The helicoid itself uses 4 pegs in rails instead of a full screw-and-thread design. The sides of the pegs are about as smooth as any filament-based printercan print, so while this design is fiddly to assemble, it doesn't need as much sanding work as a full screw-and-thread.

I decided to use 3d printing to adapt the lens from a single-use camera. Single-use cameras mostly still use 35 mm film, and come with very cheap, very slow, but very compact lenses in the 30-35 mm range.

- I wanted an integrated lens cover
- my 3d printer frankly isn't very good...
- ...but I also wanted a close-focus mechanism for occasional closeups
- and I just wanted the experience of designing something like this

Let's say you bought a 15mm Olympus "Body-Cap Lens" for the fun of a tiny, lightweight lens that lets you run around in daylight and shoot without worrying about perfect focus and sharpness.

And you love it, because it's tiny and lightweight and worry-free and you associate it with beautiful weather and leisurely afternoons.

But you *just wish* it was zoomed in about 2x...

Of course, Olympus's own 15mm BCL-1580 only sticks out 9 mm from the mount,making it even more pocketable, and you'd probably get better sharpness just cropping its 15 mm output to 30 mm.

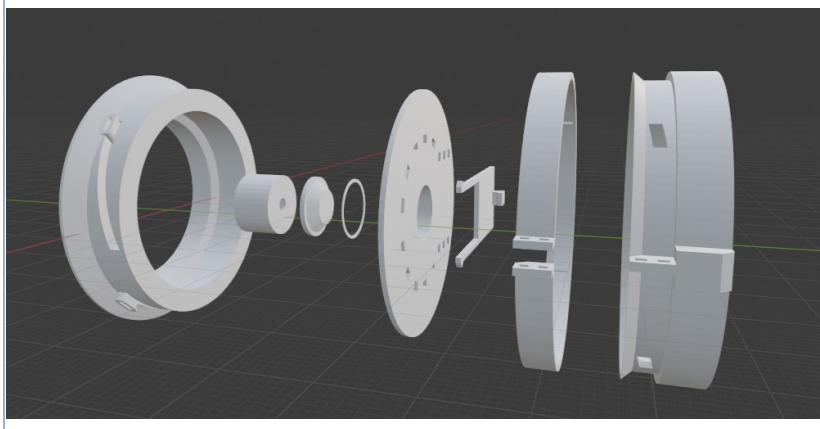
Which was why I elected to assemble *my* "body cap lens" using green stitching and why I wrapped it in the plastic peel from the donor camera. If it's going to be a toy, it might as well look the part :)

More at
https://github.com/likangning93/casual-3d-printing/tree/main/30mmBodyCapLens

Fold here...

...and cut here
to form booklet

Casual 3D Printing



30 mm "Body Cap Lens"

Kangning Li