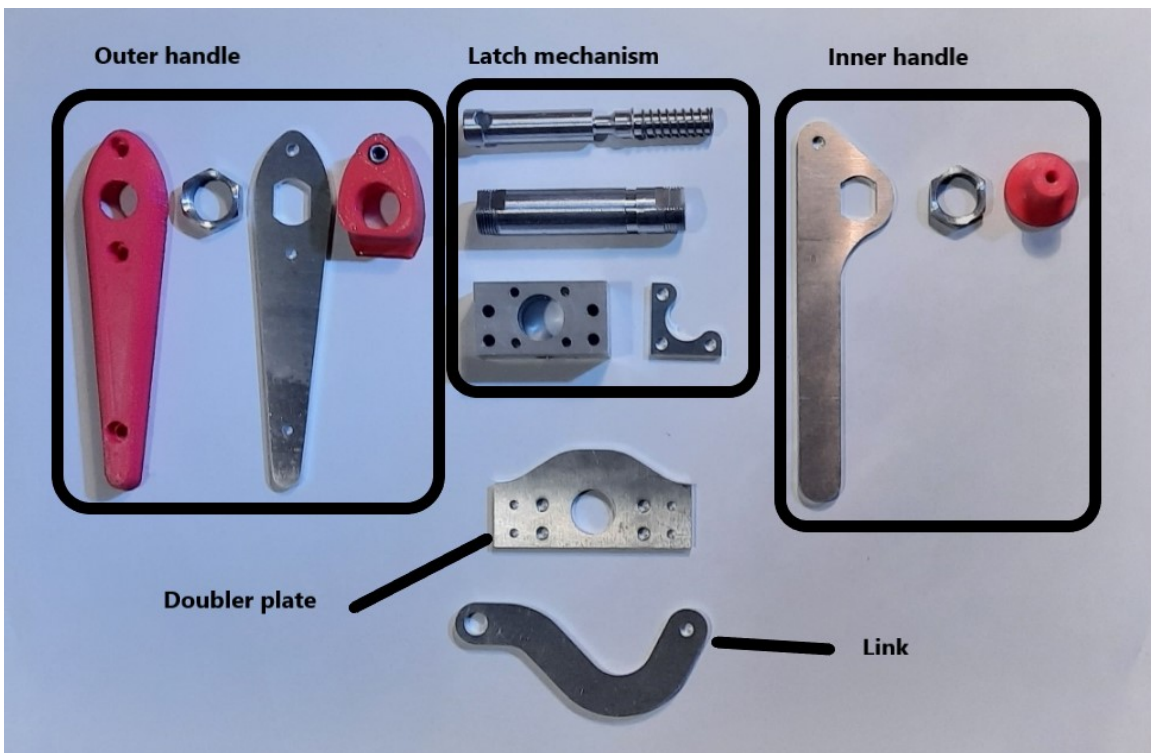
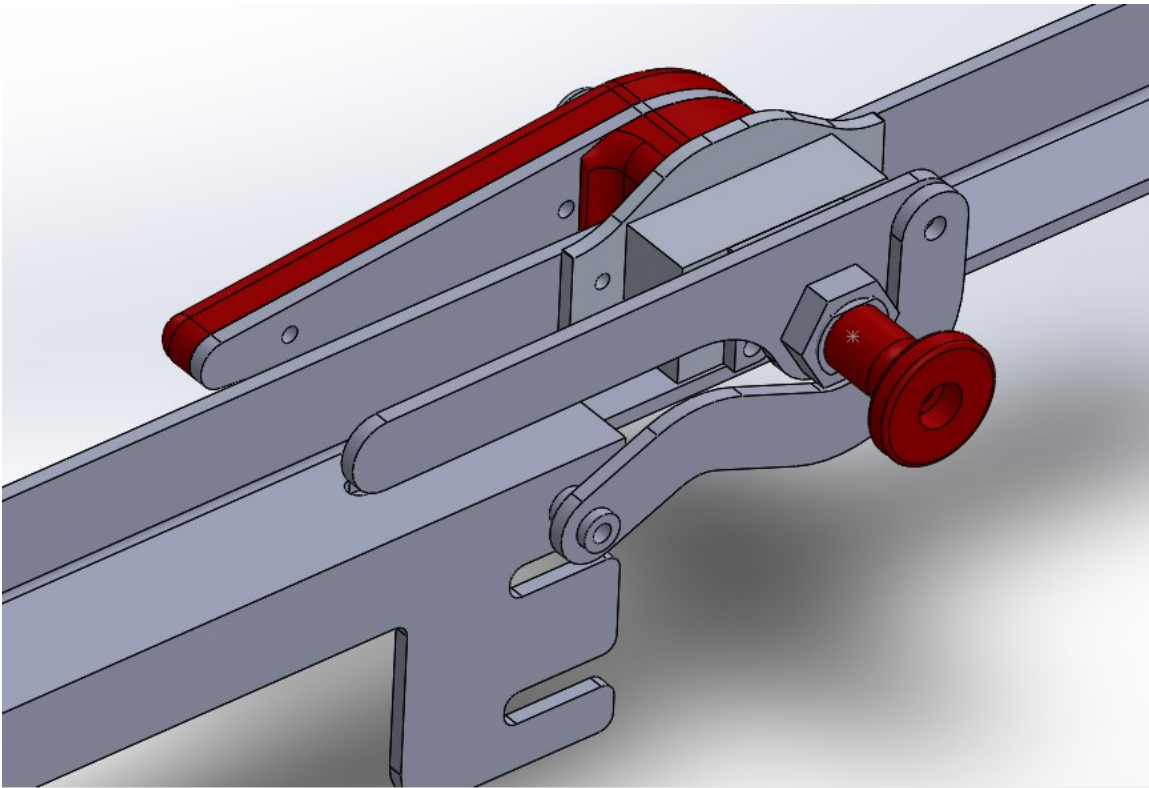


Sonex B model canopy latch – fitting instructions



Outer handle group consists of:

Outer trim – plastic

5/8” UNEF nut – 6061T6

Outer handle – 6061T6

Inner trim – plastic

Not shown – M4 x 10 cap screws (2) M4 x 20 cap screw (1) M4 nyloc nut

Latch mechanism group consists of:

Main shaft – 6061 T6

Press release shaft – 6061 T6

Spring – C08-02 0.8mm wire, 10mm od, 10 coils, 25mm free length

Housing – 6061 T6

Retaining plate – 6061 T6

Not shown – 3/16” ball, M4 x 10 dome head cap screws (3)

Inner handle group consists of:

Inner handle – 6061 T6

5/8” UNEF nut – 6061T6

Release knob – plastic

Link (shown separately)

Not shown – M4 x 25 button head cap screw (1), AN3-5 bolt (1), AN310-3 nut (1), AN960-10 washer (1), MS24665-208 cotter pin (1)

Also supplied

Doubler plate

Pin with flange

Drill guide

CCC-44 rivet (4)

Spare 3/16” ball

M4 x 25 flush head cap screws (5)

M4 nyloc nuts (5)

Tools needed

¾” AF or 19mm wrench

7mm wrench (9/32” AF is pretty close)

Hex keys, 2.5mm and 3mm

3.2mm drill bit

4mm drill bit

3/16” drill bit

Step drill up to 16mm - I think the best ones are the Irwin Unibits which have only a single cutting edge. I have found they do a very nice job drilling acrylic because they don't tend to bite in, however mine only steps up to ½ inch so I bought a larger and much cheaper 2-flute drill on eBay. It worked fine but if you are worried about the drill biting you could blunt one cutting edge using a small grinding disc.

Small sanding drum or just some abrasive paper wrapped around a dowel.

Partly disassemble the latch

1. Use a 3mm hex key to remove the screw retaining the release knob. The outer release button can be prevented from turning by using a 6mm drill bit or small Philips head screwdriver through the hole in the shaft.
2. Undo the 5/8" UNEF nut and remove the inner handle
3. Use a 2.5mm hex key to undo the three M4 x 10 button head cap screws and remove the retaining plate.
4. Press and hold the "press release" button and withdraw the outer handle and shaft from the housing.

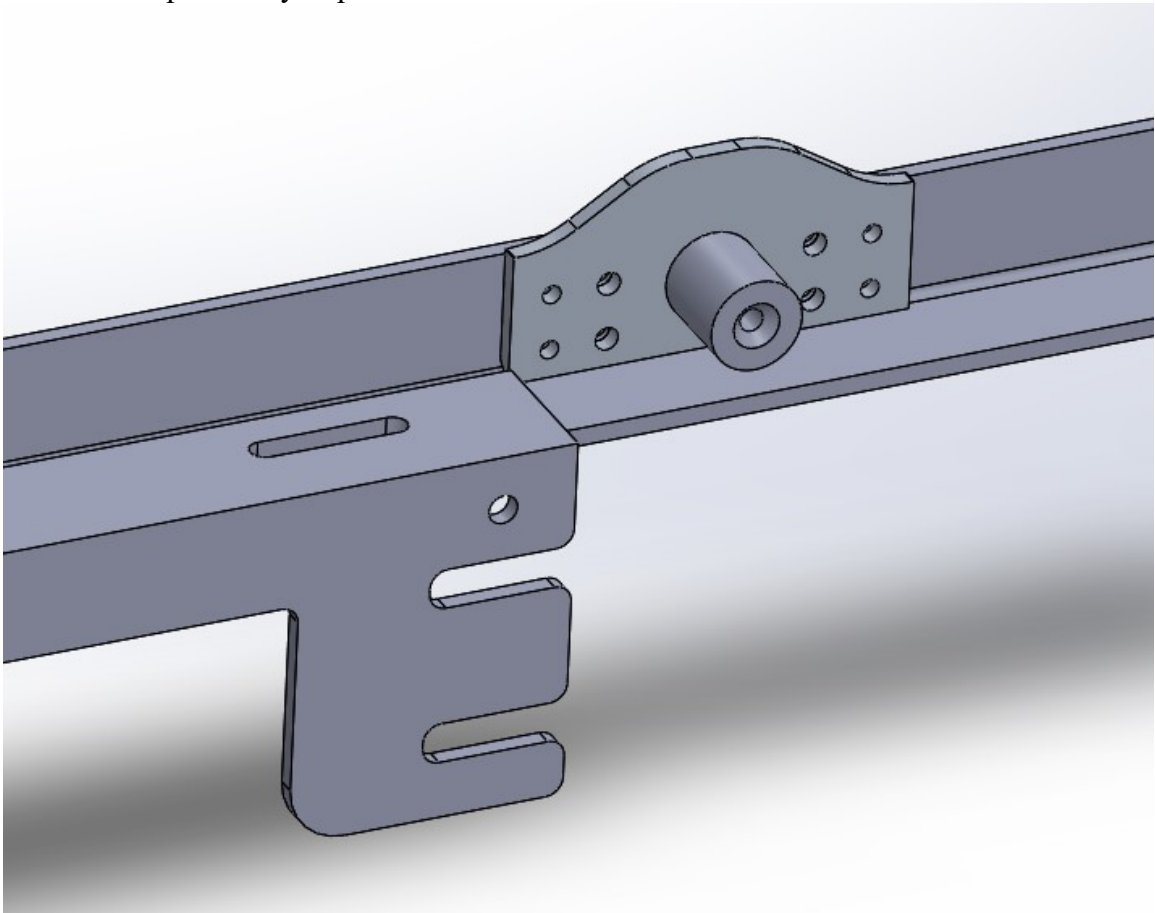


5. Set aside the 3/16" ball. They are really easy to lose. Guess how I know.

Fitting the housing to the canopy side rail

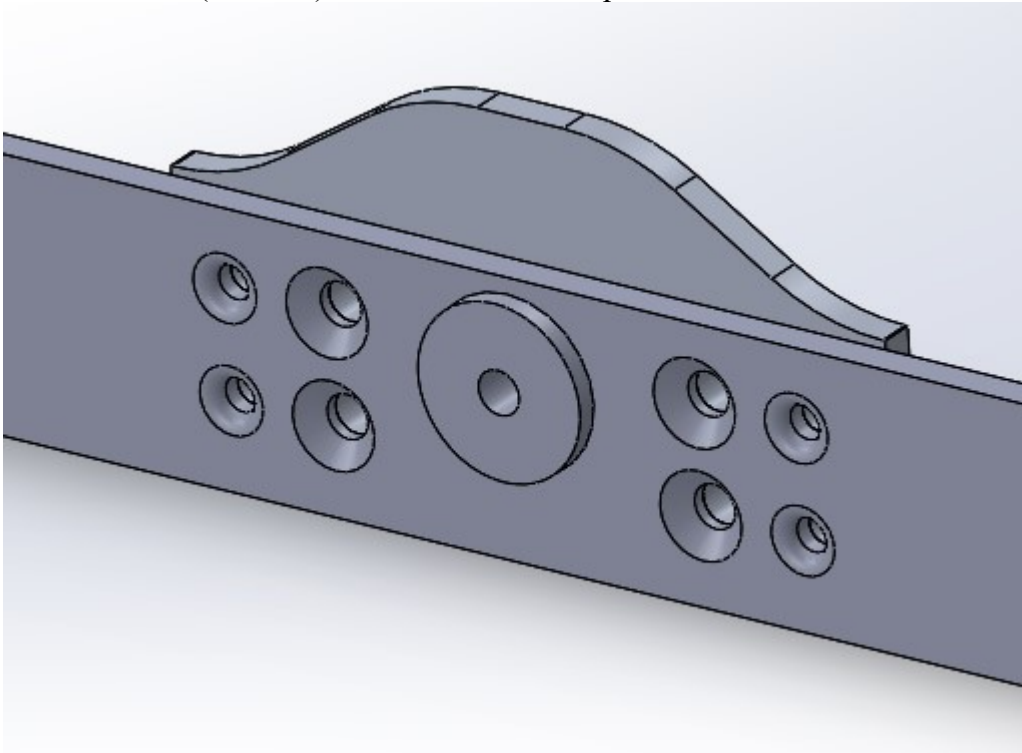
This operation is most easily done with the canopy bubble off or partly off the canopy frame because some fasteners need to be inserted from the outside of the frame so is most easily done on a new canopy.

1. Slide the Hook Angle to its forward stop.
2. Set the doubler plate against the vertical face of the canopy frame so that the back edge of the doubler is level with the forward edge of the hook angle and the bottom edge of the doubler is flush with the horizontal face of the canopy frame and clamp it firmly in position.

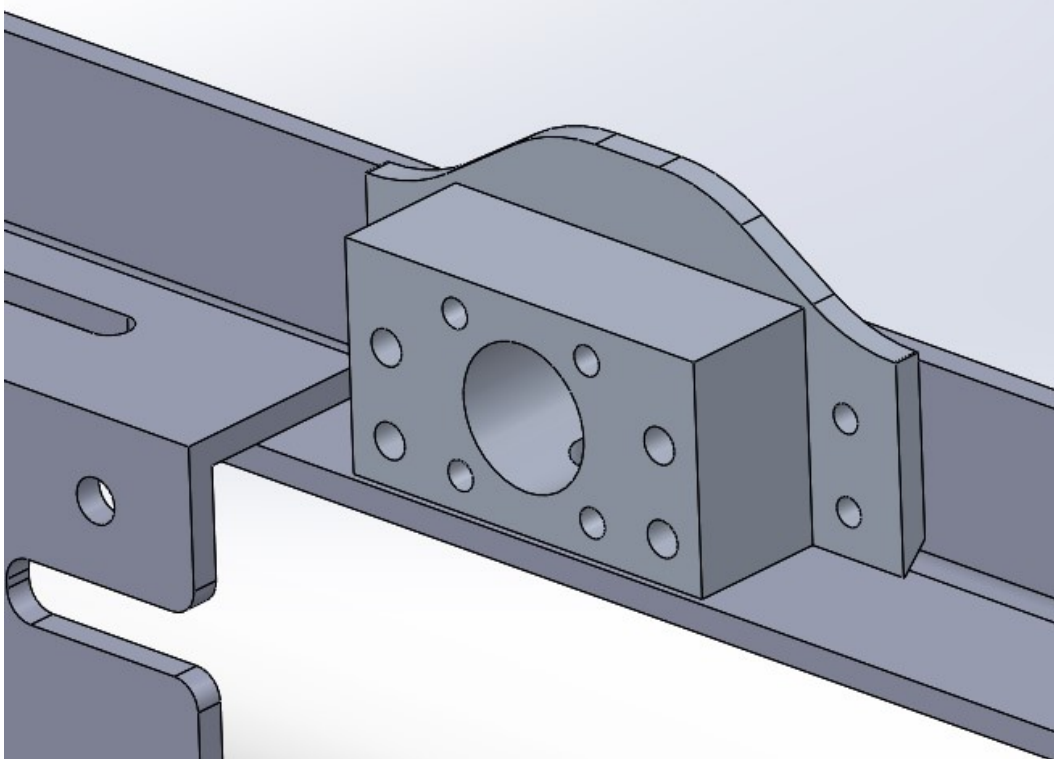


3. Insert the drill guide (small cylinder with central hole) into the large hole in the doubler and use a 3/16" (or 4.7mm) drill to make a pilot hole.
4. Remove the drill guide and use the step drill to drill the hole out to 16mm (or 5/8").
5. Insert the drill guide through both the reinforcing plate and side rail to act as a locator and drill the 8 small holes using the plate as your drill guide. Outer holes are 3.2mm (1/8") and inner holes are 4mm.

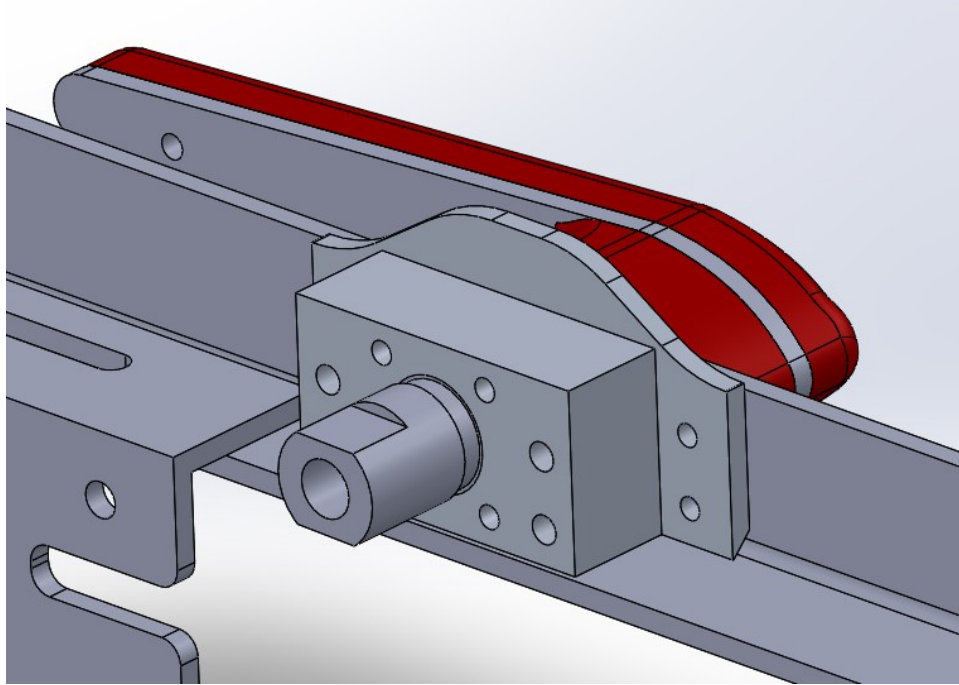
6. Counter sink all the holes on the outer face of the canopy frame to match the flush head rivets (CCC-44) and the flush head cap screws.



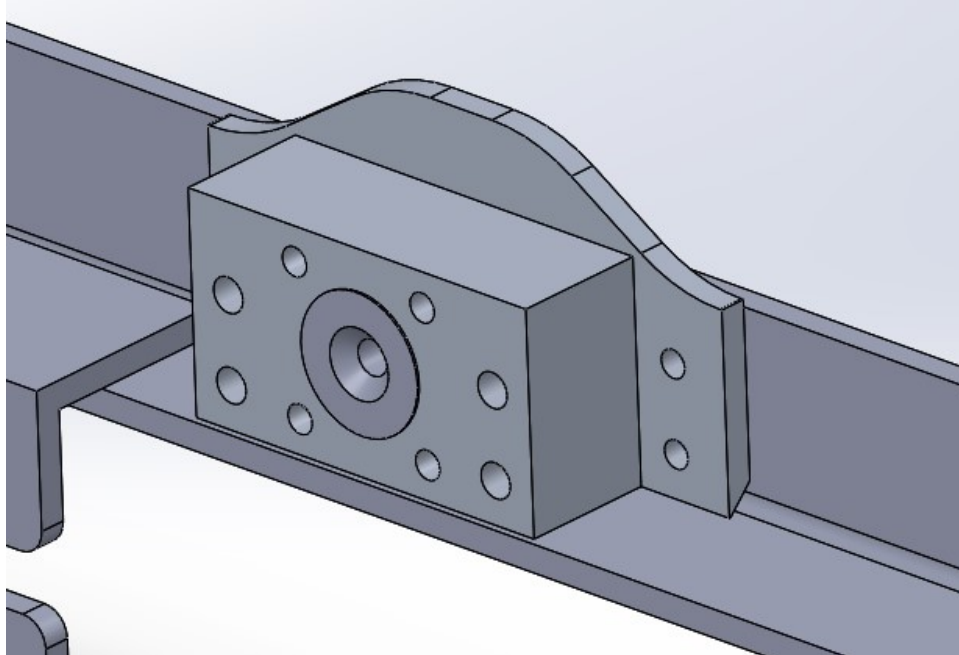
7. Install the CCC-44 rivets.
8. Install the latch housing using the M4 x 30 flush head screws and nylon nuts.



9. Trial fit the outer handle and axle assembly. If it doesn't turn freely you may have to do some fettling of the hole in the canopy rail. A small cylindrical drum sander or abrasive paper wrapped around a piece of dowel would be suitable.



10. It is time to make the hole in the acrylic bubble, so fit the canopy bubble to the frame, insert the drill guide into the latch housing and drill the 3/16" pilot hole.



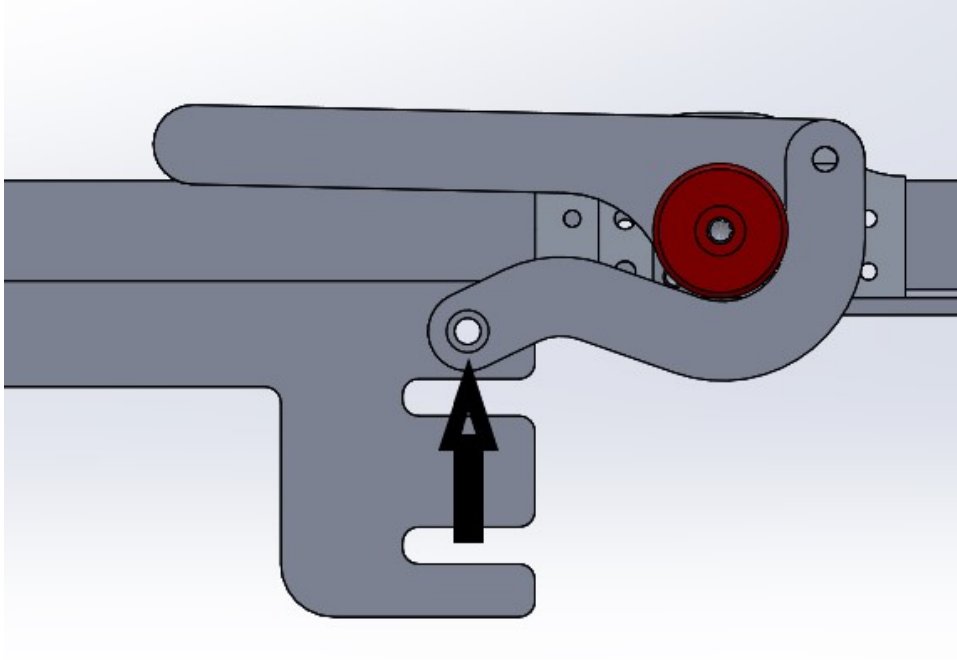
- It is very easy to crack the acrylic by drilling with a normal drill. I would suggest blunting just one cutting edge of the drill.
11. Use the step drill to enlarge the hole to 16mm and then polish the hole using a fine abrasive paper wrapped around a dowel.

12. Once again, check the fit of the outer handle and axle. It should turn freely. If the axle binds on the canopy you have a bit of fettling to do.
13. Clean all parts.
14. Apply light moly grease to the shaft before assembly.
15. Holding the outer handle, press the release button, set the 3/16" ball in the hole in the shaft and slide the shaft in from the outside. When the shaft is in the correct distance and with the handle horizontal, release the button and the handle should lock in place.

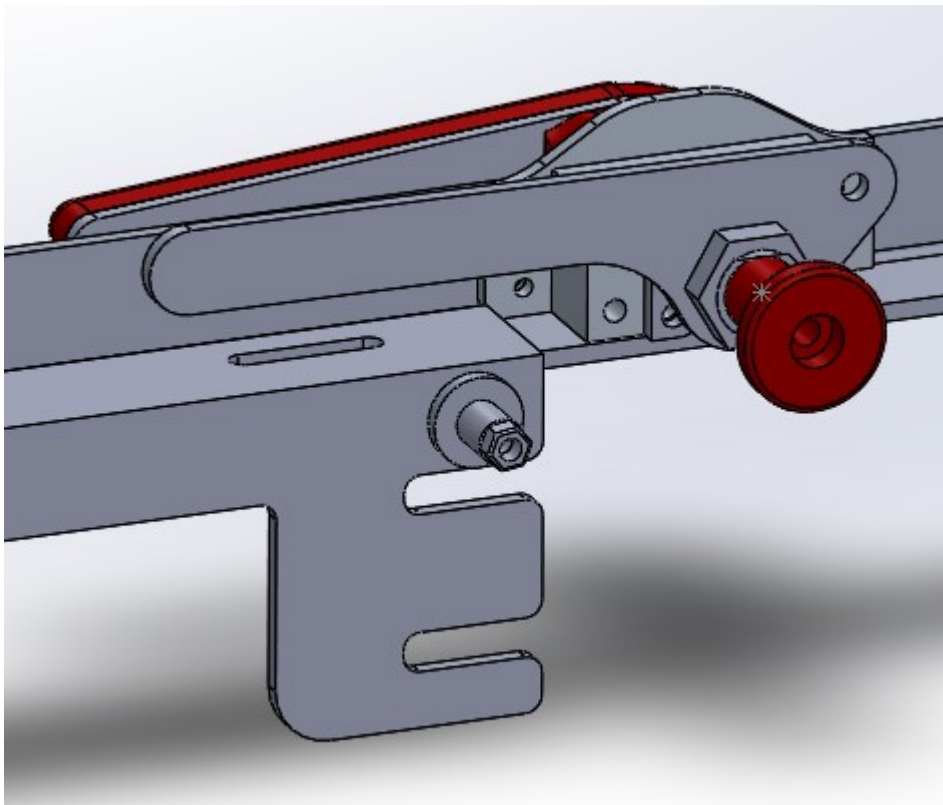


16. On the inside, refit the locking plate and tighten the three cap screws. Press the release button on the outer handle and make sure that the handle turns freely. **DON'T** turn the handle 180° or the ball can drop into the tooling hole at the bottom of the housing.
17. Fit the inner handle and 5/8"UNEF nut. BE CAREFUL not to cross-thread the nut. Even though the threads are all aluminium they are pretty robust. I have tested one up to 28 ft pounds. It survived, just. 6 to 8 foot pounds should be fine.
18. Fit the release knob. If everything seems to be working OK you can use some thread locker on the screw.
19. Attach the link to the inner handle. Fit the AN3-5 bolt, one washer and castle nut. Nut should be loose enough to allow free rotation of the link on the handle.

20. The hole in the link **should** line up with the hole for the slider knob on the hook angle as shown below.



21. Remove the hook angle from the canopy frame and fit the flanged pin in place of the original knob using the M4 x 20 flush head cap screw. Refit the hook angle.



22. Attach the link between the inner handle and the flanged pin using the AN3-5 bolt, washer and castle nut. Nut should be loose enough to allow free rotation of the link on the handle. Fit the split pin and check operation.

