

firepickdelta

Assembling the Delta carbon rods

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Part	Qty	Description	Notes/Remarks
10	2	Upper spring rod holder	3D0020 - Delta rod - Upper spring rod holder
11	2	Lower spring rod holder	3D0021 - Delta rod - Lower spring rod holder
12	2	Carbon fiber rod	M3x10mm x 270mm
13	2	Carbon fiber rod	M3x10mm x 270mm
14	2	Carbon fiber rod	M3x10mm x 270mm
15	2	Carbon fiber rod	M3x10mm x 270mm
16	2	Carbon fiber rod	M3x10mm x 270mm
17	2	Carbon fiber rod	M3x10mm x 270mm
18	2	Carbon fiber rod	M3x10mm x 270mm
19	2	Carbon fiber rod	M3x10mm x 270mm
20	2	Carbon fiber rod	M3x10mm x 270mm

NOTE: THIS SETS OF THIS ASSEMBLY ARE NEEDED PER MACHINE (ONE FOR EACH AXIS)

SURE THAT ALL M3 SCREW HEADS FACE THE SAME DIRECTION (THESE APPEAR INCORRECT IN THE 3D MODELS, BECAUSE I'M TOO LAZY / BUSY TO FIX THEM)

USE 3D PRINTED PIECES (3D0020 AND 3D0021) TO THE CARBON FIBER RODS USING 2-PART EPOXY OR CYANOACRYLATE (MEDIUM OR HIGH VISCOSITY)

USE A JIG TO ENSURE THAT EACH GLUED ROD IS EXACTLY 270mm, CENTER-TO-CENTER

NO / ROUGHEN EDGES OF CARBON FIBER RODS BEFORE GLUEING. WIPE WITH 100% ALCOHOL BEFORE GLUEING.

THE ASSEMBLY MUST ROTATE FREELY (i.e., A PARALLELOGRAM)

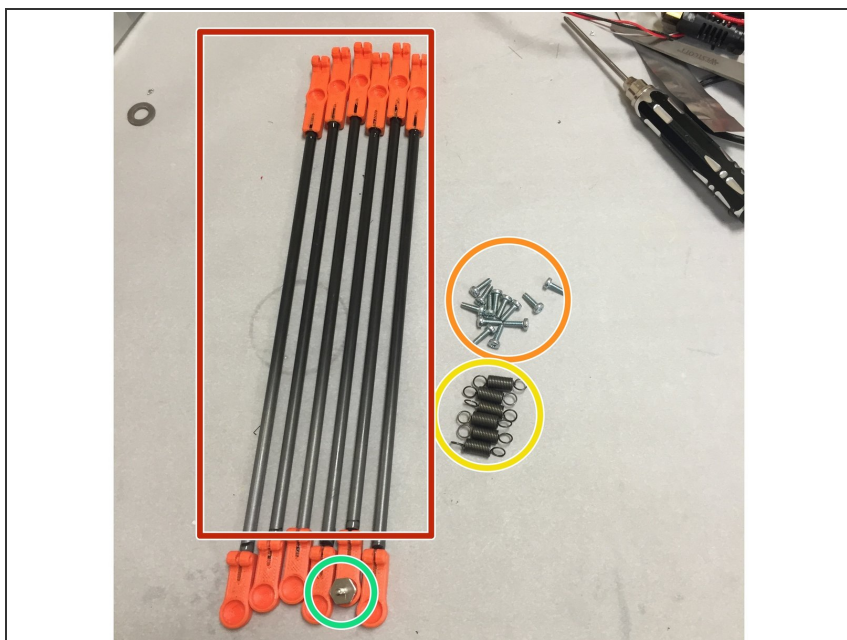
Section A-A

Delta rod spring assembly

Rev	Date	Author	Checked
1			

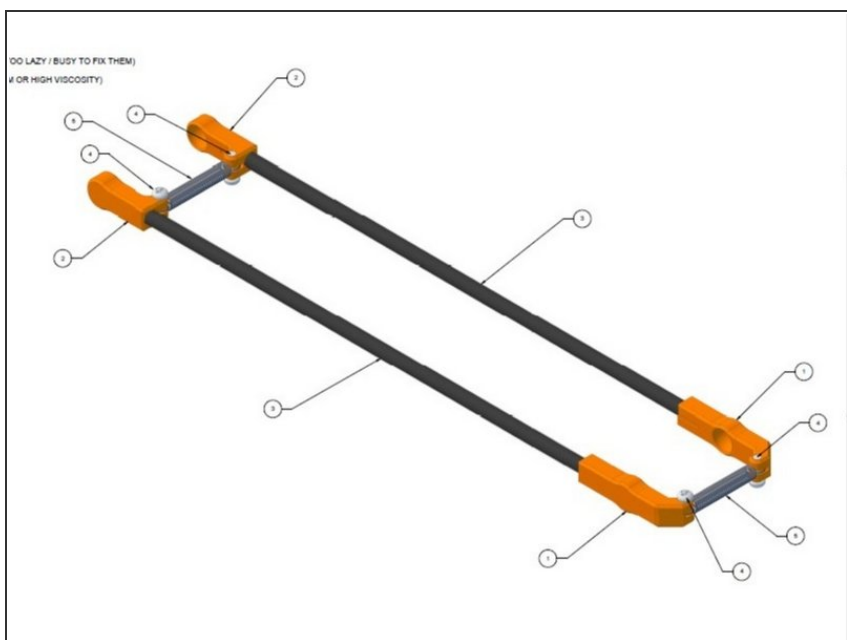
TIN WHISKERS TECHNOLOGY

Step 1 — Gather Parts



- 6x AD0003b - Carbon Rod Assembly with Spring sockets
- 12x - FPAN-M3-10L pan-head M3 x 10mm screws
- 6x MSPRING02 - Delta arm tension springs
- (Optional) 1x ball-stud from the ball-stud bag, for spot check

Step 2 — Exploded View Reference



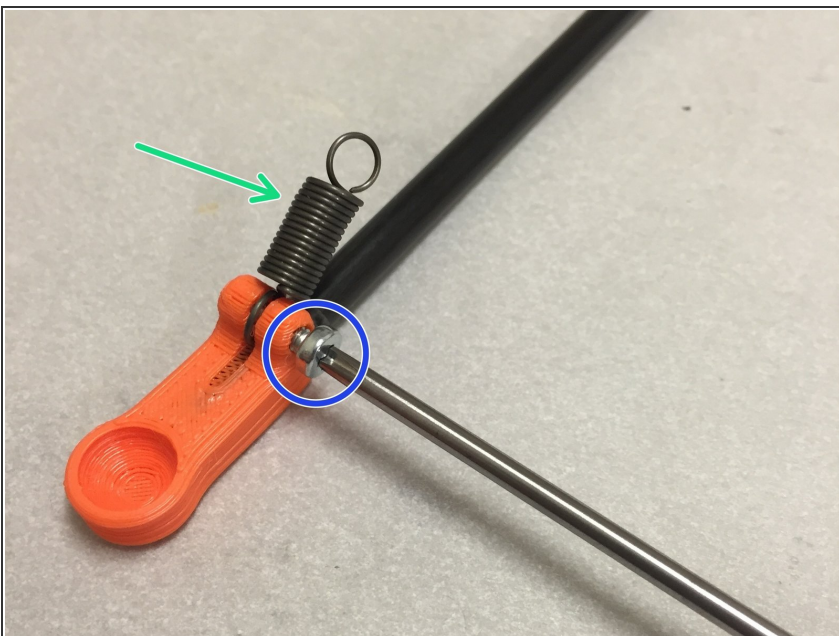
- [PDF Link](#)

Step 3 — Inspect Rods



- ① We pre-assembled the delta rods that came in your beta kit. This leaves all the hard stuff (cutting carbon fiber rods, epoxying, 3D printing) to us. We use a custom jig to ensure that the cups are exactly 270.0 millimeters, center to center.
- Inspect the ball-cup areas of the orange PLA pieces, on the rods. Ensure that they're round, there are no 3D printing defects. You may use one of the ball-studs as a fit check.
- Ensure that the epoxy has held and that the carbon rods and 3D printed pieces are secured and don't move.

Step 4 — Attach the Springs



- Grab a tension spring.
- Using M3 x 10mm pan-head screws, attach the tension springs as shown. Do this on both sides for three of the rods.
- ① Don't worry if the screws don't have much tension (i.e. they don't feel like they are "screwing in" much). The spring tension on the screw threads will be more than enough to keep the screws from walking out.

Step 5 — Attach Spring to Other Rod



- Now take the remaining rods and attach them to the other side of the spring.
- Do this for the remaining rods.

Step 6 — Done!



- Your arms are complete.