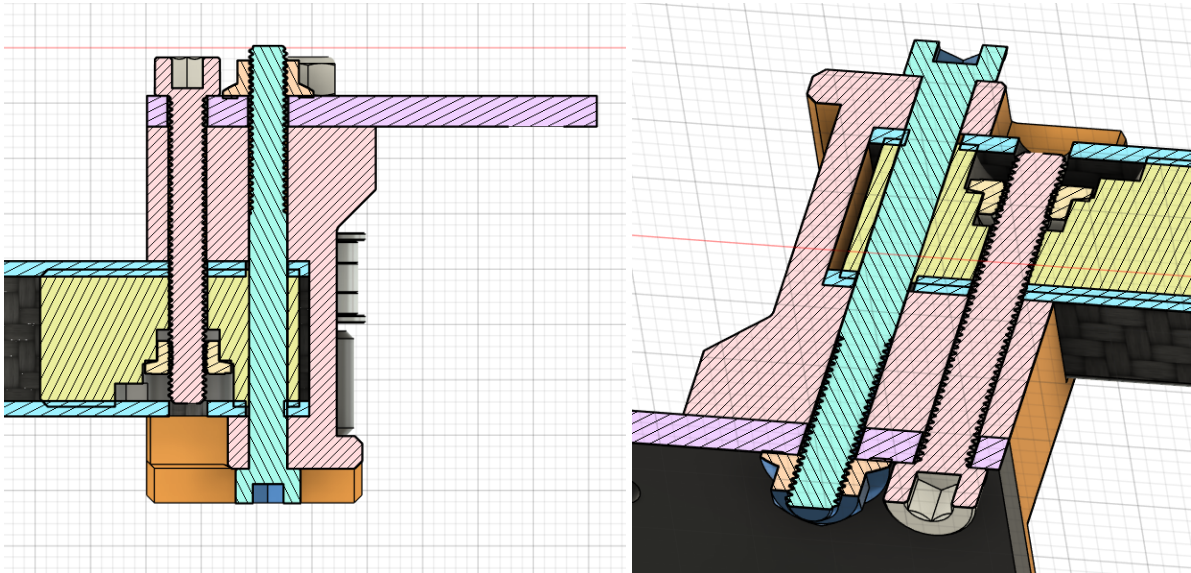
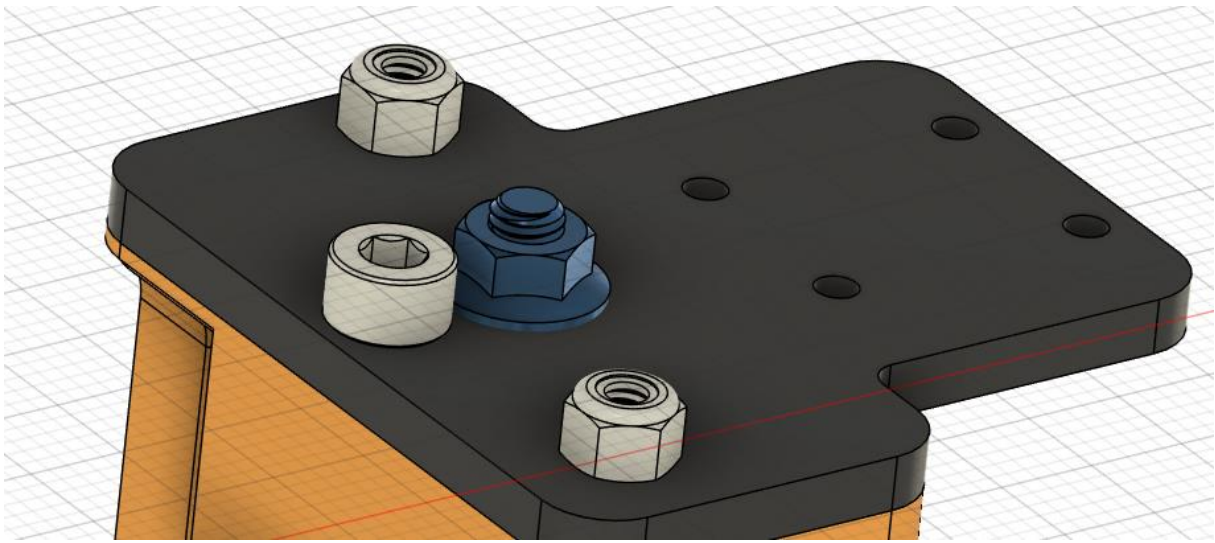


Secure the full assembly with the m5x45 screw

For the UPPER RAIL: A 40mm m5 from the bottom to secure the clamp

For the UNDER RAIL: A 30mm M5 from the top

Don't forget to put a shim on the 2 M5 bolts



Here an insight