THE DB MKCARBON JIG SYSTEM:

A DIY TUBE UPPER RECEIVER FOR THE RUGER MKI STD, MKII STD, MKIII STD, MKII 22/45, AND MKIII 22/45 22LR PISTOLS

BY

DB FIREARMS

IN PARTNERSHIP WITH

AWCY?

PLEASE CHECK README FOR PARTS LIST

STEP 1:

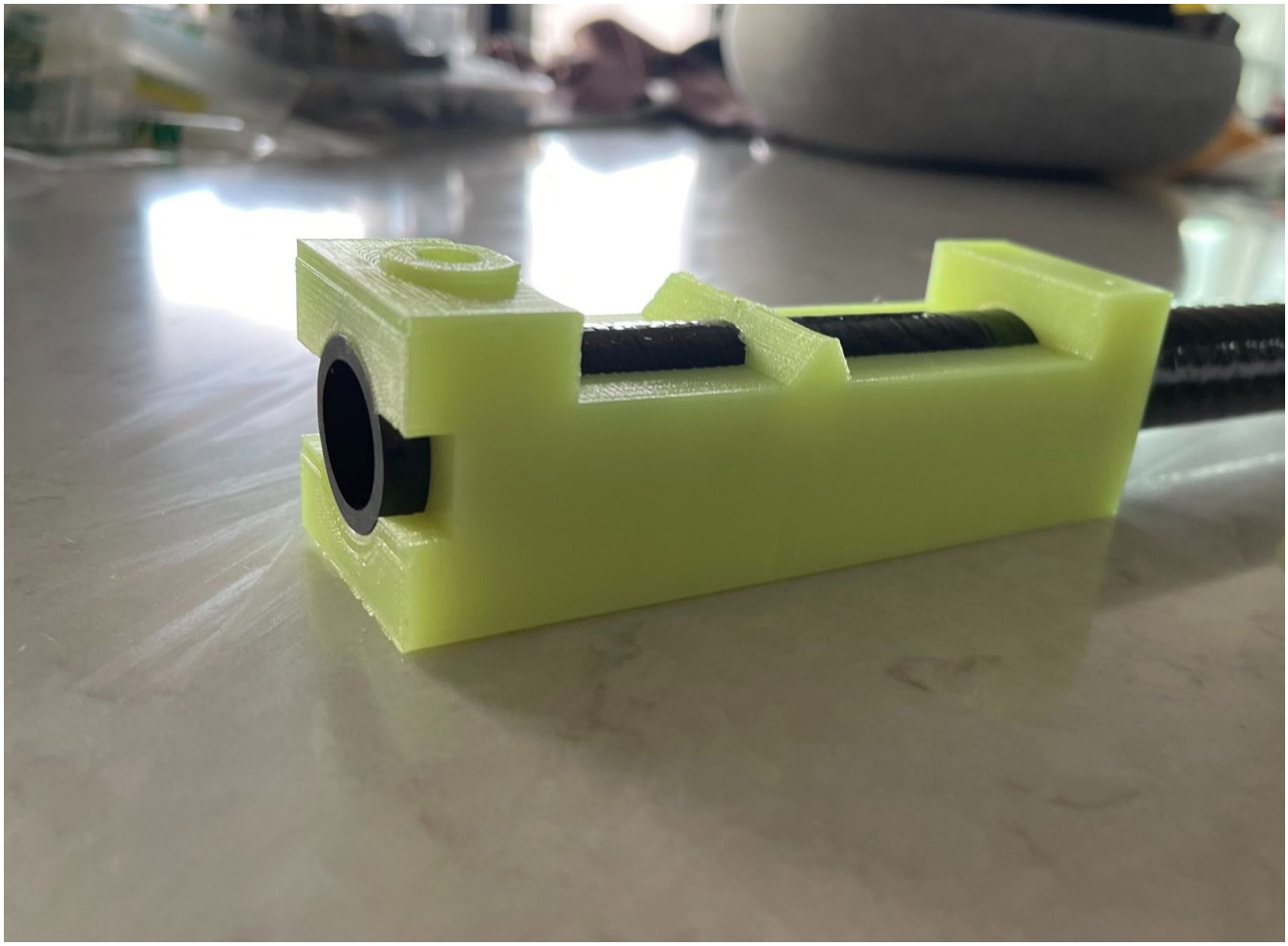
Insert the carbon fiber tube into your Main Jig so that the tube is flush with the end of the jig with the notches.

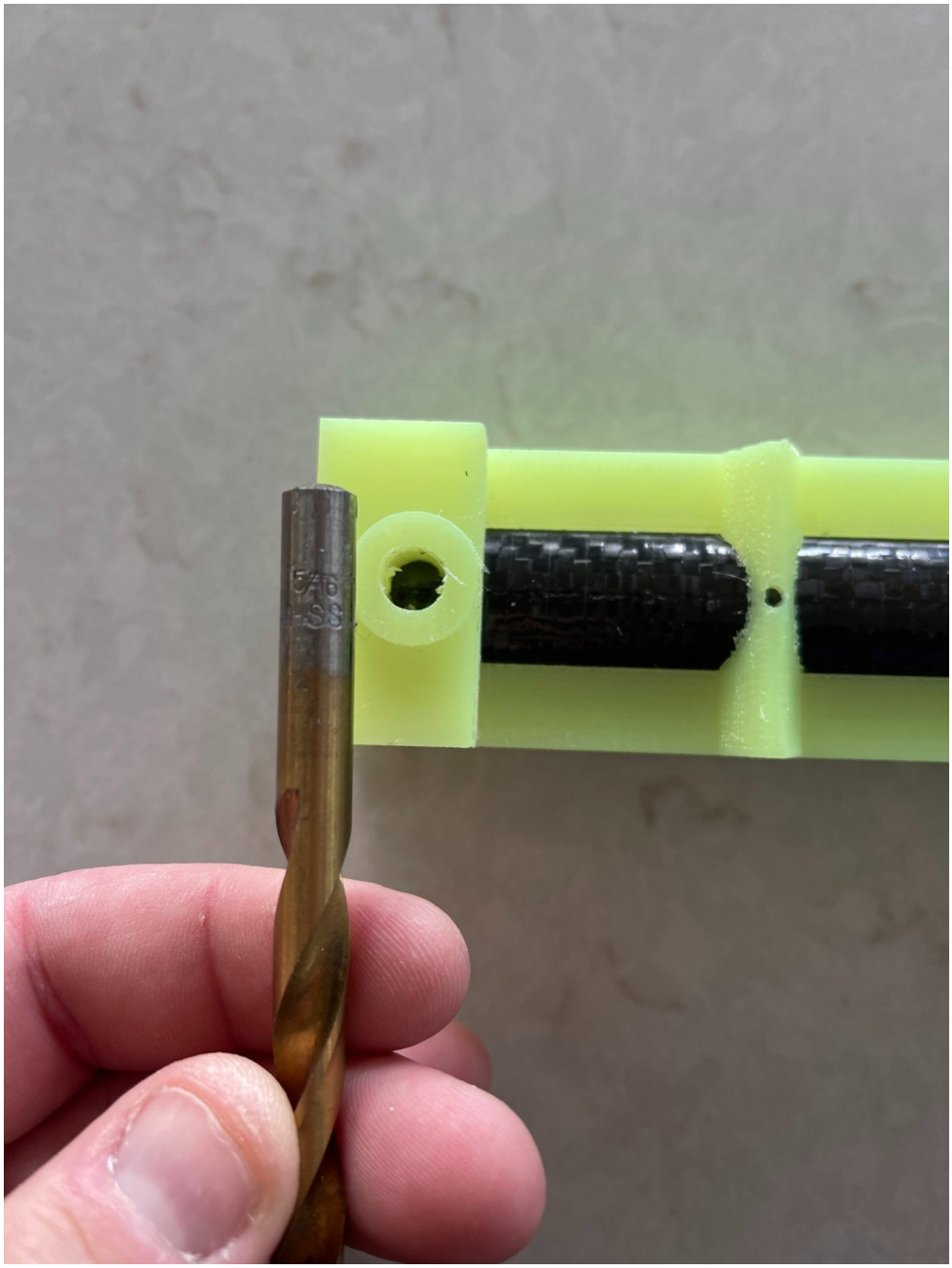
If you want to have it sticking out by 1mm you can sand the end of the barrel flush with jig for a perfectly square
end.

Secure jig in your vise

Drill the bolt stop pin hole, going slowly, using your 5/16” drill bit. Be careful and use lubrication to avoid heat.
Insert the Jig-Pin into the drilled hole to lock the tube into the jig.If this pin is tight, I suggest hammering it in with a
rubber mallet. Once this is in, it needs to be secure so your tube doesn’t move while you’re working on it.

Drill the ejector pin hole - 1/8”





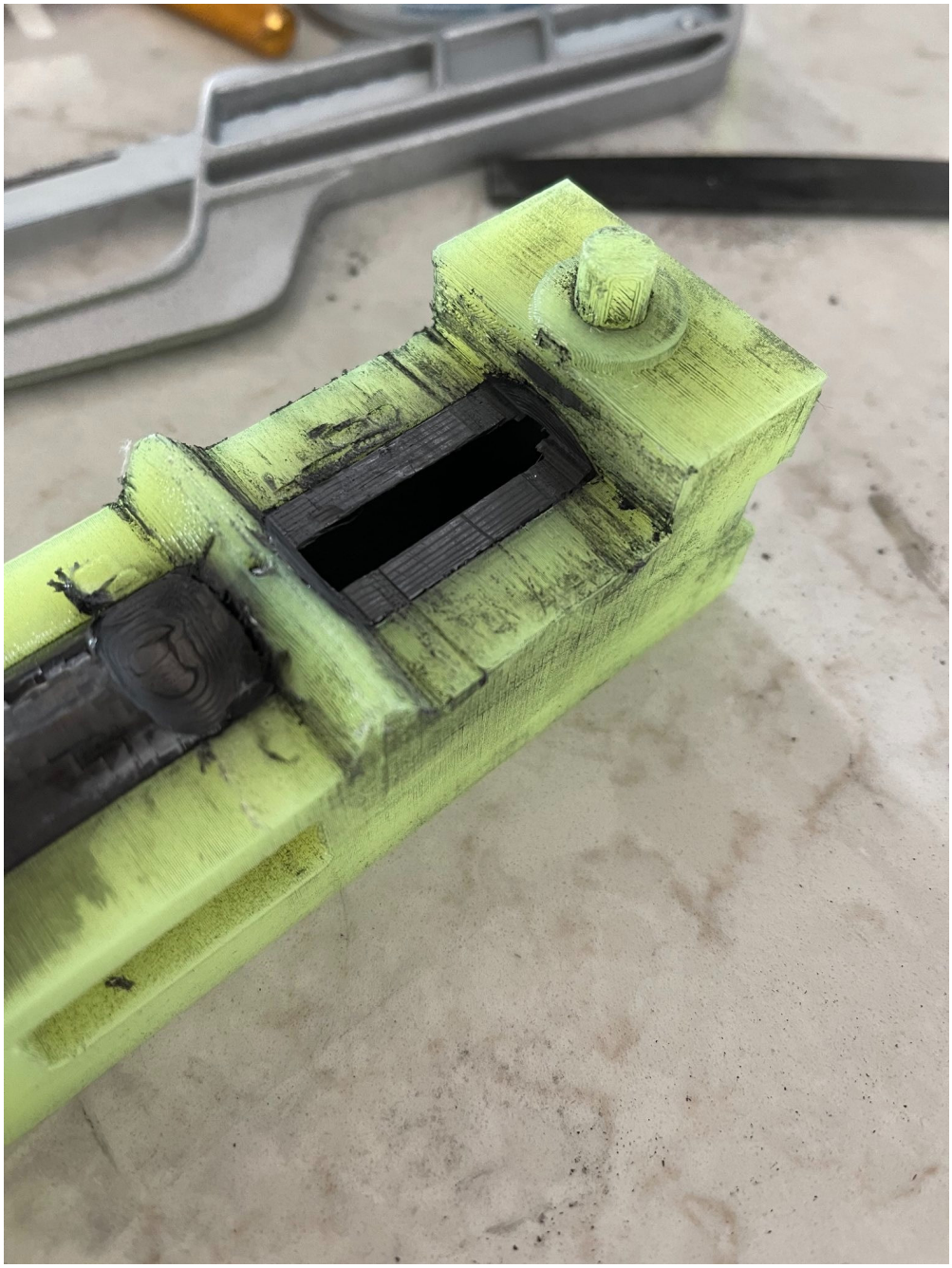
STEP 2:

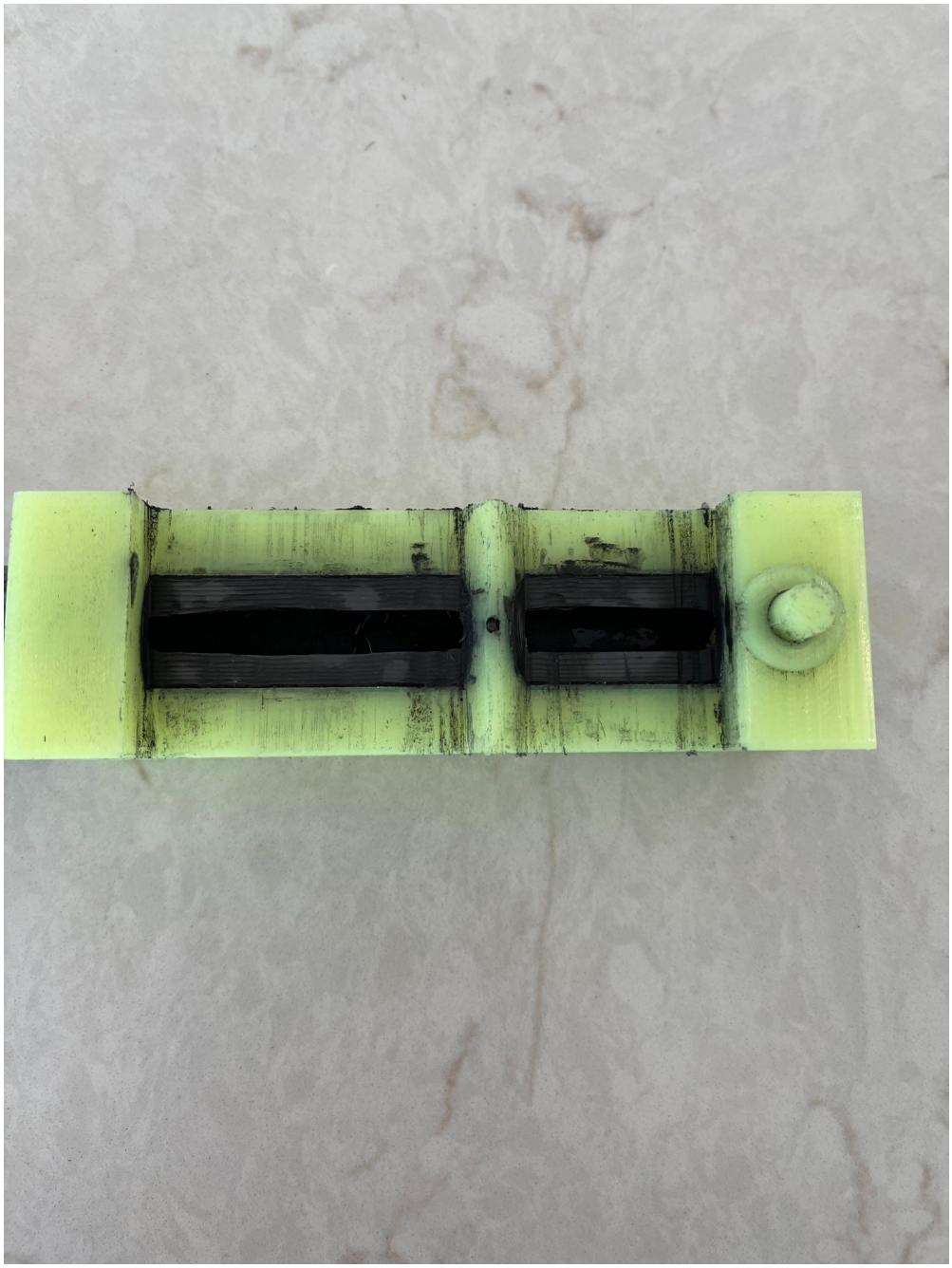
Cut the notches in the back of your receiver using a dremel to rough the shape out. Finish the notches square with your files. You're a master craftsman, an artist. Don't caveman this shit.

STEP 3:

Using the angled edges of the bottom of the jig as a guide, saw notches into your tube. There should be a total of four cuts on the bottom, two straight and two at an angle.

Use your dremel to continue removing material from the bottom of your tube. Your goal is to make the bottom flat with the jig contours. Don't remove too much with your dremel. You'll want to finish with your files for nice smooth and flat surfaces.

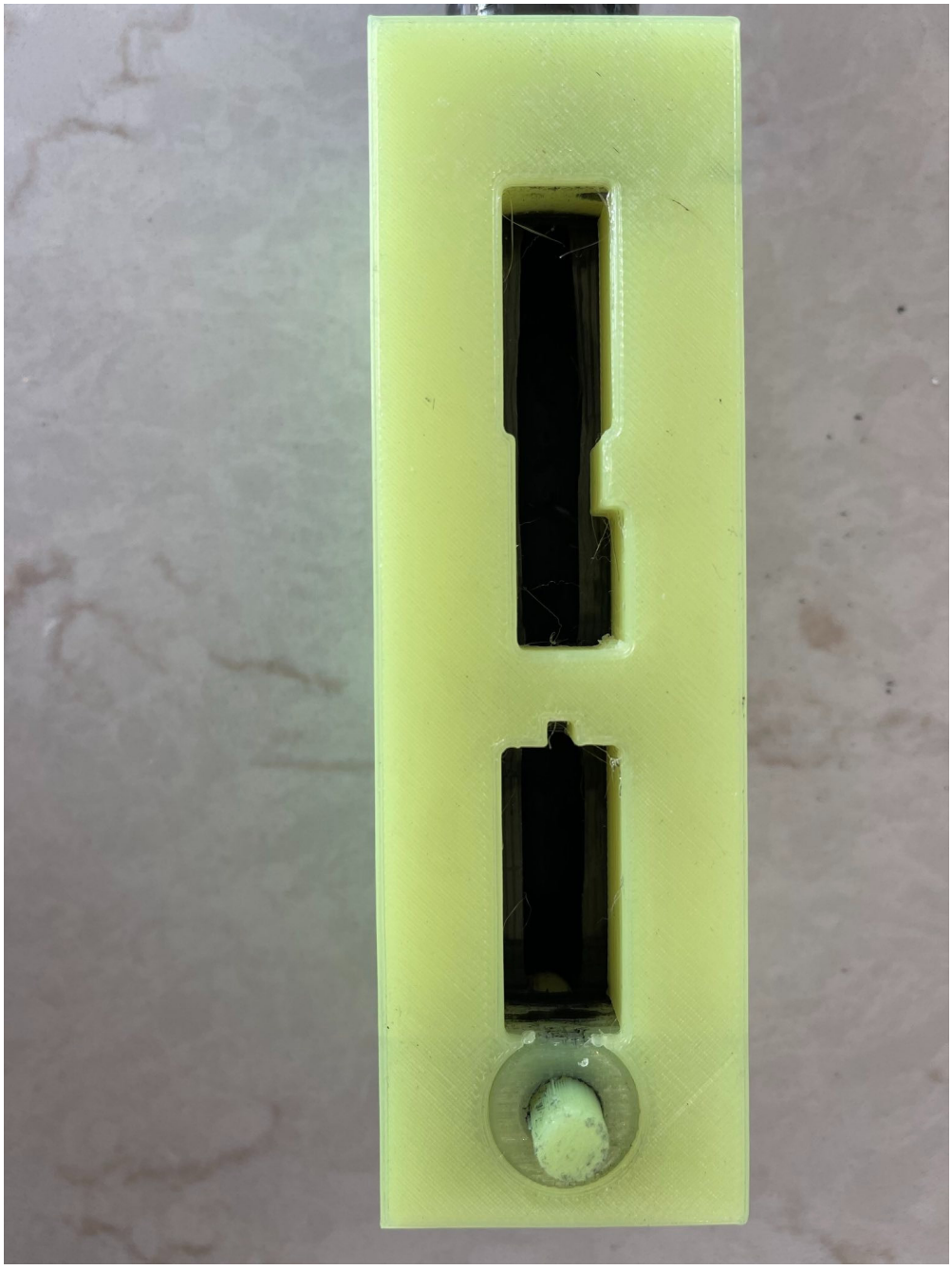


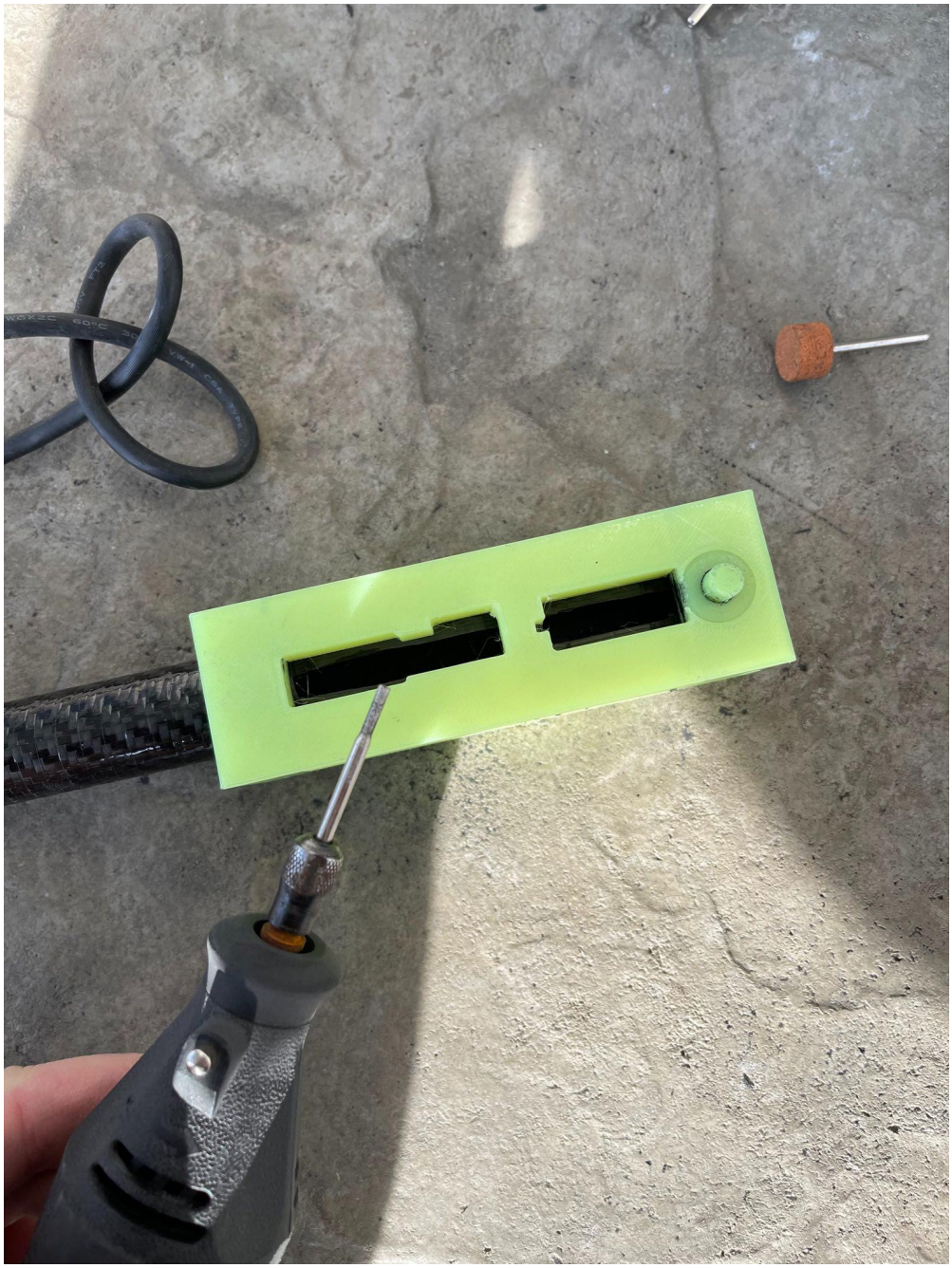


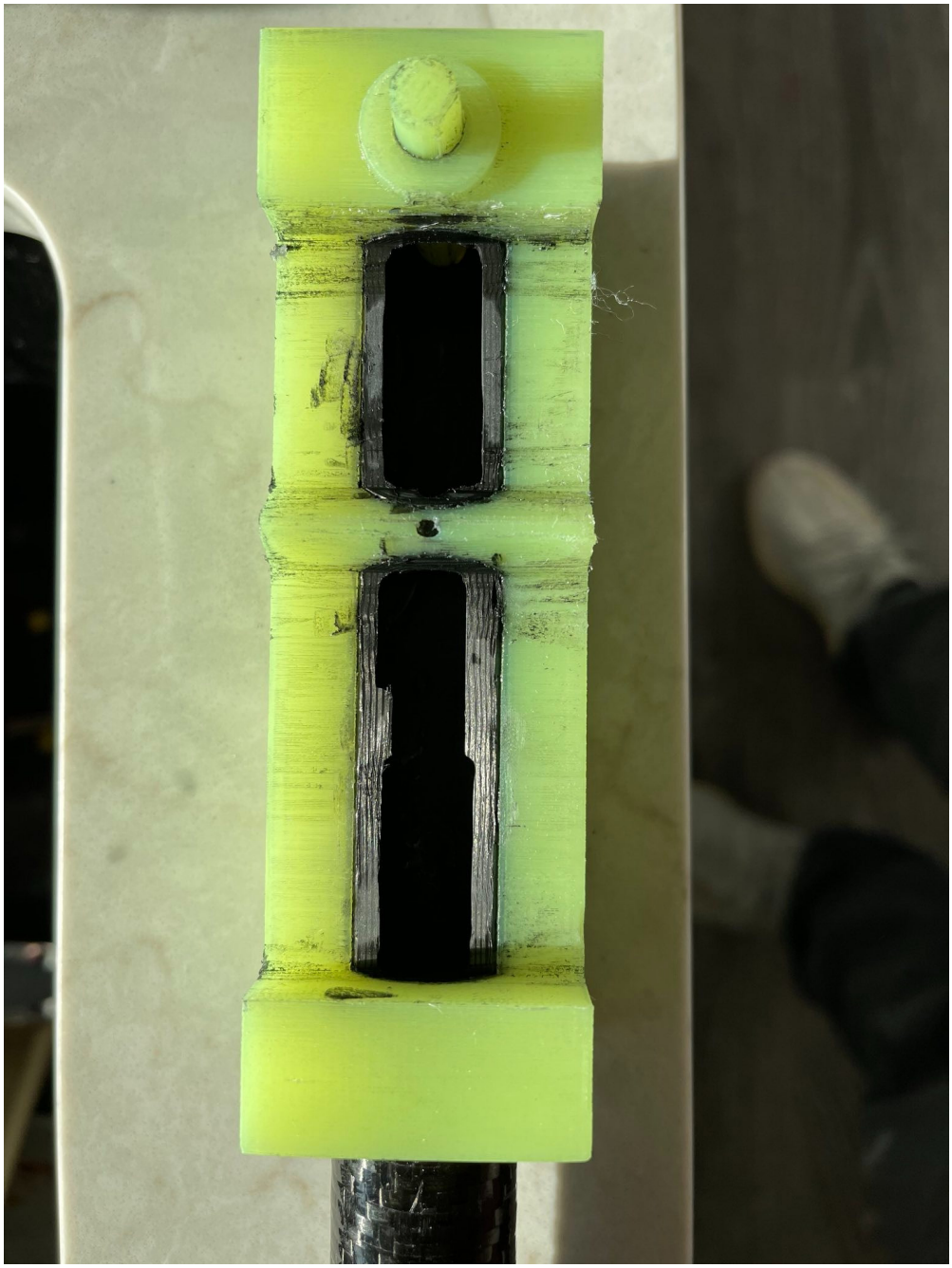
STEP 4:

Insert the Jig Plate onto the main jig and push down to secure. If it is loose, wrap some tape around it so it doesn't move.

Using your dremel and files, cut the contour of the hole correctly, Follow contours of the jig plate. Go slowly.







STEP 5:

Cut the ejection hole. Using a drill press, drill out several holes first then used the dremel to rough the hole out. This is the most difficult part to get right.

This doesn't need to be ultra precise, but it should look clean. You may need to clean your edges after removing the jig with the flat face of a file.

STEP 6:

Remove the tube from the jig and install the contour cutter. Reinstall the pin to make sure it's square.

Gently sand/dremel away the extending sections to be flush with the contour cutter. Use files to finish the faces and make them smooth.

STEP 7:

Prep your barrel liner and plugs for installation. Chamber the barrel liner if it isn't already, test fit all pieces.

Cut the tube down to the length you've planned for based on the length of your barrel. File the Extractor notch carefully without going through the inside wall of your liner. You may need to sand down the outside diameter of your liner/liner sleeve to allow for it to fit in the barrel plug.

Epoxy in place using the Bolt Glue Jig as a guide for setting the correct headspace. Make sure to properly degrease all parts prior to applying epoxy. Use a slow curing epoxy like JB Weld. Allow to cure for 24 hrs.

Install your ejector and then add the upper on your grip frame. It is usually very tight initially and may require some gentle persuasion to seat fully in place. If your magazine hits on your ejector screw, you can file the screw down until you have enough clearance to insert magazine.

You can also sand the feed ramp to polish it for better feeding.

ENJOY :-)

Optic Mounts:

There are three optics options: a long rail, a short rail and an RMR plate. Print the rail or RMR plate, corresponding jigs, and use them to drill holes in your upper.

If you are using a metal tube, you can thread these top holes to accept a 3mm screw. In the carbon fiber, I've had success using