

Precision Aero Products

Adjustable Battery Tray Kit

Precision Aero Products Pty Ltd

ABN 34603116123

Tel: +61 0478909530

<http://www.precisionaeroproducts.com.au>

sales@precisionaeroproducts.com.au

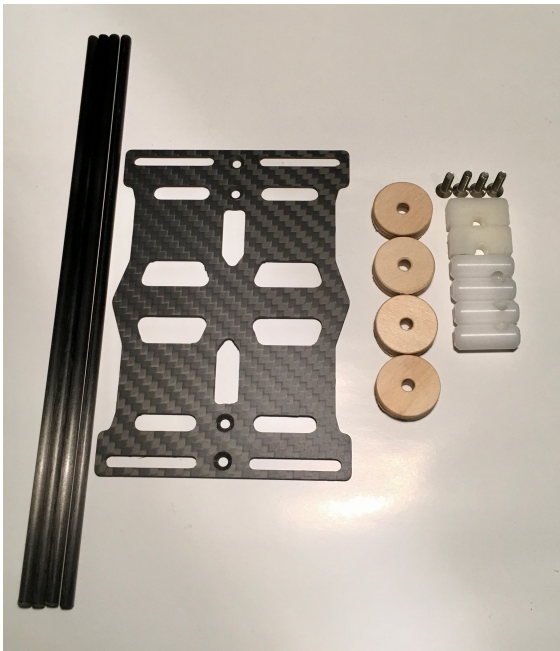


Installation Notes

Thank you for choosing to purchase a Precision Aero Products Adjustable Battery Tray Kit. This product is proudly designed and manufactured in Australia by Precision Aero Products.

The kit is comprised of the following items:

- 1.5mm Carbon Battery Tray (1).
- 4mm x 200mm carbon rod (4).
- 6.5mm Ply Doughnuts (4).
- 8mm OD, 20mm long Delrin Rod Joiners (4).
- Delrin Rod Clamps (2).
- M3 x 12mm CSK SS Screws (4).
- M3 x 4mm Grub Screws (4). (Fitted to Delrin Rod Joiners).



Additional items & tools required:

- Small spirit level.
- Steel ruler.
- 400mm Velcro Battery Straps (2).
- 20-25mm Velcro Dots. Available at the hardware.
- Dremel tool with sanding drum (optional).
- Epoxy resin (30 minute).
- Glass powder (optional).
- 220 Grit Sand Paper.
- Methylated Spirits or IPA.
- Personal Protective Equipment (PPE) – Dust mask, eye protection and rubber gloves.

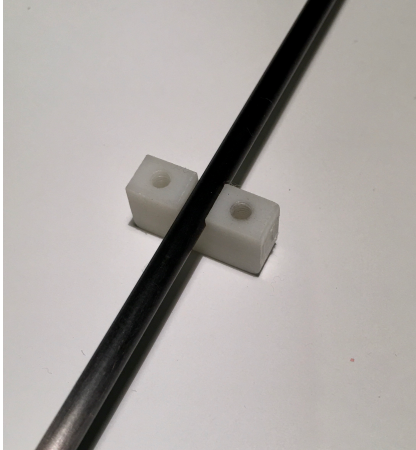
1. The first step is to remove any sharp edges from the area where the battery straps pass through the carbon plate. These are the outer slots. A small strip of sand paper makes short work of this.



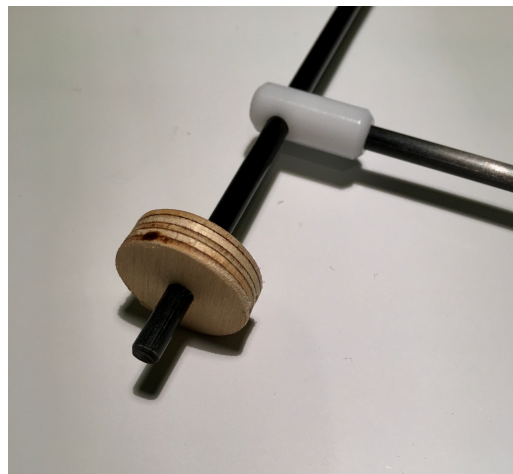
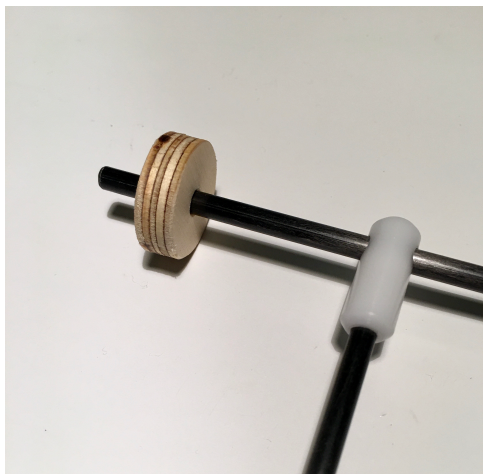
2. Next you need to decide how long the main rails will be. In my Alchemy Pro I cut the carbon rails to get 200mm distance between the front and rear cross rails. Rough up the last 15mm of each rail with sandpaper. Clean the carbon and Delrin Rod Joiners with methylated spirits or IPA. Cotton buds help clean inside the Rod Joiners. Mix up some 30 minute epoxy and wipe some around the last 10mm of the carbon rods and then insert into the Rod Joiners. Wipe off any excess. Also ensure no epoxy gets into the cross rail holes. Insert the cross rails into each rod end on both ends and lay flat on the bench to cure. You want to try keeping things as square as possible whilst curing.



3. Determine the approximate positioning of the battery tray in your model. The cross brace carbon rods will need to be trimmed to match your fuse. Some scrap balsa will help to determine the lengths of rod needed. Cut the cross brace rods to length and then sand the last 10mm of each end. Push the Delrin Rod Clamps onto the carbon rails. They should be a neat fit. Space the two rails so the holes in the carbon plate match the Rod Clamps and then secure with the M3 x 12 CSK screws provided.



4. Slip the 6mm ply doughnuts onto the ends of each cross brace as shown. Dry fit the tray into your model. The ply doughnuts can be sanded to suit the contours of the fuse if needed. Once happy with the fit and alignment, mix up some more epoxy and glass powder (if you have it). Apply the epoxy to the rod ends and ply doughnut faces. Then fit the tray into the fuse and slip the doughnuts up to the fuse sides. A small line level really helps get things level side to side and front to back. They're light too. Now watch the glue cure...



5. Once the epoxy has cured I normally lay the fuse on its side to add a little epoxy fillet around each carbon rod and each doughnut. Repeat for the other side of the fuse too. Centralise the tray on the cross rail and then gently tighten the grub screws in the end of each delrin Rod End. They don't need to be ultra tight just enough to grip the carbon rod.

We use Hacker 400mm Velcro straps with this tray. We also add the velcro dots in the positions shown below. The screws in the battery tray are used to centralise the battery packs. A corresponding permanent in mark is put on the side of each pack.

To adjust the battery (CG position) simply loosen the four M3 screws and slide the carbon plate to the desired position. Retighten the four M3 screws and you're done. Don't over tighten the screws.

