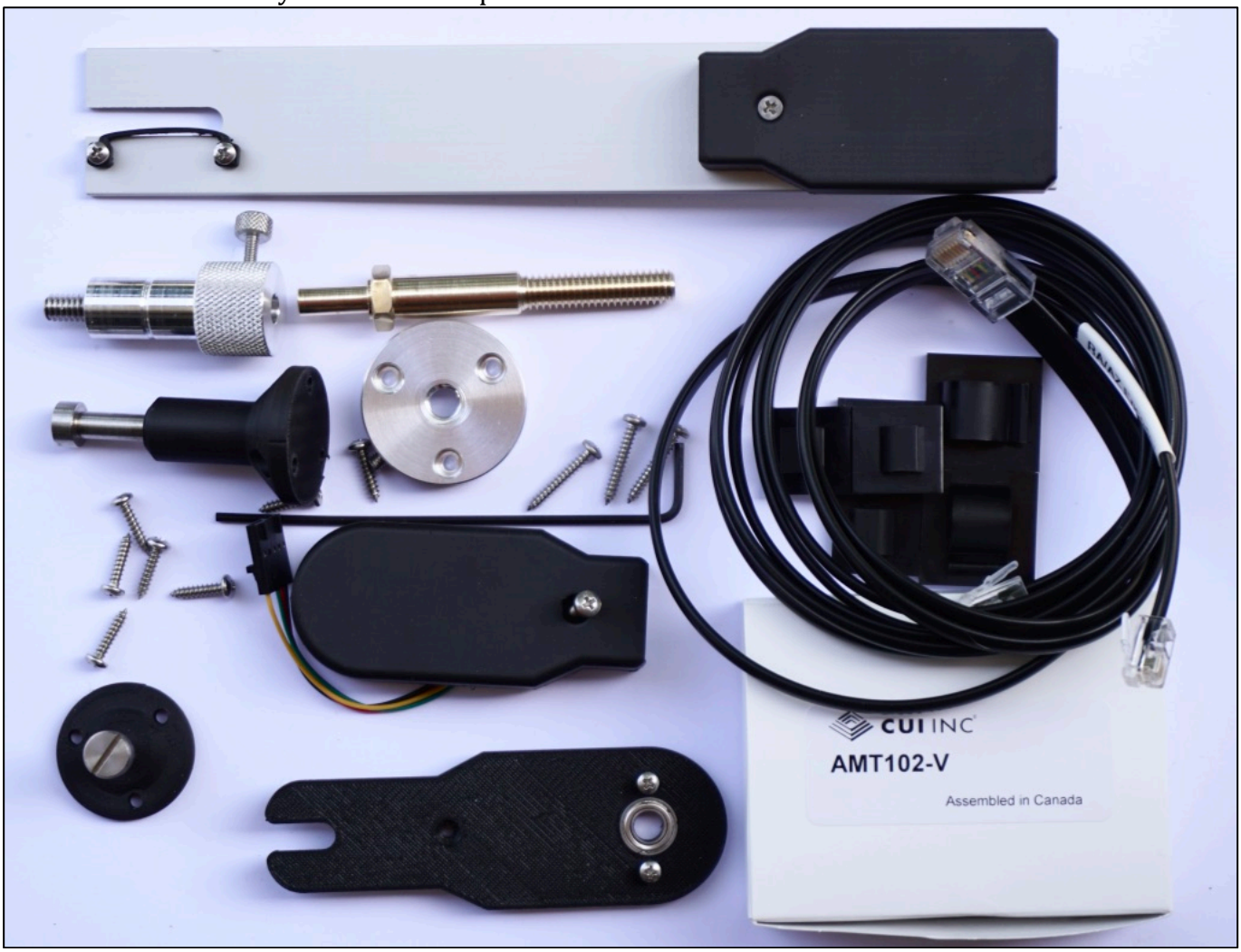
GSO Dobsonian Telescopes: Encoders Installation

Please make sure that you have all the parts included in the kit:



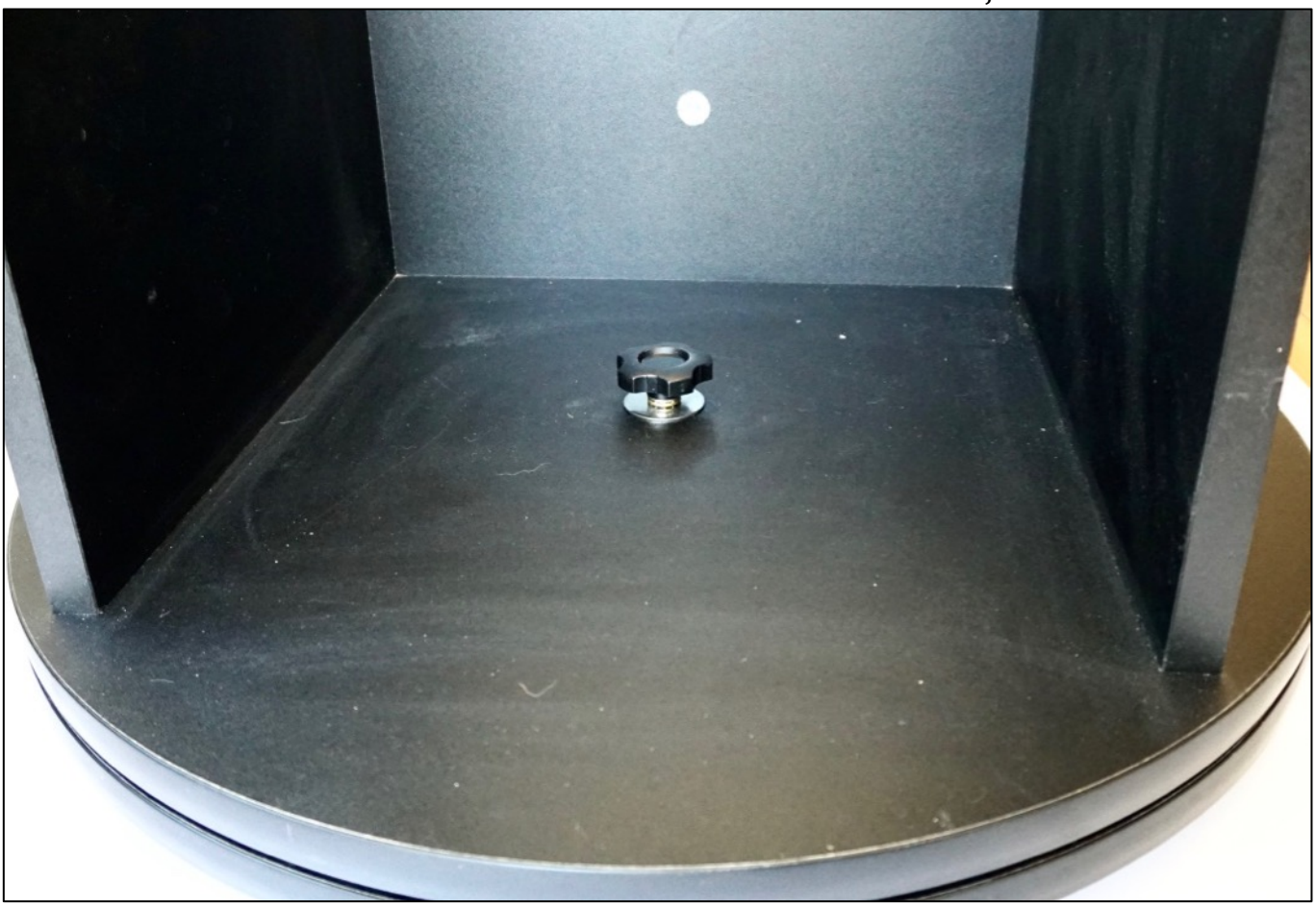
Specifications:

Azimuth Encoder resolution: **8192** steps per revolution
Altitude Encoder resolution: **8192** steps per revolution
Current consumption: 10mA each encoder

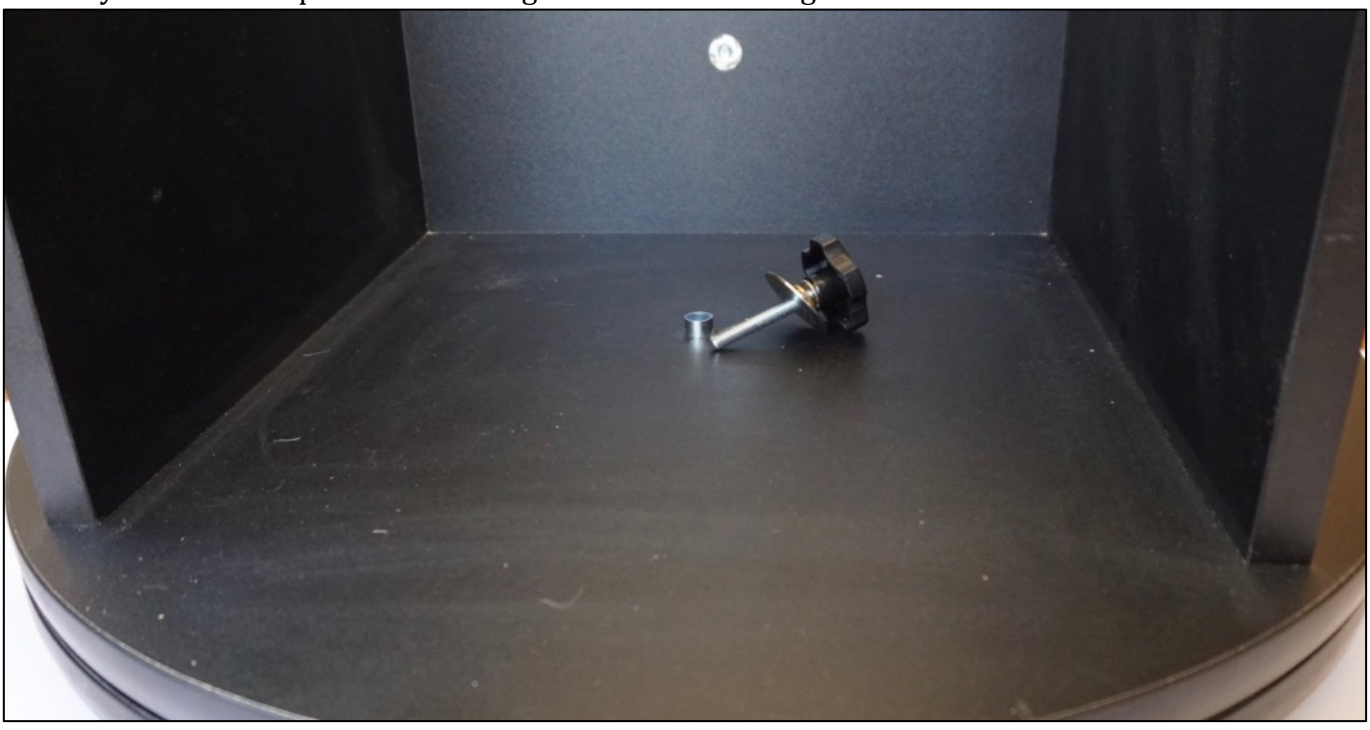
.

Azimuth encoder installation

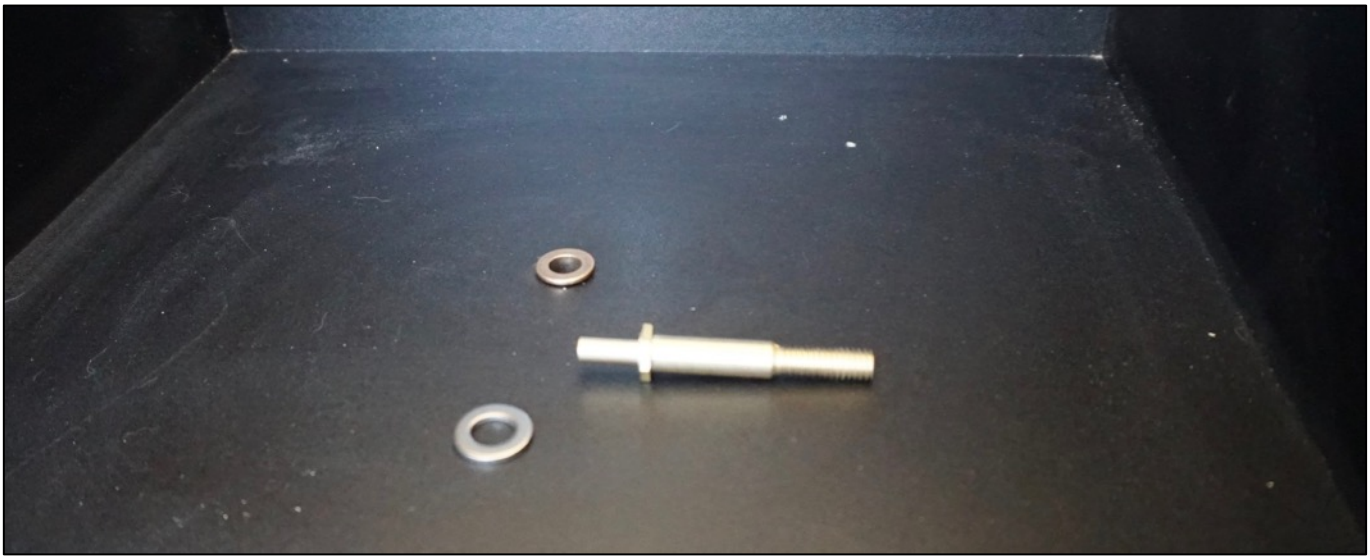
Please remove the OTA from the base. Then remove the azimuth tension adjustment knob.



You will see a metal insert. You can either keep it or you can remove it a replace it with the bushing supplied. Please note that the bushing supplied is either plastic or a brass bushing.
In case you want to replace the bushing start with removing the metal insert:



Then insert the bushing provided and push it into the hole. You need the washer and the pivot bolt:



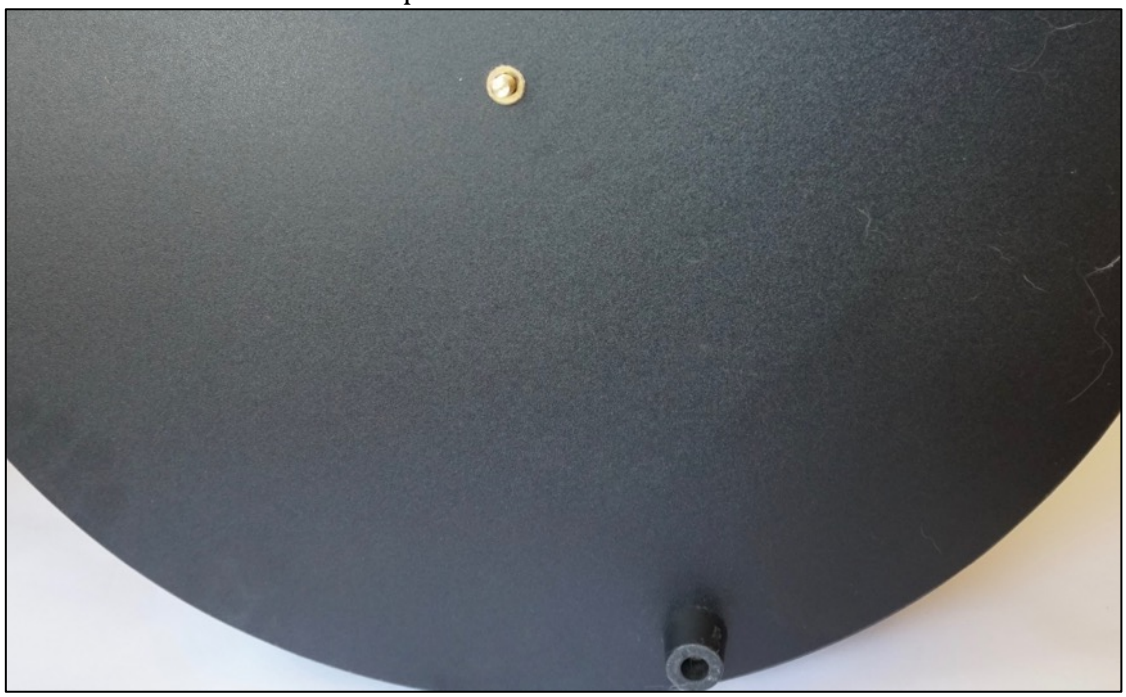
Put the washer on the bushing:

.

And insert the pivot bolt making sure that you screw it into the threaded insert in the ground board:

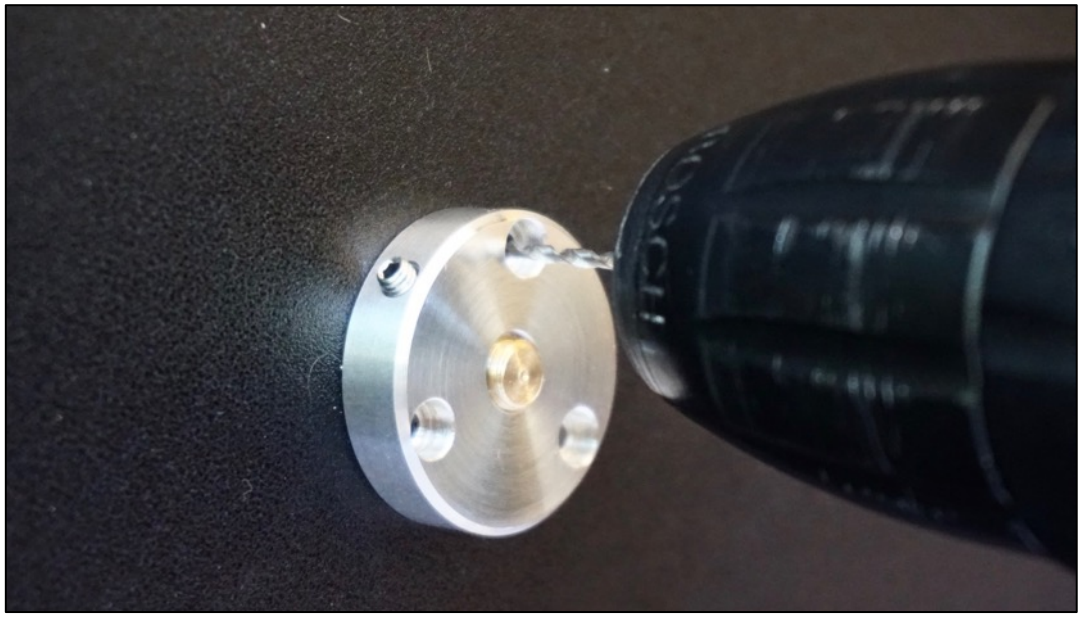
Now put the base on its feet and use a ½" spanner (or 13mm) or an adjustable wrench to adjust the tension so the telescope does not rotate freely (as you will not be able to adjust the tension due to the lack of the knob):

Now turn the base around or put the whole base on a side:



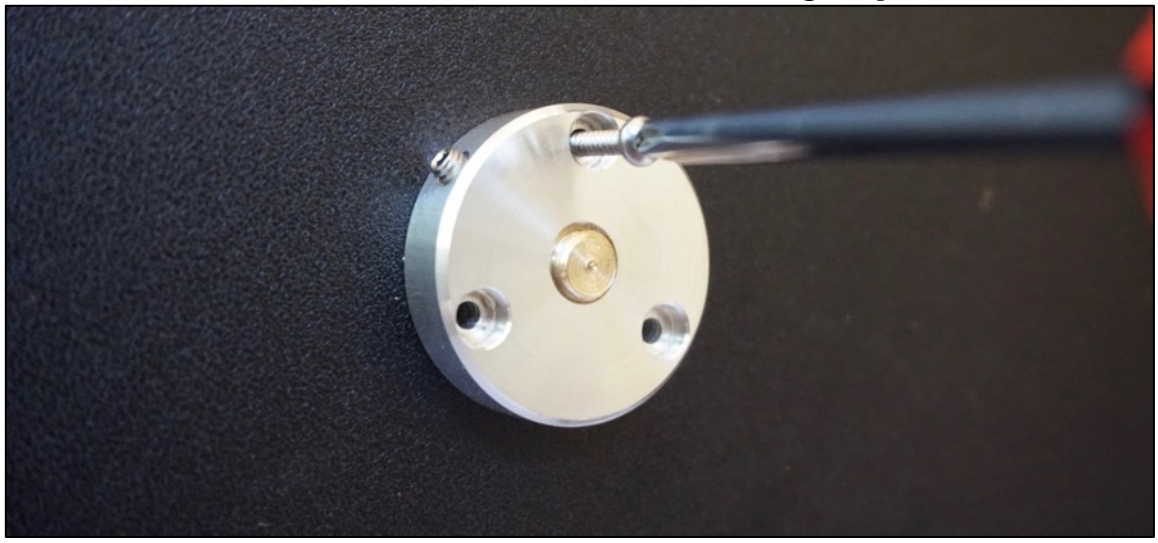
Now thread the plate onto the pivot bolt until the plate cannot be rotated:

Now you need to drill a small hole using a 2mm or so drill bit:



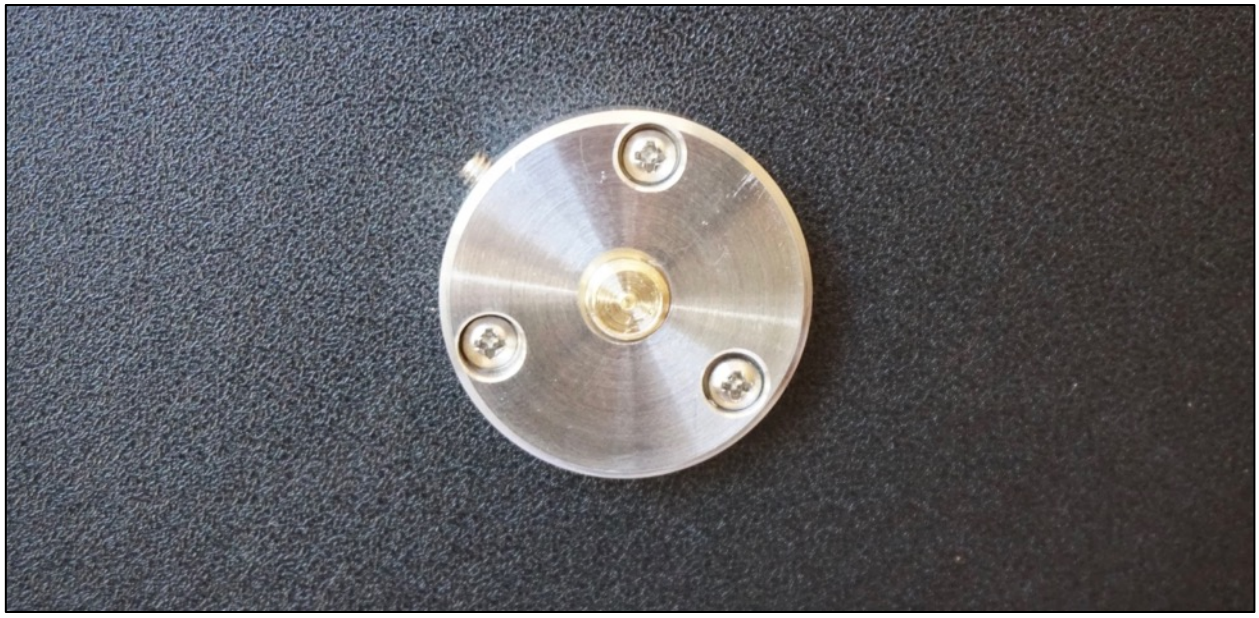
Drill three holes – for each screw.

You now need a screwdriver and three screws for mounting the plate:



.

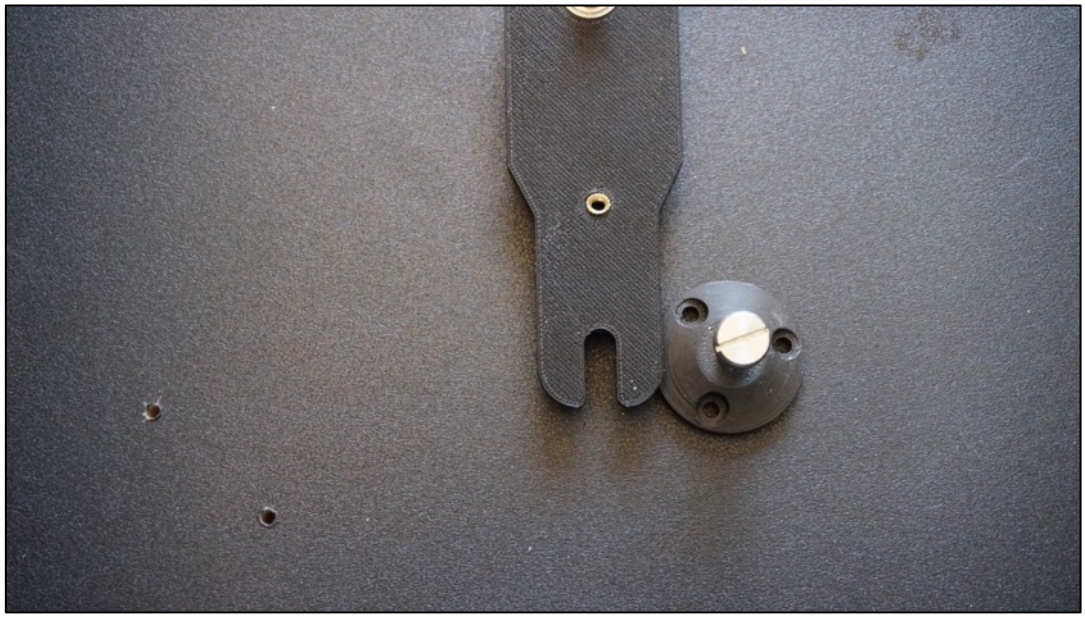
Use the screwdriver to fix the plate in place and then tighten the set screw using the supplied Allen key:



Now you need the encoder tangent arm:

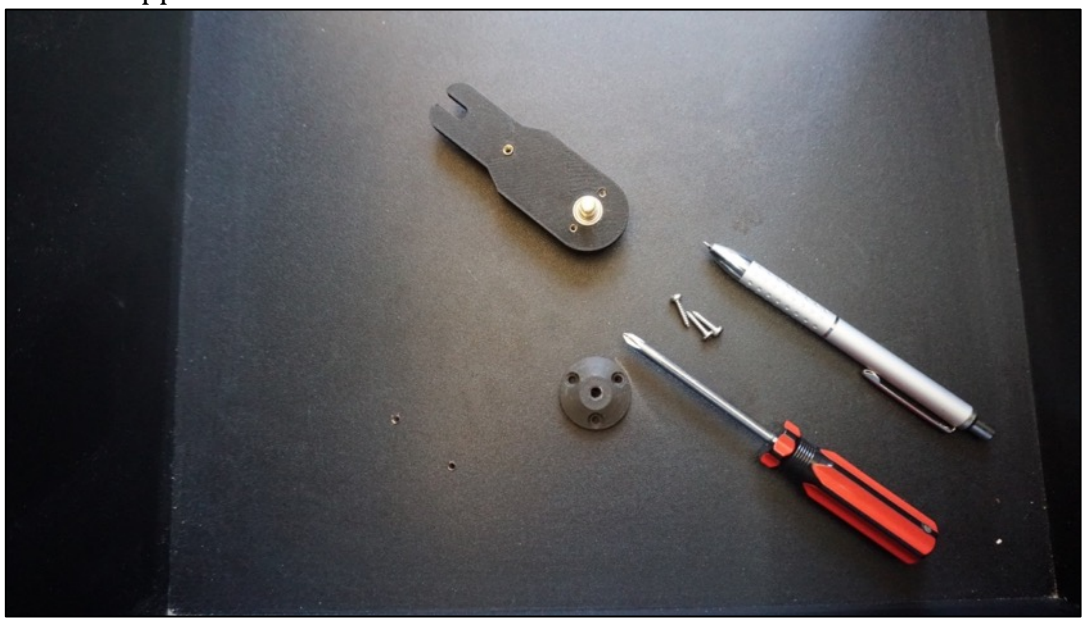
Put the tangent arm on the pivot bolt:

You will need to install the anchor bolt:



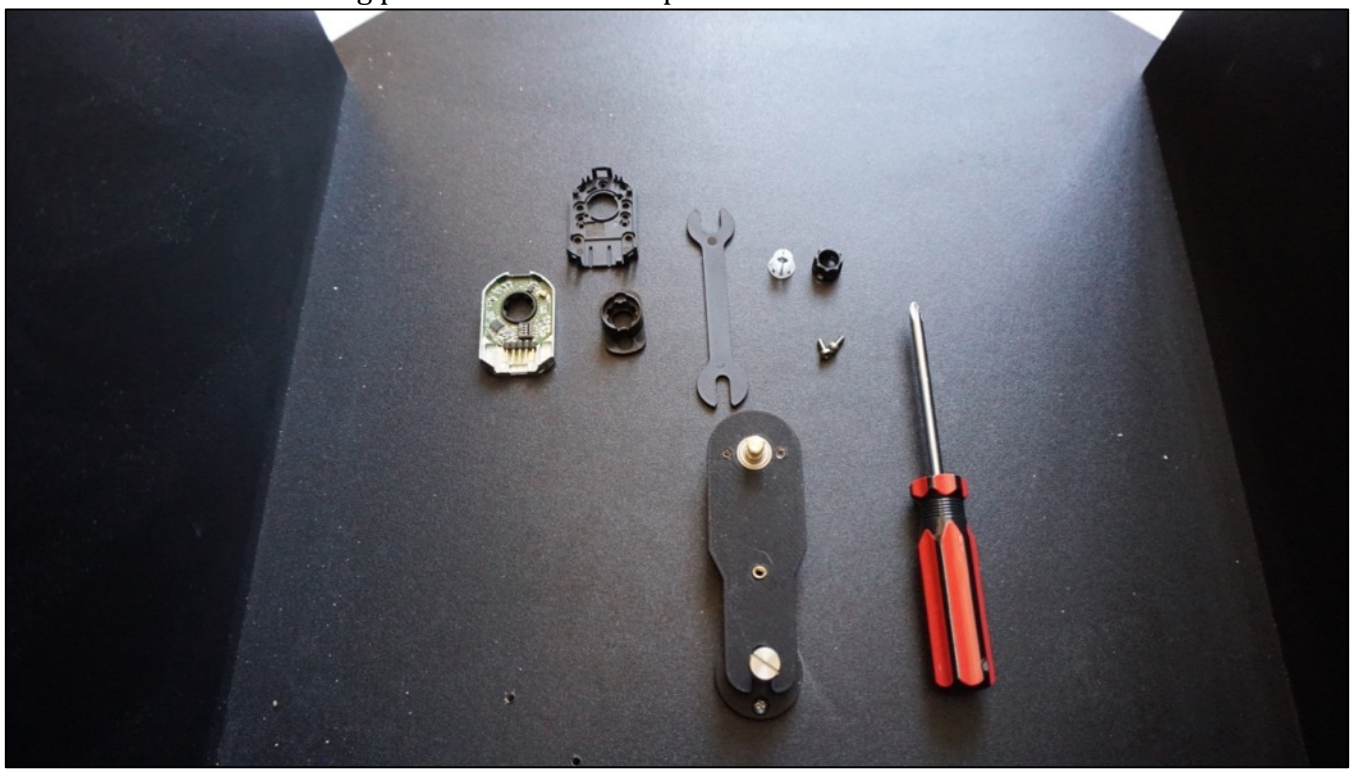
Mark the position with a pencil:

Use the supplied screws to install the base of the anchor bolt:



.

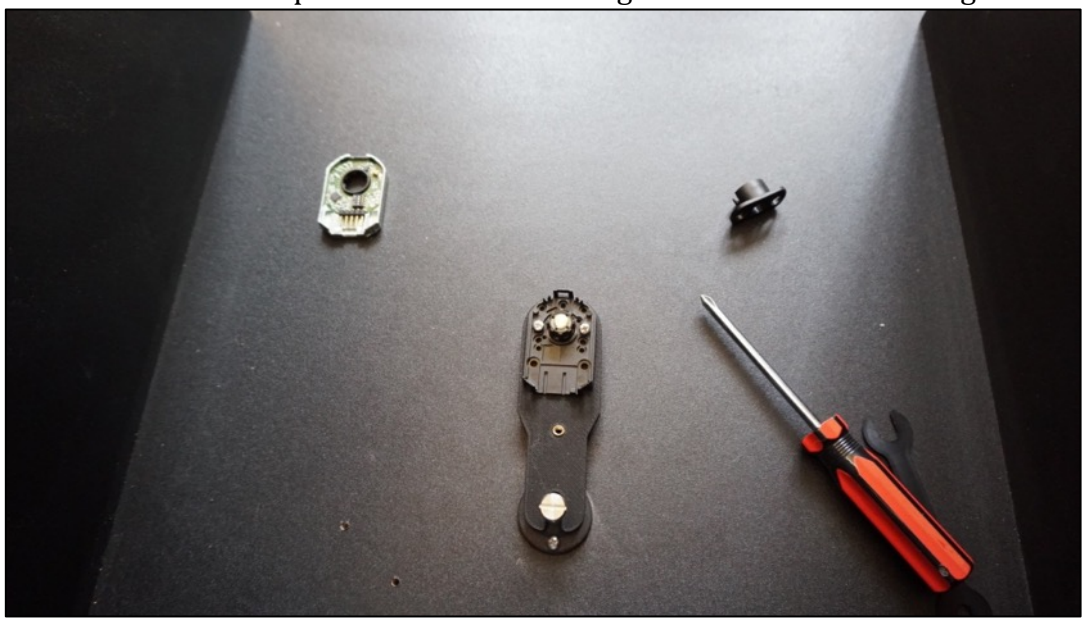
You will need the following parts for the next step:



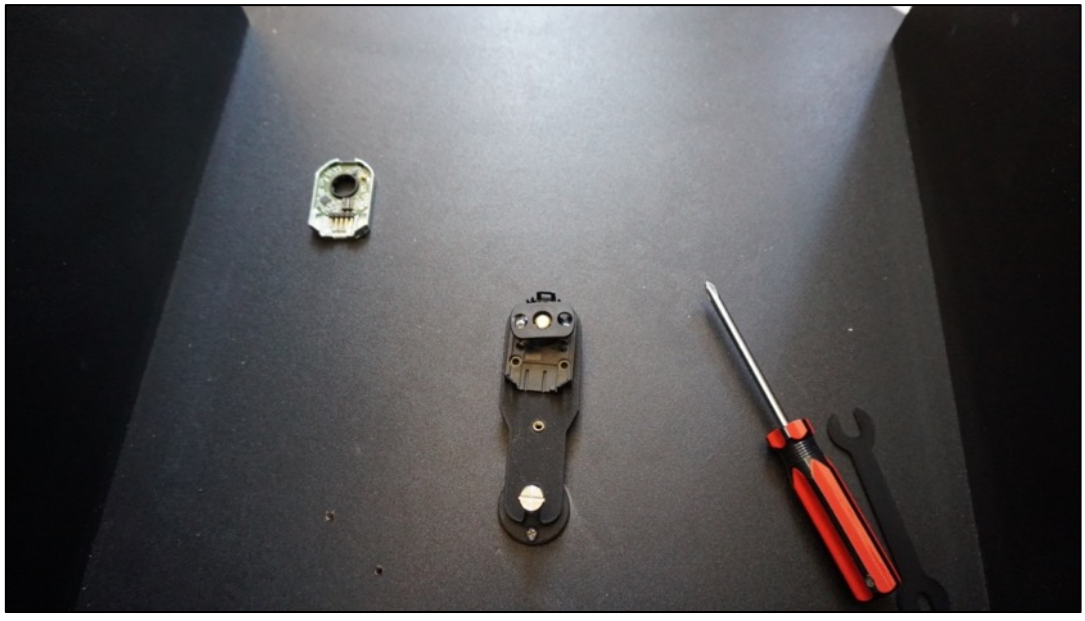
Use the spacer to slide the white shaft adapter:

Install the black shaft adapter over the white adapter:

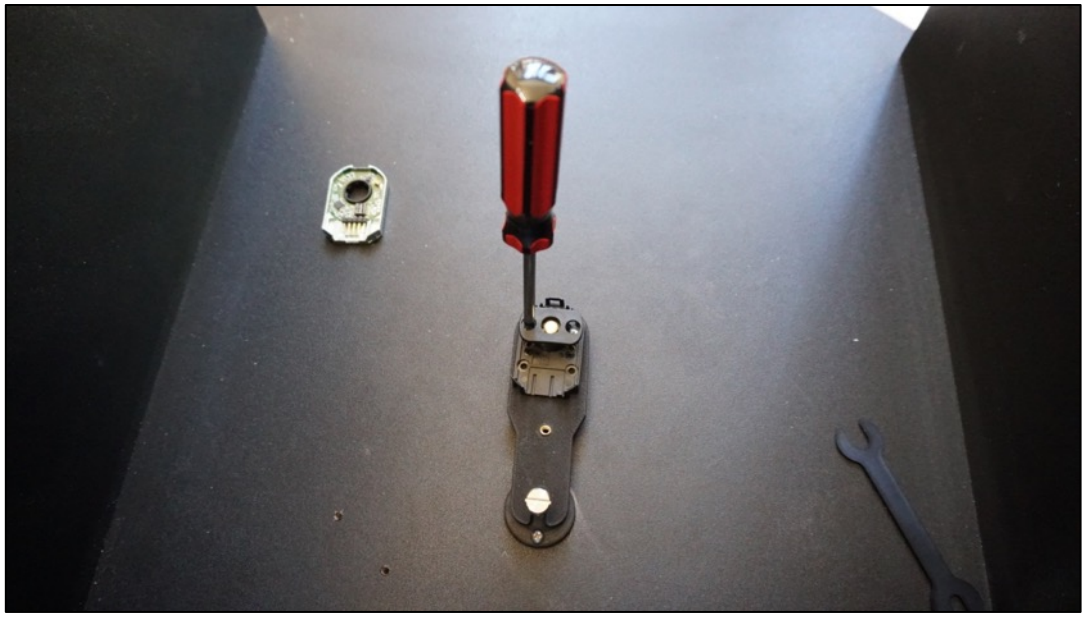
Put the encoder base plate and start threading the screws but do not tighten them yet:



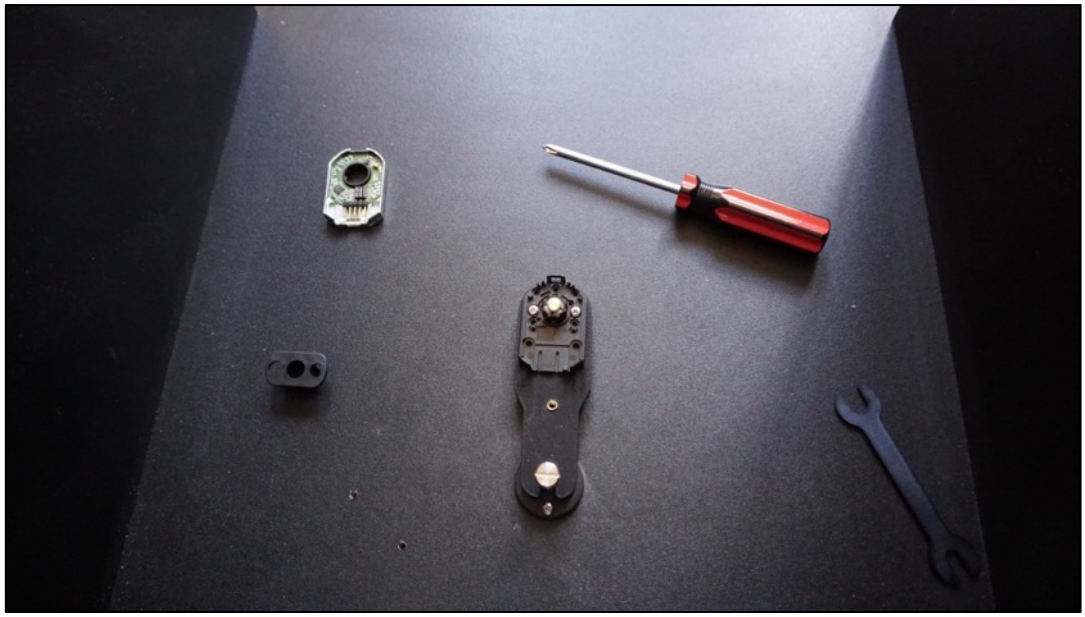
Use the alignment tool to centre the encode base plate:



Tighten the screws:



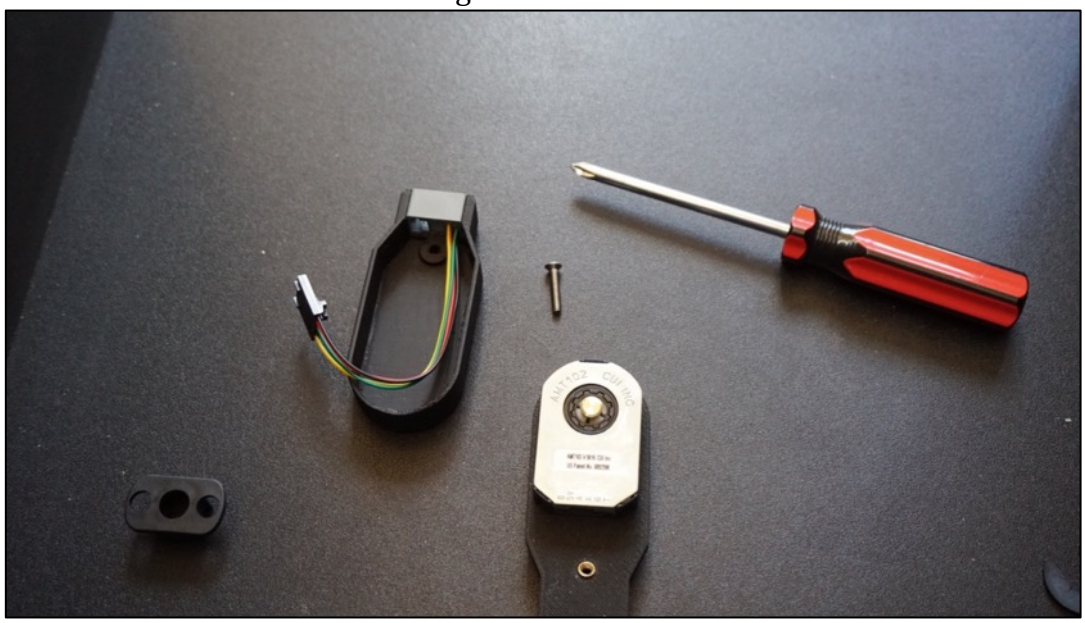
Remove the alignment tool:



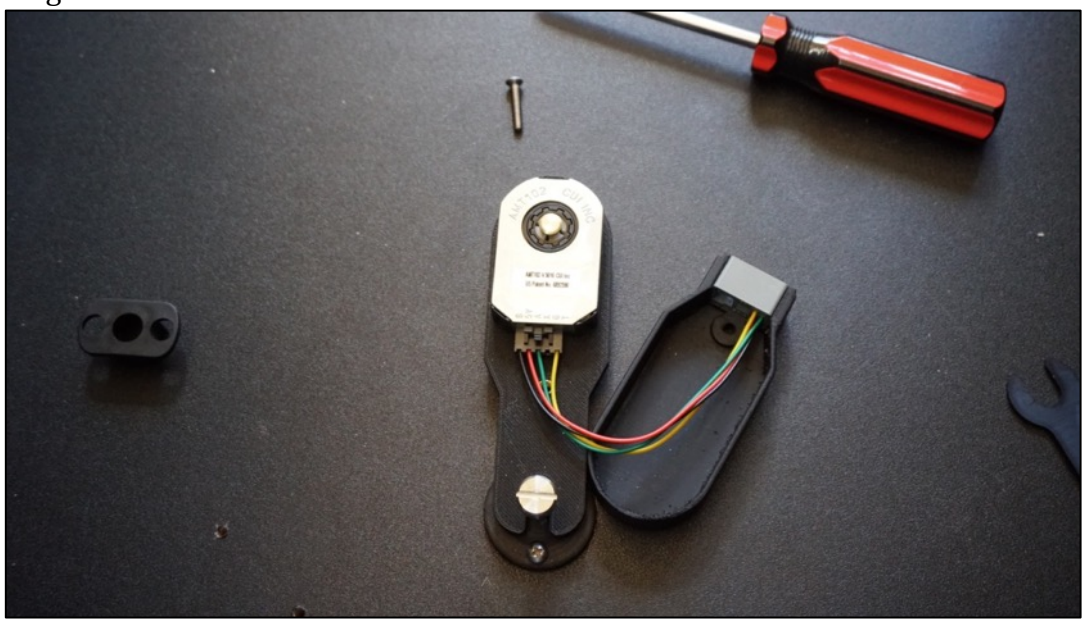
Now install the encoder and push it into place:

.

You will need the encoder housing now:



Plug the connector into the encoder:



Put the housing onto the encoder and fix it with the supplied screw:

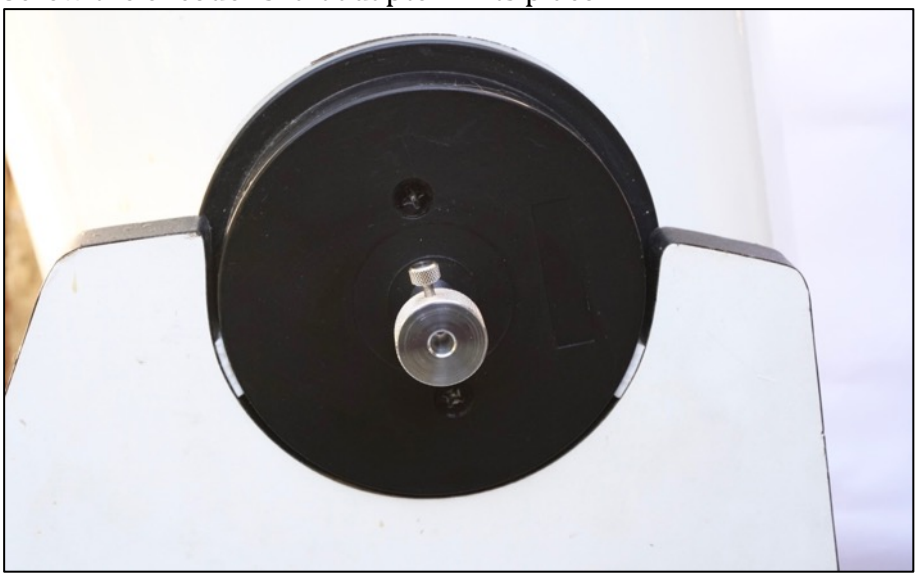
Altitude encoder installation

You will need the following parts:

Remove the pin from the centre of one of altitude bearings:

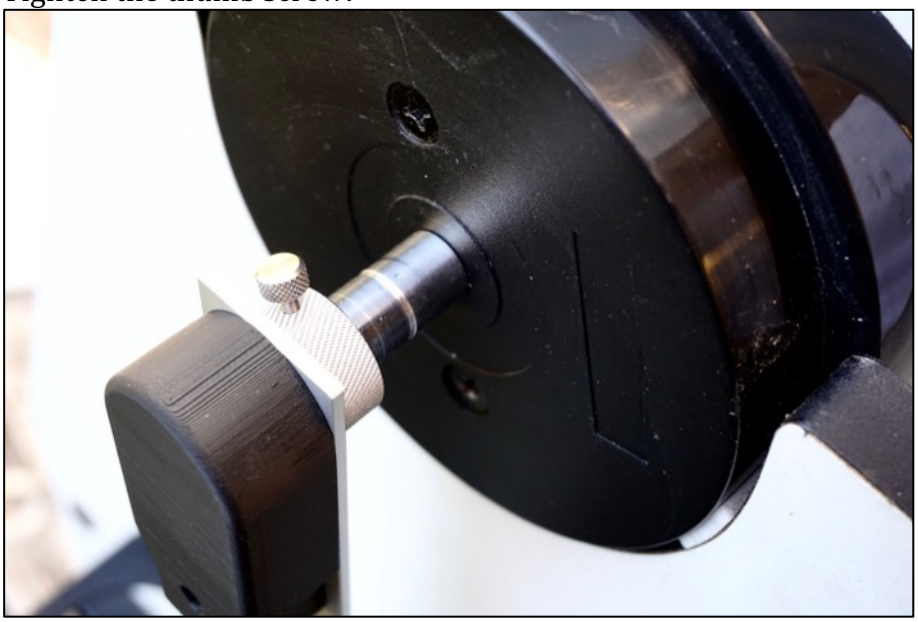
.

Screw the encoder shaft adapter in its place:



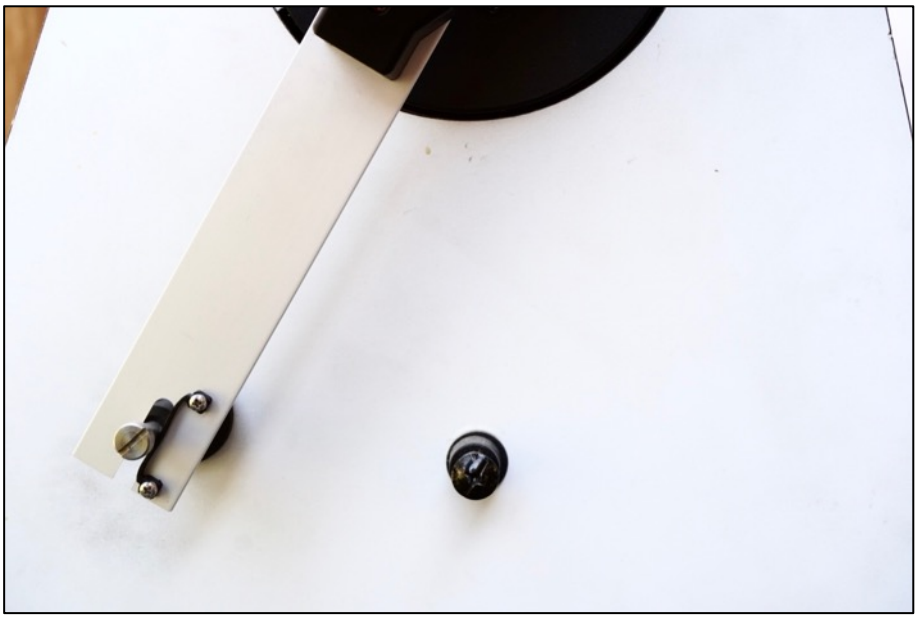
Insert the altitude encoder into the shaft adapter:

Tighten the thumb screw:



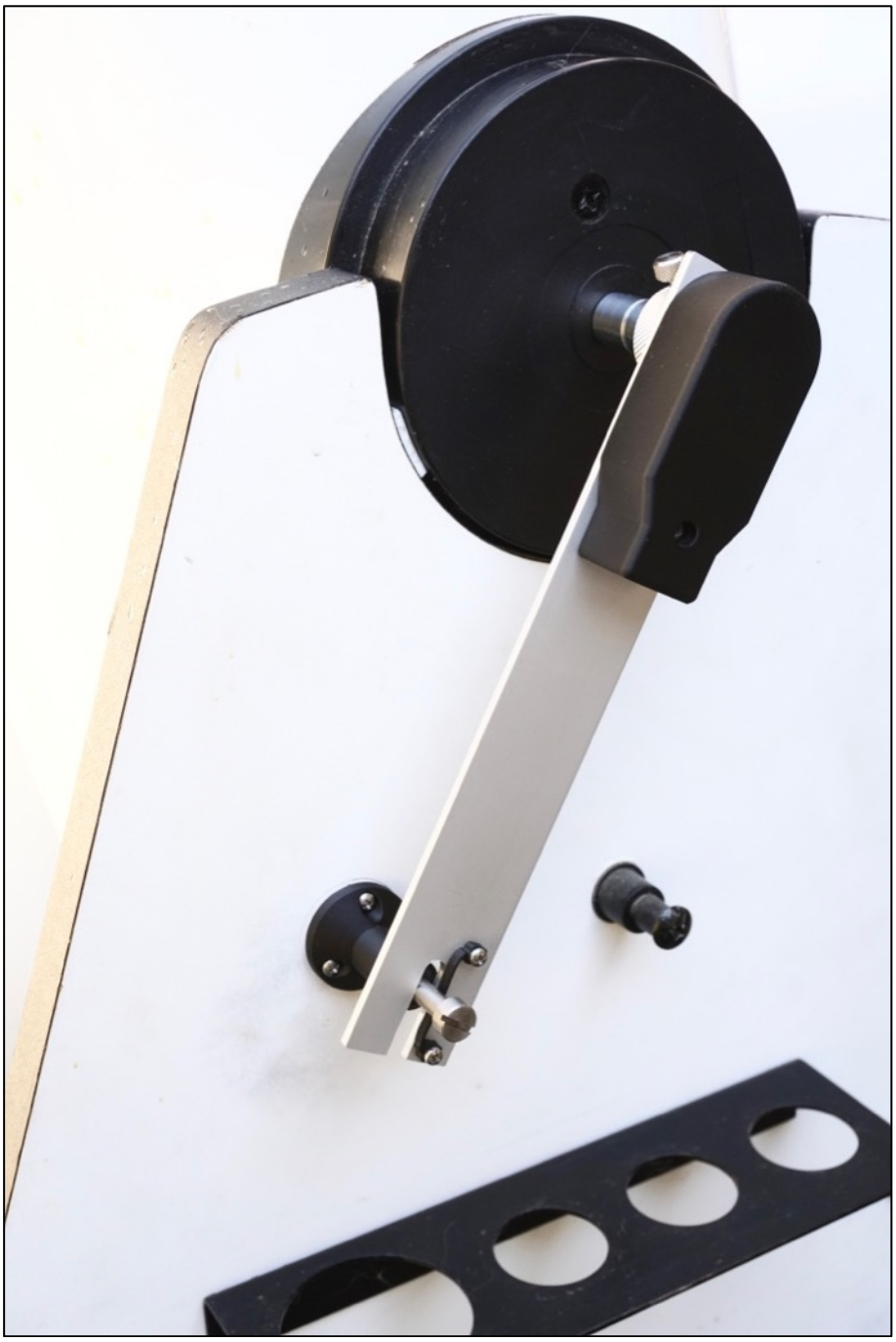
Insert the anchor bolt with the foot like shown here and use a pencil to trace the outside of the foot:

.



Remove the encoder now and fix the foot with the screws provided:

Install the encoder now:



Now insert the altitude encoder cable.

DONE! Now plug the encoder cable into the jacks of the encoders and connect it to the DSC!
Please set the azimuth encoder steps to 8192 and altitude encoder steps to 8192 and follow the instructions of your DSC on setting the signs for the steps correctly.