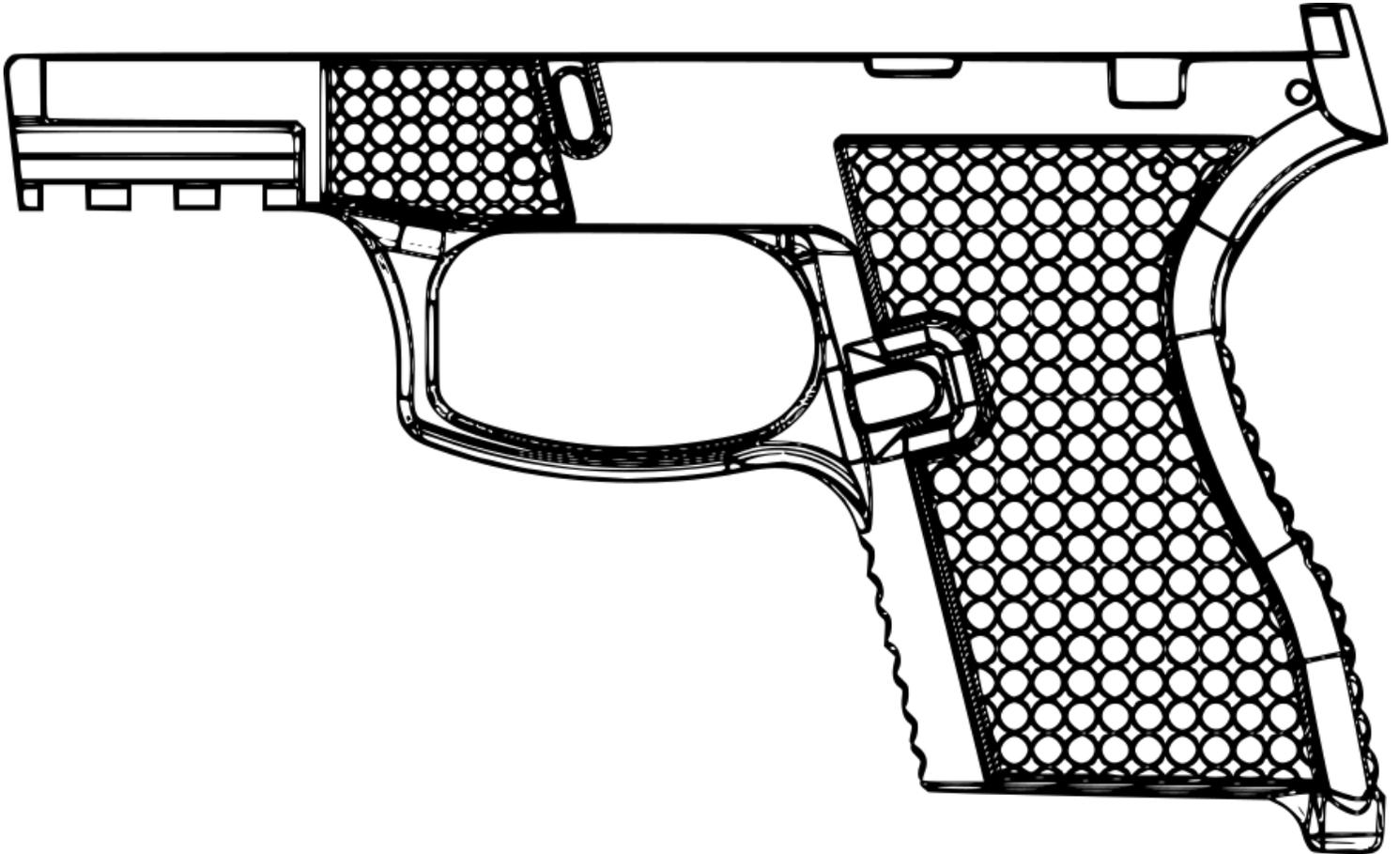


The "Fanny Blaster"

by Freeman1337

(a printable frame for the Taurus 709 Slim Gen2)



Released: 10/X/2021

Version: 1

Acknowledgments

Thank you to the Rocketchat beta team at The Gatalog, which spent months testing out new frames, giving good feedback, and testing the various accessories included in the bundle. Thank you to geekdefense (cyberodb) and krizzap for testing the usage of Gen1 parts kits with select Gen2 replacement parts to make functional "Fanny Blasters". Thanks to them as well for additions to the documentation on this matter. Also to krizzap for developing a new slide backplate with striker position indicator (which is unique to this pistol frame and to geekdefense (cyberodb) for creating models for a replacement (improved) Promag magazine follower for this model, in addition to to a replacement slide retainer plunger also included in this release. Thank you to all who contributed!

Frame design by: freeman1337

Trigger block pin bushing by: freeman1337

Slide locking block bushing and magazine follower by: geekdefense (cyberodb)

Striker-position indicating backplate by: krizzap

Description

This is a printable frame for the Taurus PT 709 Slim Gen 2. Though there are several variations on this pistol, compatible parts kits will have rails integrated into both the trigger block and sear block.

This is what will work:



This is what will not work (without suitable replacement parts):

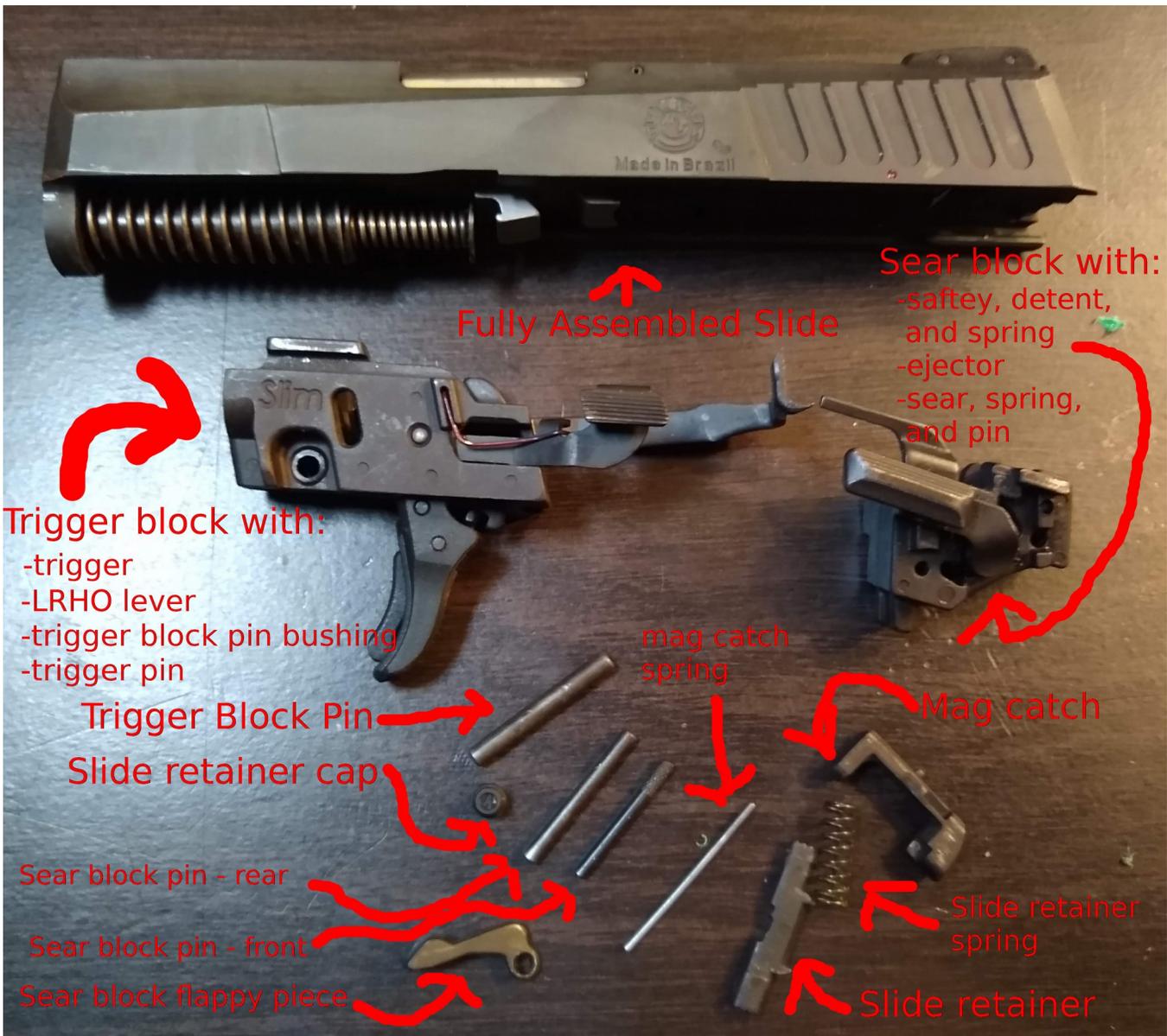


Instructions

Hardware Requirements:

- Taurus 709 Slim G2 parts kit
 - Any parts not included in said parts kit
 - Magazines (which are typically not included with kits)

The following parts shown below are required for this build:



In some cases, your parts kit may be missing some small parts (such as a barrel pin bushing or mag release) or some of them may fly out while attempting assembly (such as the safety detent/spring, sear block, etc. The 3d printed parts supplied in this release were made out of necessity in some cases because our kits didn't come with them.

Tools:

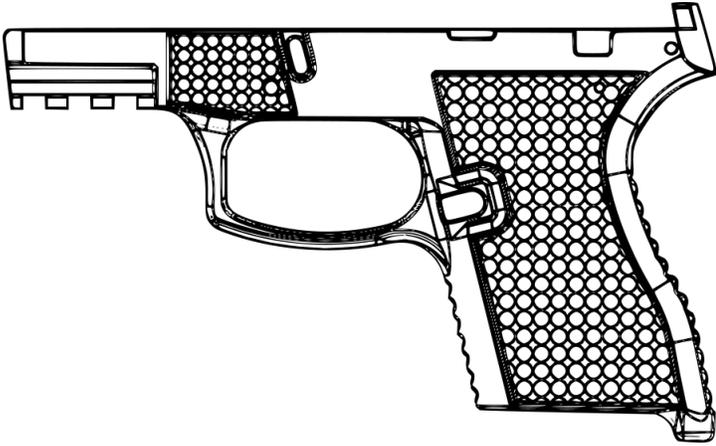
A selection of basic gunsmithing tools is needed to complete this build. The one we require are:

- gunsmithing hammer | [link](#)
- gunsmithing punches | [link](#)

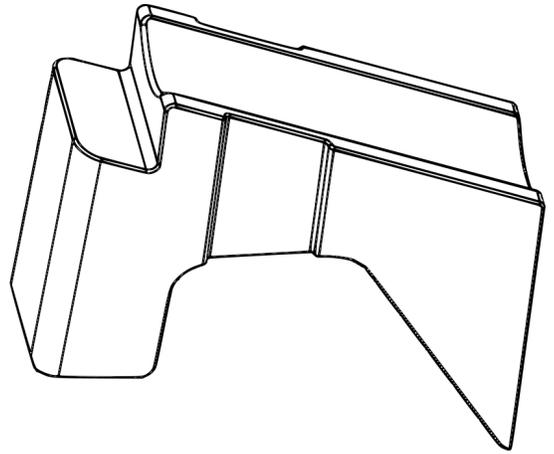
Print Settings:

Material	PLA+
Nozzle Size	0.4mm
Filament Size	1.75mm
Layer Height	0.3mm
Top/Bottom Layers	10/10
Wall line count (Perimeters)	10 walls
Infill Pattern	Line
Infill %	99-100%
Supports	Tree/45°/Everywhere

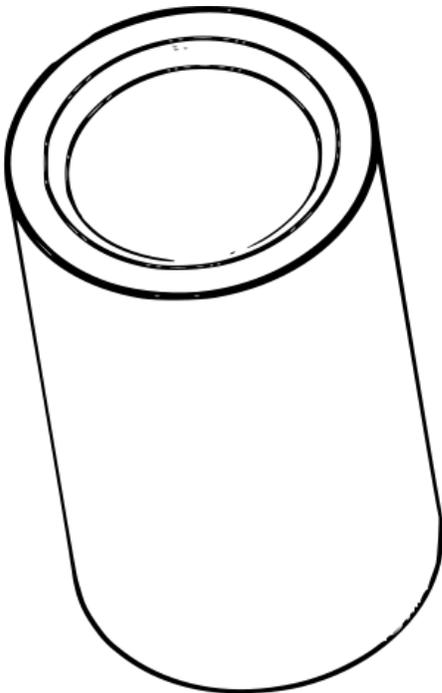
Model List:



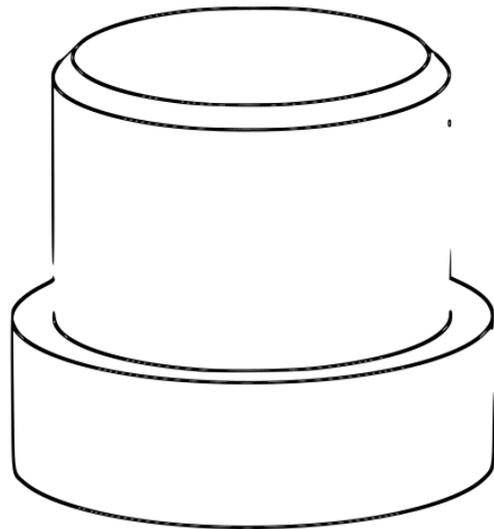
Frame



Mag Follower

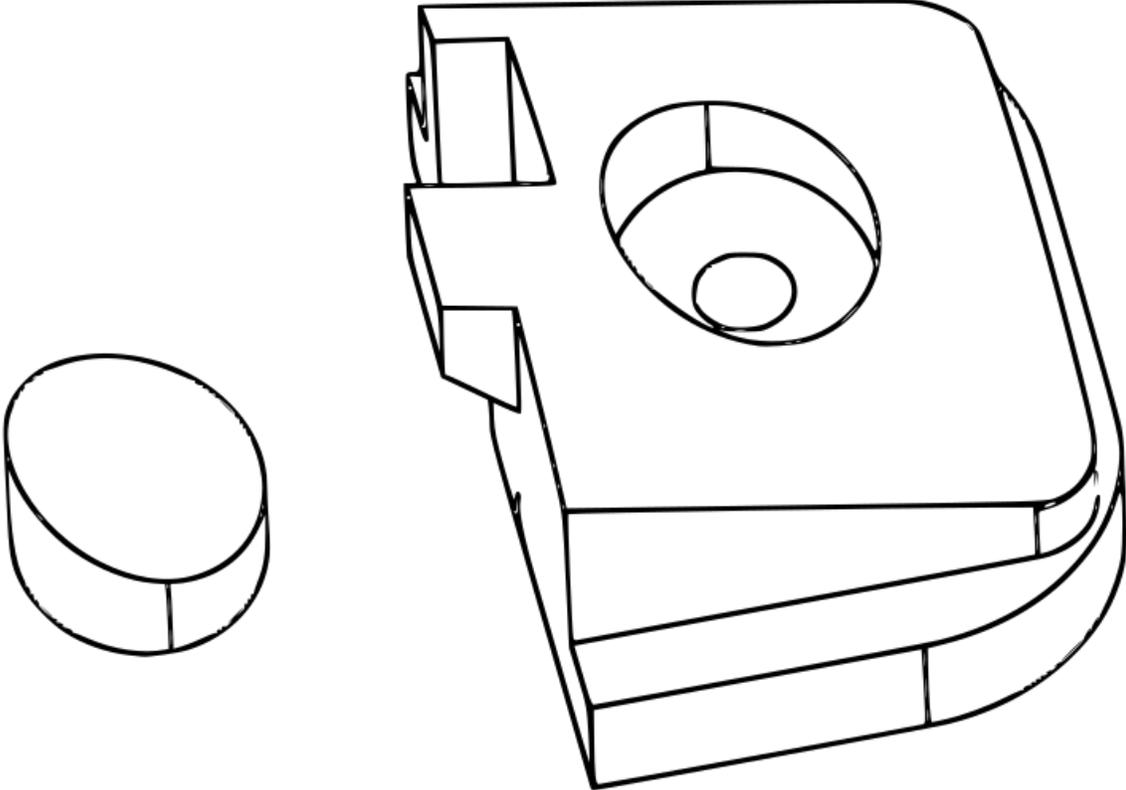


Trigger Block bushing



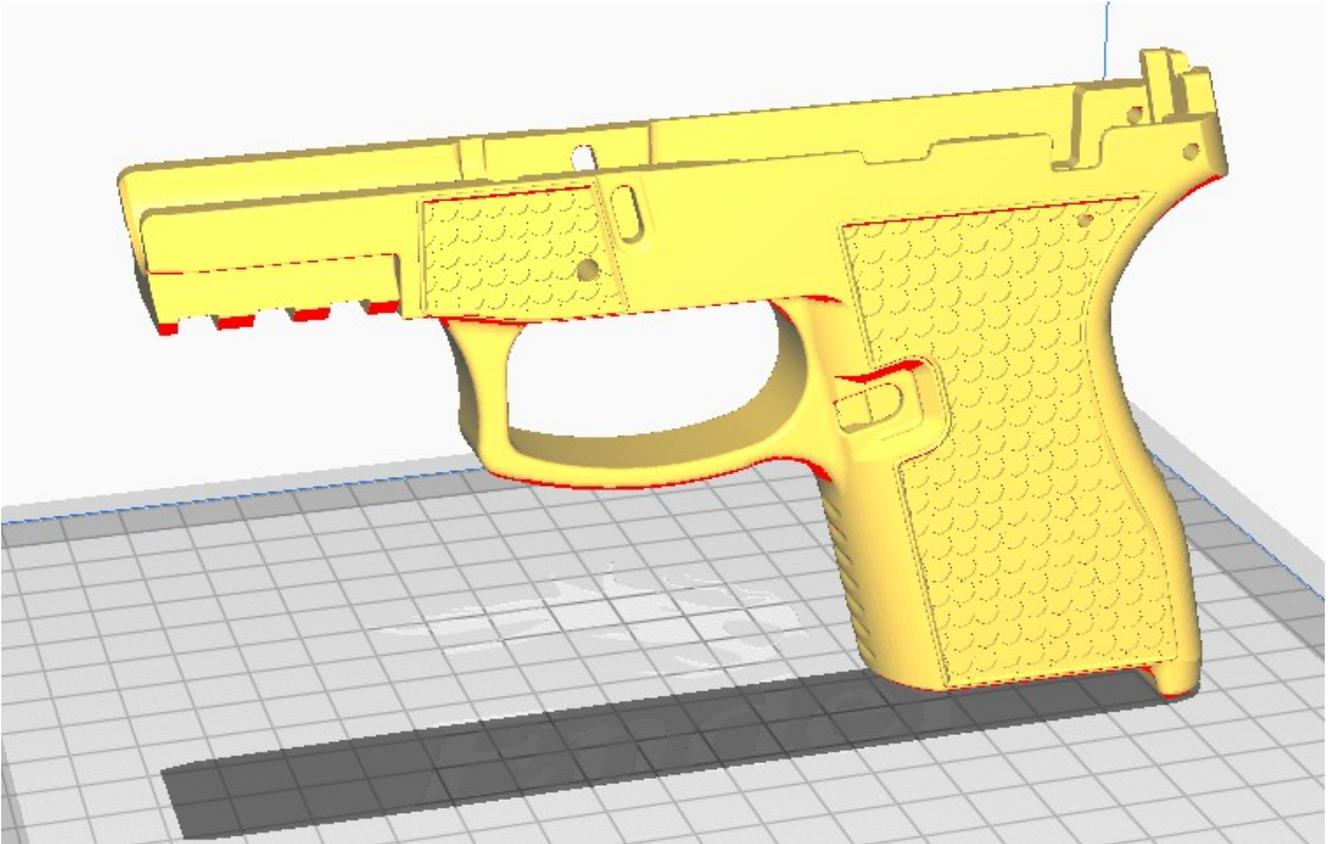
Slide retainer plunger

Striker-position indicating back-plate



Print Orientation

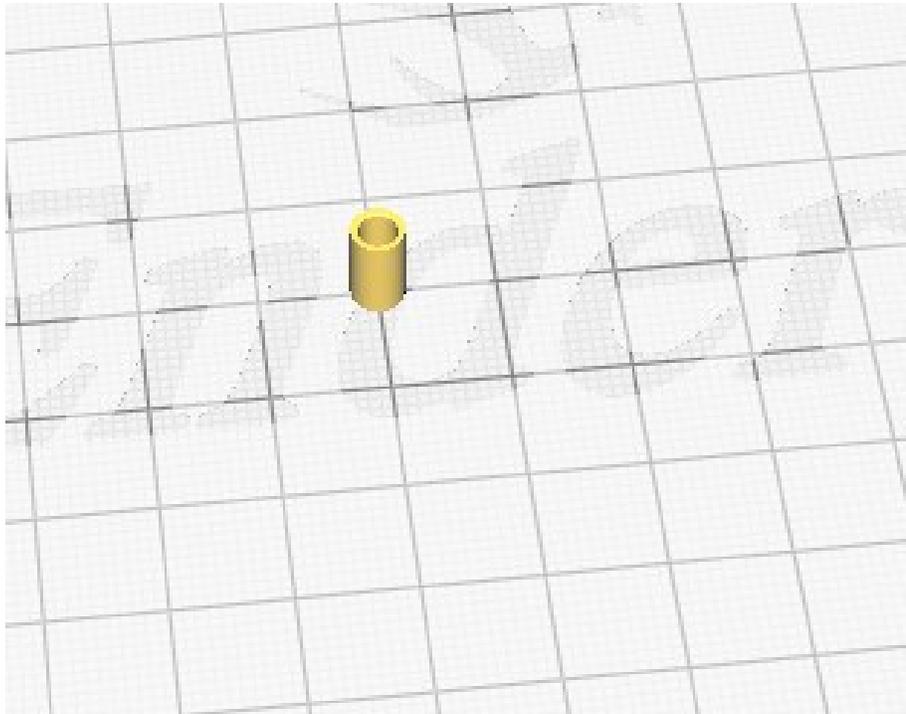
Frame



This frame needs to be printed magwell down. I highly recommend the use of tree supports for this frame, as cleanup is much more difficult and time consuming when using traditional supports. In this guide, I'll cover print orientation of each included model and cleanup of the frame.

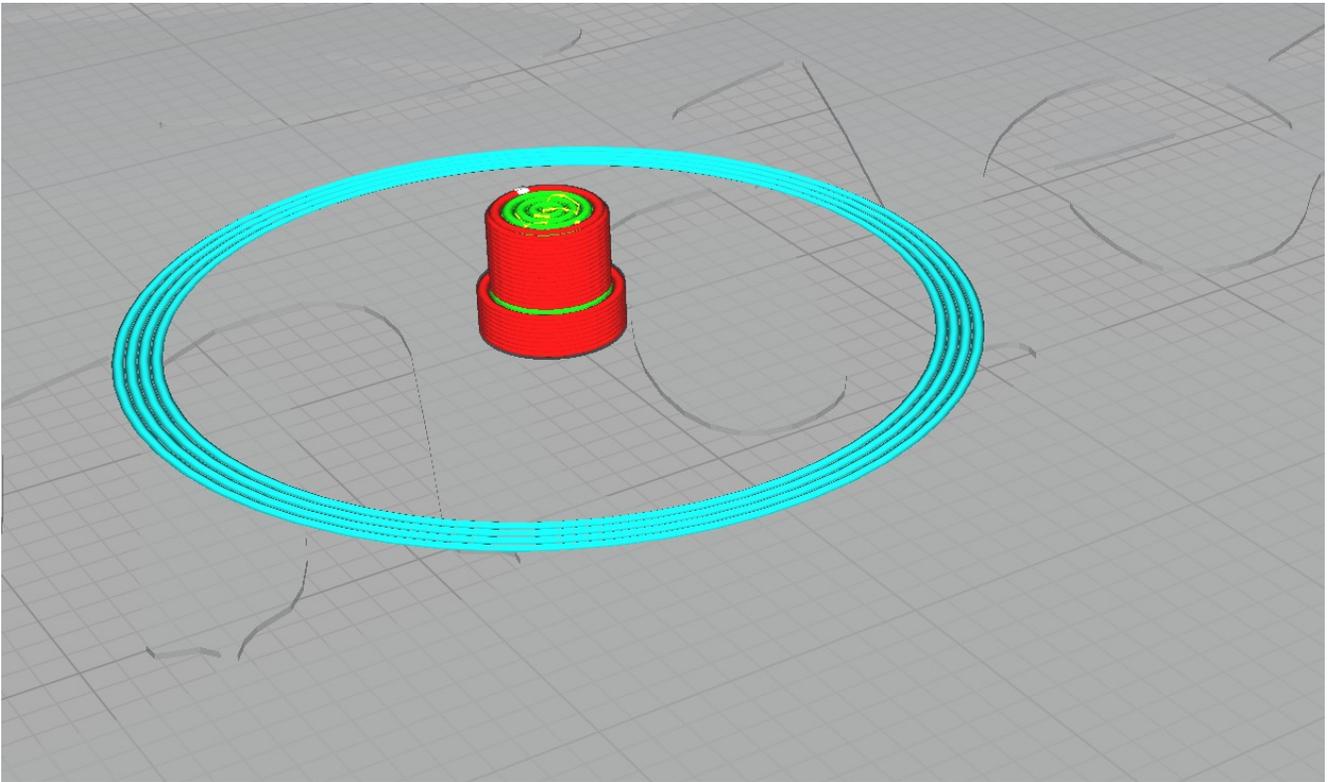
Barrel pin bushing

This barrel pin bushing usually ships with parts kits stuck where it needs to go (using a little grease to hold it in). In some cases, it'll be loose in the bag or missing. Without this bushing, the locking block can move around excessively, causing wear on the parts kit and possible frame breakage if not used (so make sure you use one, printed or otherwise). Smaller layer heights and speeds are recommended for this model.



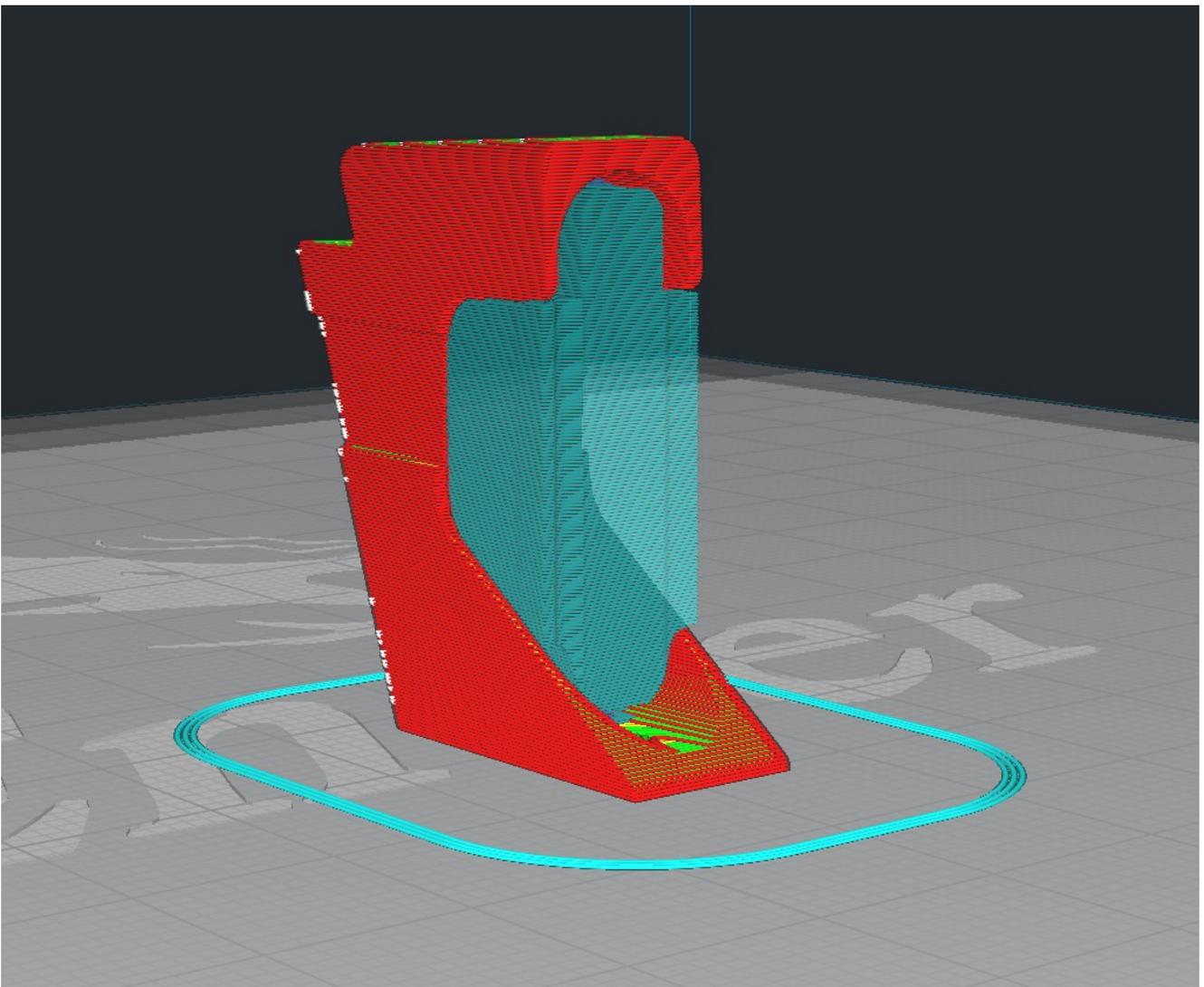
Slide Retainer Spring Bushing

This piece was modeled by geekdefense (cyberodb) out of necessity. He, like me, rocket manned this piece accidentally during frame assembly. I was able to find mine, he was not. Because it's so easy to loose this part, we've included it here. Smaller layer heights and speeds are recommended for this model.



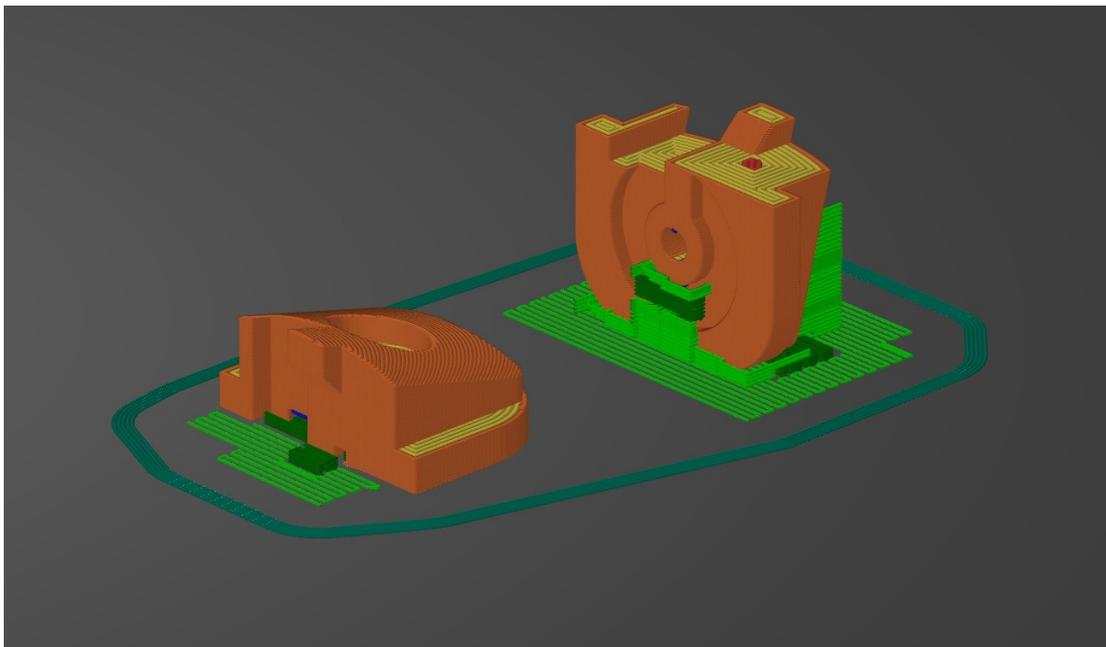
Magazine Follower

This piece was modeled by geekdefense (cyberodb) out of necessity. He found that the magazine follower in some of his promag aftermarket 709 mags were causing failures to feed/lock open on the last round. This follower usually fixes those issues in some promags you may find.



Striker-position indicating backplate

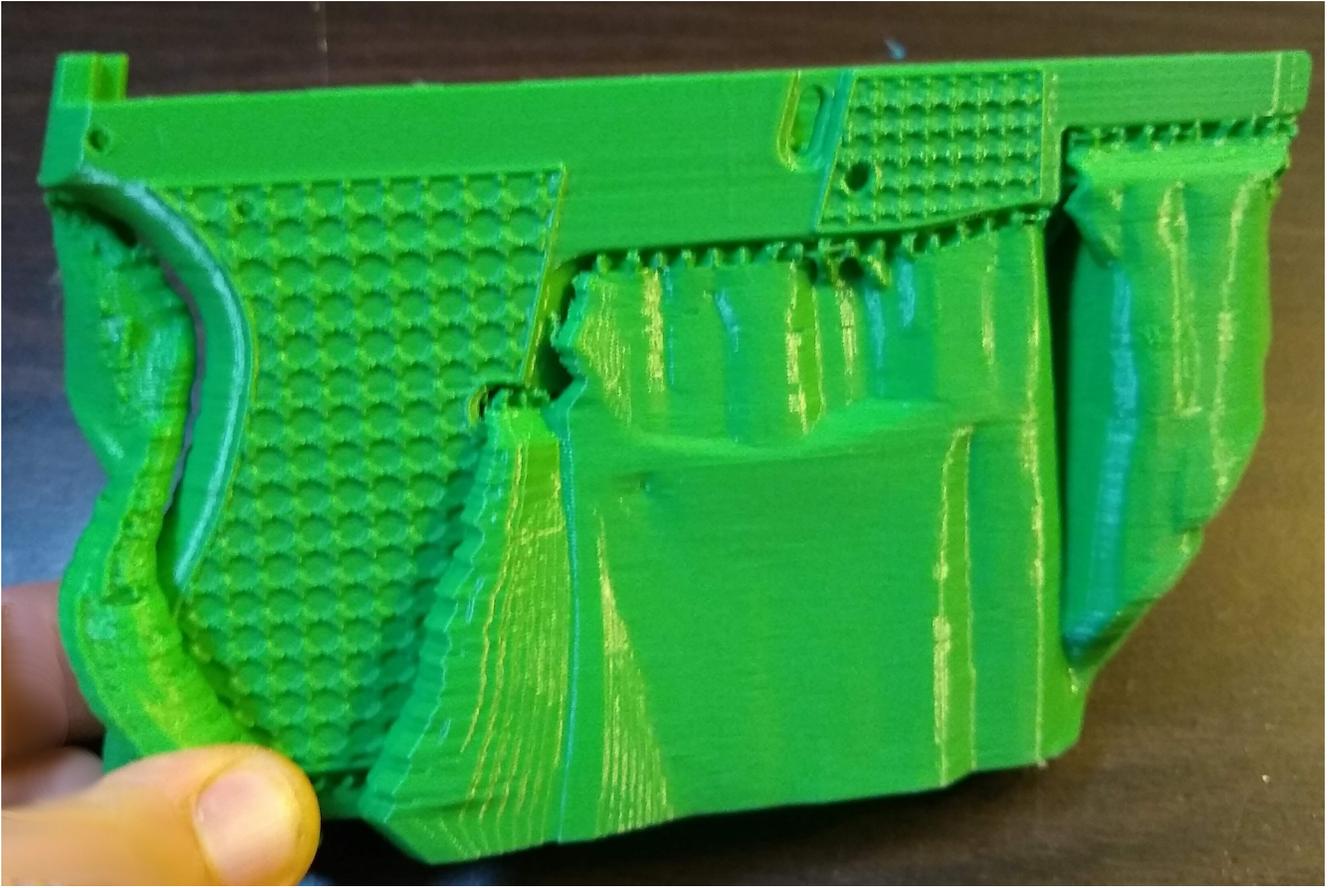
This is a set of replacement Taurus 709 Slim slide backplates, one a featureless replacement of the original and the other a functional striker indicator. The indicating model uses COTS parts to finish and is easy to assemble, and both add an extra means of customizing the appearance of your build. I wanted to design this because I appreciate this feature on Walther pistols, and am a sucker for indicators and knowing the status of my firearm. What this effectively does is provide a visual and tactile indication of the striker's position without unholstering the firearm. All you have to do is look or brush a thumb over the backplate and you can make darn sure if you actually cocked (and if it suits you, locked) it before you even unholster. Feel Free to customize the blank one with your own design!



Frame Post-Print Cleanup

Here, we'll walk through the process of cleaning up a freshly printed frame using the recommended print settings and orientation. Here's the print as it finished on the mat:





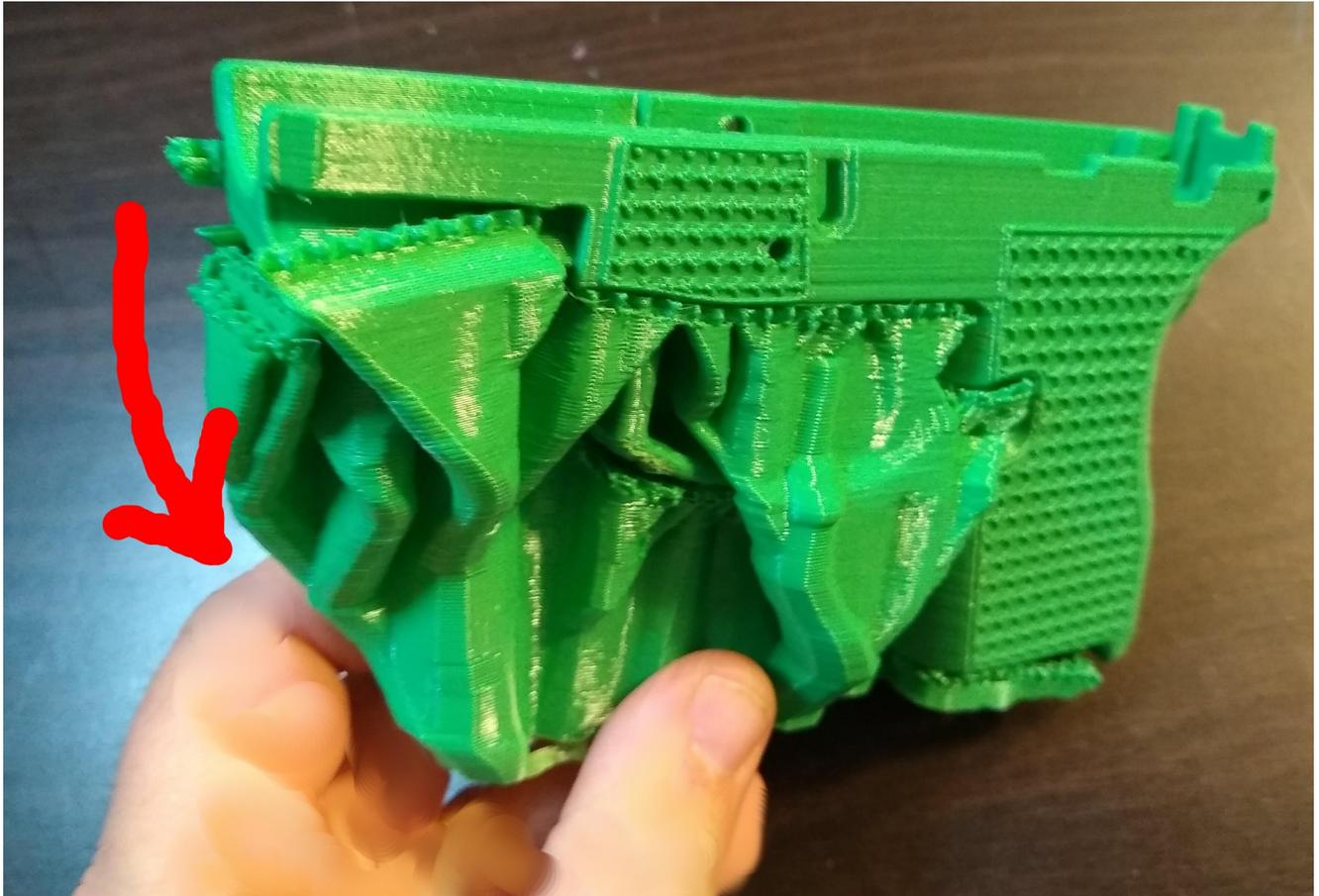
Let's start our cleanup by removing the rear support material and peeling it back:



Continue peeling down, and encourage support material under the magwell to come off as part of the same piece.



Now, flip the print around and start to separate the support material around the picc rail. Pull down and towards the magwell as you do this, trying to keep the support material in one piece:



Continue to peel back and separate support material from your print. The support material should start to separate from the trigger guard areas next:



Most of the support should be peeled away by this point. The last pieces to release are usually around the inner top portion of the trigger guard:



At this point, the supports should only be hanging onto the frame by what's left of the support material in the magwell. Pull that free, and set the supports aside:



Huzzah!! Your frame is free of supports and nearly ready to assembly:



Before starting assembly, cleanup the areas circled in red. Usually only the top portion of the mag catch hole needs to be cleaned up. Be sparing in how much material you remove, remove too much and the mag won't fit into the magwell if the catch is allowed to move too far forward (which can happen if too much material is removed from the back of this hole):

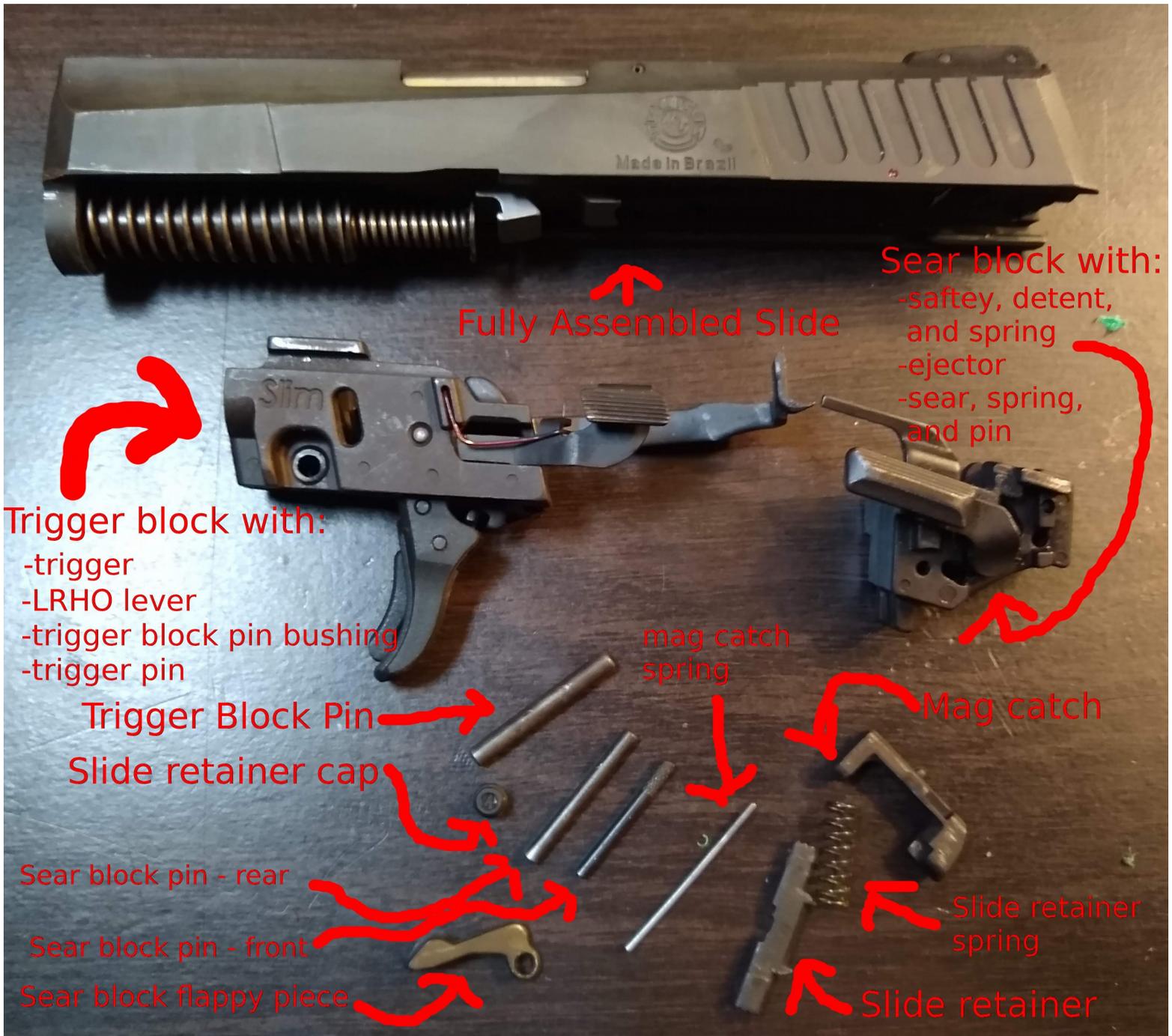


Finally, remove the excess support material from the bottom of the magwell with a sharp knife, and we're finally ready to start assembly!



Assembly:

Before we start assembly, let's take a look at all of the factory parts we're going to need:



Note, there are some pieces not completely disassembled for display here. Most parts kits will come with a fully assembled slide, the trigger block mostly assembled, and the sear block with the sear and it's spring/pin installed already. In my case, I've already assembled the safety detent and spring into place (because they love to go flying into the cracks between the floor).

First, let's grab the mag catch spring (the longest skinniest pin looking thing) with a pair of plyers, and install it into it's hole:



Once installed, you may need to use a hammer and punch to install the spring to the correct level in it's hole. It should be roughly centered in the mag catch hole. If it's too high, the mag catch won't pop into place. Too low, and the spring won't keep the mag catch in position:



Note:

If you need to make a mag spring, here's how to do it:

- Use 0.051" music wire, trim to 27.85mm
- bake at 550F for 1.5 hours, allow to cool slowly in oven. -
- Baking on cast iron seems to work pretty well.

Next, loosely insert your mag catch into it's hole. Make sure it's installed at the correct orientation on both sides of the magwell:





Next, use a gunsmithing punch and hammer to drive the mag catch into position. Use as little effort as required.



When installed properly, this is what the mag catch looks like on both sides of the magwell:



Next, let's take a look at the sear block. Make sure the spring and detent are installed, and ensure the sear is in just the right position so that you can feel and hear the detents engaging properly prior to installation with the trigger block into the frame. You'll have to hold the safety and detent down with pressure as you're inserting it into the frame. Good luck!! When in doubt, assemble it inside of a ziplock bag to lessen the chances of losing parts.



Now, let's take a look at the trigger block. Our Last Round Hold Open lever and its spring are already installed, as is the trigger block pin bushing. Note, this bushing must be installed for safe firing, otherwise the trigger block can be allowed to move excessively when firing (which will quickly break the frame and send parts flying):



Now, let's insert the trigger block into the sear block. Install the trigger bar sideways into the sear block, then turn it upright. It's very difficult to install this wrong, but don't use force:



Next, install the assembled action into the frame. Insert the sear block first, then tilt the trigger block into position. Make sure to push the sear block down and back, and don't fully seat at first. The trigger block should be pushed all the way home first, and should seat into place easily with little resistance:



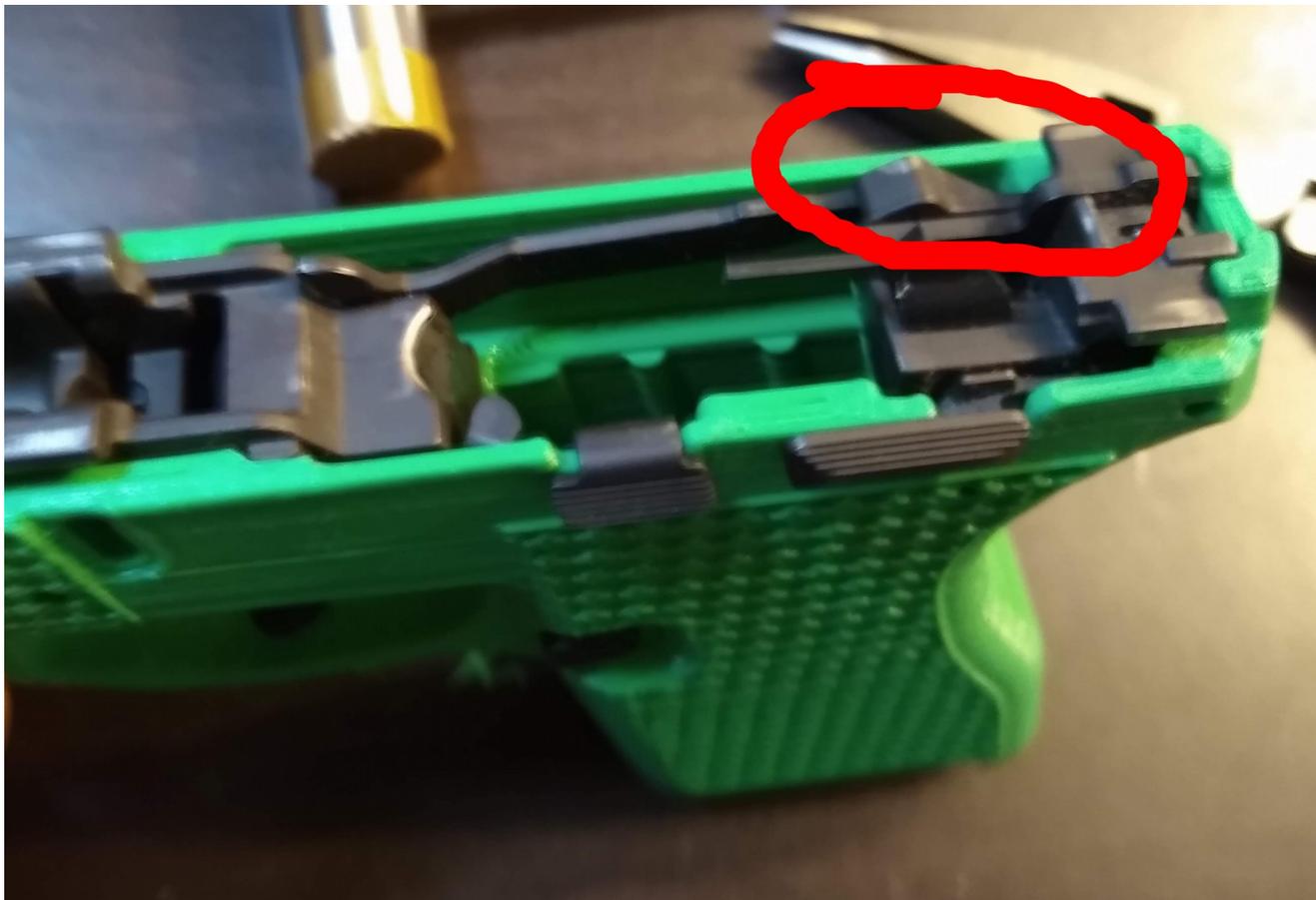
At this point, the trigger block has been pushed all the way home. Now, do the same for the sear block. When fully seated, the pin holes for the sear block should be perfectly aligned with corresponding holes in the frame. Fine adjustment may be necessary, DO NOT USE A HAMMER AND PUNCH TO DO THIS!:



At this point, the sear block has been pushed home and is in the correct position:



Before pinning anything into place, make sure you didn't forget this flappy piece that goes in place on the sear block above the trigger bar. This must be installed before the assembled block can be pushed into the frame:



Before installing the front sear pin, lets take a look at it. One end is knurled, the other is not. Insert the smooth side into the frame, and hammer it into the frame. The knurled bits prevent the pin from being driven all the way through, DO NOT FORCE IT TOO FAR!:



Once driven into it's final position, not the depth of this pin into the frame. Drive it no further:



Next, let's install the rear sear pin. Orientation doesn't matter, but do note how far it gets installed. We want to go for symmetry on both sides here:



Next, we'll install the trigger block pin. Make sure the trigger block pin bushing is installed prior to doing this!:



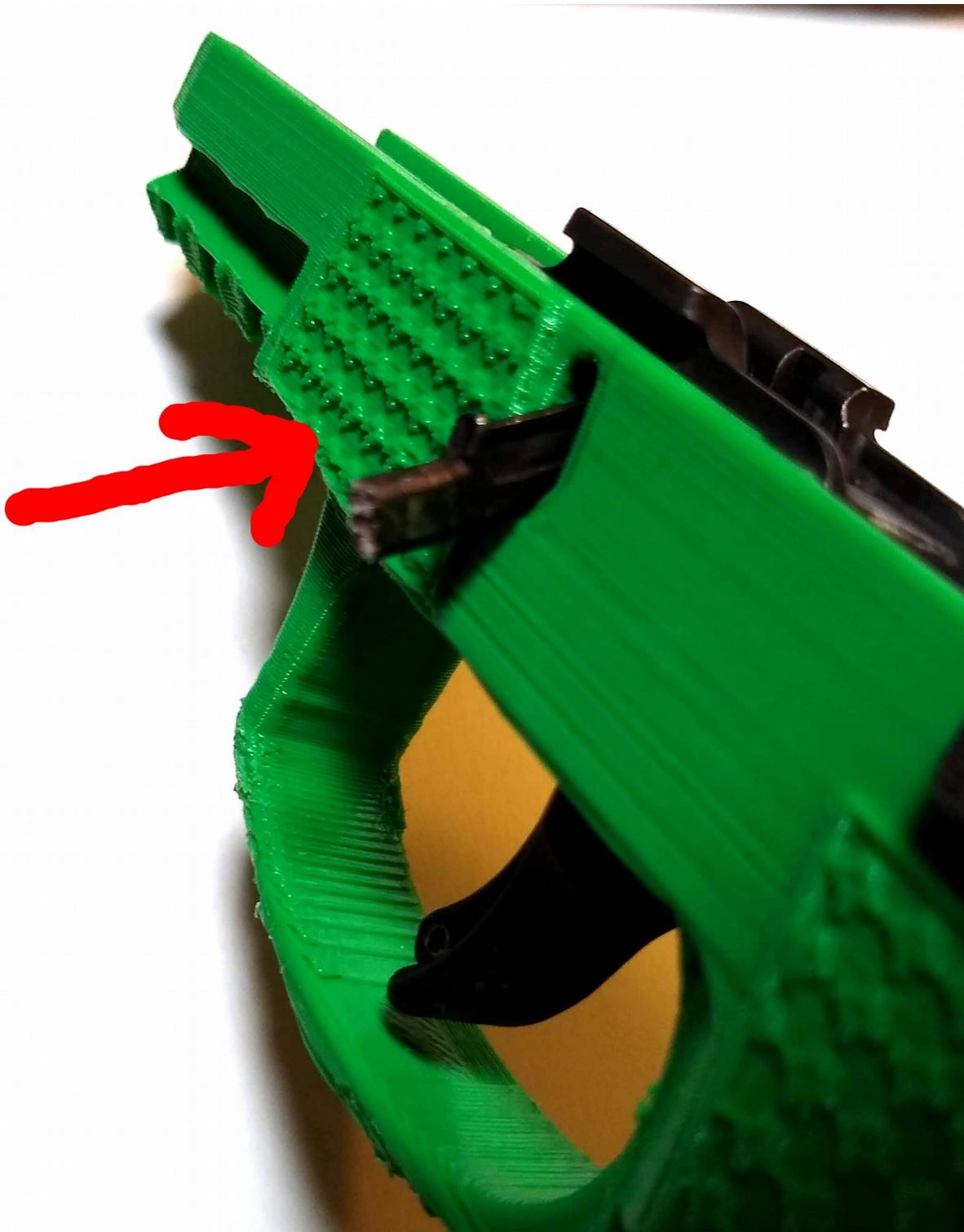
Next, insert the slide retainer spring into its plunger, and insert it into its position on the trigger block:



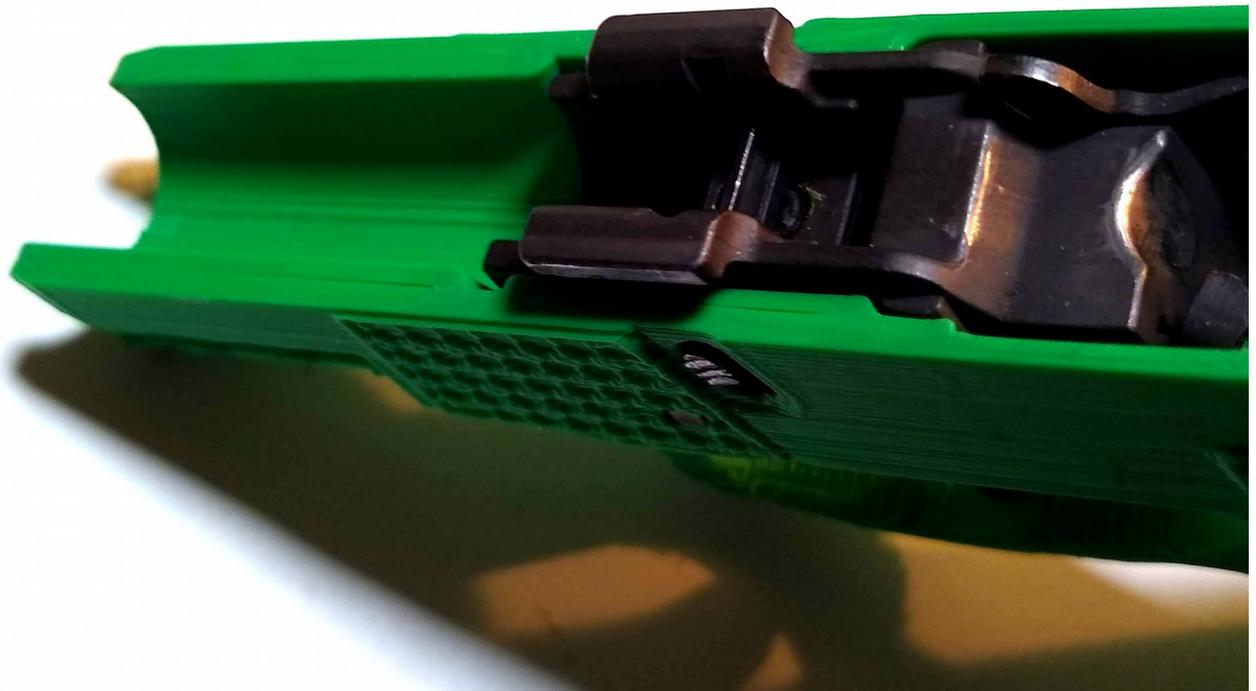
Now, let's note the slide retainer. There's a skinny and fat end. The skinny end is what gets inserted into the frame first (counter-intuitive I know):



Here's a picture of the slide retainer once it's installed far enough to retain the spring and plunger. At this point, push it down and through to the other side of the frame:



Here's what the slide retainer looks like fully installed. Note the ramp position. The ramp on the retainer should be facing towards the muzzle end (where the pew pews comes out). If once assembled you can pull the slide off after you pull the trigger, it's probably on backwards:



Finally, install the slide onto the frame. Make sure to pull the slide retainer bar down as you're installing, then ensure it returns back up once the slide is fully installed. The slide should move freely and return without drag. Insert an empty magazine and rack the slide back, the slide should lock back. Then, without removing the magazine, use your thumb to depress the LRHO lever, and the slide should rack back forward.



Huzzah! Your assembly is finished!! Run some snap caps through your firearm, and enjoy!:



Kit cleaning and Pistol Lubrication

It's a universal fact that (almost) everything is better with lube, and this is no different. When buying kits, depending on where the last gang-banger to use it was stowing their former "piece", your kit may range from being a little dirty to looking like it was stored at the bottom of a lake. Either way, cleaning up your kit is vital to success with a pistol built from such a kit. Make sure all the dirt and lint is off as much as you can, and remove visible rust *carefully*. A little rust isn't a huge deal, but you don't want to be removing massive amounts of material to get them shining. Doesn't have to be gleaming, just dirt free.

Once your kit is clean and assembled onto your frame, it's vital to place a small amount of appropriate lubrication on these areas. I use Break-Free CLP, but there's lots of options out there. Please see the pictures below for the appropriate locations.:

Lubricate Here



In essence, you want to lightly lubricate the rails, trigger, LRHO, sear bar, and sear bar retainer. DO NOT lubricate the feed ramps, mag catch, or anywhere else that isn't noted. Don't go nuts, just a very small drop in each location, install the slide, and work it in. Should work much better then when dry ;-)

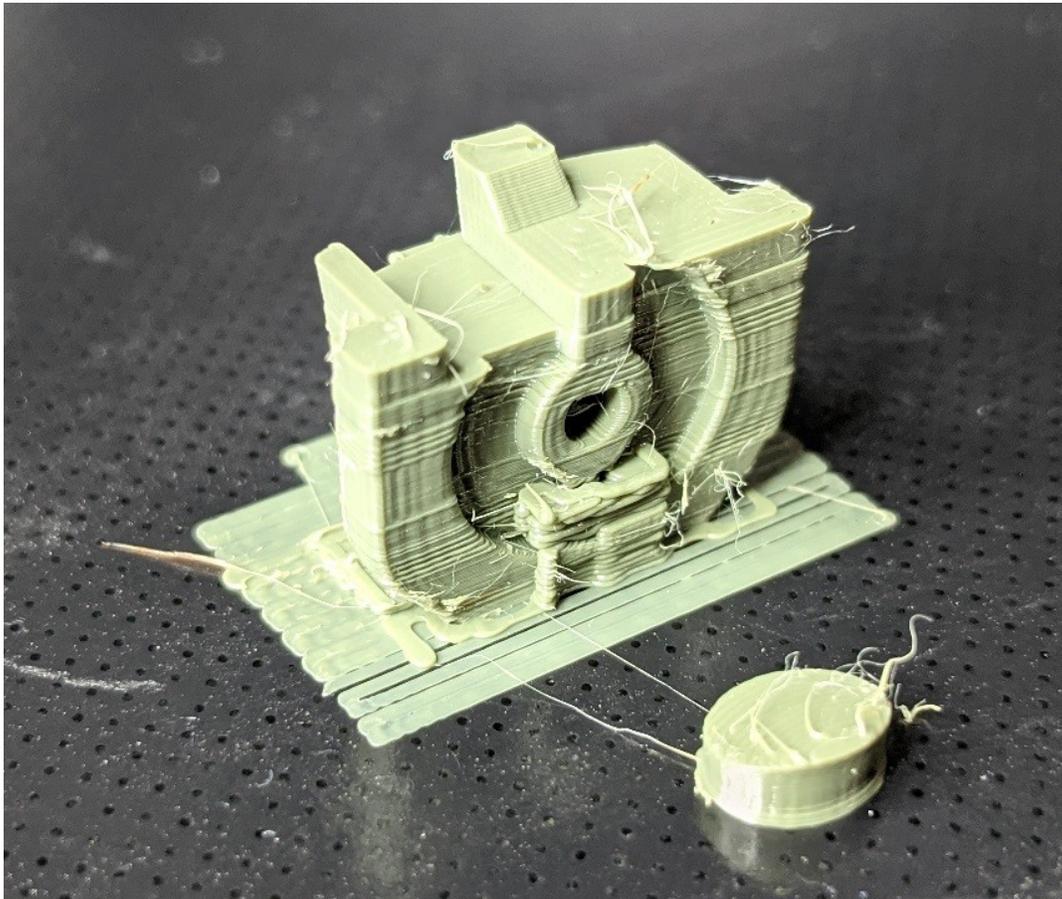
Lubricate Here



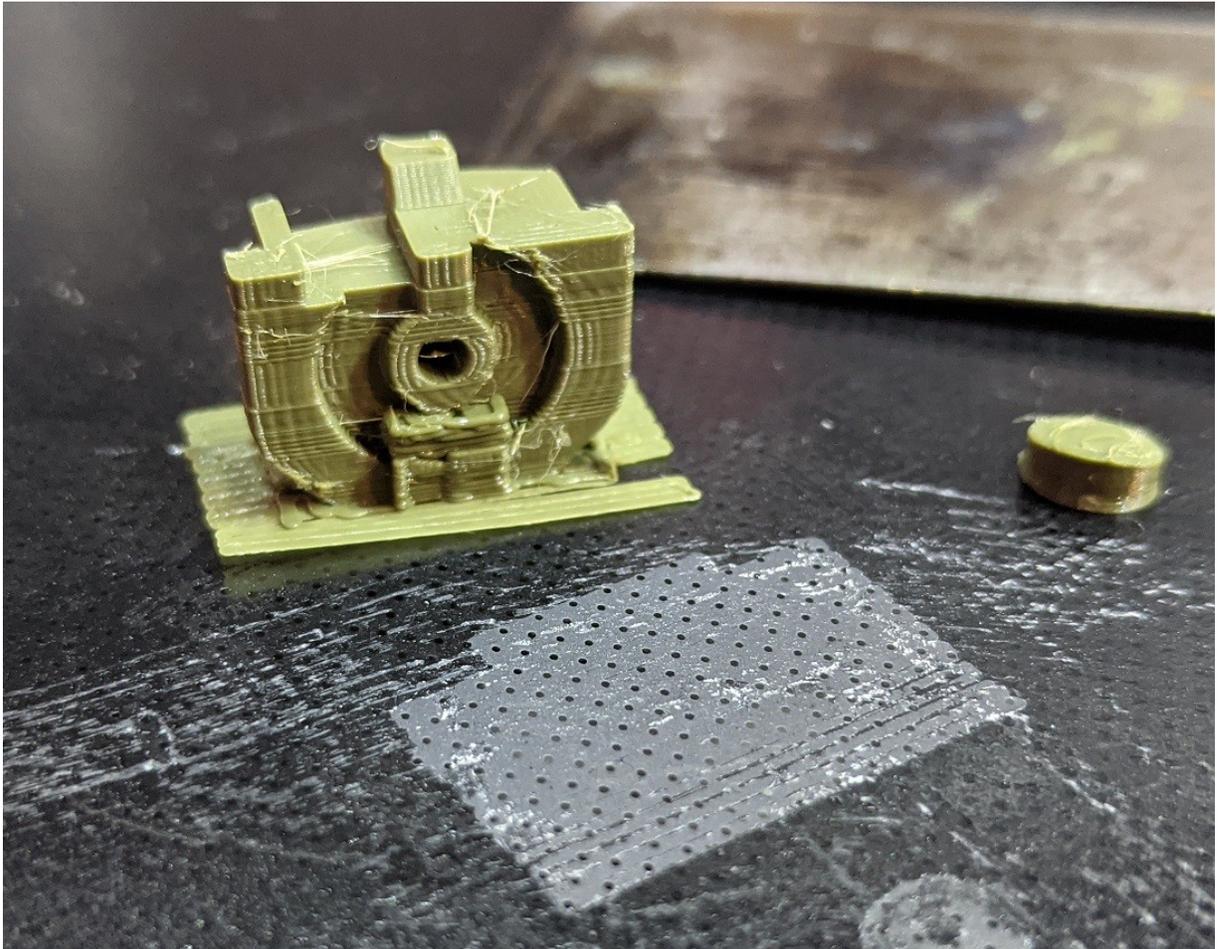
Before installing the slide, lubricate the areas mentioned above. Just a drop. We want to lube the rail slots, the barrel (where it engages into the trigger block), guide rod and spring, etc. It's not pictured, but once assembled, lock the slide back with the LRHO lever, and put a few drops of lube on the barrel and wipe it into a fine film. Release the slide, and now we're ready to rock and roll.

Accessories Assembly - Sear-position indicating backplate

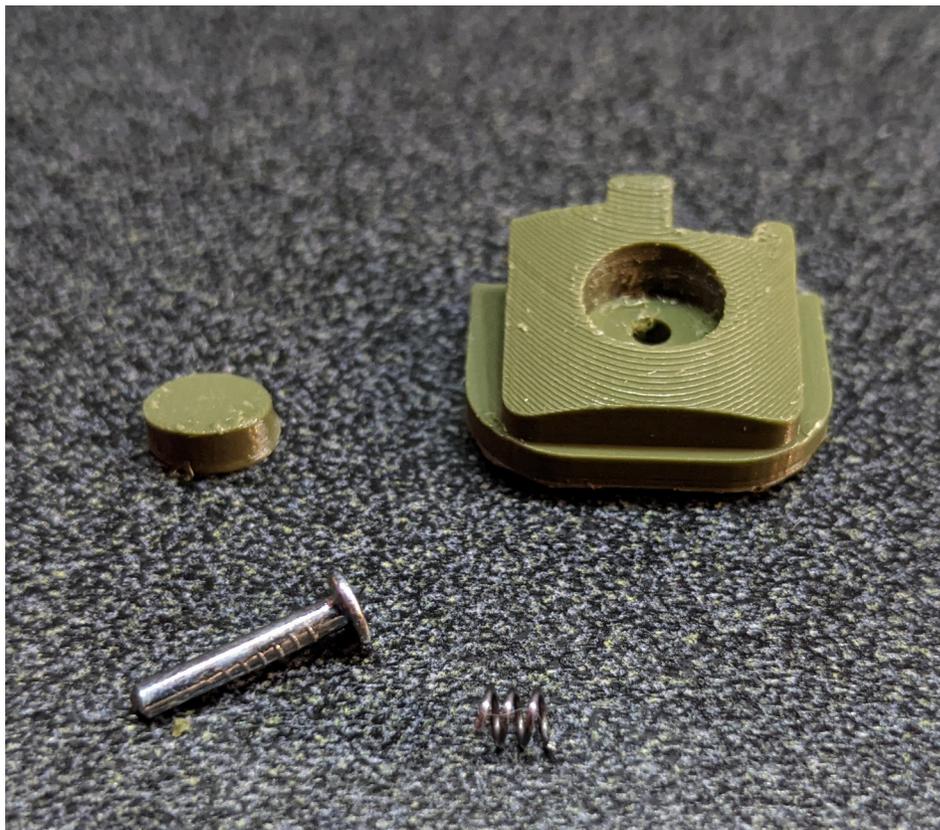
00-This how-to is written for assembly and installation of the indicating slide cover. For the non-indicating version, follow steps 1,2,10-14.



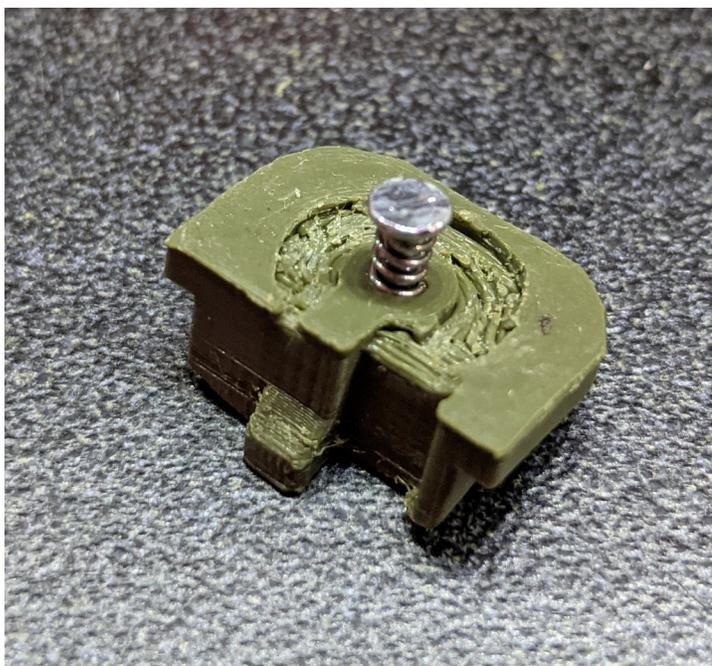
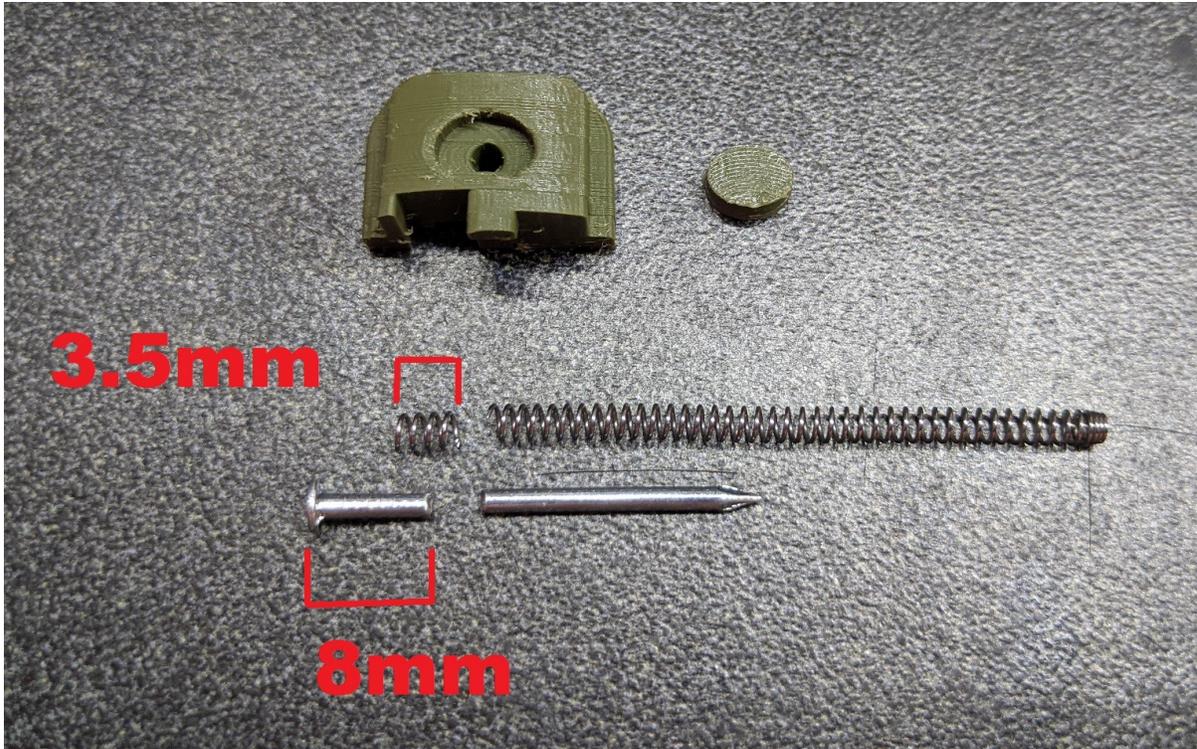
01-Carefully remove parts from bed with putty knife or small soft mallet.



02-Clean parts of any brims, strings, and supports.



03-Cut one bound end of the bic spring off, and from there measure in 3.5mm (about 4 loops) and cut. Measure 8mm from the head of the nail and cut. Keep these measured and cut pieces.



04-Using a vice or strong pliers, knurl the cut end of the nail, marring the surface sufficiently to aid in anchoring into plastic.



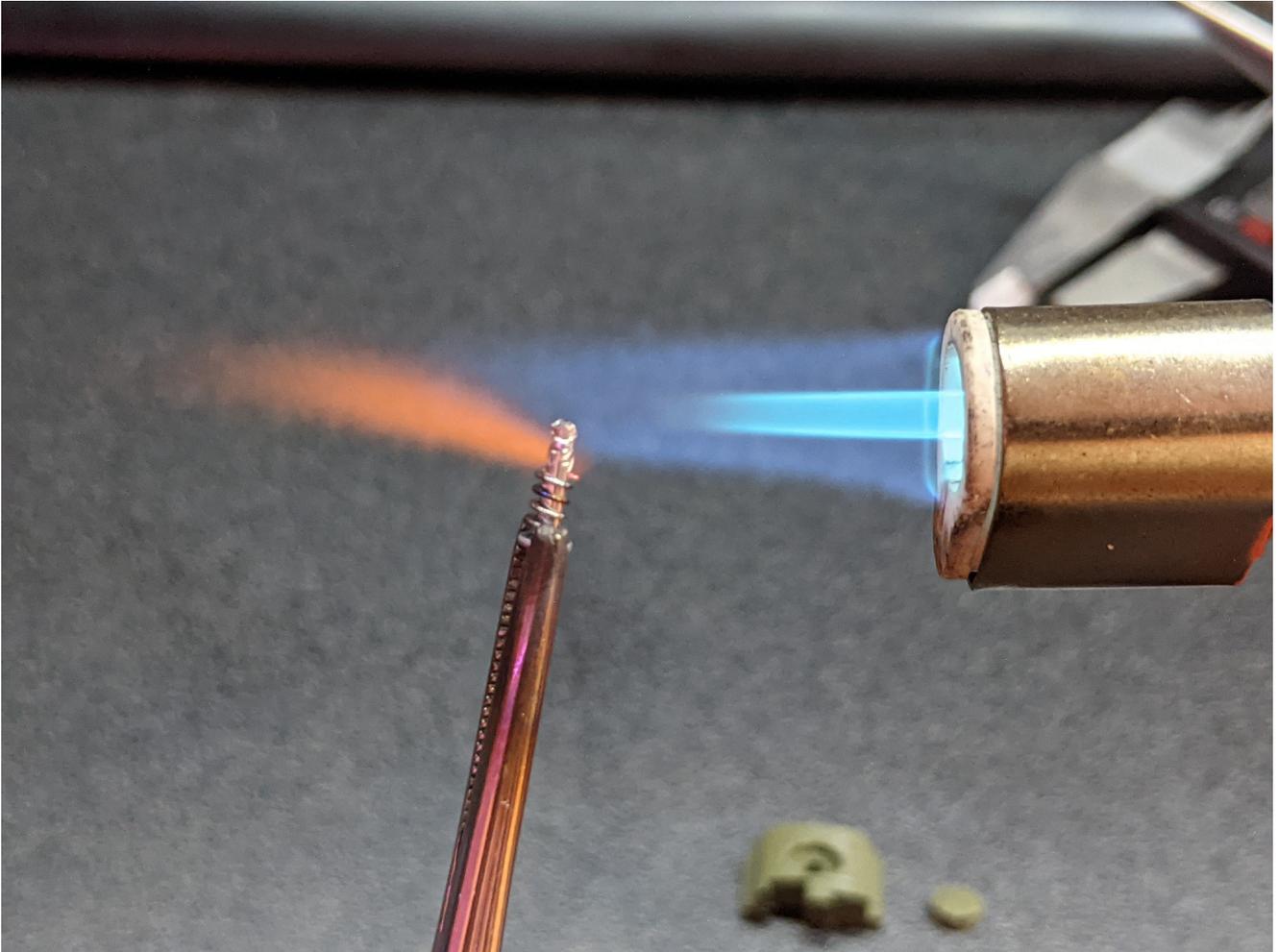
05-Example of knurling.



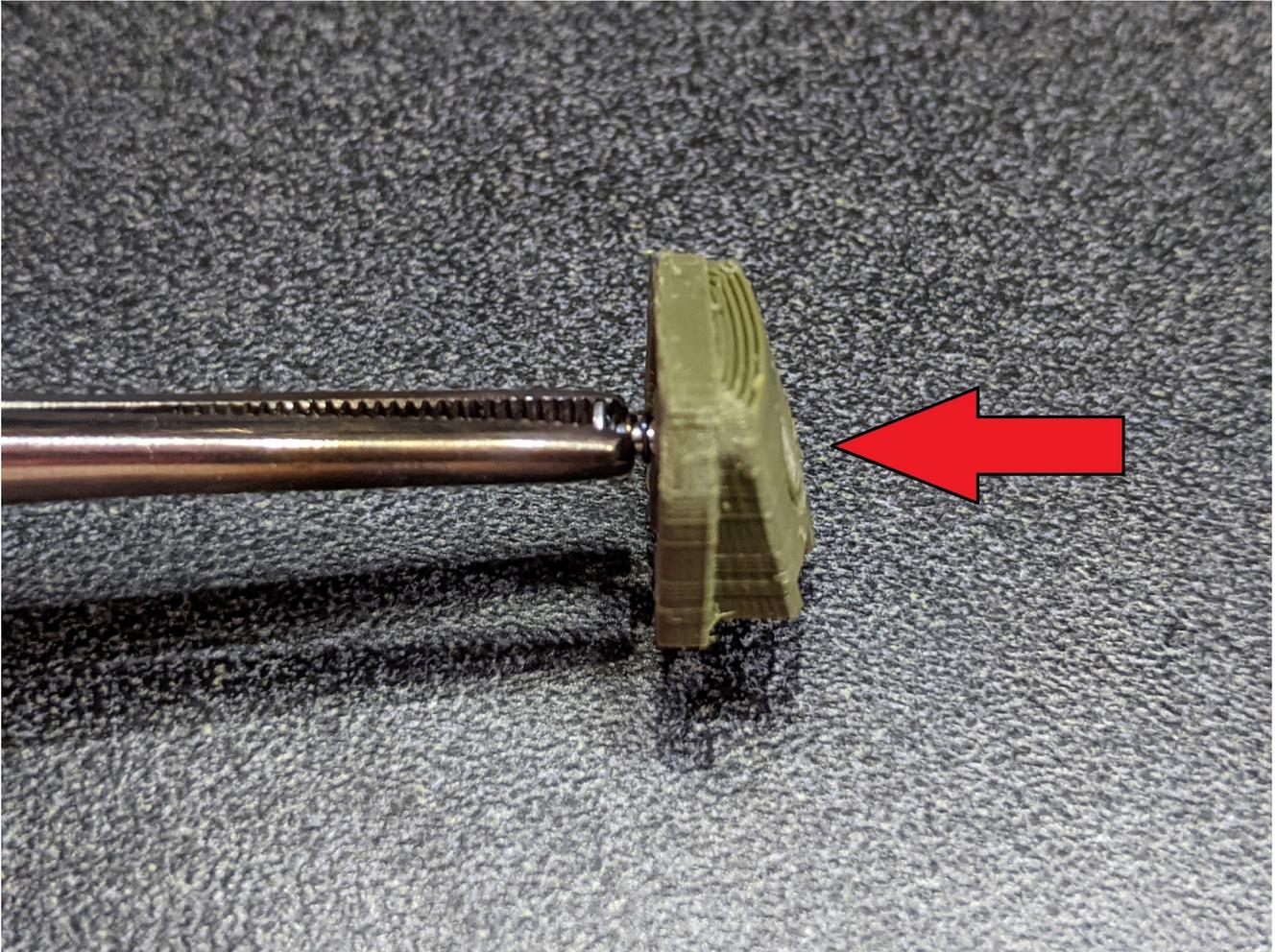
06-Assemble the printed parts so that the tops of the button and cover are flush, and move freely of one another.



07-Put the piece of spring on the nail, hold the head of it with pliers or forceps, and with a butane torch heat the knurled end of the assembled nail-plunger for 6-8 seconds.



08-Promptly take insert the nail into the hole at the back of the assembled cover, and firmly press it in while applying pressure to the button on the opposite side. Do this until it stops, leaving about a 2.5mm gap between the nail head and the cover plate.



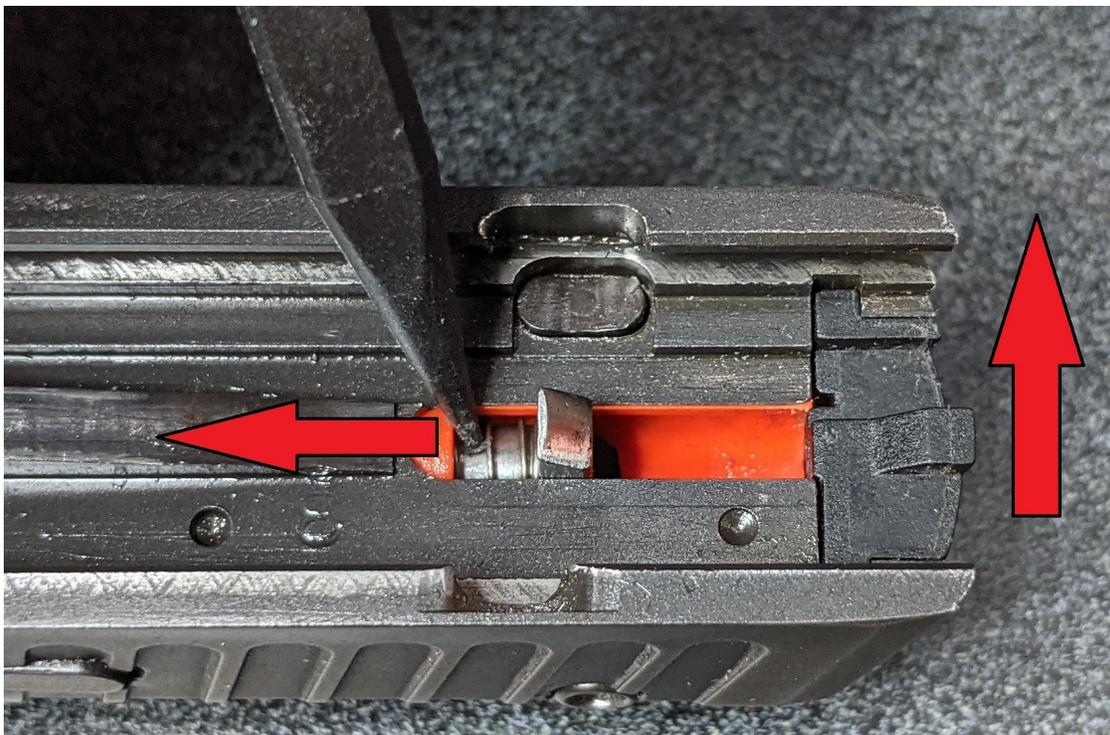
09-Inspect your assembled cover plate, making sure that the plunger operates freely and the button protrudes from the back of the cover.



10-Disassemble the slide from your frame, and place it upside down on your work surface. Get a spudger or small screwdriver.



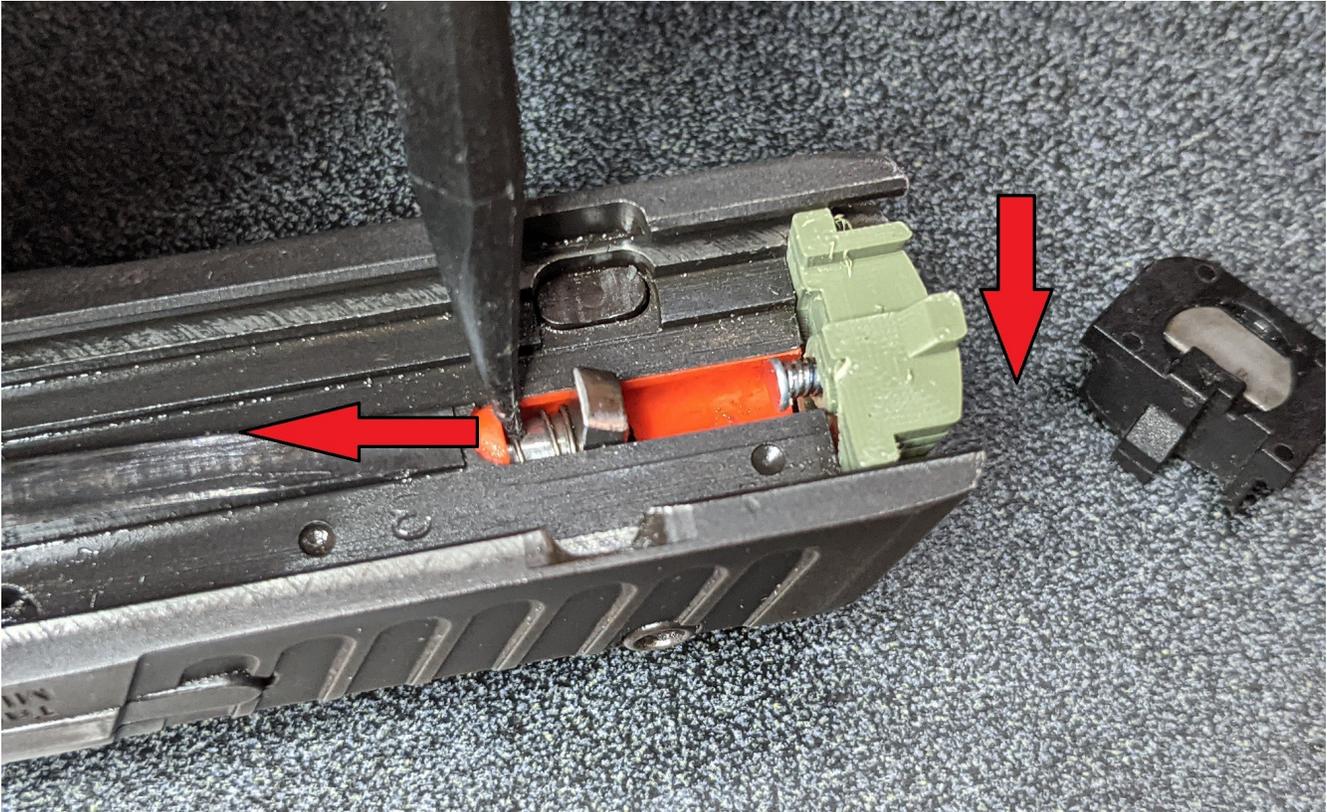
11-Using the screwdriver or spudger, pull back on the orange plastic sleeve to disengage it from the slide cover, and slide it up and out.



12-Gently relieve tension on the sleeve. You have removed the cover.



13-Installation is the same as removal in reverse: use your tool to pull back the sleeve, and slide the new cover in place.



14-Again, relieve tension on the sleeve, and it should recess into the depression in the back of the new cover, locking it into place.



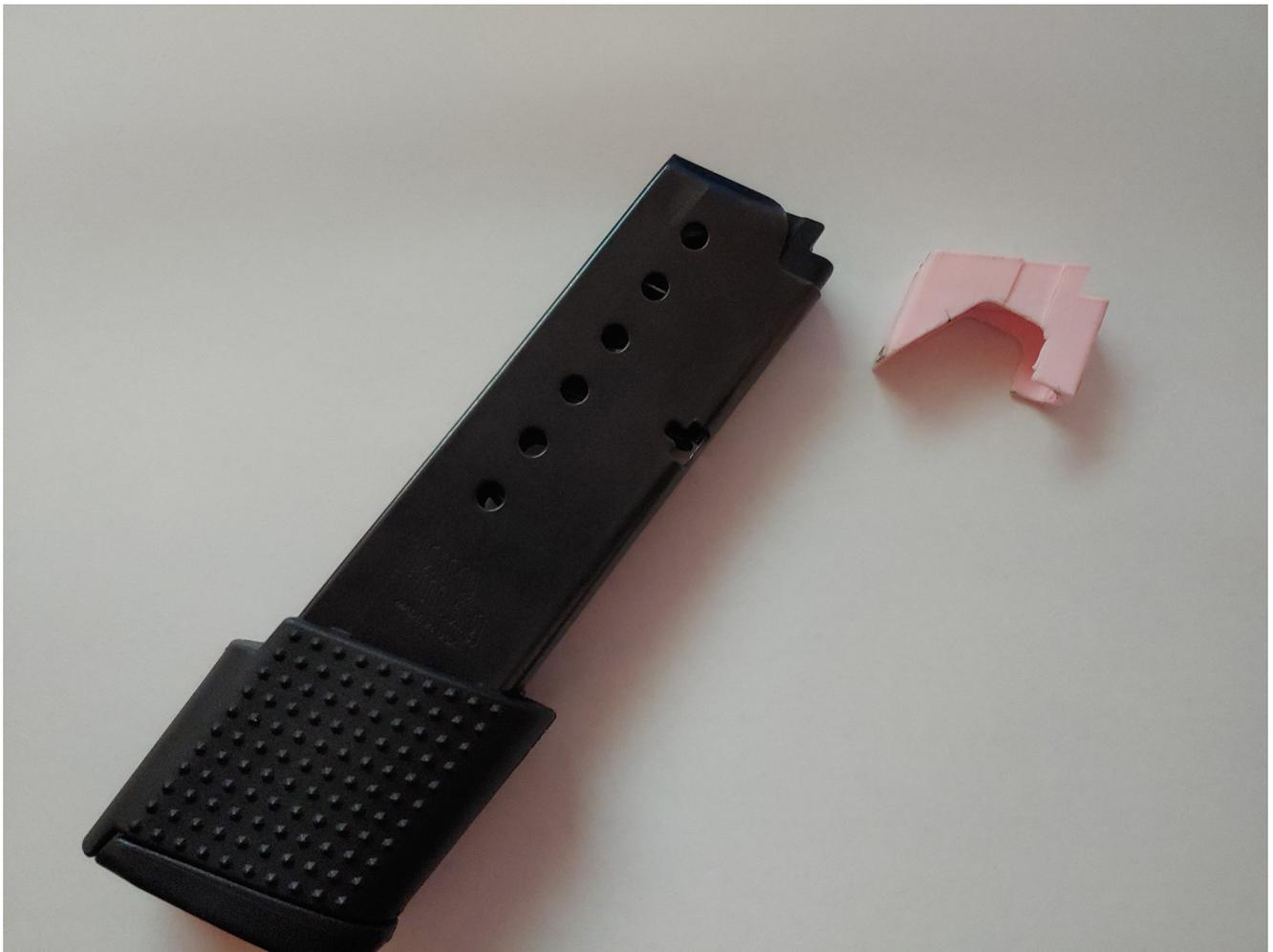
15-After reassembling the slide onto the frame, cycle to function check, noting the button's protrusion from the cover. It should poke out about half way, and NOT interfere with the striker. In the cocked position, check that you can still slightly pull the button out, even by a tiny amount. This should ensure there's no chance of the plunger impeding on the striker's rearward travel. If it checks out, congratulations!



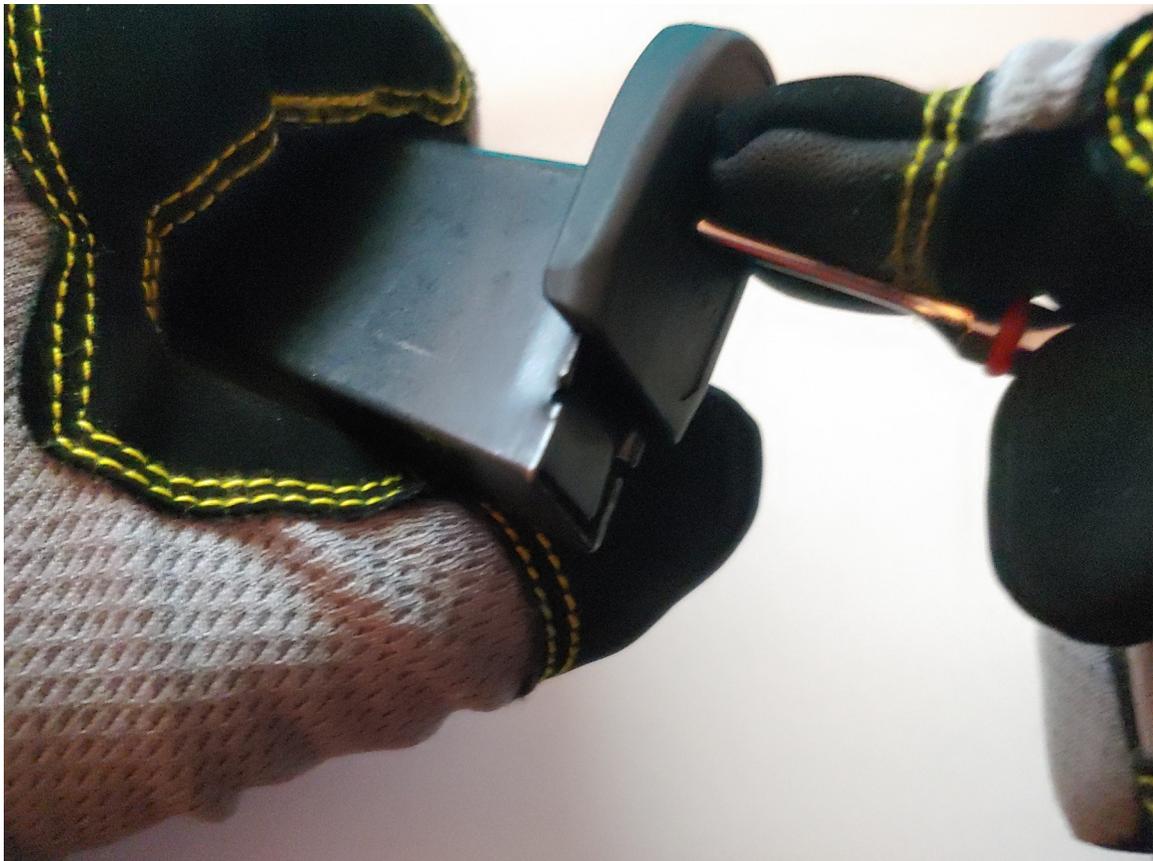
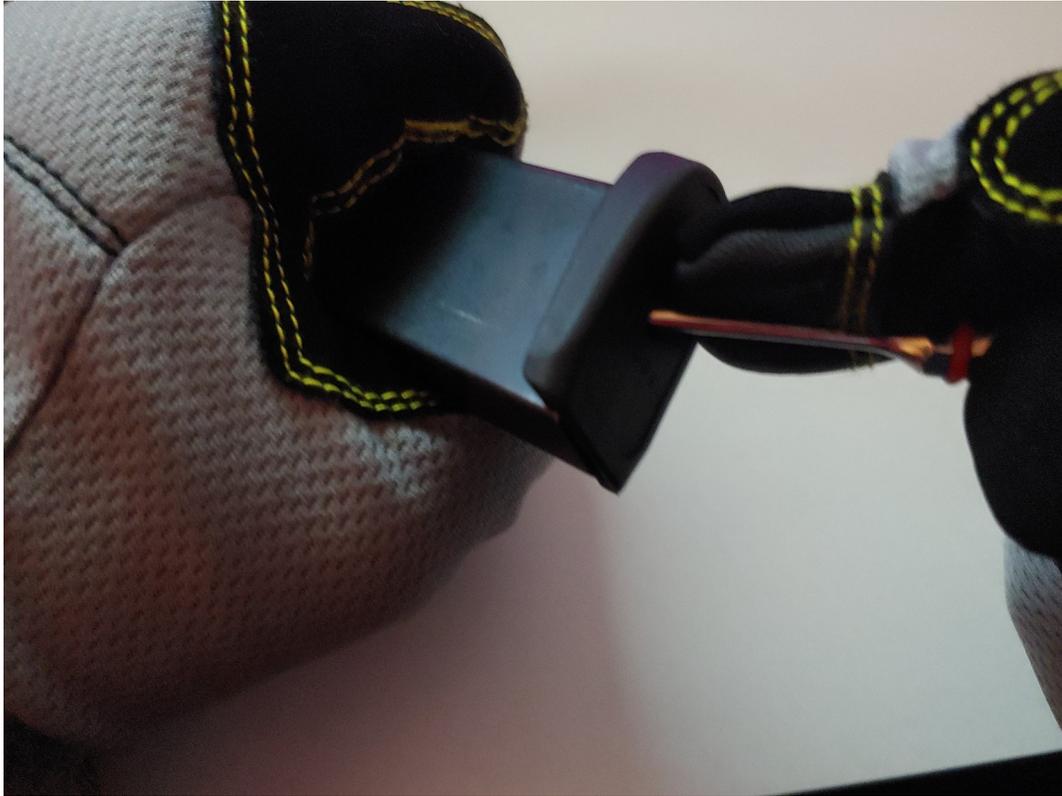
DO BE AWARE! As this design currently stands, there remains the possibility that with enough wear, heat, or improper installation, this device could come apart and lodge the nail somewhere in the action.

Accessories Assembly - Magazine disassembly and follower replacement

01. Using a punch to press down the retaining plate on the mag, it wont take much force.



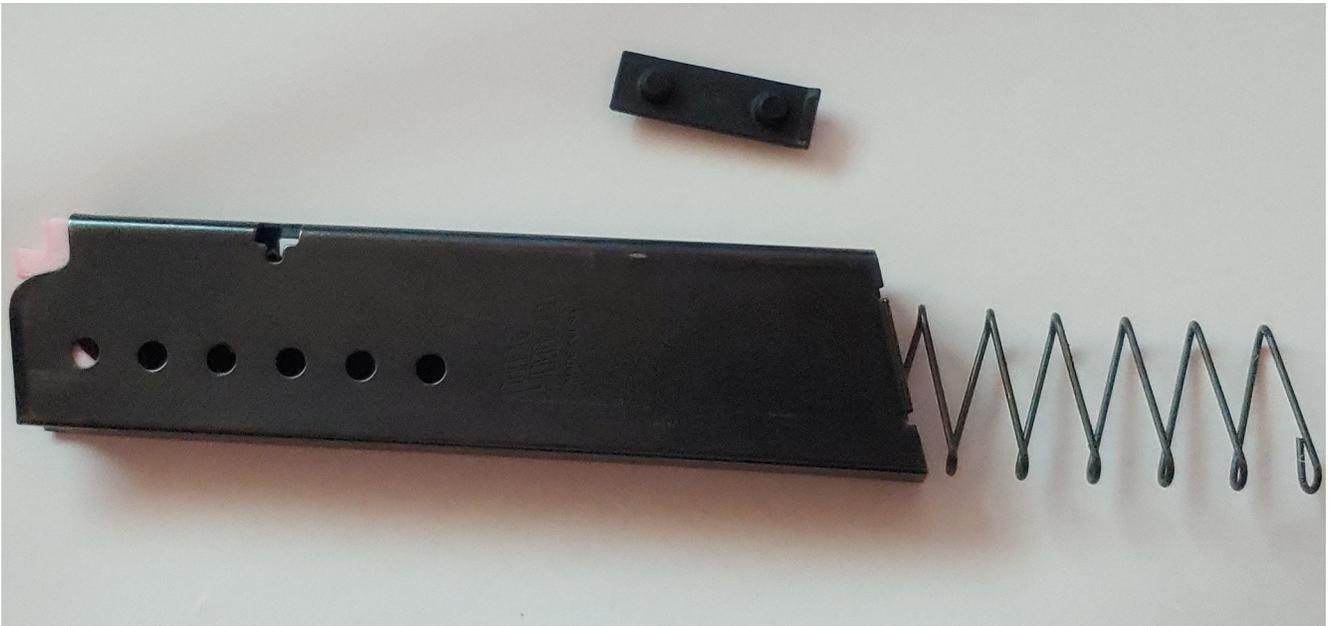
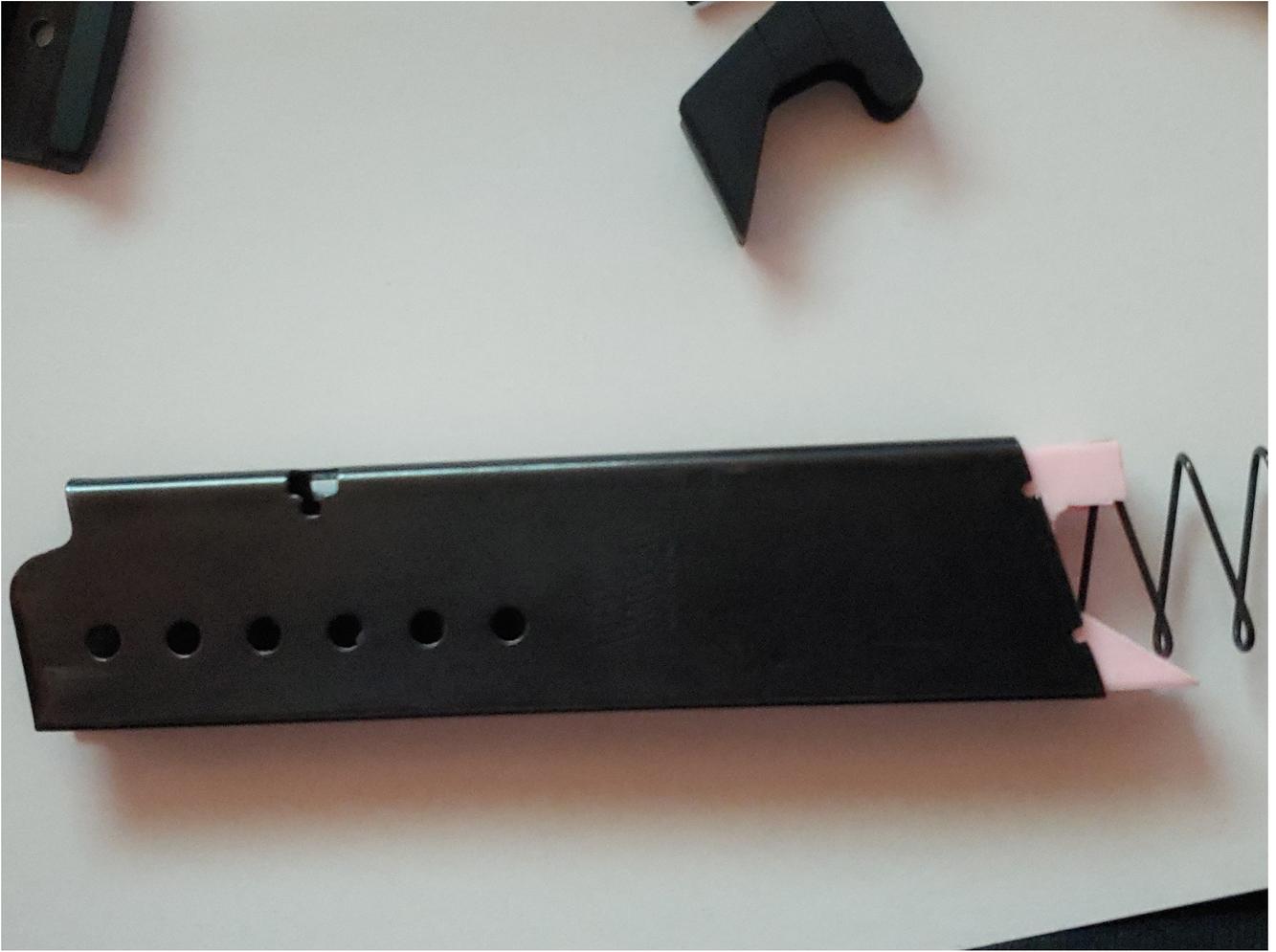
02. Carefully slide the base-plate forward slightly to see the retaining plate. Use your thumb to hold the retaining plate down while you slide the base-plate off, if you don't, it will fly across the room.



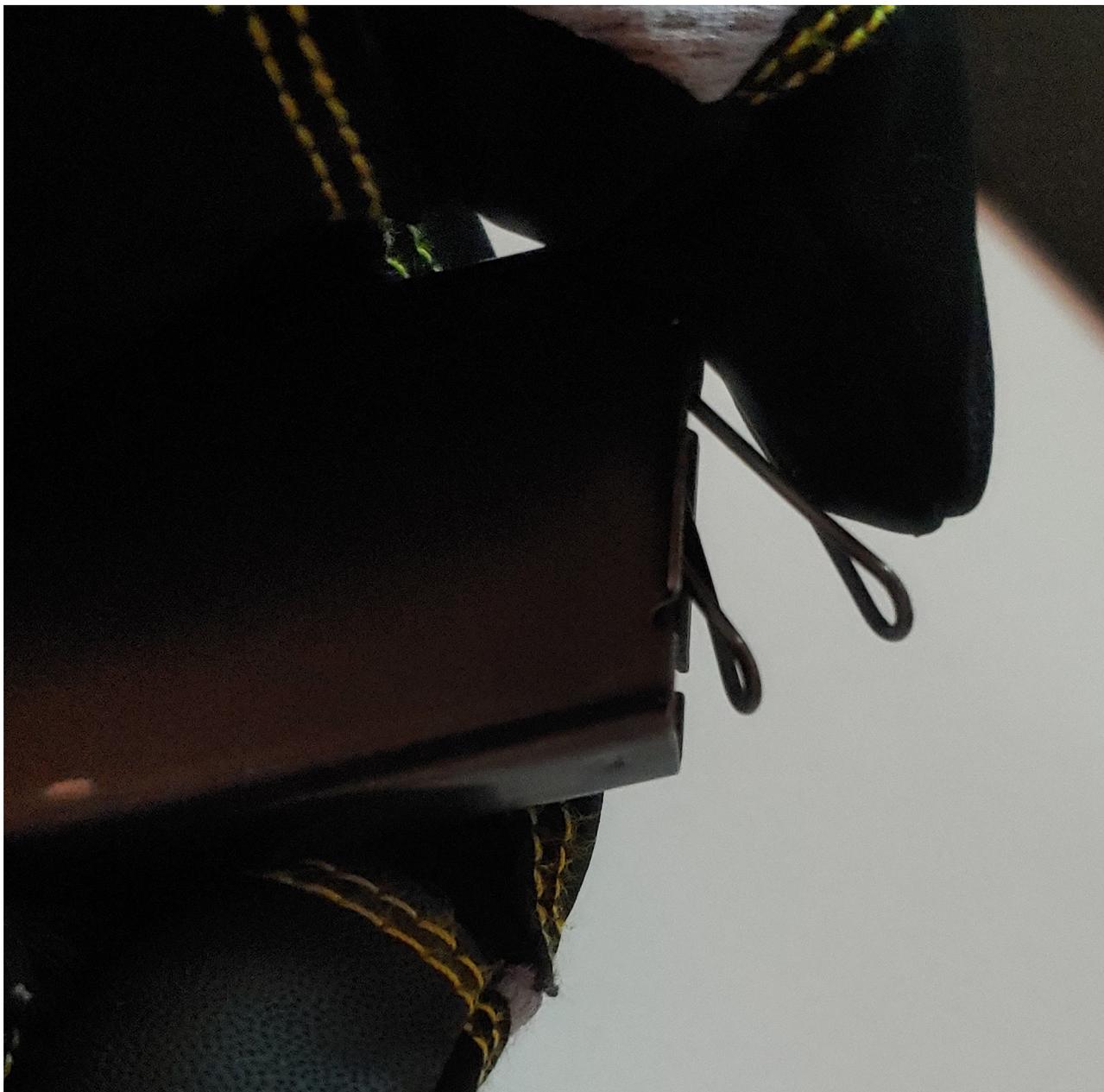


03. Remove the spring and follower. Place the new follower in the magazine body and press it upwards with the spring all the way into top.





04. Press down the remaining spring with your thumb till flush with the magazine bottom. Slide the retaining plate between your thumb and the spring.



05. Begin to slide the base plate onto the magazine, this will hold the magazine back together.



06. Press down the retaining plate and slide the base-plate the rest of the way.



07. Your mag should now be ready to use.

Notes:

- While aftermarket promags were extensively tested with this frame during beta, sometimes they can fail to lock open. A printable magazine follower has been supplied which usually helps with this issue.
- This frame is slightly thicker than a factory 709 slim, be sure to test holsters well before relying on them. If a 709 slim holster is a bit too snug, try a Taurus G2C holster (but make sure the fit isn't too loose).
- If this frame and resulting build is going to be used for CCW:
 - Glue or otherwise affix the magazine spaces to the bottom of a given magazine. Especially on promags, you don't want those parts sliding around during mag changes.
 - Double check your holster fit and retention.
 - Ensure your safety detent is crisp (if you're planning to trust it in any way when carrying in condition 0

Parting thoughts from Freeman1337:

Greetings all,

Hope y'all are doing thriving, considering the never-ending pandemic in which we've been living. While we recently won a brief battle with Everytown and their cronies, which attempted an illegal DMCA notice on mine and other CAD models using the Everytown name in parody. Considering this, and Chipman's name being pulled for consideration as ATF directory, I'd say we've had a productive summer, and Fall is shaping up to be interesting. While I'm sipping my apple cider, I'm reading up on some upcoming supreme court cases that'll hopefully be decided soon.

In celebration of what I hope will be a win for firearms owners across America, I wanted to make a reliable(ish) carry pistol that wasn't super expensive. Gotta love Glonks, but they've got a steep entry cost for the uninitiated. This "Fanny Blaster" is based on the Taurus 709 slim, and will fit in most places (They fit into most fanny packs with room for a few spare mags)

Keep calm and print on, and hopefully we'll be CCW'ing across the USA "Wild West Pimp Style" by Christmas.

Warmly,

freeman1337