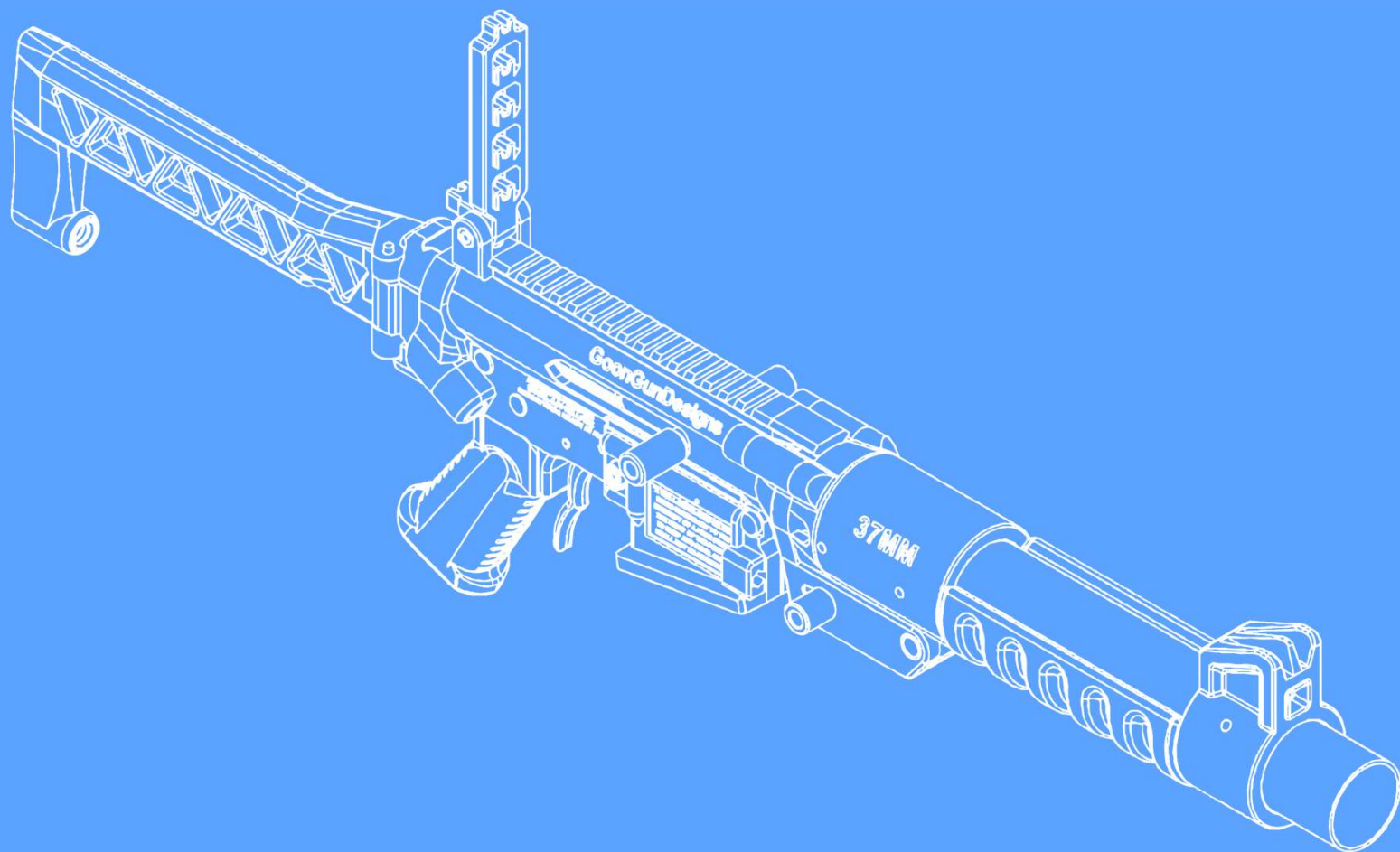

GU-37



Build Guide and User's Manual

AWCY?

DAIKON
DEFENSE



The GU-37

Is brought to you by the minds of



REMINDER



We are not responsible for your actions or stupidity.



This device is for emergency communication purposes only

AWCY?

DAIKON
DEFENSE



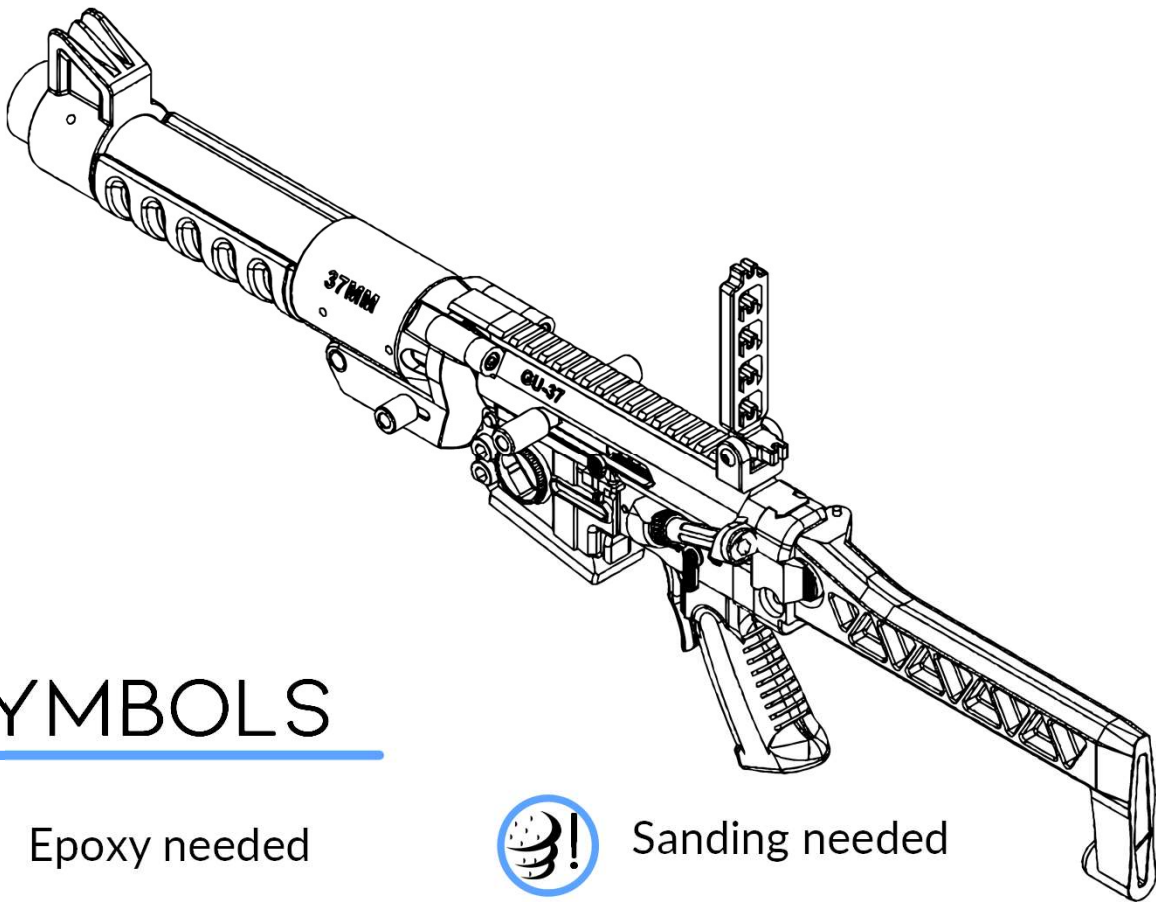
\\ TABLE OF CONTENTS

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INTRODUCTION

The GU-37 is a can cannon inspired break-action 37mm signaling device upper for an AR-15. With the action design, any length barrel is possible, and any length casing can be used. There are also several different upper configurations, muzzle devices, and handguards included for your use and customization, as well as a ladder sight!

Converting from your old bullet throwin' pew to a 37mm thumper is as simple as swapping any other upper out.... Oh, and did I forget to mention, subcaliber conversions are also in the works?



SYMBOLS



Epoxy needed



Sanding needed



Heat needed



Lubricant needed



Attention needed



Printed Part ID Letter



Hardware ID Number

PRINTS AND PARTS

- Print parts according to the given parameters in the table below. Part designators are referenced in assembly diagrams later in the manual to aid in construction

Part No.	File Name	Material	Infill	Layer Height	Walls	Assembly	Supports
A	ModifiedRailReceiver_XXX.stl	PLA+	95%-100%	0.16-0.2mm	7-8	Upper	No
	StandardRailReceiver_XXX.stl	PLA+	95%-100%	0.16-0.2mm	7-8	Upper	Yes
B	ReceiverHingeBlock	PLA+	95%-100%	0.16-0.2mm	≥ 8	Upper	Yes
C	ReceiverSightPost.stl	PLA+	60%	0.2-0.3mm	4	Upper	No
D	LadderSight_OpenPost.stl	PLA+	35%	0.2-0.3mm	4	Upper	No
	LadderSight_RingPost.stl	PLA+	35%	0.2-0.3mm	4	Upper	No
E	BarrelSleeve.stl	PLA+	95% - 100%	0.16-0.2mm	8	Barrel	Yes
F	BarrelSleeveLockingNub.stl	PLA+	95% - 100%	0.16-0.2mm	8	Barrel	No
G	LockingBlock	PLA+	95%-100%	0.16-0.2mm	8	Barrel	Yes
H	LockingBlockHandle_XXX.stl	PLA+	85%-95%	0.16-0.2mm	6	Barrel	No
I	FiringPinBody.stl	PLA+	100%	0.16-0.2mm	≥ 8	Upper	Yes
J	ContainedBoltBody.stl	PLA+	95%-100%	0.16-0.2mm	6	Contained Bolt	No
K	ContainedBackPlate.stl	PLA+	95%-100%	0.16-0.2mm	4	Contained Bolt	No
L	Bolt.stl	PLA+	95%-100%	0.16-0.2mm	≥ 8	Buffered Bolt	No
M1	BoltChargingHandleLeft_XXX.stl	PLA+	90%-100%	0.16-0.2mm	≥ 6	Upper	Yes
M2	BoltChargingHandleRight_XXX.stl	PLA+	90%-100%	0.16-0.2mm	≥ 6	Upper	Yes
N1	MuzzleBrake.stl	PLA+	95% - 100%	0.16-0.2mm	≥ 8	Muzzle	Yes
N2	TankBrake.stl	PLA+	95% - 100%	0.16-0.2mm	≥ 8	Muzzle	Yes
N3	ThreeProngFlashHider.stl	PLA+	95% - 100%	0.16-0.2mm	≥ 8	Muzzle	Yes
P1	RoundHandguardRetainer.stl	PLA+	40%	0.2-0.3mm	3-4	Upper	No
P2	HandguardRetainerFrontSight	PLA+	40%	0.2-0.3mm	3-4	Upper	No
Q	All Handguards	PLA+	60%	0.16-0.2mm	5	Hand Guard	Yes
	All Handguards (Standard Pic.)	PLA+	60%	0.16-0.2mm	5	Hand Guard	No

- We have also provided some tools that you may choose to print to help improve the construction quality of your GU-37.

Part No.	File Name	Material	Infill	Layer Height	Walls	Assembly	Supports
X	BarrelCuttingGuide	PLA / PLA+	35%	0.2-0.3mm	3-4	Tool	Yes
Y	SandingDrumBottom	PLA / PLA+	75%	0.2-0.3mm	4-5	Tool	No
Z	SandingDrumTop	PLA / PLA+	75%	0.2-0.3mm	4-5	Tool	No

- Some tools are also required:
 - Allen Key Set
 - Electric Drill
 - Heavy Grit Sandpaper
 - JB Weld, Gorilla Glue, OR Epoxy
 - Tap and Die Set
 - Xacto Knife
 - Pliers

PRINTS AND PARTS

- Below is an itemized list of all the hardware required for this build. Parts can be sourced from a variety of vendors. We prefer Amazon and McMaster-Carr if you want to build your own. An alternative is to buy a parts kit from a seller. Currently www.DaikonDefense.com is the only known source of complete hardware part kits.

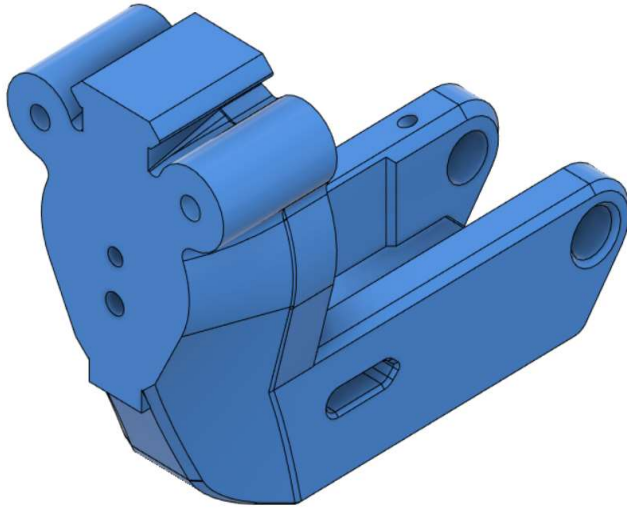
ID	Part	Material	Type	Qty	McMaster
Barrel					
1	1-5/8" Fence Post (from Lowes)	Galvanized Steel	Stock	1	[-]
2	M5 x 5mm Cup Point Set Screw	[-]	Fastener	8	91390A117
3	M3 x 6mm Cup Point Set Screws	[-]	Fastener	1	91390A118
4	M5 x 18mm Flat Head Screw	[-]	Fastener	2	91294A213
5	M5 Nylock Washer	[-]	Fastener	2	94645A102
Upper Receiver					
6	M4 x 25mm Socket Head Cap Screw	[-]	Fastener	2	91290A176
7	M4 x 30mm Socket Head Cap Screw	[-]	Fastener	1	91290A172
8	M5 x 30mm Socket Head Cap Screw	[-]	Fastener	2	91290A254
9	9mm OD, 3.2mm ID Washer	[-]	Fastener	1	97310A111
10	M3 x 30mm Ø Stainless Steel Rod	Stainless Steel	Stock	2	1272T33
11	AR-15 Magazine Catch Spring	[-]	Spring	2	[-]
12	3/8" x 40.5 mm	Stainless Steel	Stock	1	89535K87
Rear Sight Post					
13	M5x12mm Socket Head Cap Screw	[-]	Fastener	1	91290A228
14	M5x30mm Button Head Cap Screw	[-]	Fastener	1	97763A434
15	M5 Nut [standard]	[-]	Fastener	1	90593A004
16	M5 Nut [thin]	[-]	Fastener	1	90370A205
Bolt					
17	M3 Nut	[-]	Fastener	1	90593A001
18	M4 x 16mm Socket Head Cap Screw	[-]	Fastener	2	91290A154
19	M5 x 30mm Socket Head Cap Screw	[-]	Fastener	1	91290A254
20	M3 x 18.5 mm Ø Stainless Steel Rod	Stainless Steel	Stock	1	1272T33
21	M3 x 75mm Threaded Rod	[-]	Stock	1	98861A040
Bufferless Bolt Additional Parts					
22	0.18" OD, 0.13" ID x 279.4 mm Compression Spring	[-]	Spring	2	9637K43
23	M3 x 173.8 mm	Stainless Steel	Stock	3	1272T33
Sanding Tool					
24	5/16" Threaded Rod x 24"	High Strenth Steel	Stock	1	90322A681
25	5/16" Nut	[-]	Fastener	4	95462A030
26	5/16" Flat Washer	[-]	Fastener	2	90107A005
27	M4 x 8mm Socket Head Cap Screw	[-]	Fastener	4	91290A140

\\ PRINT ORIENTATION

All parts should fit on an average size printer. Due to the load involved it is of critical importance to print strong parts. Almost all parts require several shells and a high infill percentage. Be sure to use our settings as a minimum starting point.

Print in PLA+ only.

See detailed suggestions below, these are also listed in the previous table:

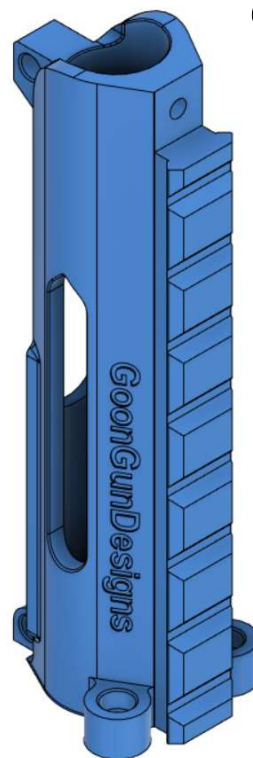


Part: ReceiverHingeBlock
Material: PLA+
Layer Height: 0.16 - 0.2mm
Shells: 8+
Infill: 95% +
Support: YES

Part: ReceiverMainBody
Material: PLA+
Layer Height: 0.16 - 0.2mm
Shells: 7 - 8
Infill: 95% +
Support: YES, for standard pic rail versions

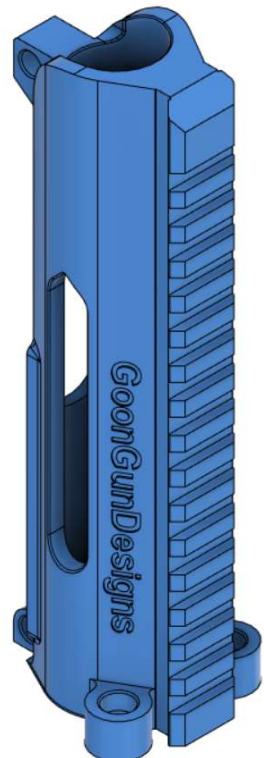


NOTE: There are 4 versions of the receiver main body you may choose from. They all require the same print settings.



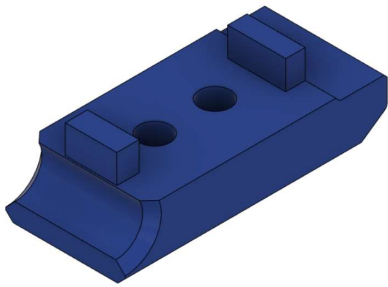
MODIFIED

OR



STANDARD

\\ PRINT ORIENTATION



Part: BarrelSleeveLockingNub

Material: PLA+

Layer Height: 0.16 - 0.2mm

Shells: 8

Infill: 95% - 100%

Support: NO

Part: BarrelSleeve

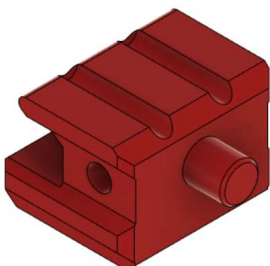
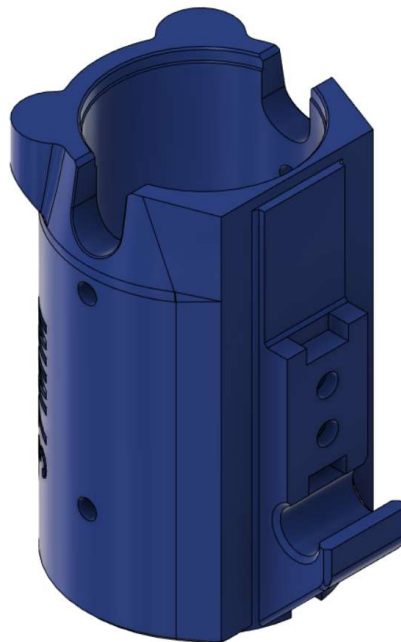
Material: PLA+

Layer Height: 0.16 - 0.2mm

Shells: 8

Infill: 95% - 100%

Support: NO



Part: LockingBlock

Material: PLA+

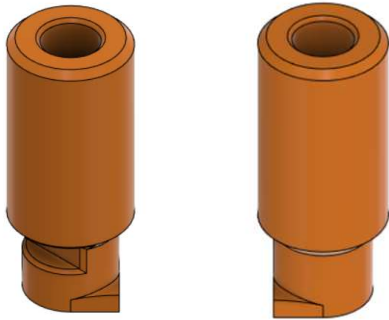
Layer Height: 0.16 - 0.2mm

Shells: 8

Infill: 95% - 100%

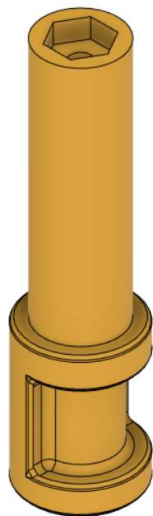
Support: YES

\\ PRINT ORIENTATION



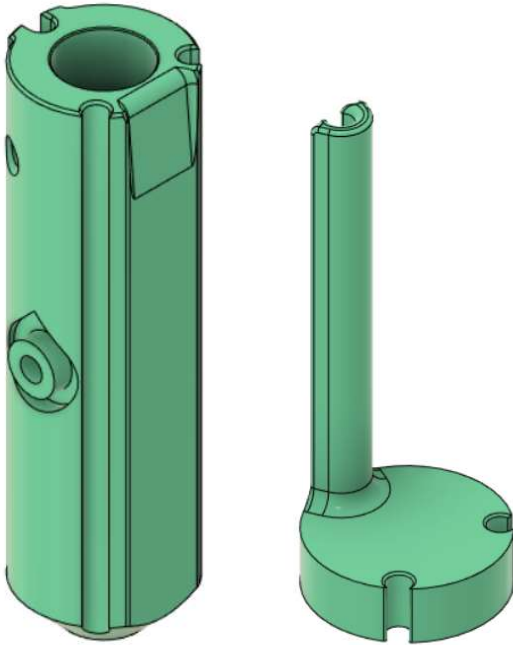
Part: BoltChargingHandleLeftExtended
Part: BoltChargingHandleRightExtended
Material: PLA+
Layer Height: 0.16 - 0.2mm
Shells: 6+
Infill: 90 - 100%
Support: YES

Part: LockingBlockHandle_Normal
OR
Part: LockingBlockHandle_Extended
Material: PLA+
Layer Height: 0.16 - 0.2mm
Shells: 6
Infill: 85 - 95%
Support: NO



Part: FiringPinBody
Material: PLA+
Layer Height: 0.16 - 0.2mm
Shells: 8+
Infill: 100%
Support: YES

\\ PRINT ORIENTATION



Part: BoltContained

Part: BackPlate

Material: PLA+

Layer Height: 0.16 - 0.2mm

Shells: 8+

Infill: 95 - 100%

Support: NO

Brim: YES – on 'BoltContained'

Part: Bolt

Material: PLA+

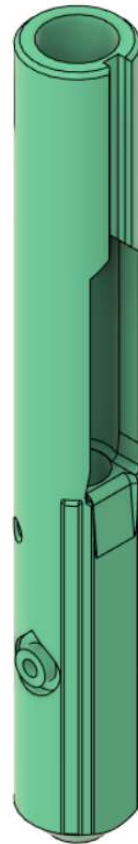
Layer Height: 0.16 - 0.2mm

Shells: 8+

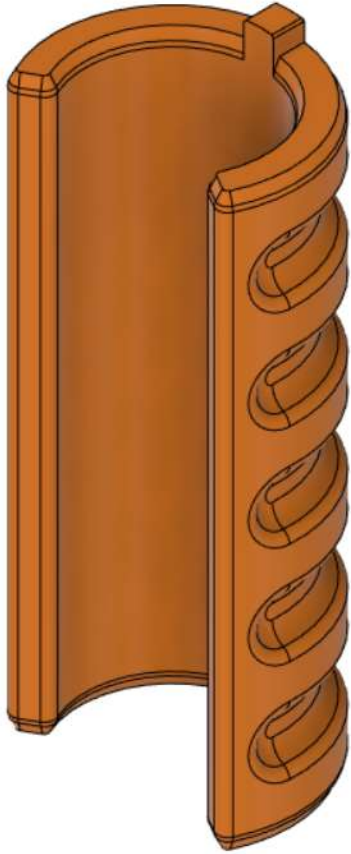
Infill: 95 - 100%

Support: NO

Brim: YES



/// PRINT ORIENTATION



Part: HandguardRetainerFrontSight

Material: PLA+

Layer Height: 0.16 - 0.2mm

Shells: 5

Infill: 60%

Support: NO

Part: M-Lok Handguard

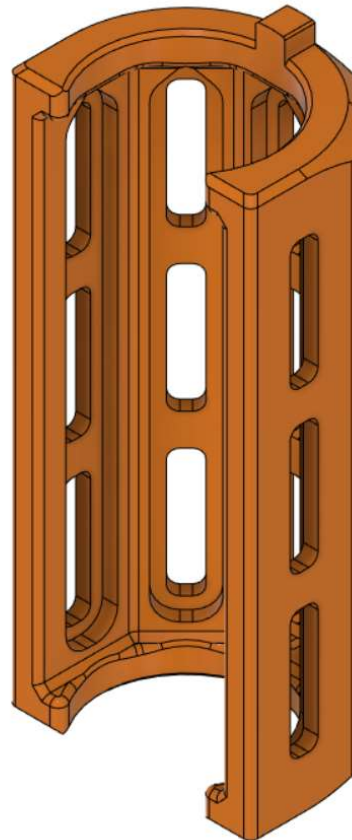
Material: PLA+

Layer Height: 0.16 - 0.2mm

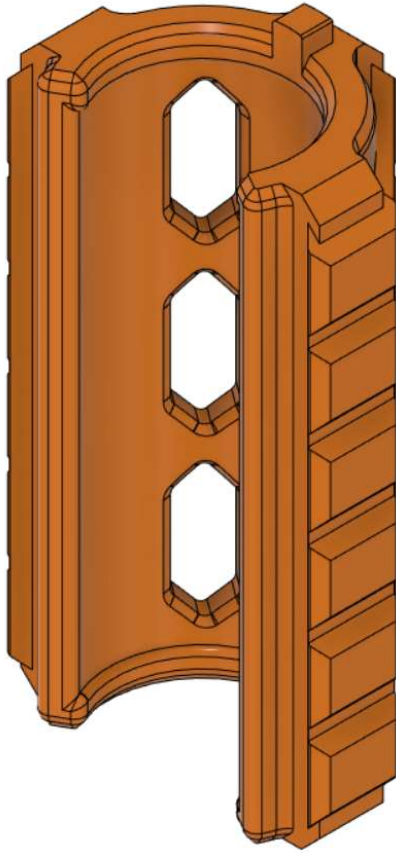
Shells: 5

Infill: 60%

Support: NO



\\ PRINT ORIENTATION



Part: PicattinyHandguard

Material: PLA+

Layer Height: 0.16 - 0.2mm

Shells: 5

Infill: 60%

Support: NO

Part: PicattinyStandardHandguard

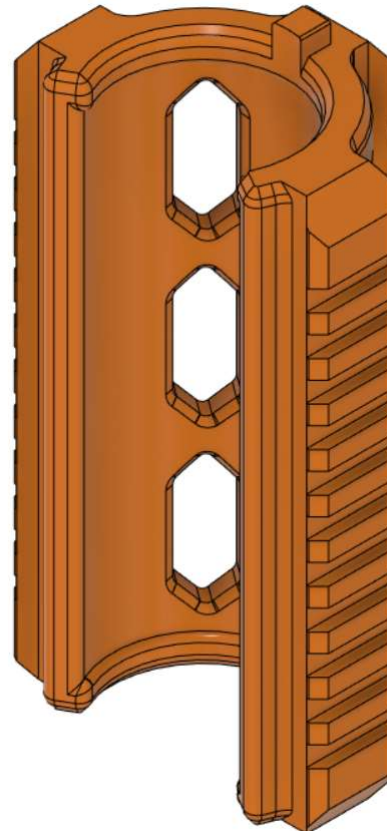
Material: PLA+

Layer Height: 0.16 - 0.2mm

Shells: 5

Infill: 60%

Support: YES



\\ PRINT ORIENTATION



Part: RoundHandguardRetainer

Material: PLA+

Layer Height: 0.2 - 0.3mm

Shells: 3 - 4

Infill: 40%

Support: NO

Part: HandguardRetainerFrontSight

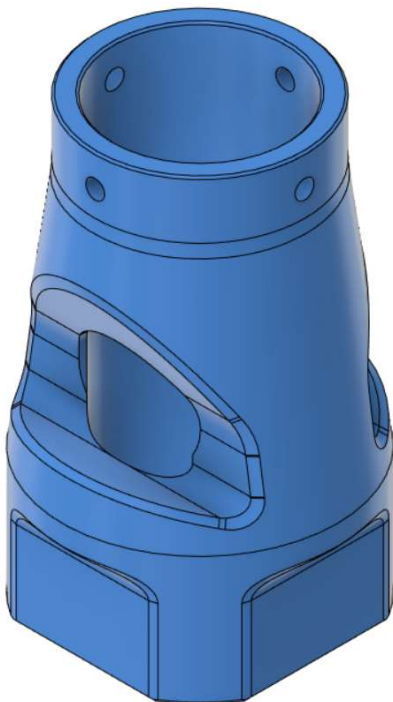
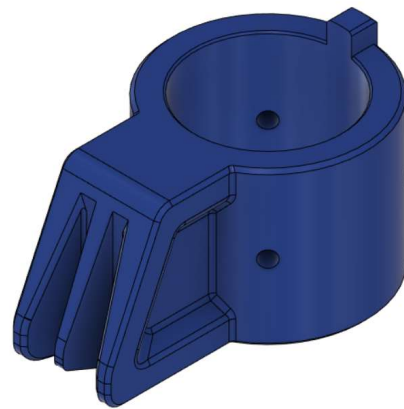
Material: PLA+

Layer Height: 0.2 - 0.3mm

Shells: 3 - 4

Infill: 40%

Support: NO



Part: TankBrake

Material: PLA+

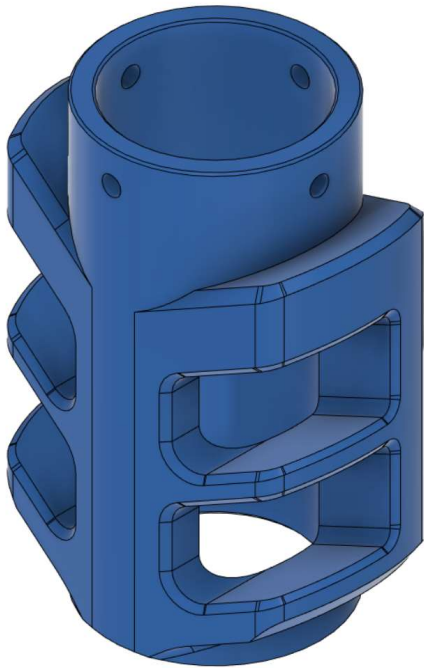
Layer Height: 0.16 - 0.2mm

Shells: 8+

Infill: 95 -100%

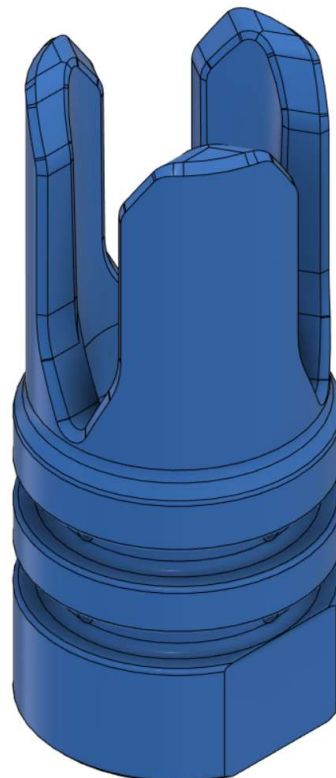
Support: YES

\\ PRINT ORIENTATION

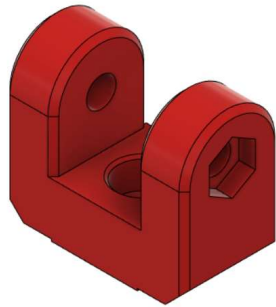


Part: MuzzleBrake
Material: PLA+
Layer Height: 0.16 - 0.2mm
Shells: 8+
Infill: 95 - 100%
Support: YES

Part: ThreeProngFlashHider
Material: PLA+
Layer Height: 0.16 - 0.2mm
Shells: 8+
Infill: 95 - 100%
Support: YES



\\ PRINT ORIENTATION



Part: ReceiverSightPost
Material: PLA+
Layer Height: 0.2 - 0.3mm
Shells: 4
Infill: 60%
Support: NO

Part: TailLadderSight_RingPost
OR

Part: LadderSight_OpenPost

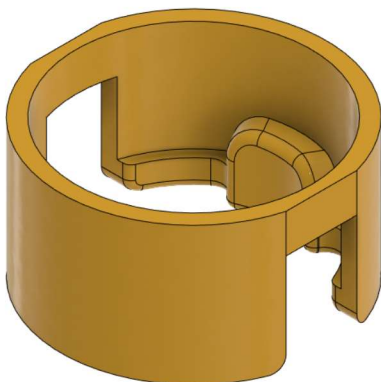
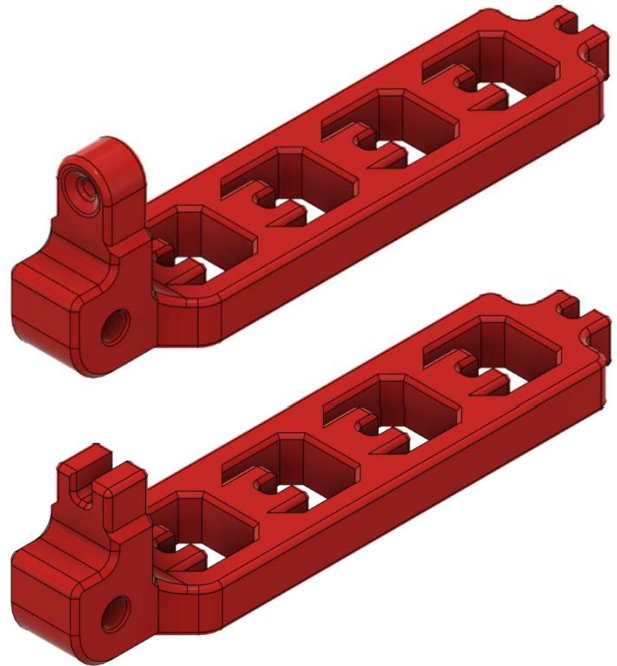
Material: PLA+

Layer Height: 0.2 - 0.3mm

Shells: 4

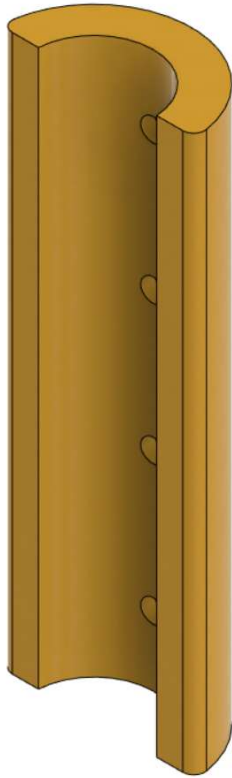
Infill: 35%

Support: NO



Part: BarrelCuttingGuide
Material: PLA/PLA+
Layer Height: 0.2 - 0.3mm
Shells: 3 - 4
Infill: 35%
Support: YES

\\ PRINT ORIENTATION

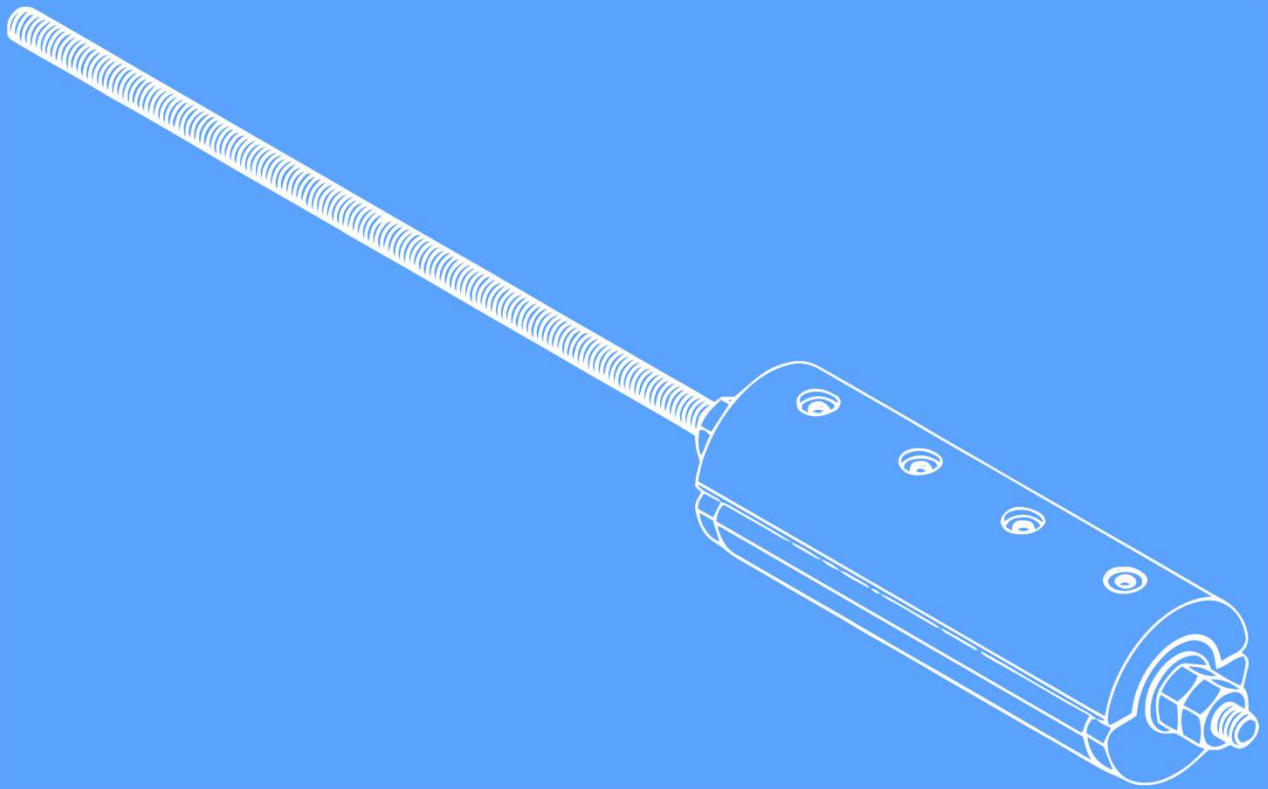


Part: SandingDrumTop
Material: PLA+ / ABS
Layer Height: 0.2 - 0.3mm
Shells: 4 - 5
Infill: 75%
Support: NO

Part: SandingDrumBottom
Material: PLA+ / ABS
Layer Height: 0.2 - 0.3mm
Shells: 4 - 5
Infill: 75%
Support: NO



SANDING TOOL

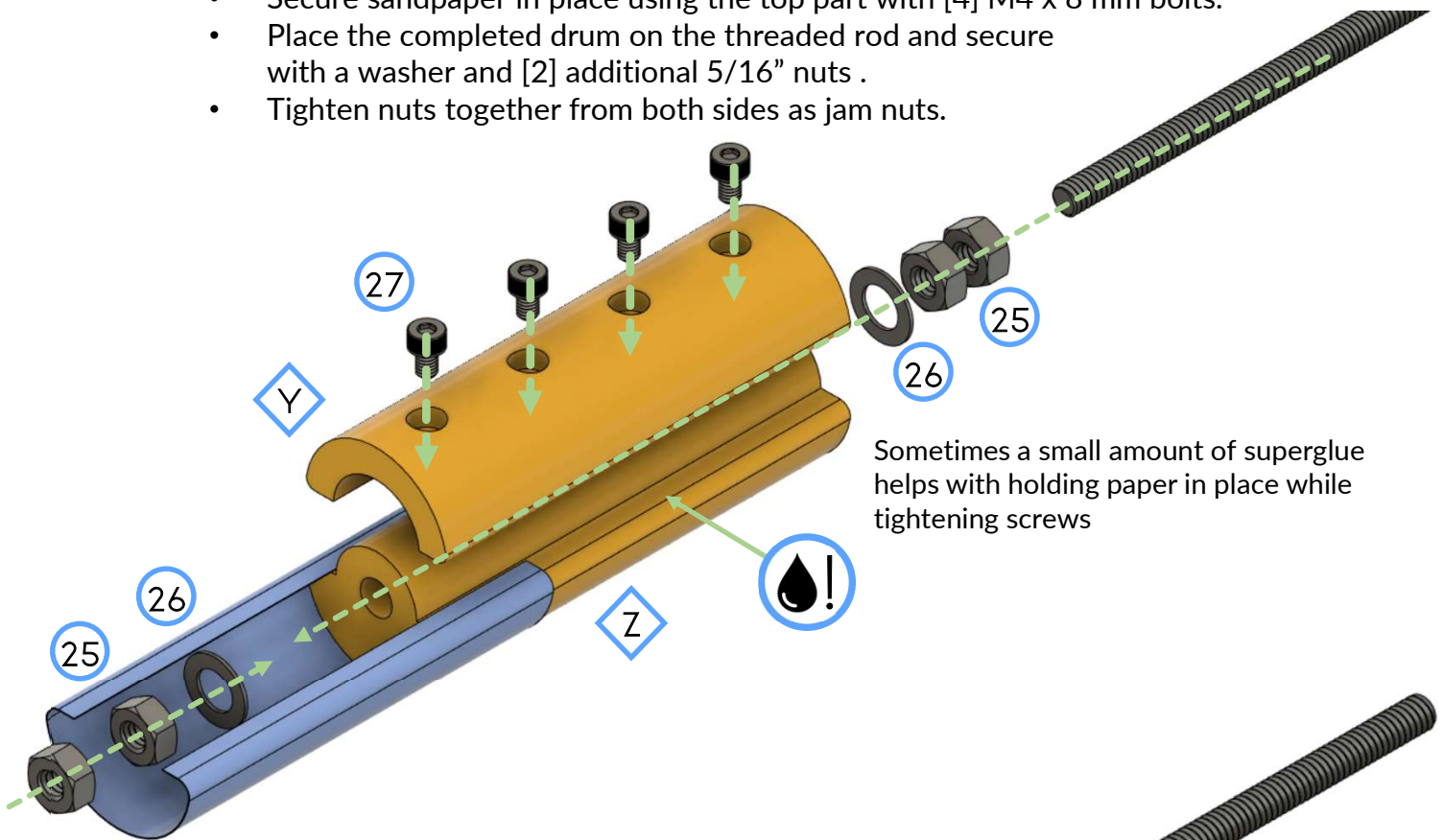


/// SANDING TOOL

1.

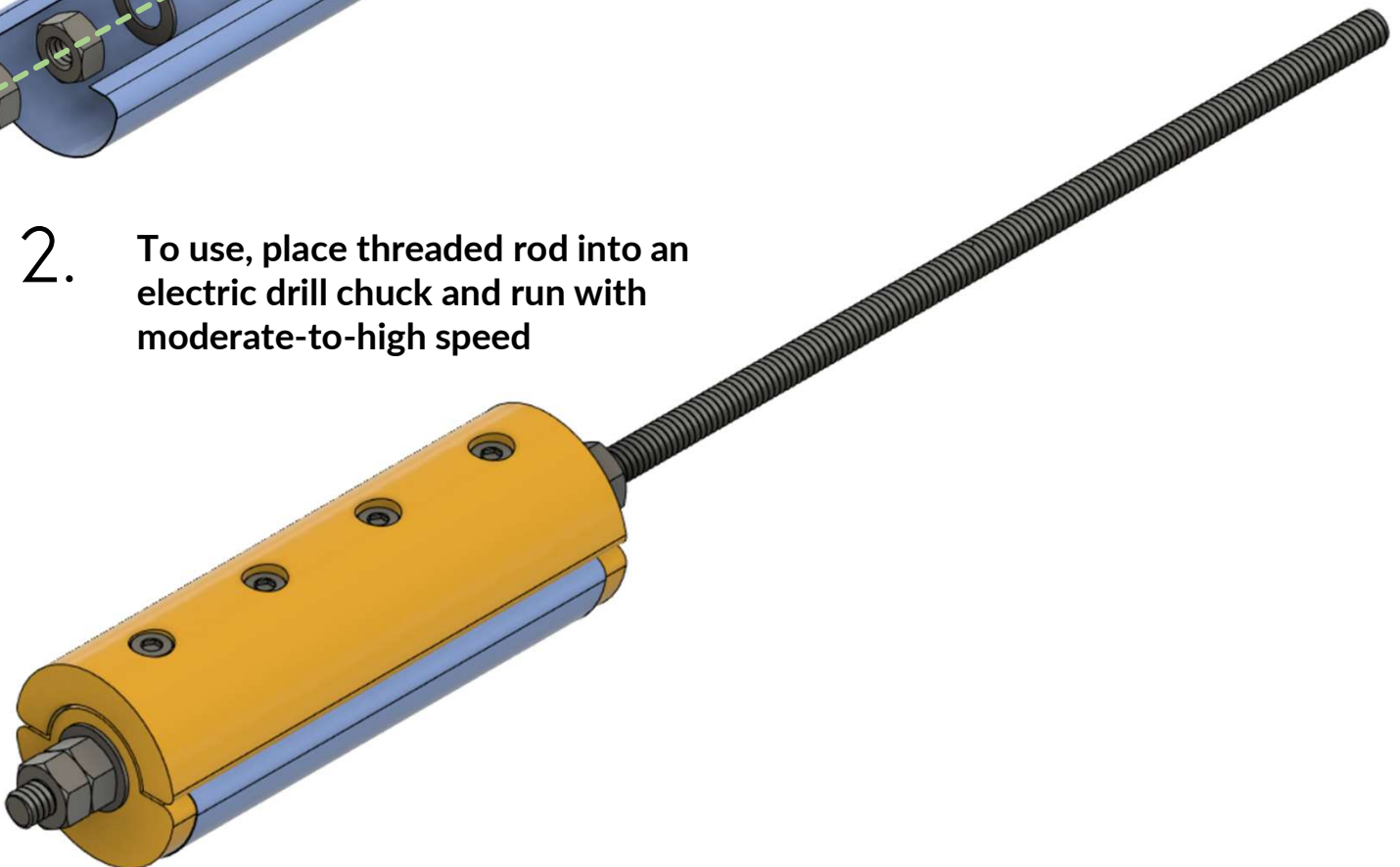
To prepare the sanding tool:

- First install [2] 5/16" nuts onto the threaded rod along with a washer.
- Secure sandpaper in place using the top part with [4] M4 x 8 mm bolts.
- Place the completed drum on the threaded rod and secure with a washer and [2] additional 5/16" nuts.
- Tighten nuts together from both sides as jam nuts.

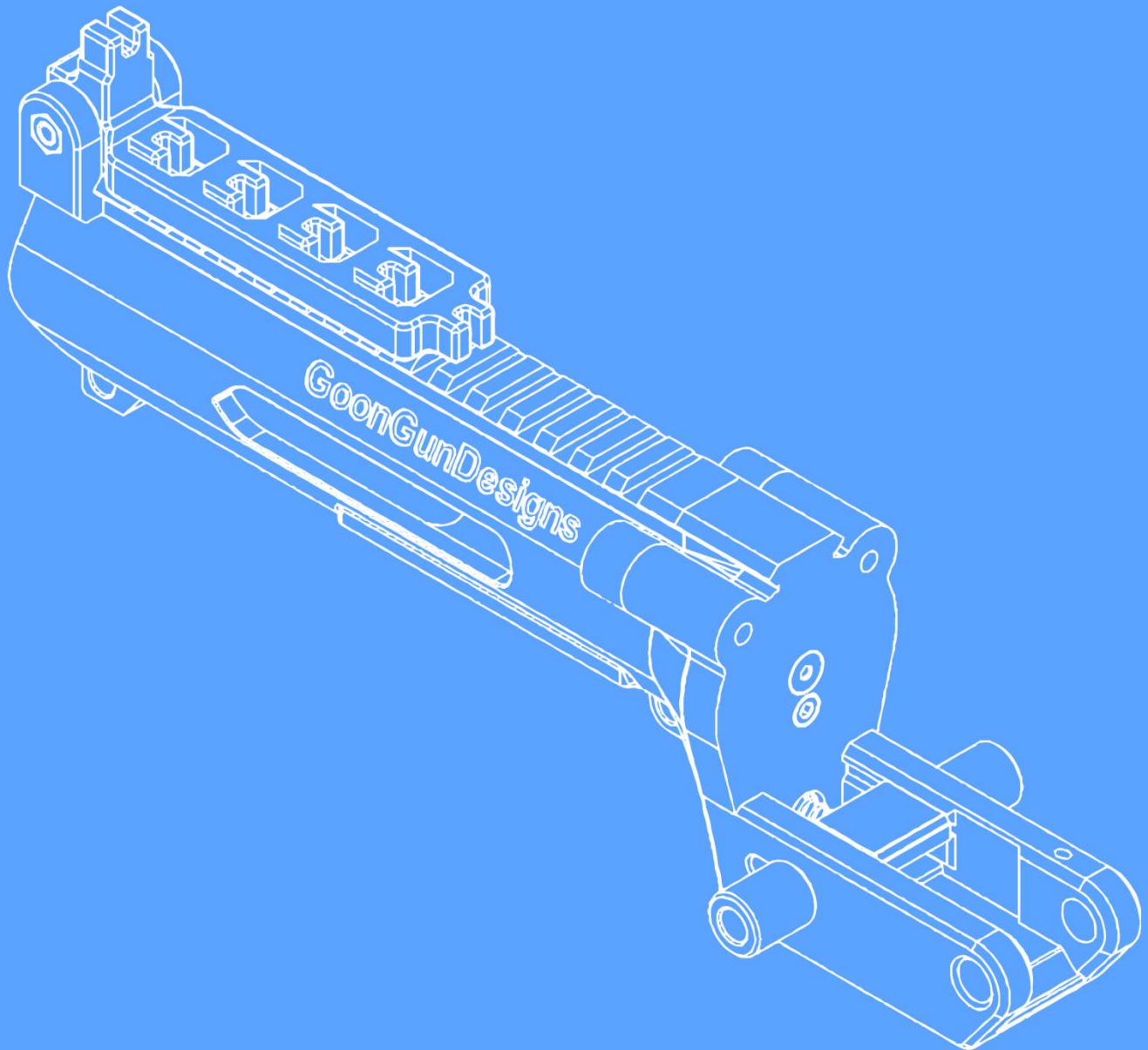


2.

To use, place threaded rod into an electric drill chuck and run with moderate-to-high speed

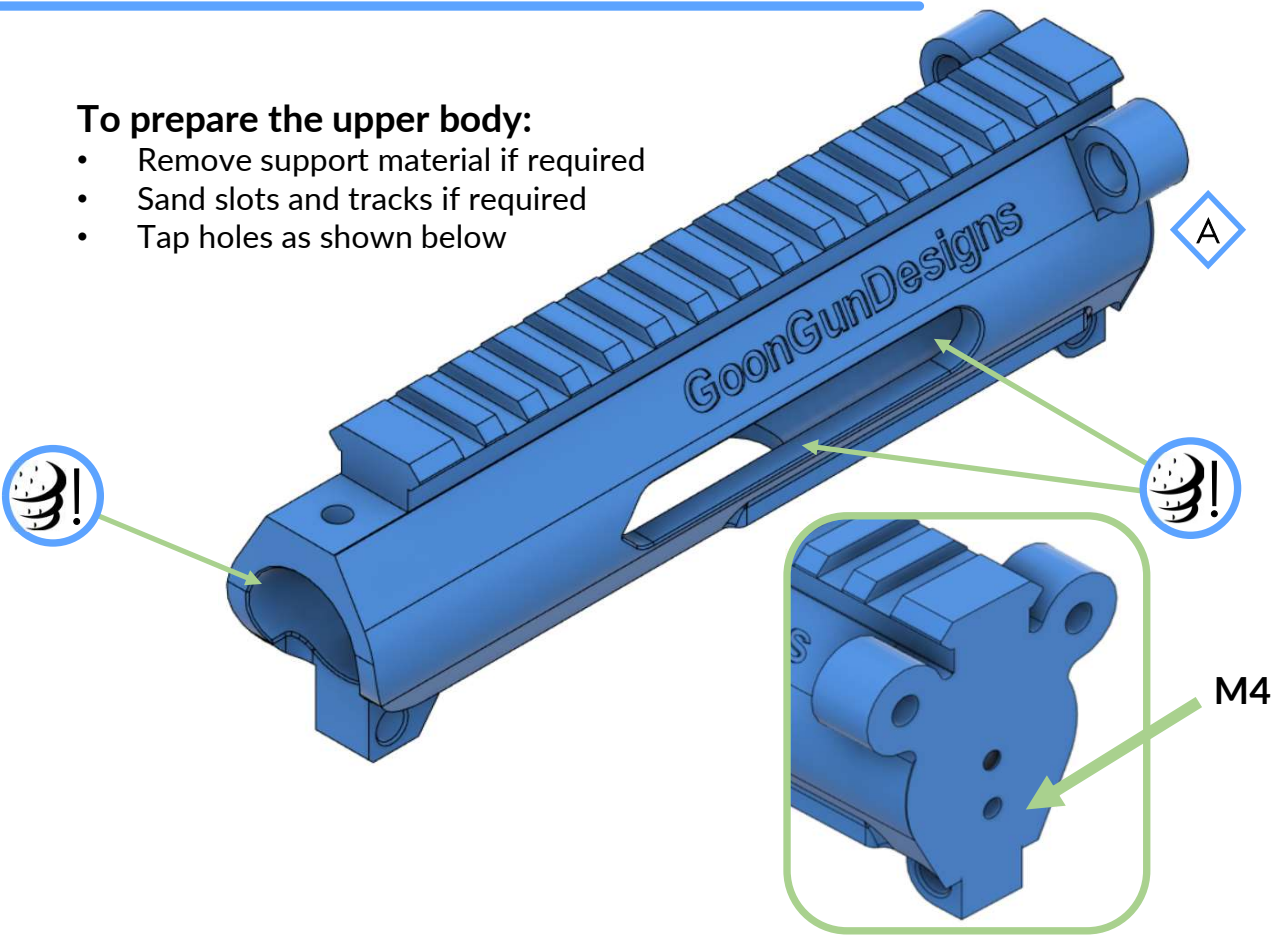


UPPER RECEIVER

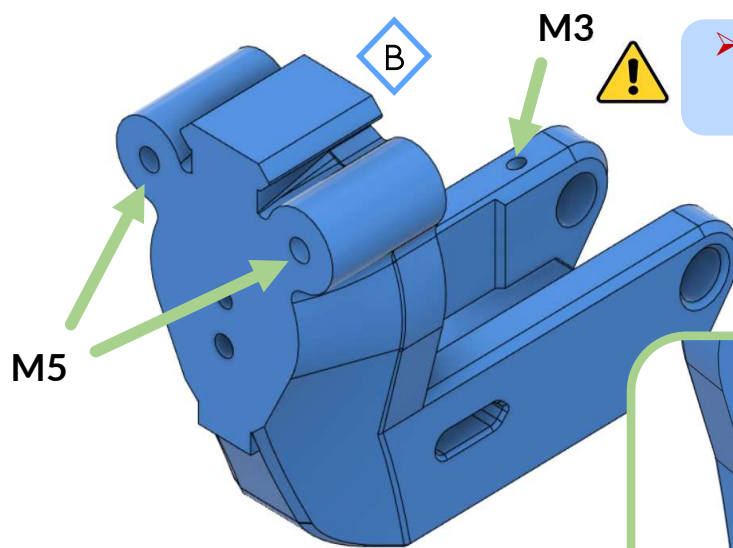


UPPER RECEIVER

1. **To prepare the upper body:**
 - Remove support material if required
 - Sand slots and tracks if required
 - Tap holes as shown below

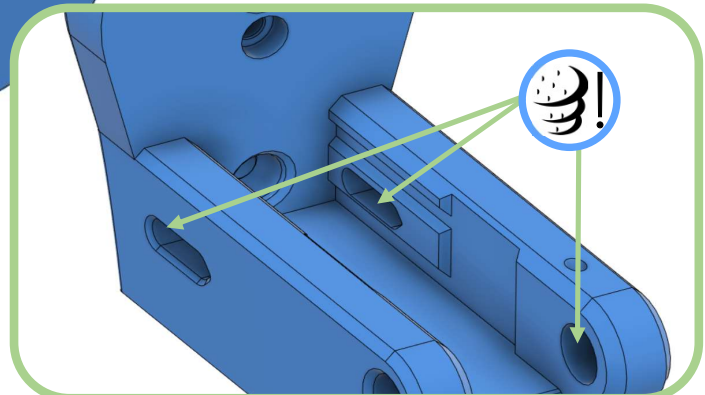


2. **To prepare the hinge:**
 - Remove support material if required
 - Tap holes as shown



➤ **IMPORTANT:** If you can not fit a full tap into this space, you can hold it with pliers. Its possible to get away without threading it.

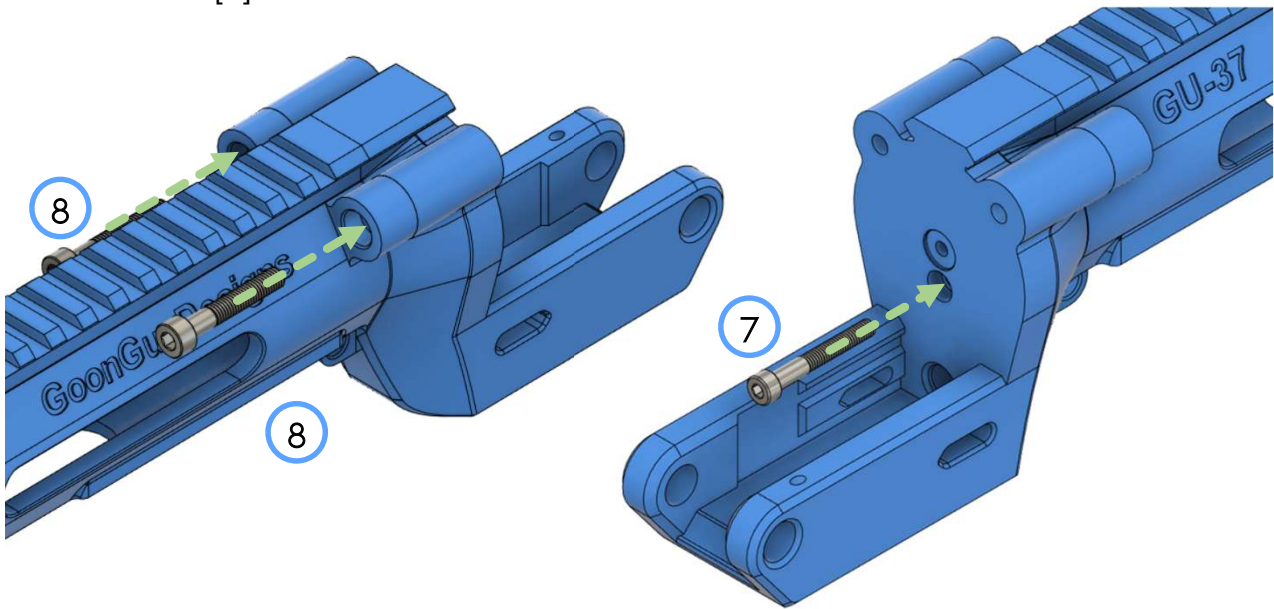
➤ **IMPORTANT:** DO NOT sand the tracks in the hinges, any adjustments should be made to the locking block instead



UPPER RECEIVER

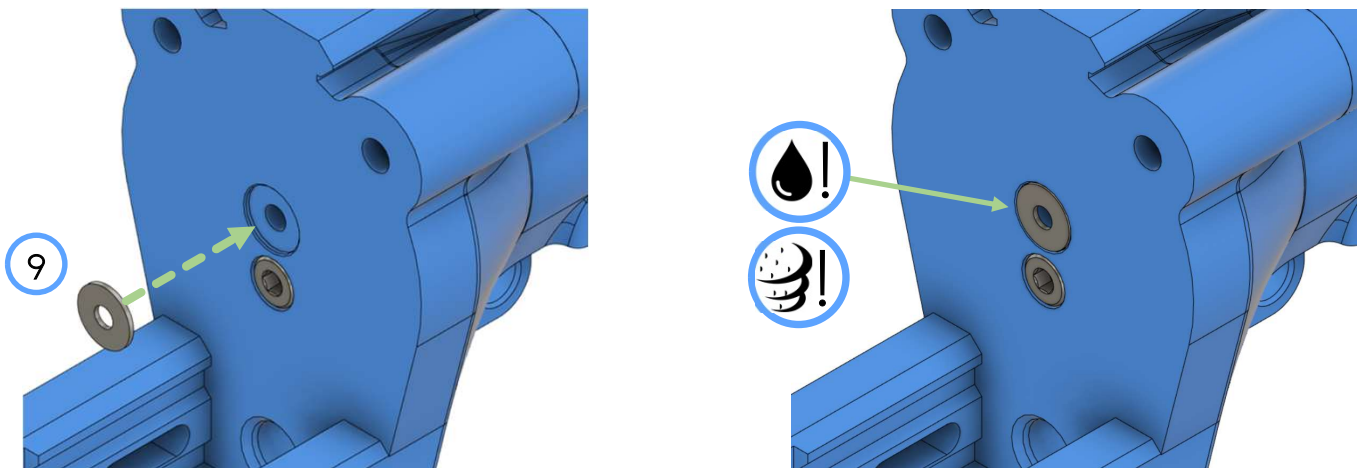
3. Secure the hinge to the receiver using:

- [2] M5 X 30mm
- [1] M4 x 30mm



4. Epoxy washer into the recess on the face of the receiver assembly

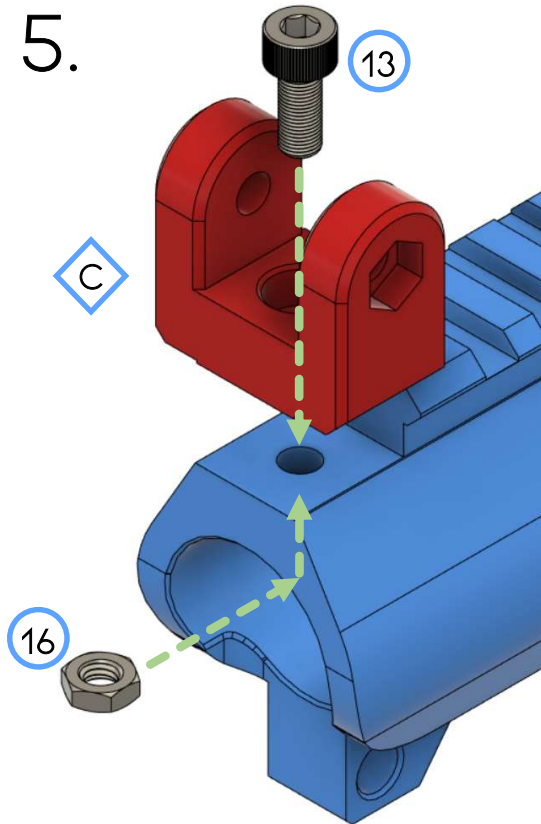
- Allow to cure for 24 hours. (JB Weld may also be used)
- Ensure the washer is flush with the surface, small amount of sanding may be required.
- If the epoxy breaks, electrical tape can hold the washer in place.



➤ **IMPORTANT:** Make sure there is no overlap with the striker pin hole. Any obstruction will affect the ability of the device to fire.

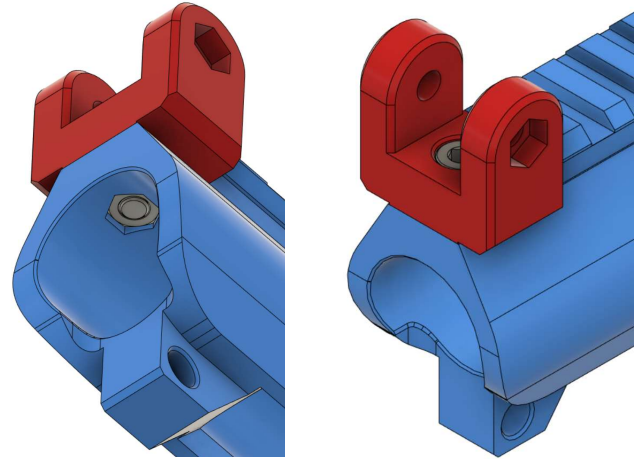
UPPER RECEIVER

5.



Secure the ladder sight mount to the upper:

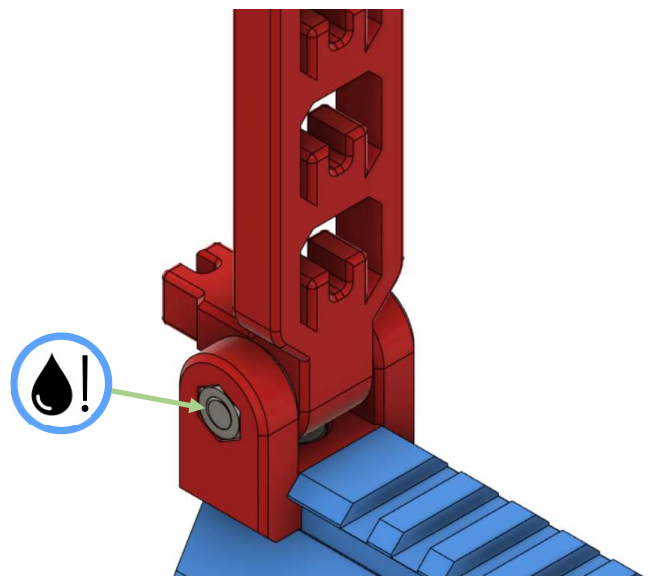
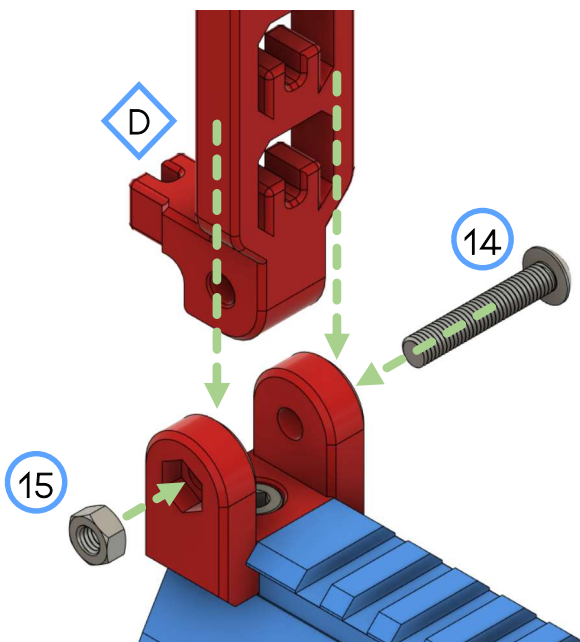
- Insert [1] thin M5 nut into the pocket inside the upper.
- Place 3D printed mount on the upper.
- Use a M5x12mm bolt and place it through the mount.
- Tighten bolt so parts are fully secured together.



6.

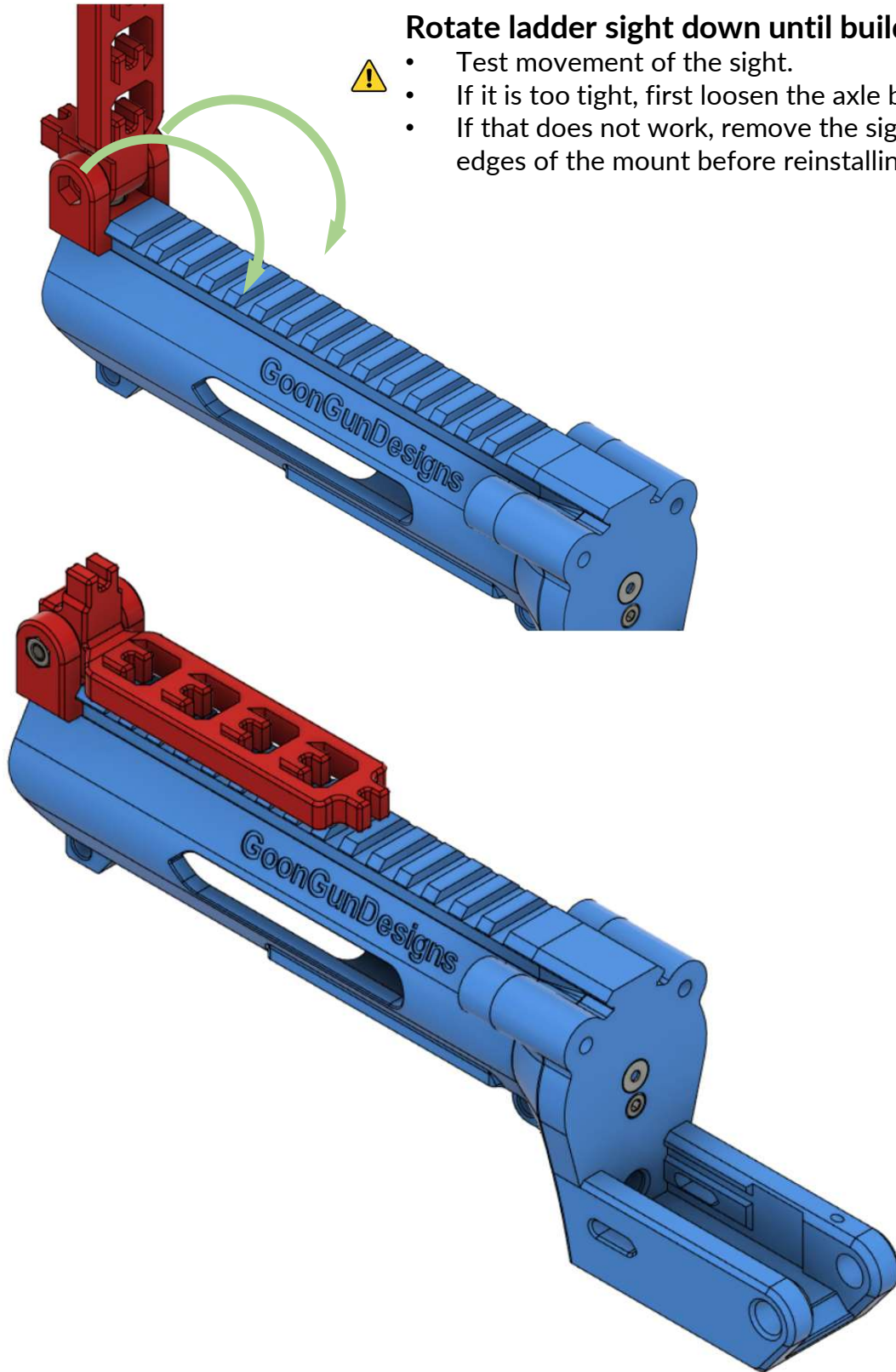
Attach the ladder sight into the mount:

- Insert standard M5 nut into the pocket inside the mount.
- Place 3D printed sight into the mount, [slight sanding may be needed on the sides].
- Use a M5x30mm bolt and place it through the mount, apply a small amount of Loctite.
- Tighten bolt so parts are fully secured together, just enough so the prongs touch the ladder. This will restrict the sight so it does not fall from the recoil.



UPPER RECEIVER

7.



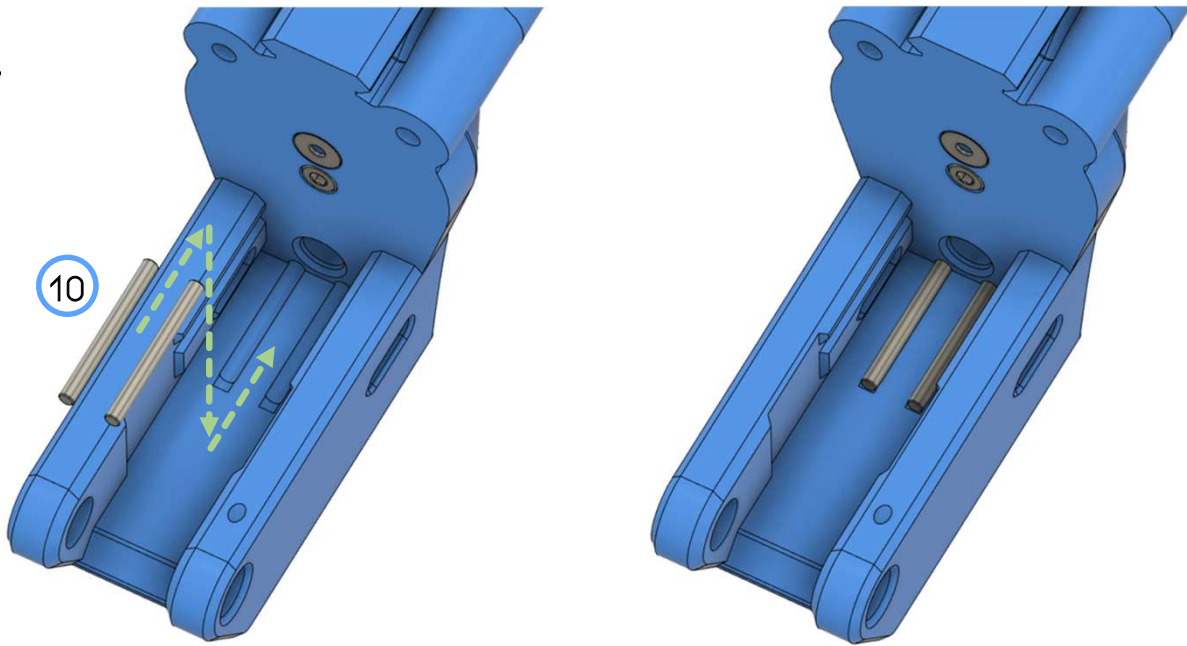
Rotate ladder sight down until build is complete:



- Test movement of the sight.
- If it is too tight, first loosen the axle bolt.
- If that does not work, remove the sight and sand the edges of the mount before reinstalling.

UPPER RECEIVER

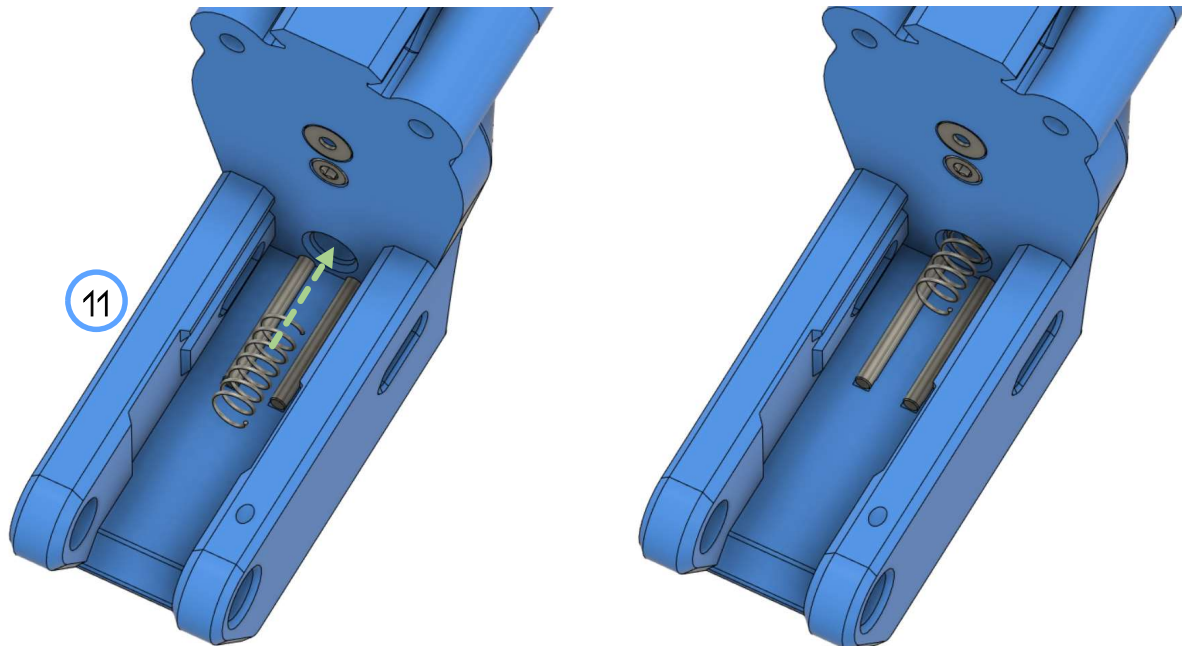
8.



Two stainless steel pins are used as rails to stabilize the locking mechanism.

- Take two M3 x 30mm pins and press into the pockets.
- Start by inserting the end into the hole and pressing into place with a pair of pliers
- Epoxy is not needed, but could help if the plastic alone is not holding the pin in place

9.



Insert AR mag catch spring into the hole and press into place.

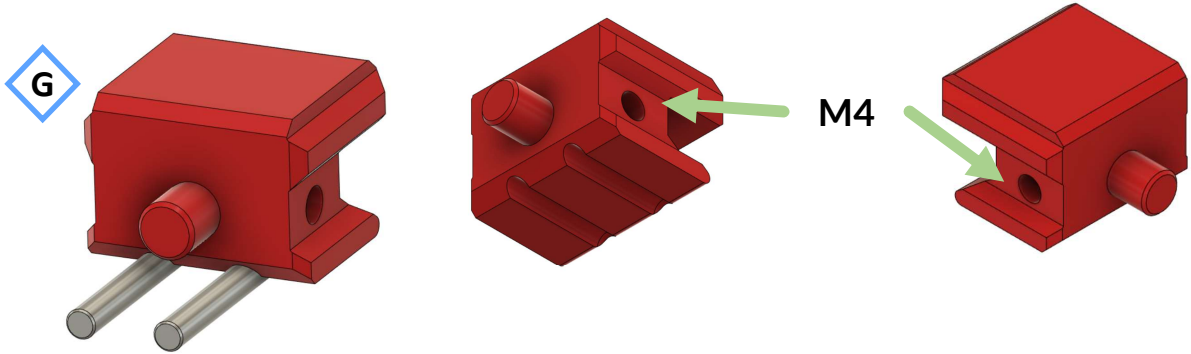
- Make sure it is fully seated into the hole.

UPPER RECEIVER

10.

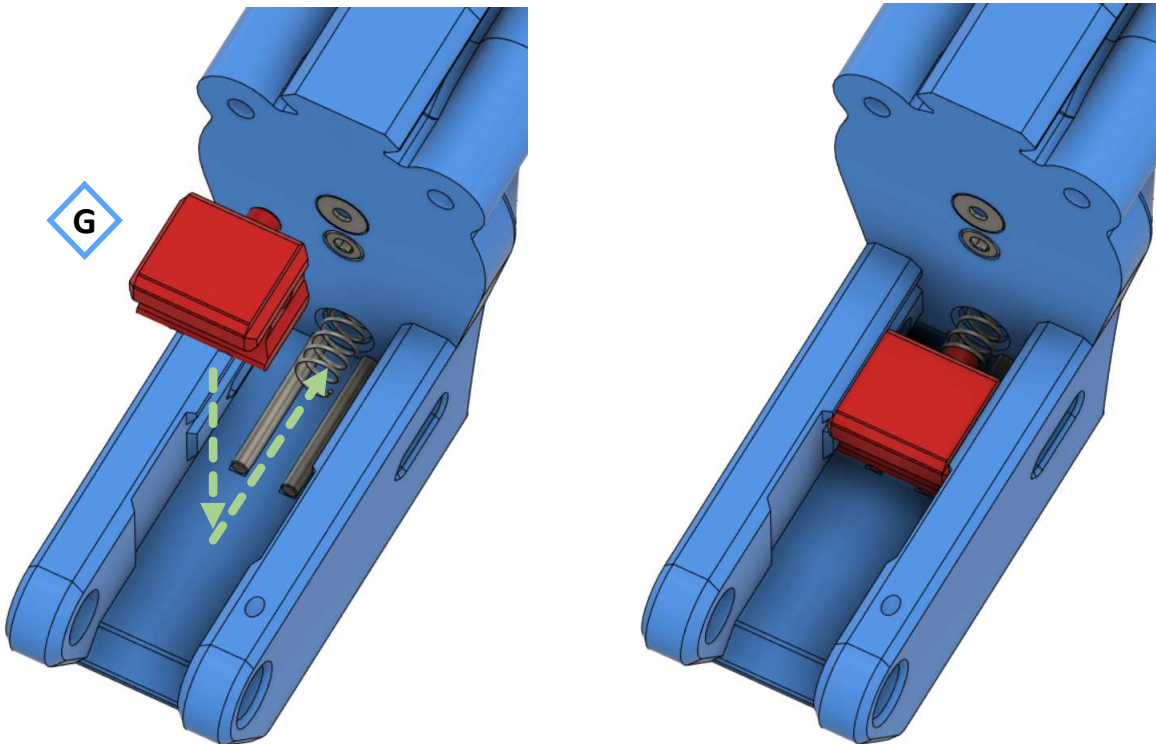
To prepare the locking block:

- Remove support material if required
- Sand the knob to ensure spring will fit
- Tap holes as shown to the right



➤ **IMPORTANT:** Smooth functioning of the locking mechanism requires good consistent contact with the M3 rods. File the tracks on the bottom so that there is no material that can snag as the locking block slides, particularly at the edges.

11.

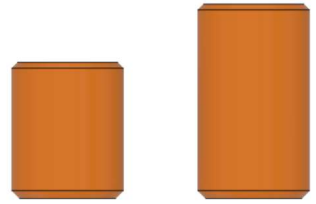


Insert the locking block into the track and slide backwards towards the spring.

- Make sure the shaft on the lock inserts inside the spring.
- There are ridges on the locking block that ride along grooves inside the hinge, ensure they engage.

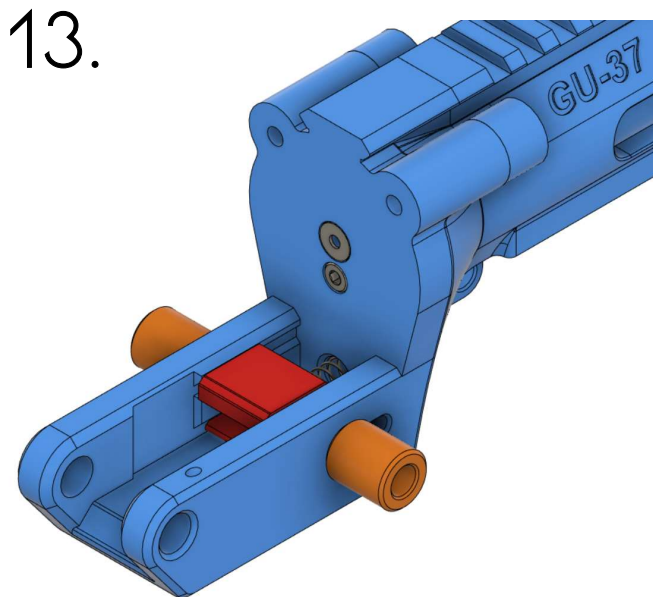
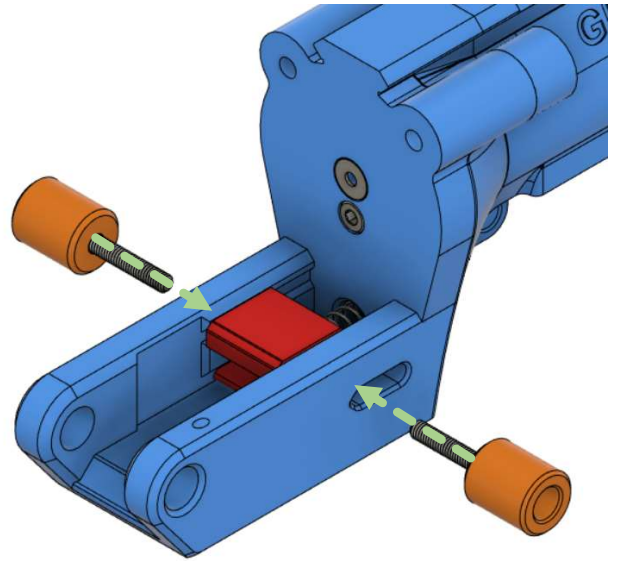
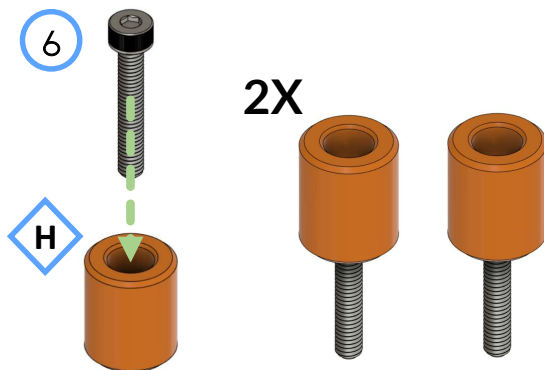
UPPER RECEIVER

12. There are two handle sizes to choose from:
- Both require the same assembly and function the same.
 - The short version is shown below.

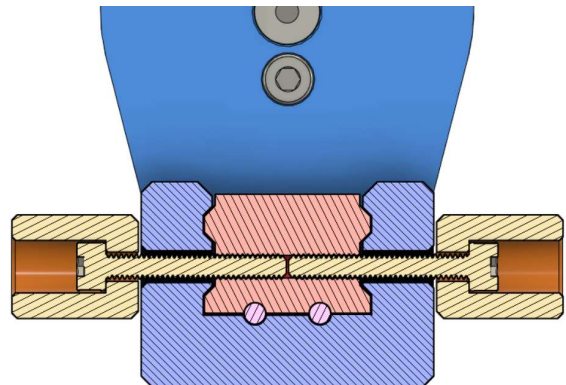


To assemble the handles (make 2):

- Start by inserting a M4 x 25mm bolt fully into the handle.
- While pulling the locking nub backwards, secure the handles using one bolt on each side.
- A cross section view that shows the assembly can be seen below.



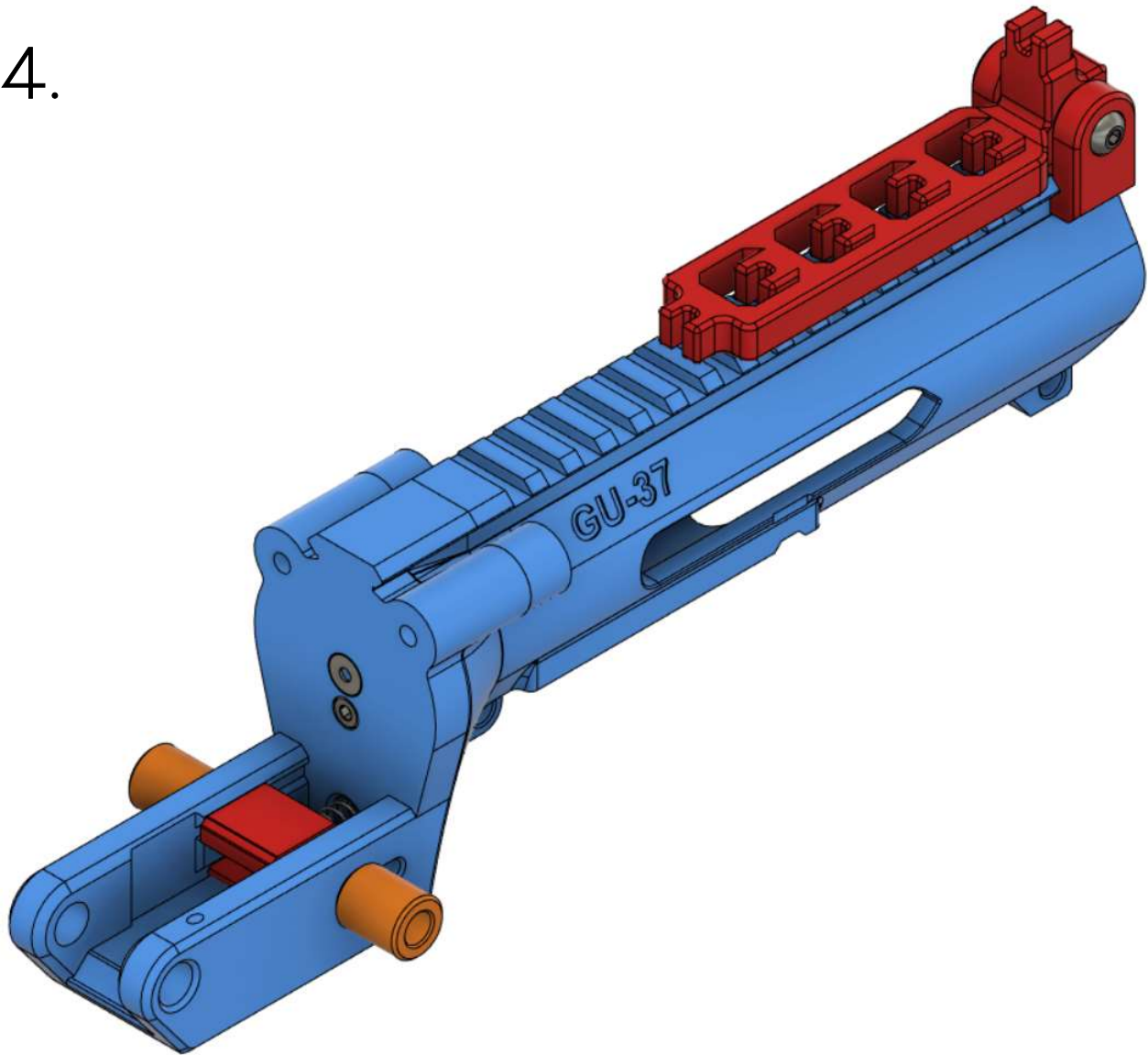
Cross-section View



- Continue to work the completed mechanism back and forth to break it in. Over time it will get easier to move.

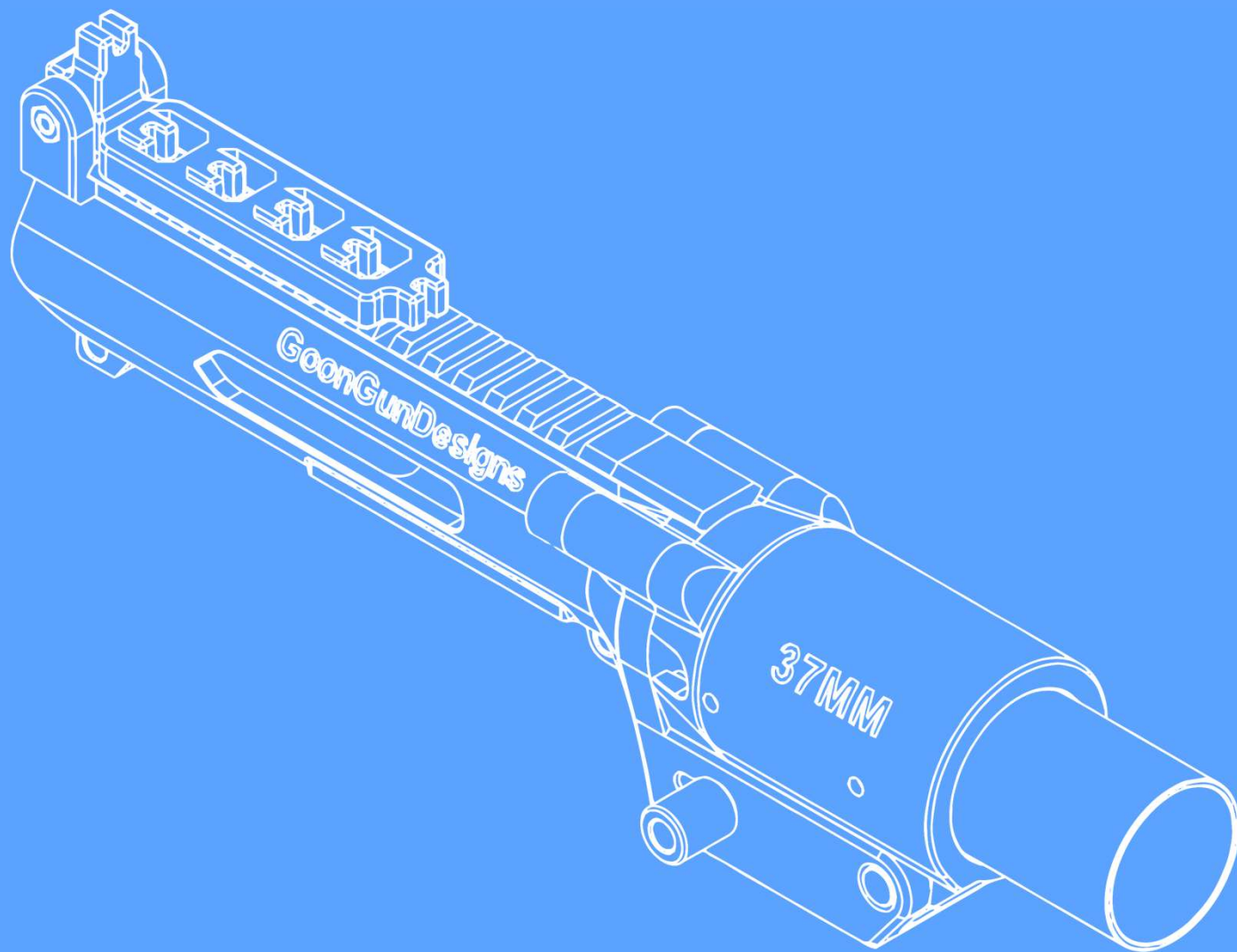
\\ UPPER RECEIVER

14.



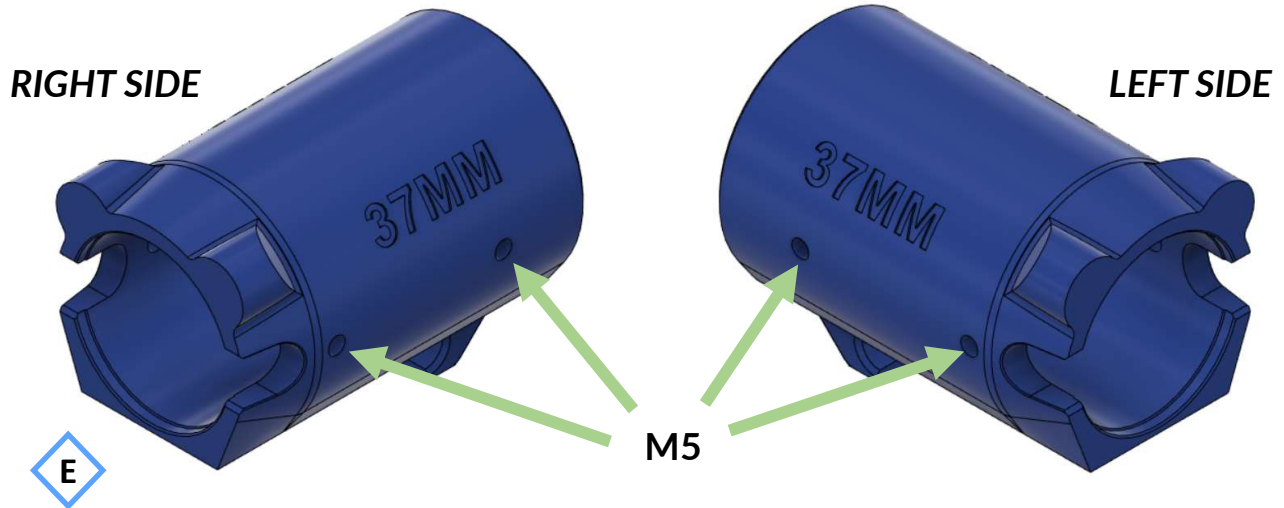
- **Congratulations!** The locking mechanism is complete. Set aside and proceed to the next step.

BARREL ASSEMBLY

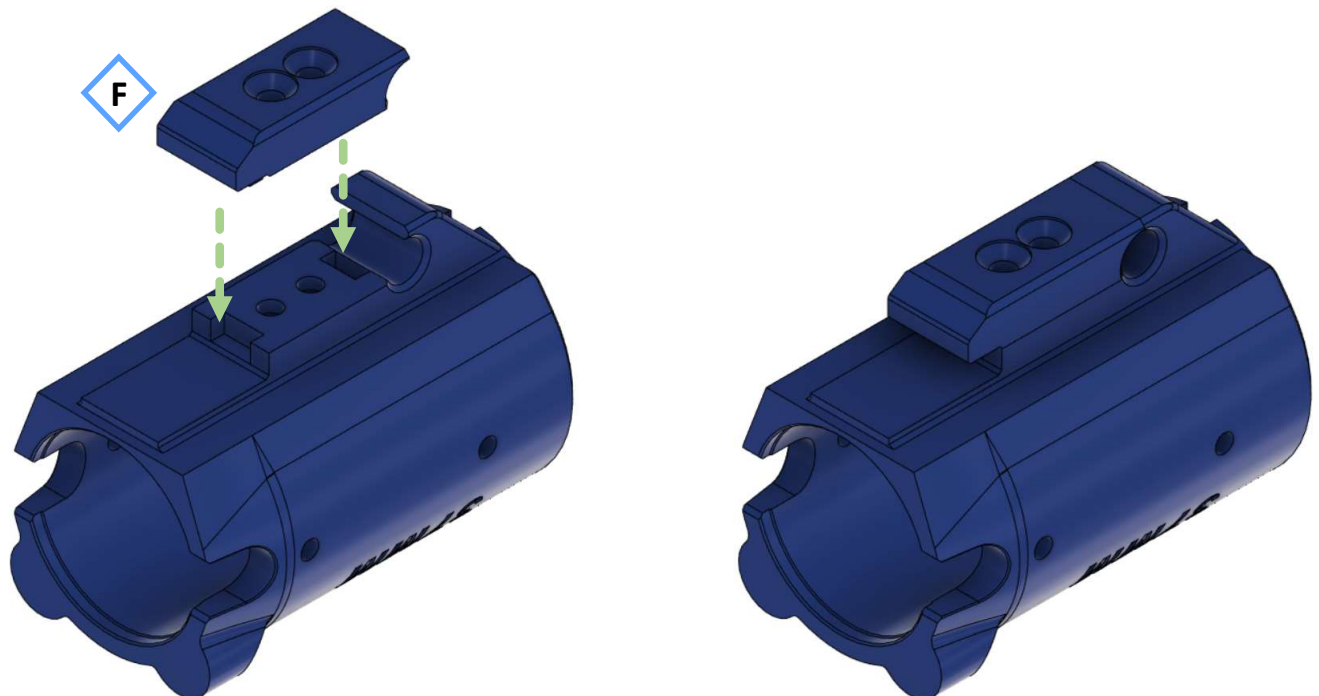


BARREL ASSEMBLY

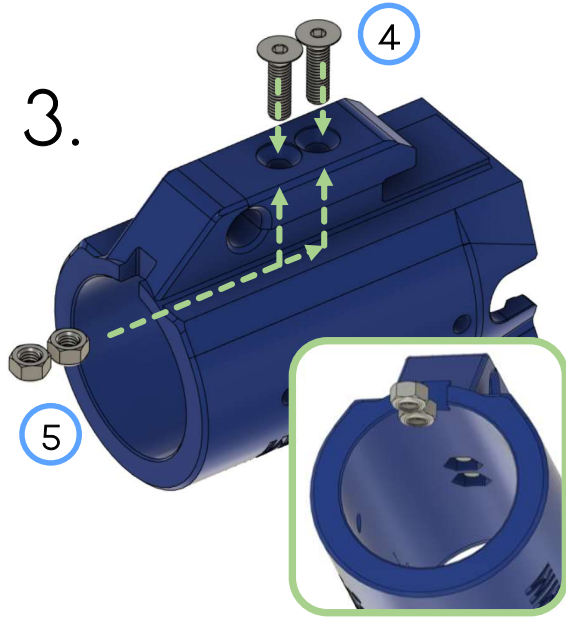
1. **To prepare the barrel:**
 - Remove support material if required.
 - Tap holes as shown below.



2. **Attach the locking nub to the bottom of the tube:**
 - Tabs on the bottom of the locking nub will index inside the sleeve.

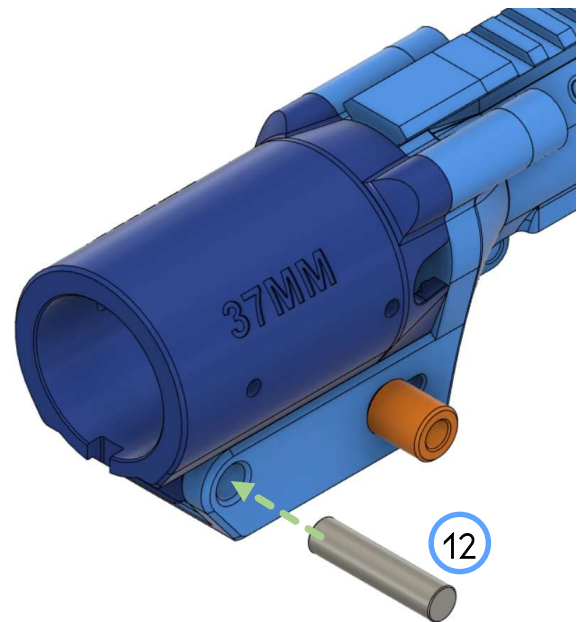
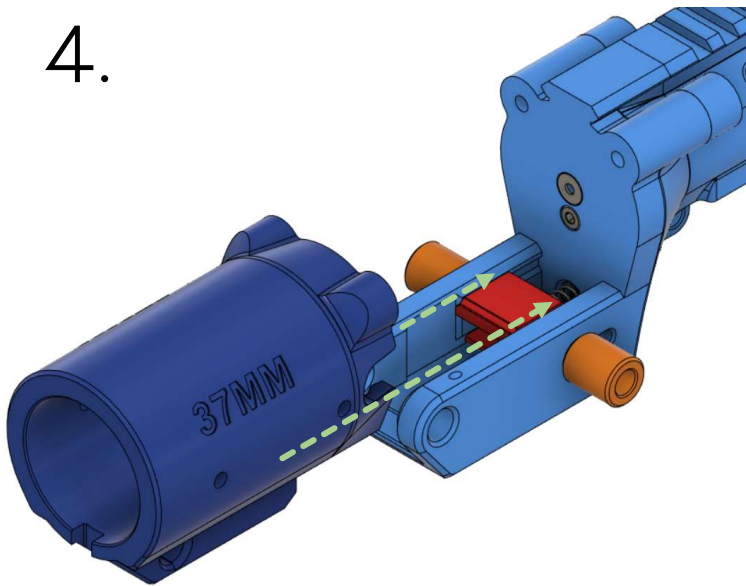


BARREL ASSEMBLY



To prepare the hinge:

- Insert lock nuts into the pockets inside the sleeve.
- Secure the locking nub with flat head screws.



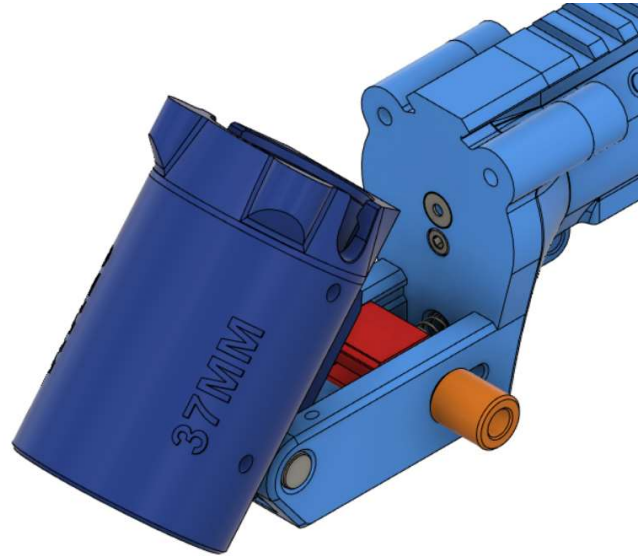
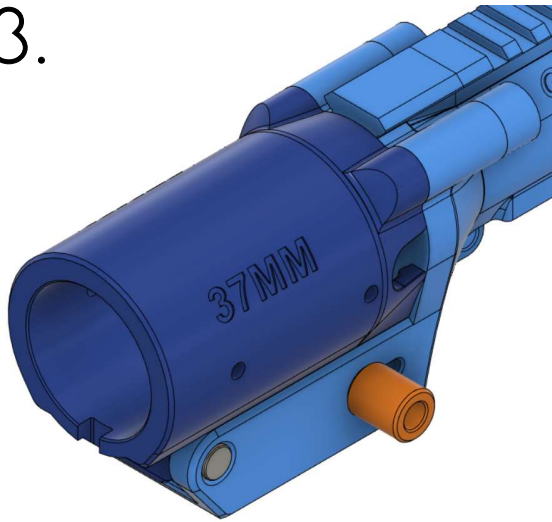
To connect the barrel sleeve:

- Take the barrel sleeve assembly and slide it into the hinge.
- Press it against the spring until the hinge holes line up, there will be resistance.
- Use the 3/8" steel hinge pin to hold the barrel in place for the next step.

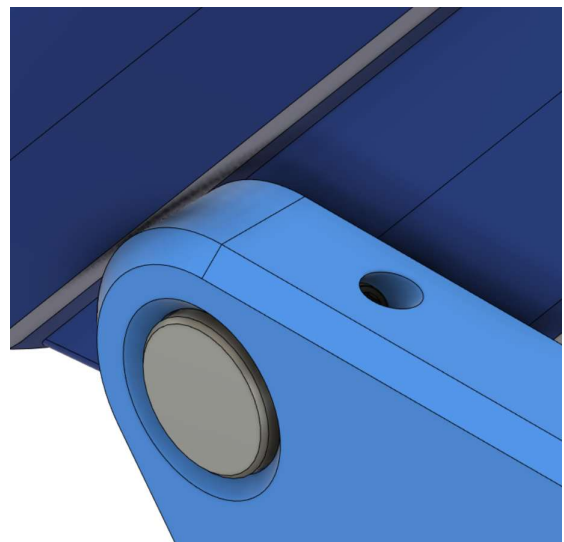
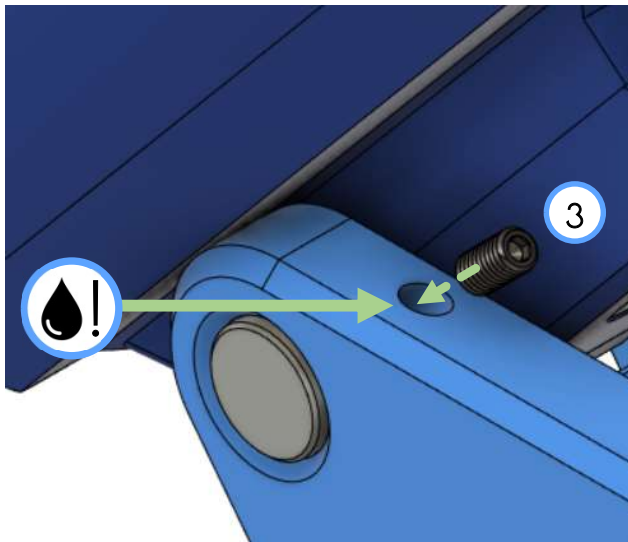
Although the pin is not secured yet, it is possible to test the locking mechanism and barrel rotation at this time.

BARREL ASSEMBLY

3.



4.



To secure the hinge pin:

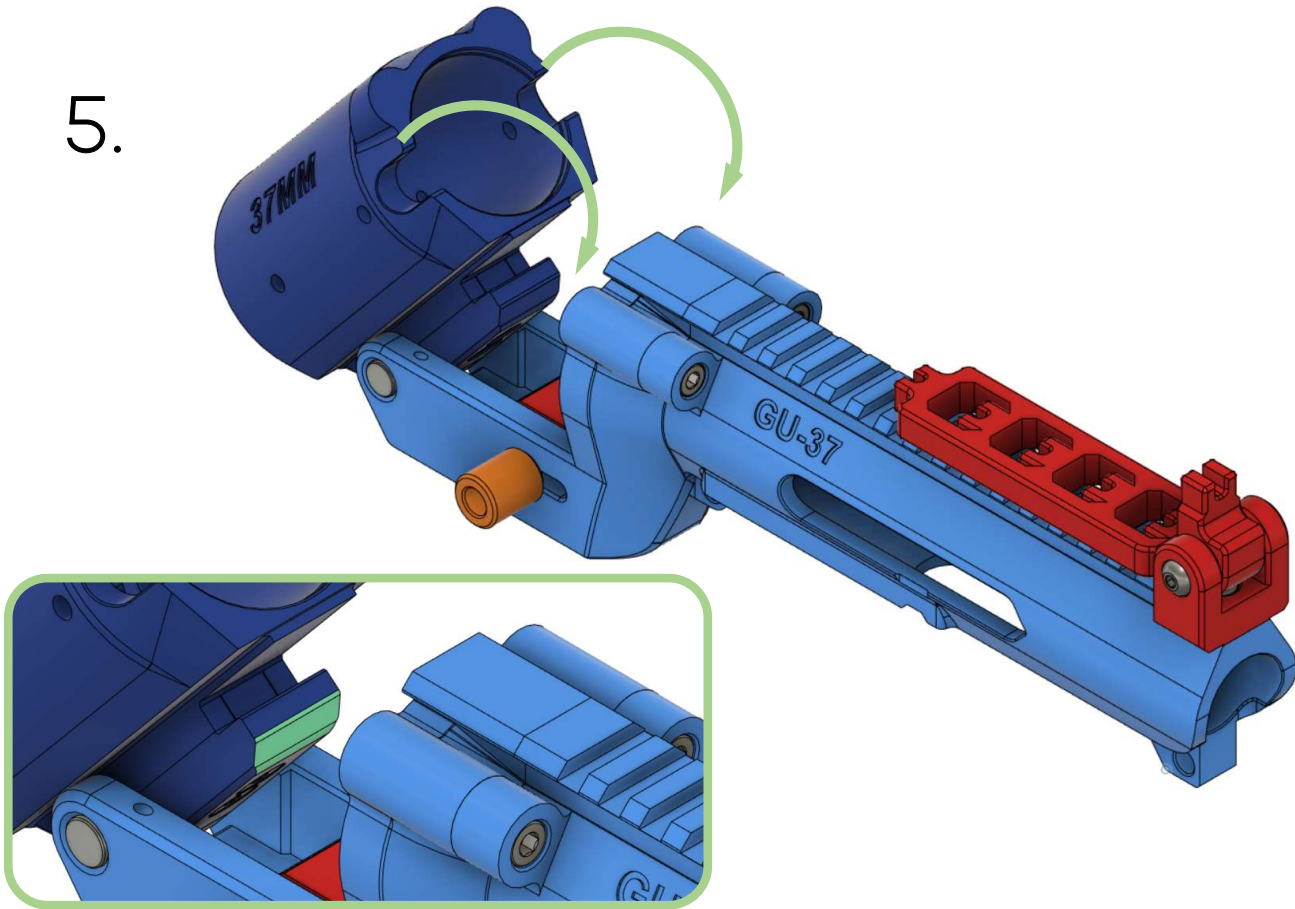
- Pull back the locking mechanism and rotate the barrel sleeve downwards, exposing the M3 hole.
- Ensure the hinge pin is centered within the hinge before proceeding.
- With the barrel still open, insert [1] M3 x 6mm grub screw into the tapped hole, [apply Loctite](#).
- Use an Allen key to tighten the grub all the way down until the hinge pin is secured in place.



➤ **IMPORTANT:** Do not overtighten! You will strip the hole, (very bad)!

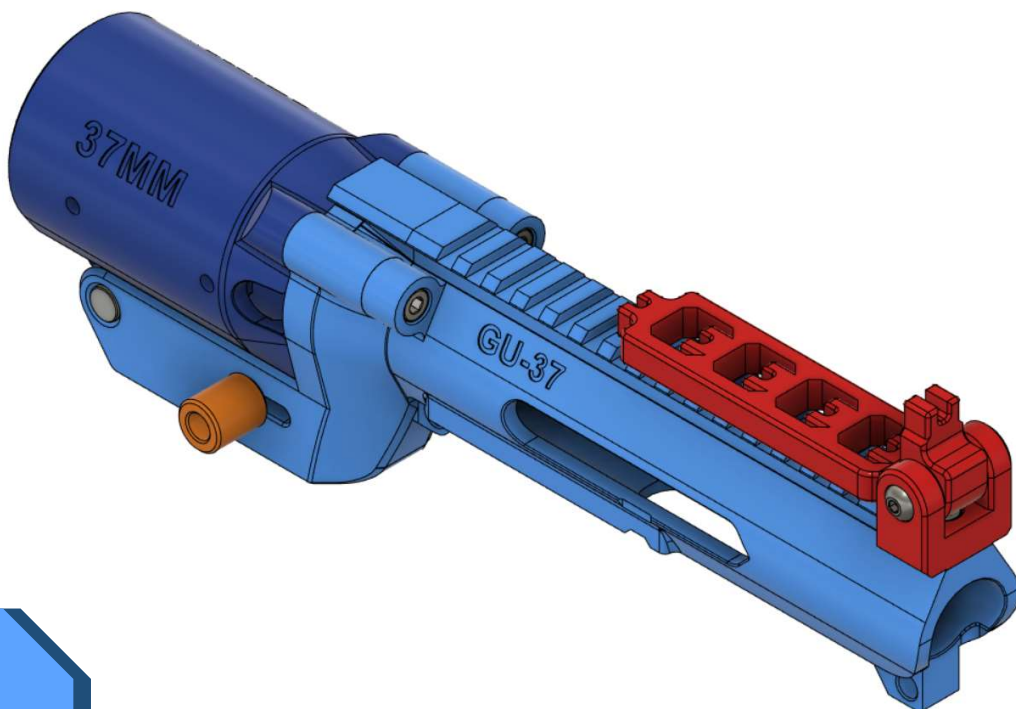
BARREL ASSEMBLY

5.



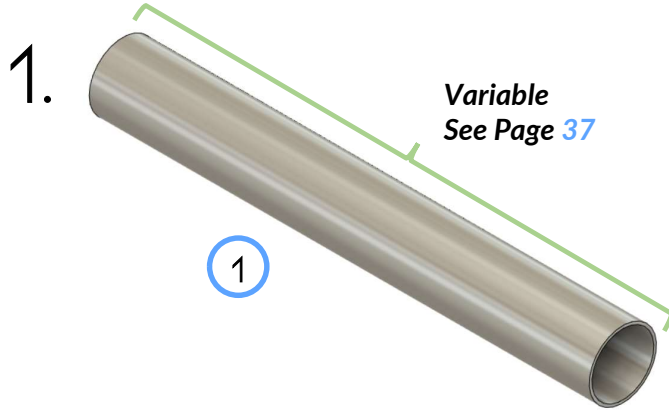
➤ **IMPORTANT:** If your barrel doesn't close without pulling the lock handles back there are a few ways to solve this:

1. Continue to work in the handle (see Upper Receiver Step 13)
2. Sand/file the surface under the barrel sleep locking nub (Green Surface)

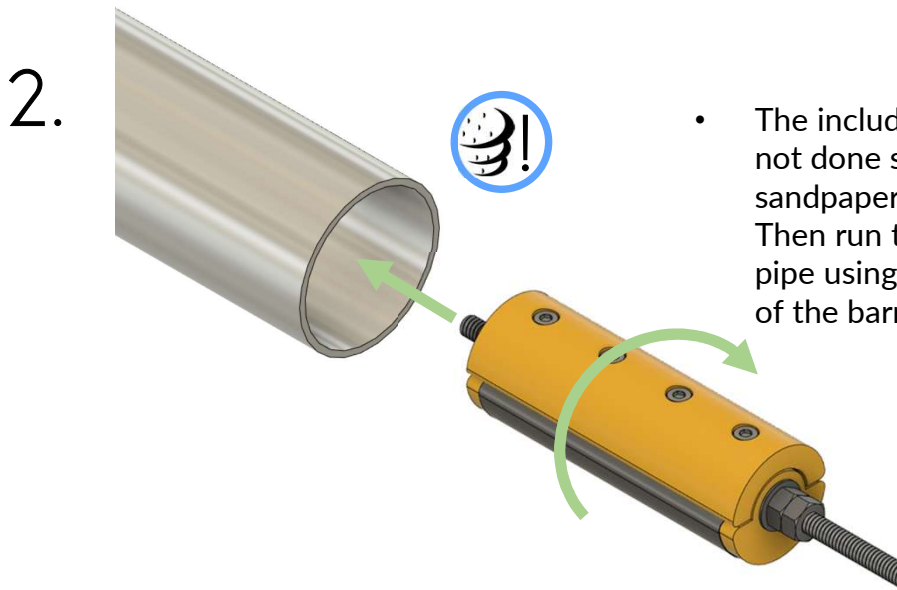


AWCY?

BARREL ASSEMBLY



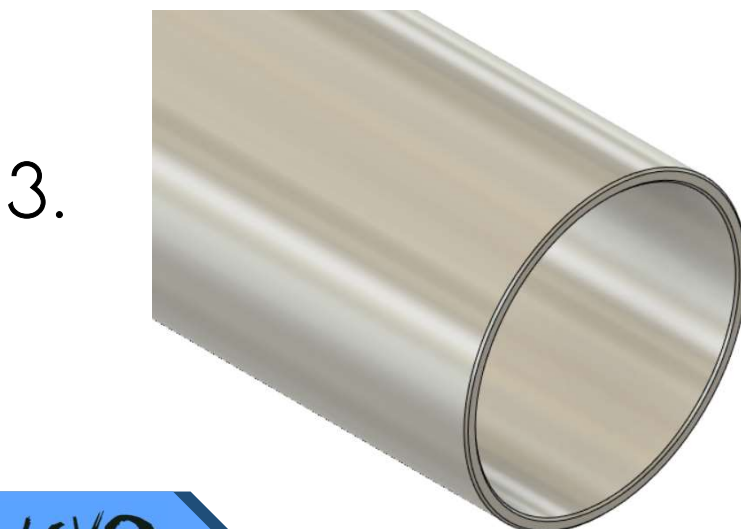
- The barrel can be cut to any length to accommodate your personal combination of accessories, see page 37 for details.
- Some example lengths Include:
 - Pistol Length - 13.9 cm
 - Pistol Length w/ Muzzle Brake - 17.4 cm
 - Rifle Length - 29.7 cm
 - Rifle Length w/ Flush Muzzle Brake - 31.4 cm
 - (See page 39 for a visual comparison)



- The included sanding tool is for you to print. If not done so already, wrap a heavy grit sandpaper around the exterior and secure. Then run the sander through the section of pipe using a drill, moving it along the full length of the barrel.



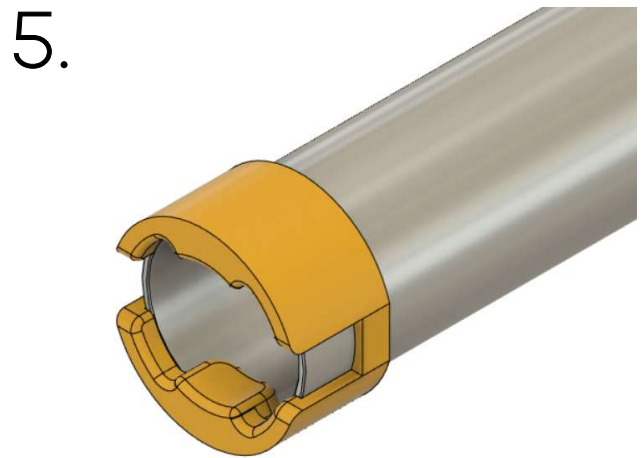
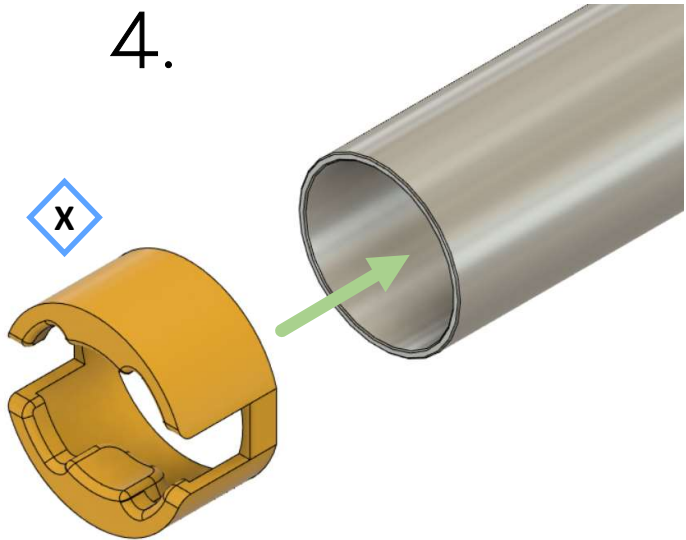
➤ **IMPORTANT:** Do not skip! An even and smooth barrel significantly improves performance.



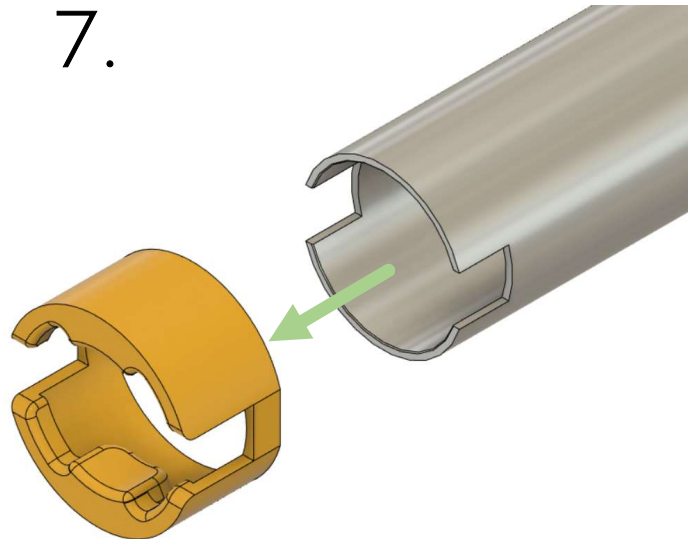
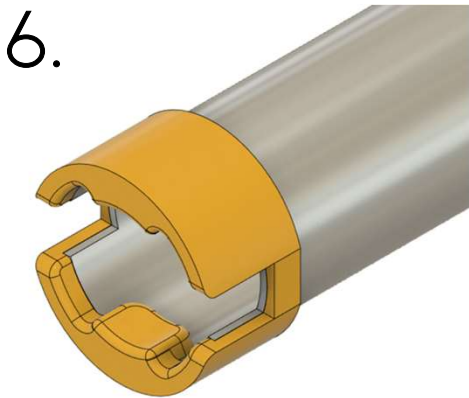
- File or sand off any burrs that may have been formed during the cutting process. A slight chamfer will aid in insertion into the barrel retainer.

BARREL ASSEMBLY

- Before insertion into the barrel sleeve, two slots must be cut into the sides of the barrel. The slots will provide clearance for easy removal of the spent rounds.
 - Print the jig included in your part files to aid in cutting a proper sized slot.



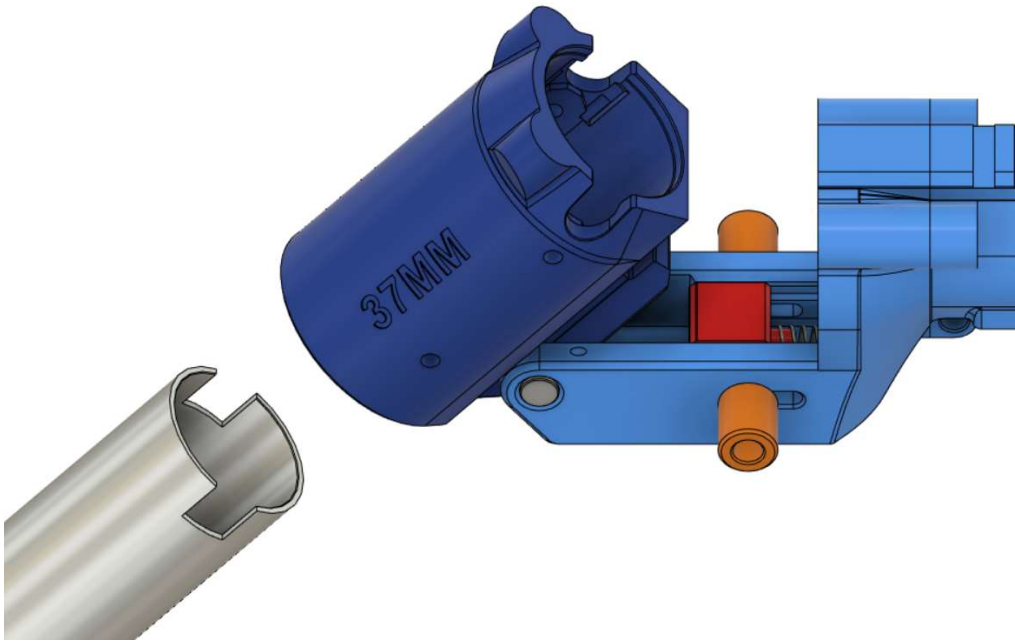
- You can use the jig as a cutting guide or as a stencil to mark the pipe with a permanent marker. It is recommended to use a Dremel, hand saw or angle grinder to create the slot.



- File or sand off any burrs that may have been formed during the cutting process.
- **Congratulations!** The barrel tube is complete. Set aside and proceed to the next step

BARREL ASSEMBLY

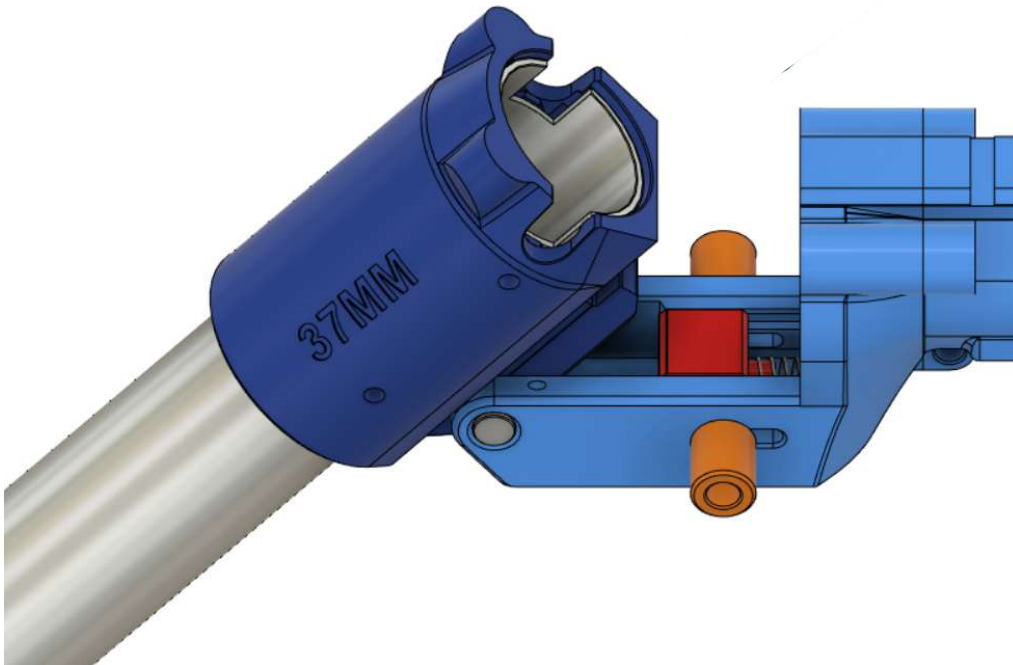
9.



Insert barrel into the sleeve:

- Slightly sanding the outside of the pipe may aid in insertion.
- Push it all the way back until the end of the pipe reaches the counter sunk surface.

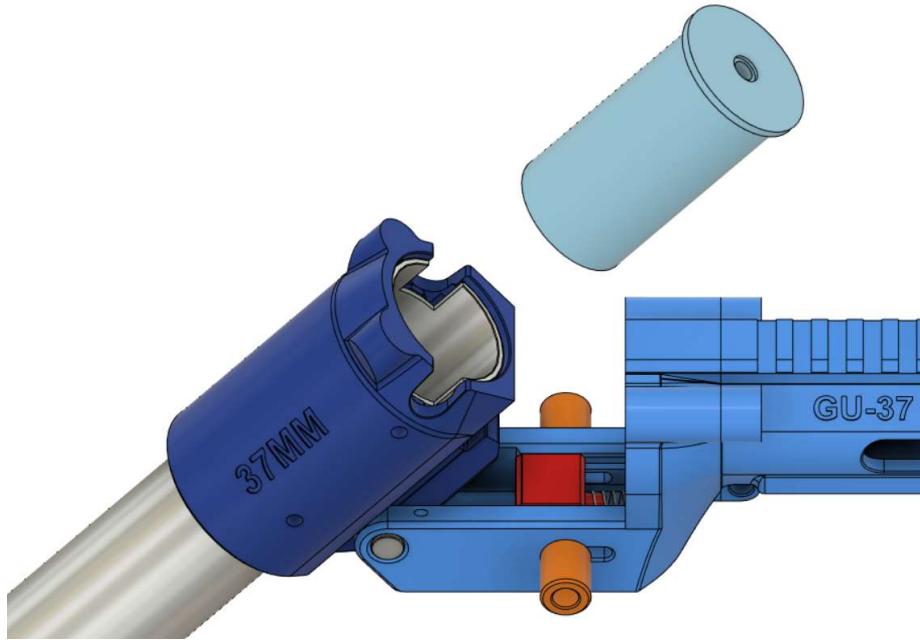
10.



➤ **IMPORTANT:** Make sure the slots in the pipe are properly lined up with the slots in the barrel sleeve.

BARREL ASSEMBLY

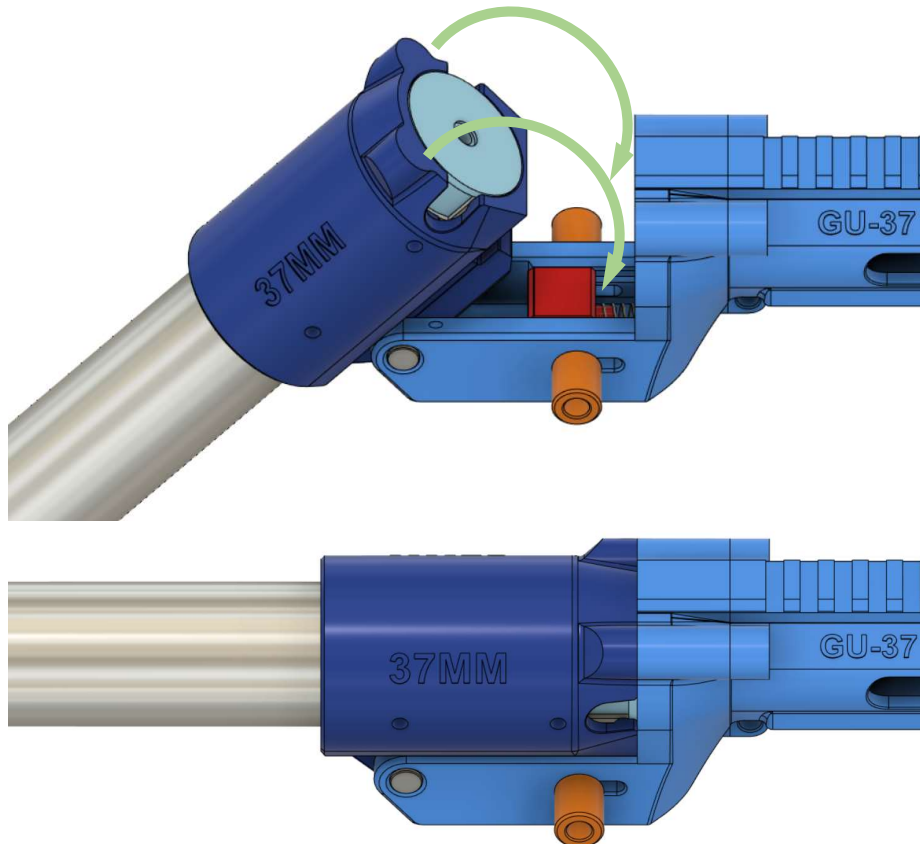
11.



Setting the barrel in the right location:

- The best method to do this, is using an empty 37mm shell.
- With the breech exposed, insert the casing so that it is flush with the back face of the sleeve.
- While making sure to keep the slots in the same location, close the breech.
- Press the barrel tube backwards slightly so the face of the casing is fully contacting the face of the hinge.

12.

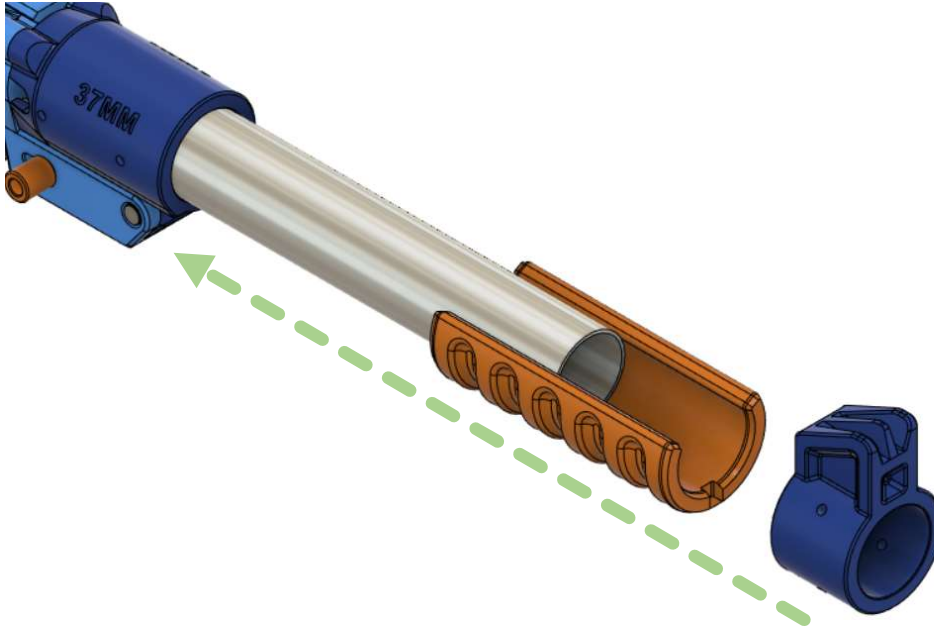


BARREL ASSEMBLY

13.

Choosing your Barrel Length:

- With the barrel temporarily installed, slide a handguard, and/or retainer onto the barrel.
- For more information on accessory combinations, go to page [58](#).



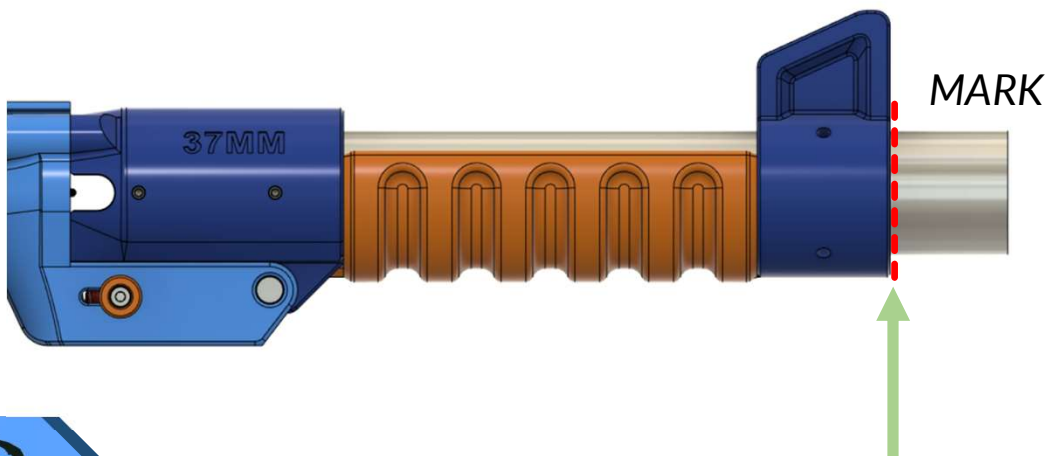
14.

After the parts are place, it is possible to choose a cut location using the following formula:

- If: No Muzzle Device: mark the barrel at the edge of the retainer, cut so the barrel is flush.
- If: Yes, Muzzle Device: mark the barrel according the type chosen, distances from retainer are listed below:
 - Three Prong: [61mm](#)
 - Tank Brake: [39mm](#)
 - Muzzle Brake: [39mm](#)

NOTE: The cuts can be shorter by a few millimeters but the closer to the exact number, the better.

Remove all the printed components, pull the barrel out of the sleeve, and return to page [33](#).

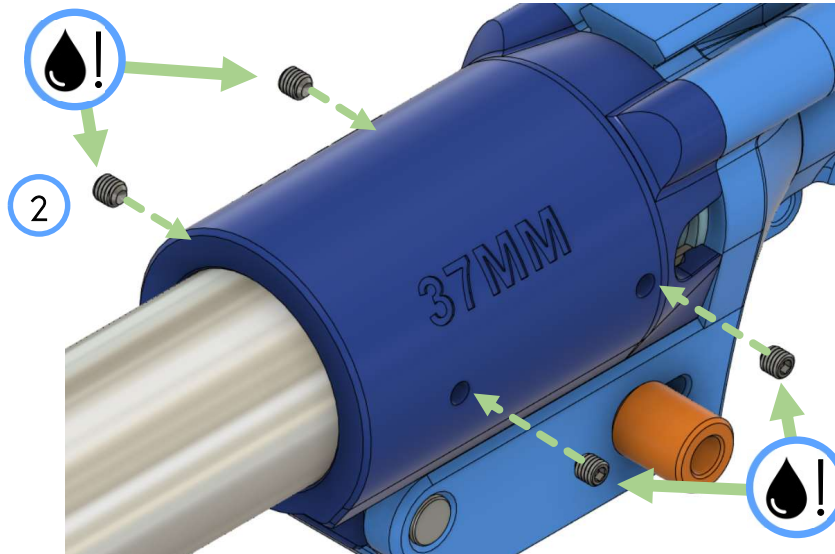


BARREL ASSEMBLY

15.

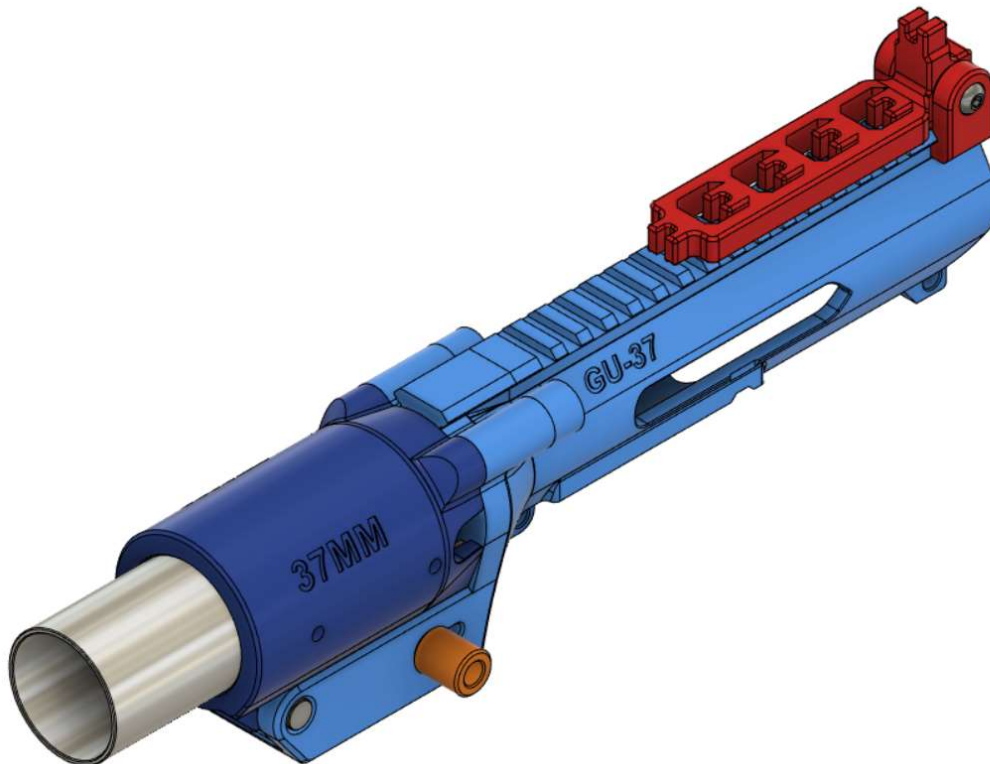
To secure the barrel:

- Use [4] M5 x 5mm grub screws into the pre tapped holes
- Tighten the front screws first until contact is made with the barrel
- Repeat for the back two screws, **apply Loctite**.



➤ **IMPORTANT:** Do not overtighten!
You will strip the hole (very bad)

16.



Congratulations! The barrel tube is now installed. Set aside and proceed to the next step

- You may leave the shell placed inside the barrel if desired, but it will need to be taken out before the firing pin is installed.

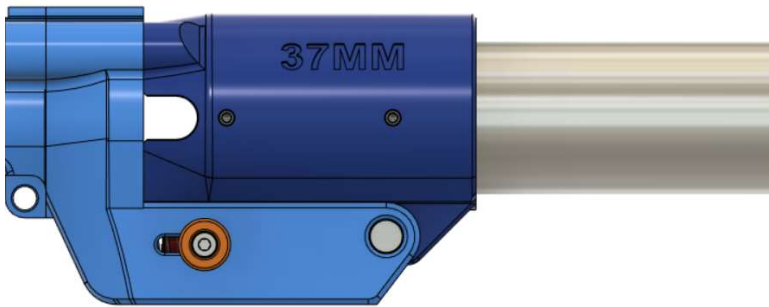
BARREL ASSEMBLY

BARREL EXAMPLES

Pistol Length - 13.9 cm



Pistol Length w/ Muzzle Brake - 17.4 cm



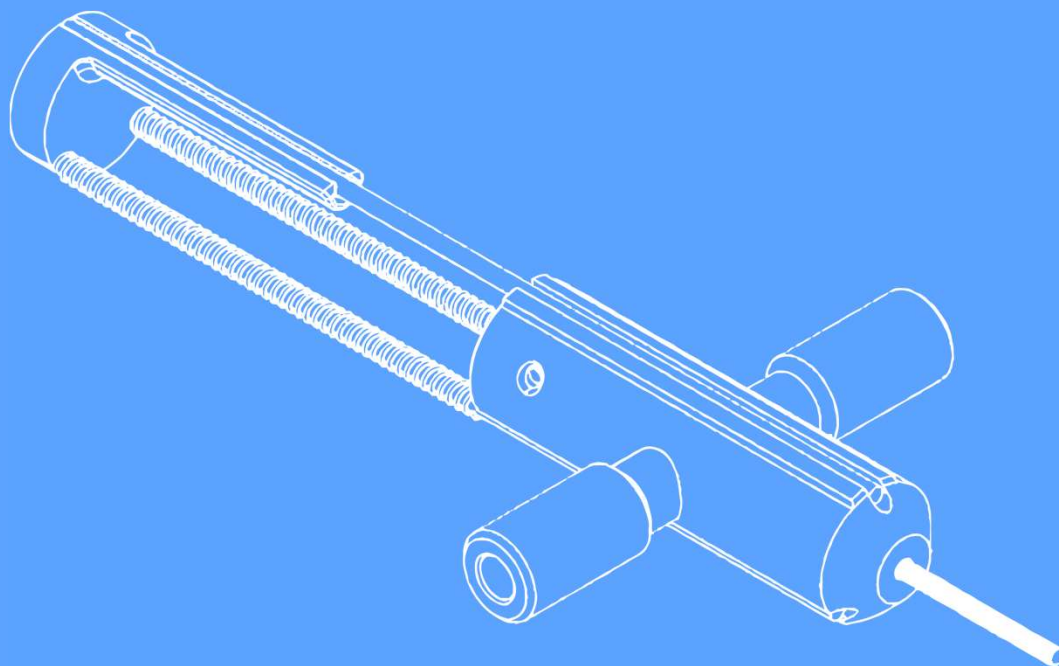
Rifle Length - 29.7 cm



Rifle Length w/ Flush Muzzle Brake - 31.4 cm



BOLT ASSEMBLY

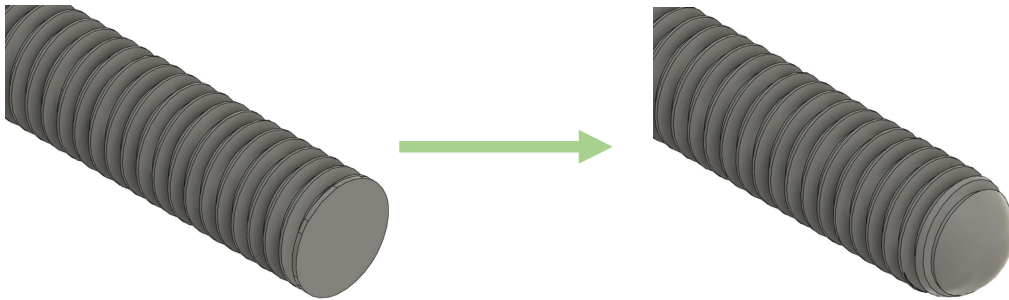
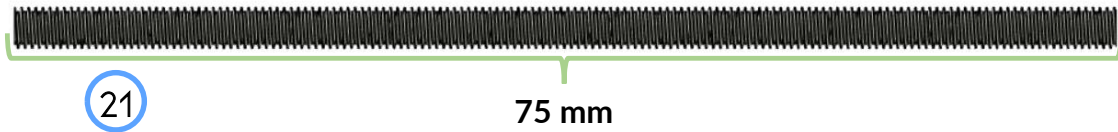


\\ BOLT ASSEMBLY

1.

To prepare the firing pin:

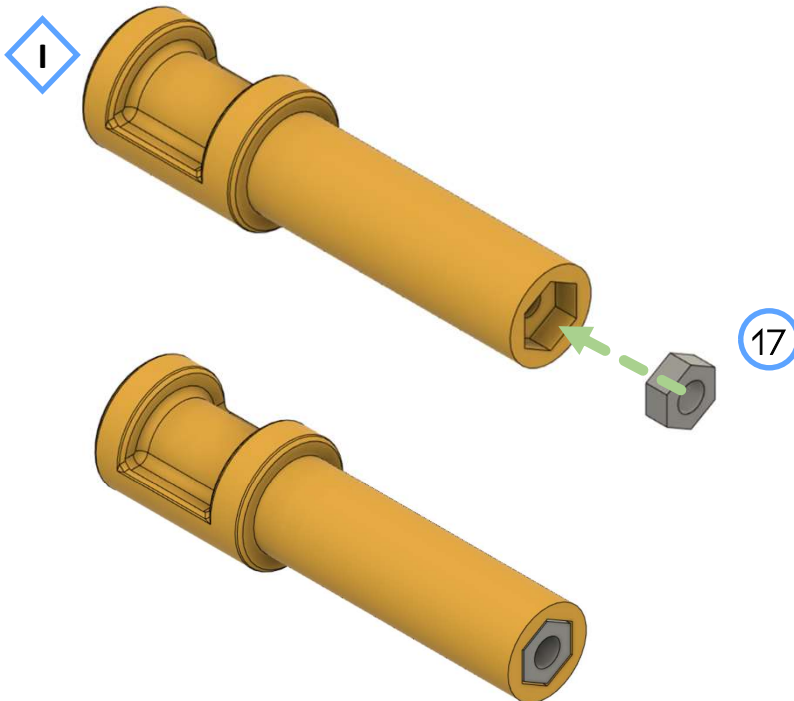
- Round the end of the threaded rod from a flat edge to a rounded point.
- You may experiment with the profile of the tip to suit your preference.
- A rounded/slightly pointed tip works the best.



2.

Begin firing pin assembly:

- Press M3 nut into the pocket on the front of the printed firing pin body.

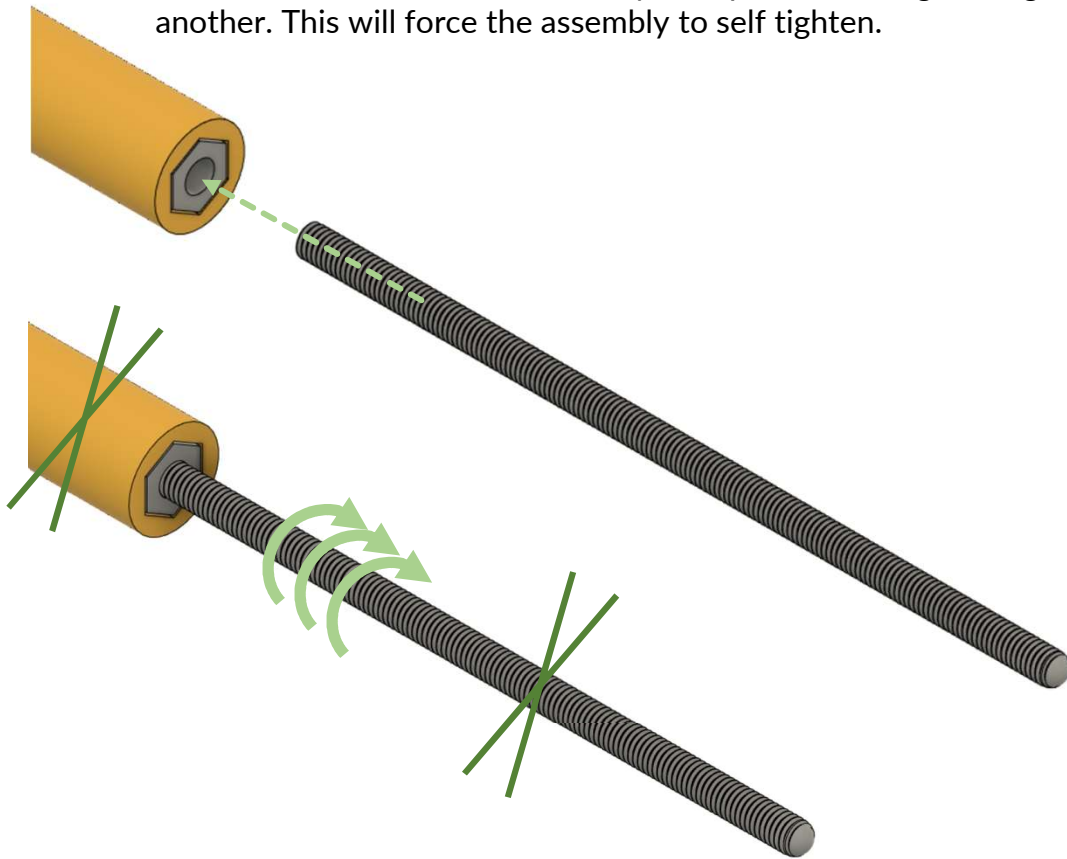


\\ BOLT ASSEMBLY

3.

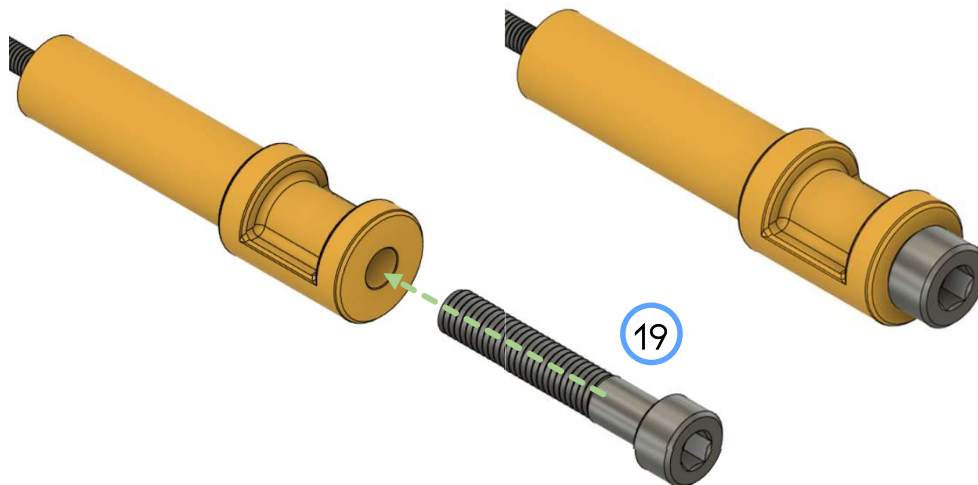
Continue firing pin assembly:

- Thread the shaped firing pin into the M3 nut until it hits the back of the body.
- Once it bottoms out, hold the body with pliers while tightening the pin with another. This will force the assembly to self tighten.



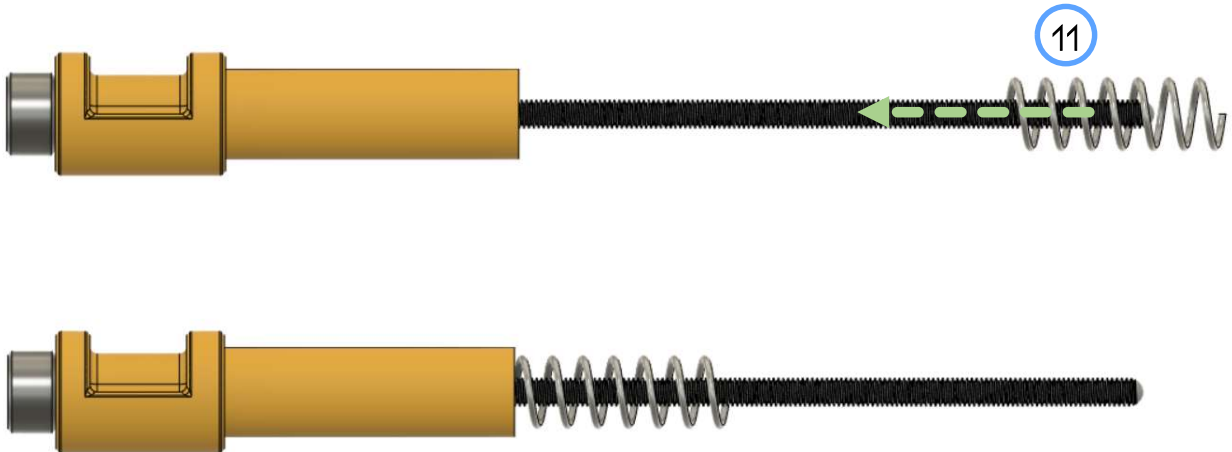
➤ **IMPORTANT:** Use two pairs of pliers to finish the tightening, the rod will force the nut into the striker and self tighten like a jam nut.

4.



\\ BOLT ASSEMBLY

5. Place the spring into the firing pin and slide until it makes contact.
- The firing pin is now ready for installation into the bolt

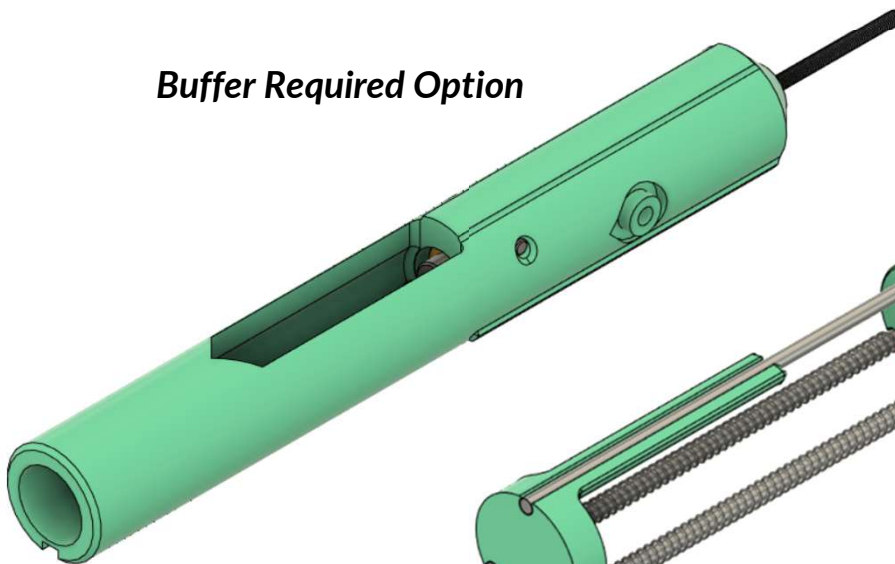


BOLT OPTIONS

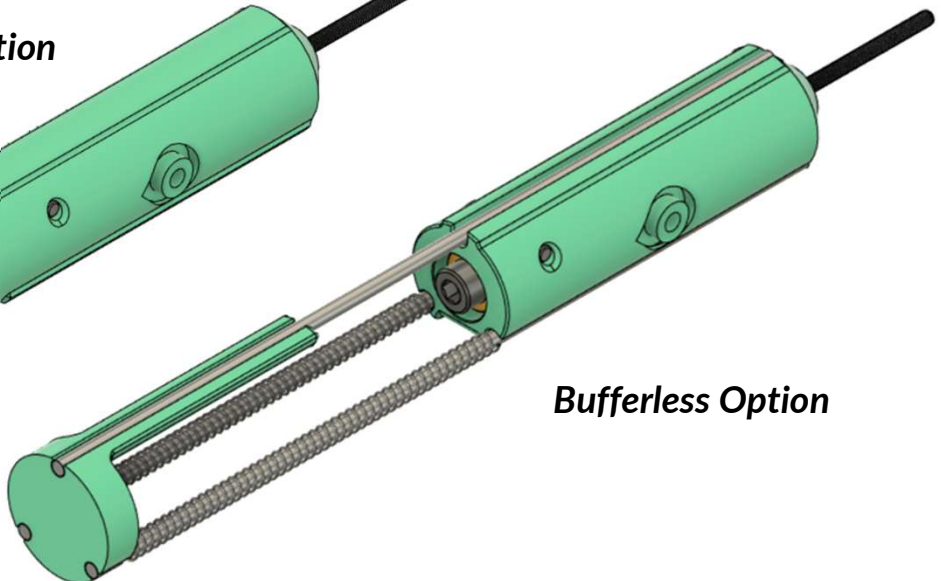


➤ **IMPORTANT:** Before proceeding, make note of which buffer option you will be using as the assembly differs.

Buffer Required Option

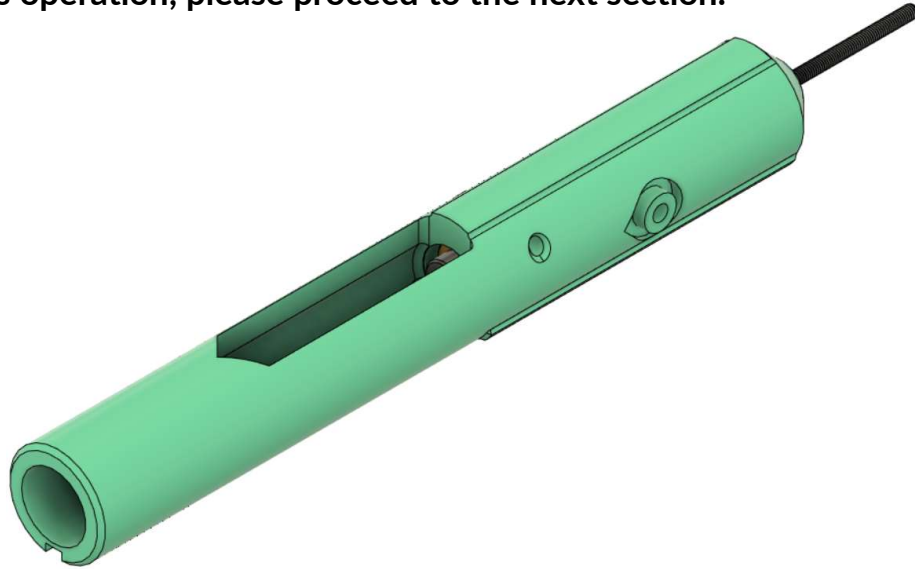


Bufferless Option



\\ BOLT ASSEMBLY

The following section is for the assembly of the “standard bolt” for buffered operation. If you would like to build the bolt for bufferless operation, please proceed to the next section.

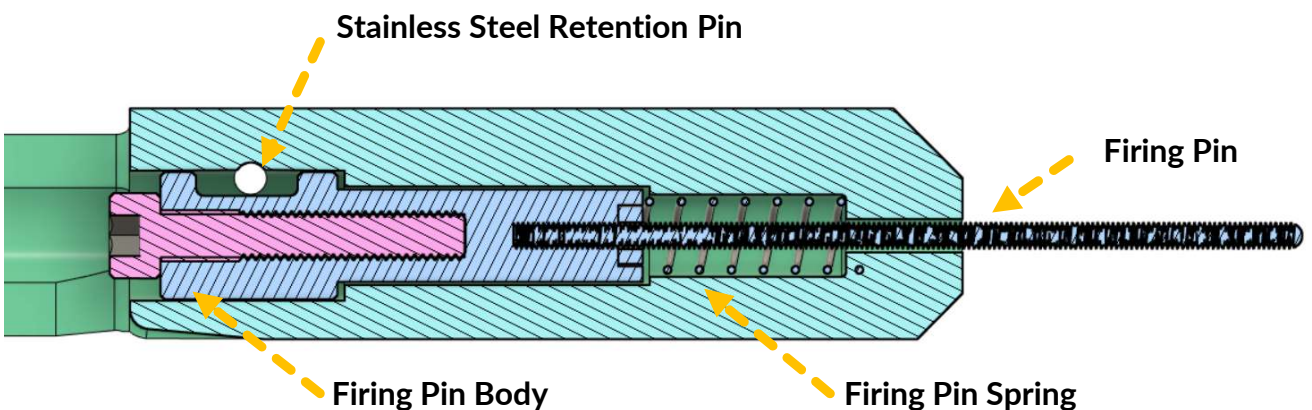


1A.

Before proceeding, please familiarize yourself with the completed bolt assembly diagram below. The firing pin will be retained within the bolt using a stainless-steel pin. The order of assembly is important so pay close attention during the build process.

Good luck!

Cross-section View

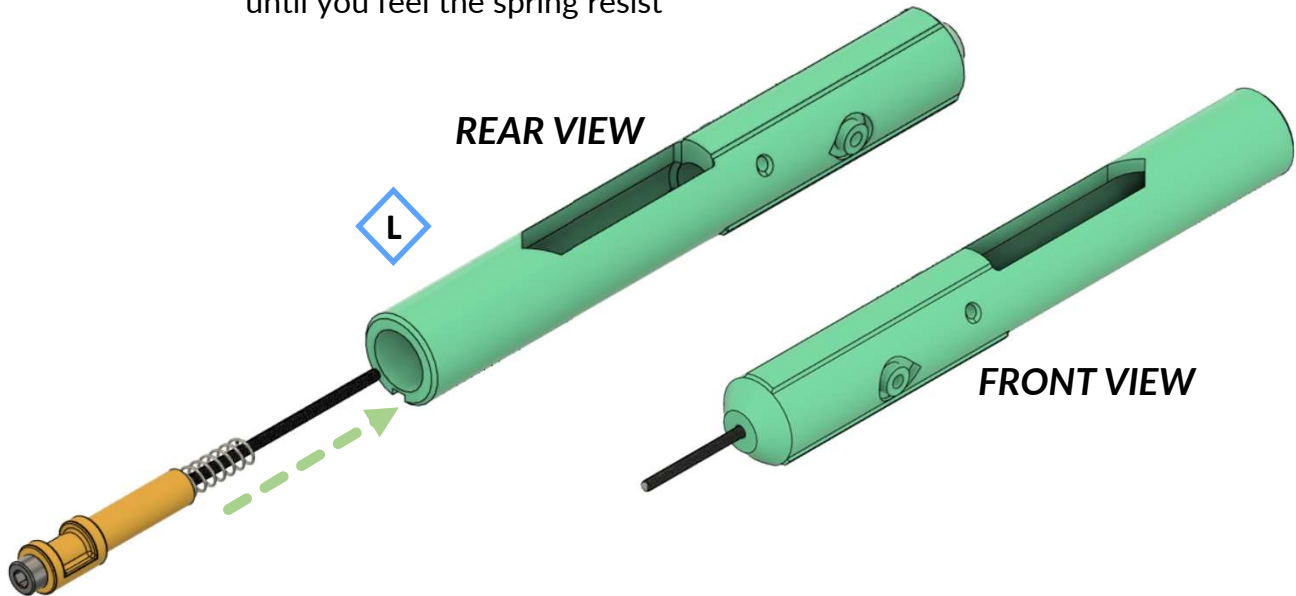


BOLT ASSEMBLY

2A.

Insert the firing pin into the bolt:

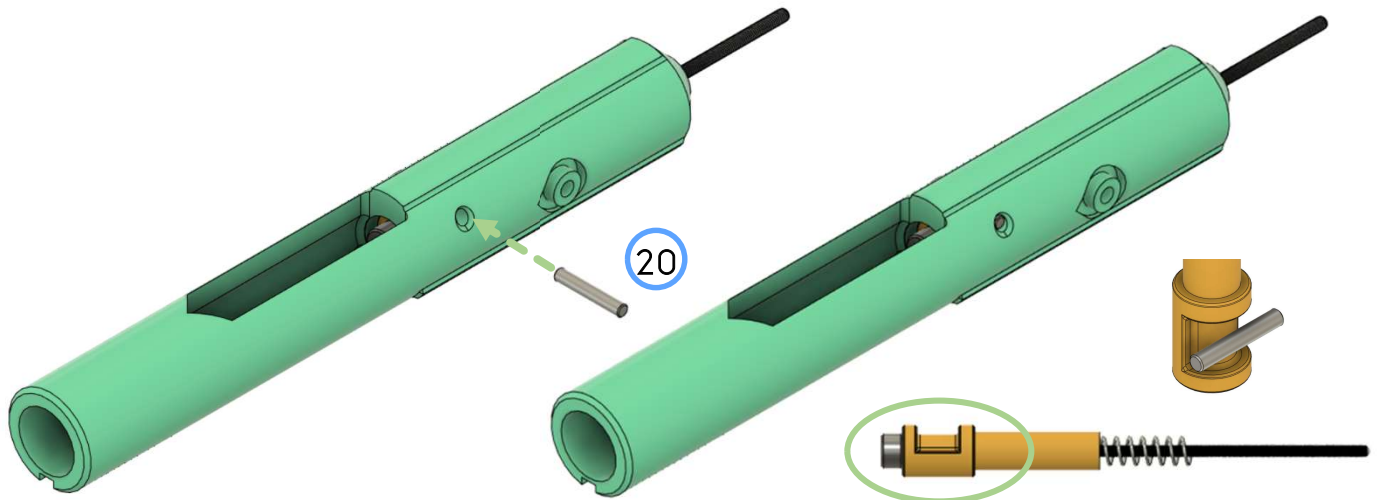
- Before inserting make sure the spring is still on the firing pin.
- With the recessed pocket facing up, insert the pin into the bolt until you feel the spring resist



3A.

Insert the steel retention pin through bolt with a hammer.

- Pin is a M3 x 18.5mm stainless steel rod



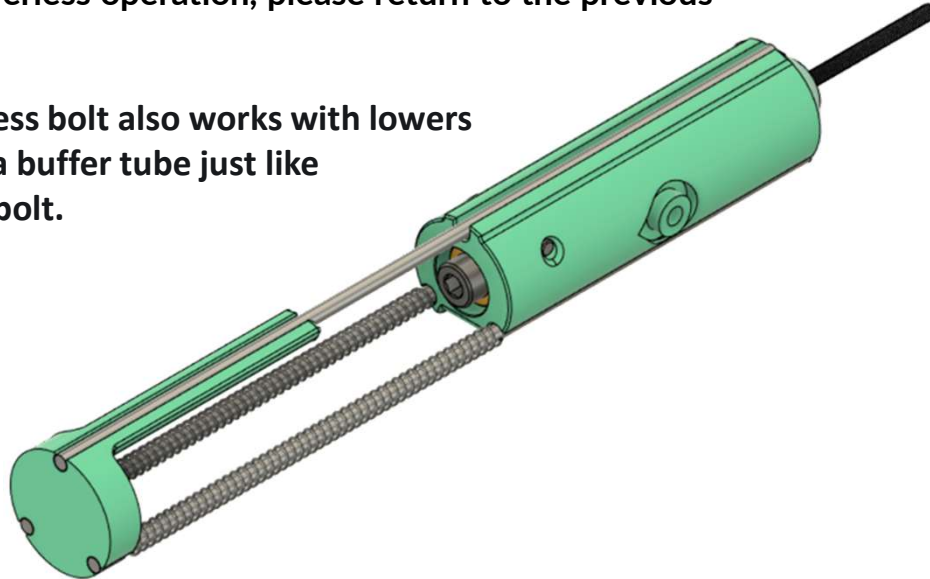
➤ **IMPORTANT:** Make sure the steel pin goes through the recessed pocket on the body so it cannot fall out of the bolt.

- Congratulations! The standard bolt is complete. Set aside and proceed to the next step

\\ BOLT ASSEMBLY

The following section is for the assembly of the “contained bolt” for bufferless operation. If you would like to build the bolt for bufferless operation, please return to the previous section.

This bufferless bolt also works with lowers that utilize a buffer tube just like the CMMG bolt.

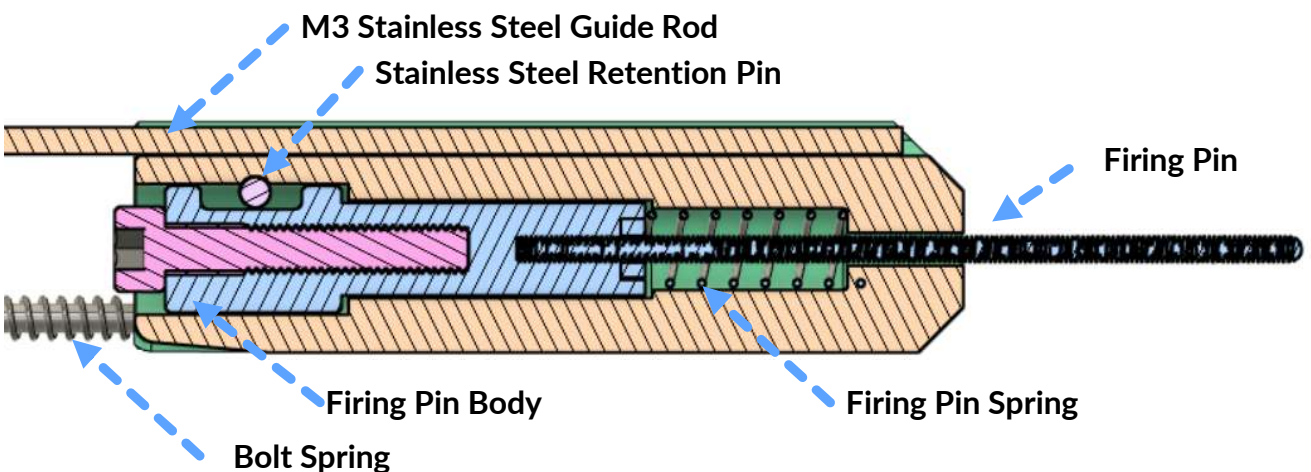


1B.

Before proceeding, please familiarize yourself with the completed bolt assembly diagram below. The firing pin will be retained within the bolt using a stainless-steel pin. The order of assembly is important so pay close attention during the build process.

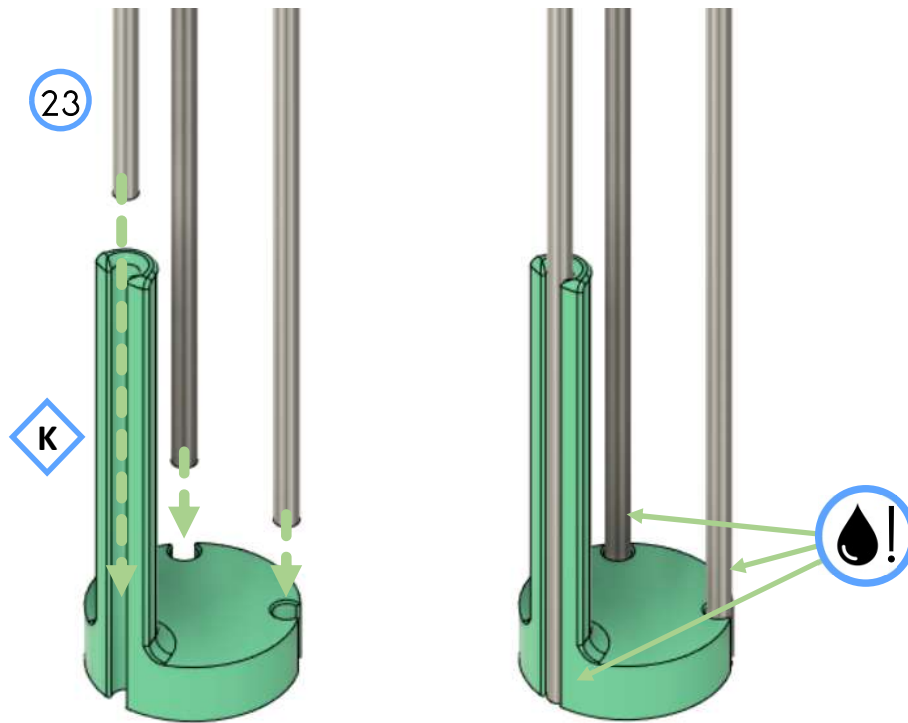
Good luck!

Cross-section View



BOLT ASSEMBLY

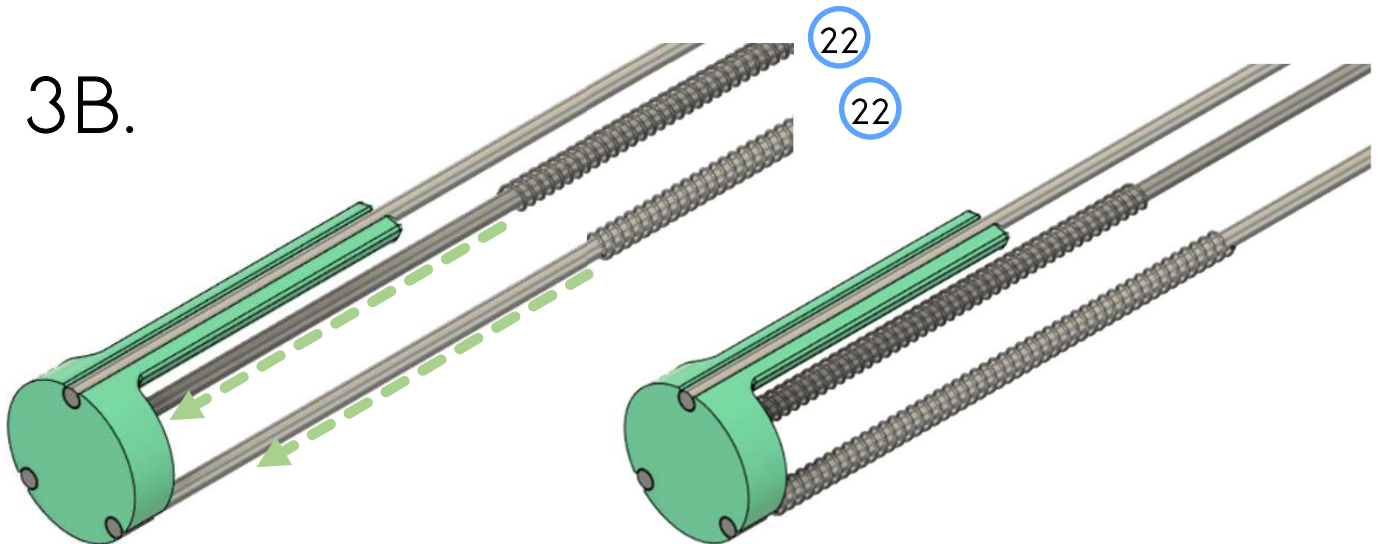
2B.



Assembling the contained bolt:

- Lightly sand the ends of the stainless-steel rods to aid in epoxy adhesion.
- With the flat surface of the rear plate facing down, apply epoxy into the three round pockets.
- Press rods down into the 3D printed part.
- Allow epoxy to cure for 24 hours before proceeding.

3B.



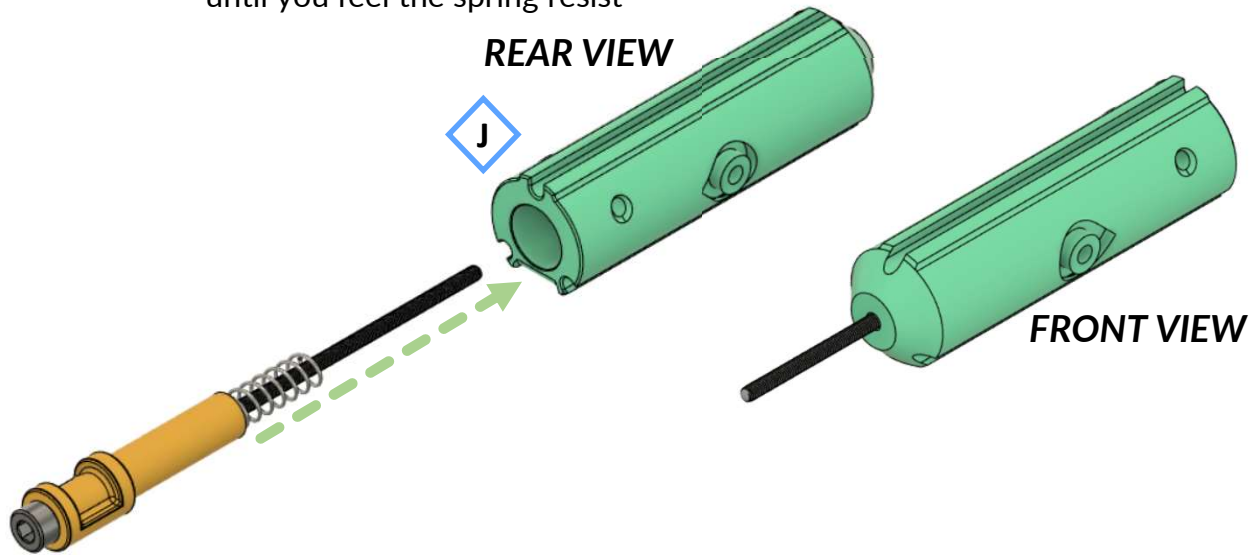
- Slide springs onto the left and right rods so they touch the plastic plate.

BOLT ASSEMBLY

4B.

Insert the firing pin into the bolt:

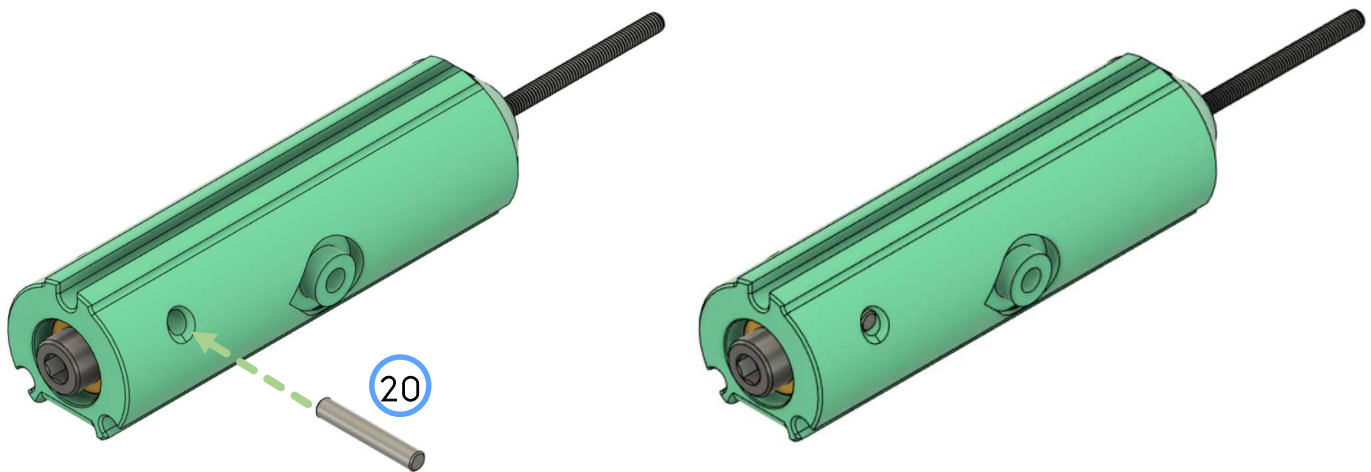
- Before inserting make sure the spring is still on the firing pin.
- With the recessed pocket facing up, insert the pin into the bolt until you feel the spring resist



5B.

Insert the steel retention pin through bolt with a hammer.

- Pin is a M3 x 18.5mm stainless steel rod



➤ **IMPORTANT:** Make sure the steel pin goes through the recessed pocket on the body so it cannot fall out of the bolt.



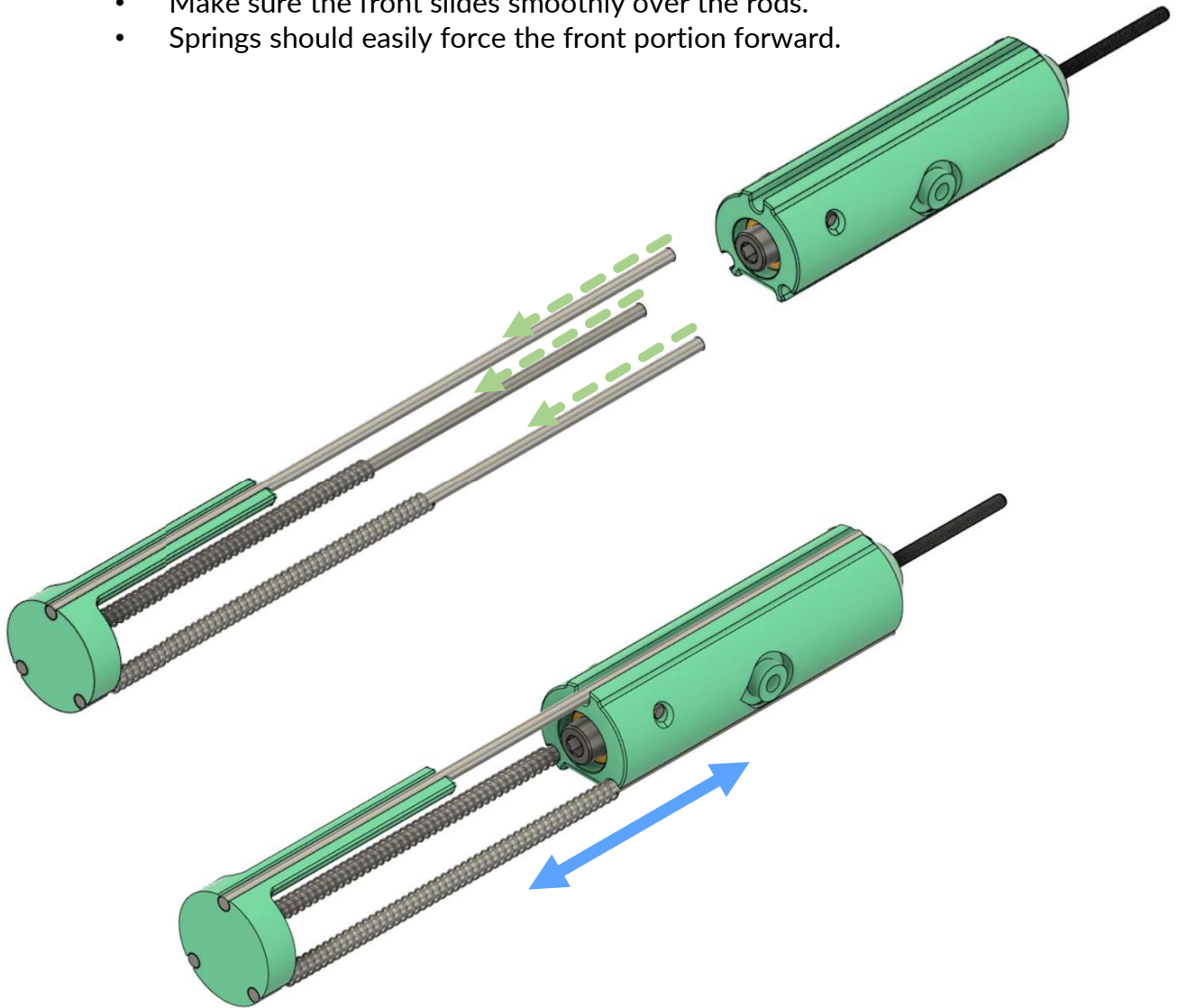
AWCY?

\\ BOLT ASSEMBLY

6B.

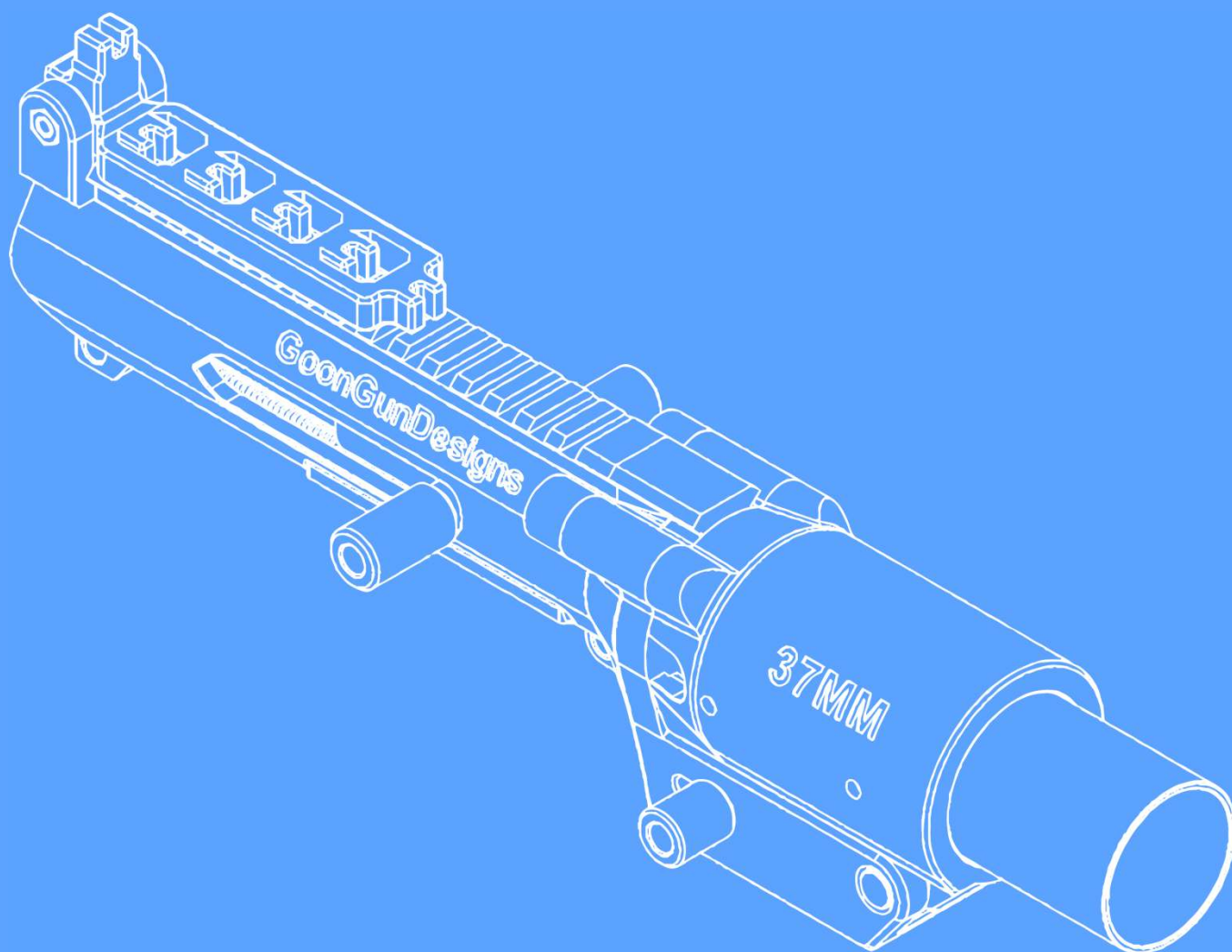
Complete the contained buffer:

- Take the front portion of bolt and slide it over the rods.
- Make sure the front slides smoothly over the rods.
- Springs should easily force the front portion forward.



- **Congratulations!** The contained bolt is complete. Set aside and proceed to the next step

FINAL ASSEMBLY



FINAL ASSEMBLY

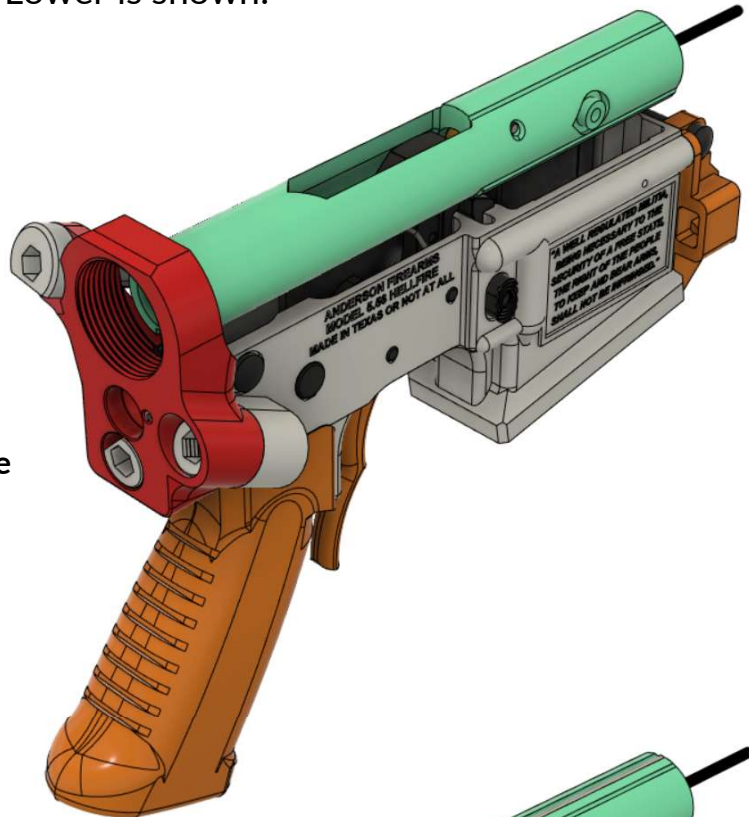
SELECTING A LOWER

Any AR lower receiver will work with the GU-37, however the buffer tube attachment point must be selected to accommodate the selected bolt system

Below, an Anderson Firearms Hellfire Lower is shown:
(with appropriate bolts included)

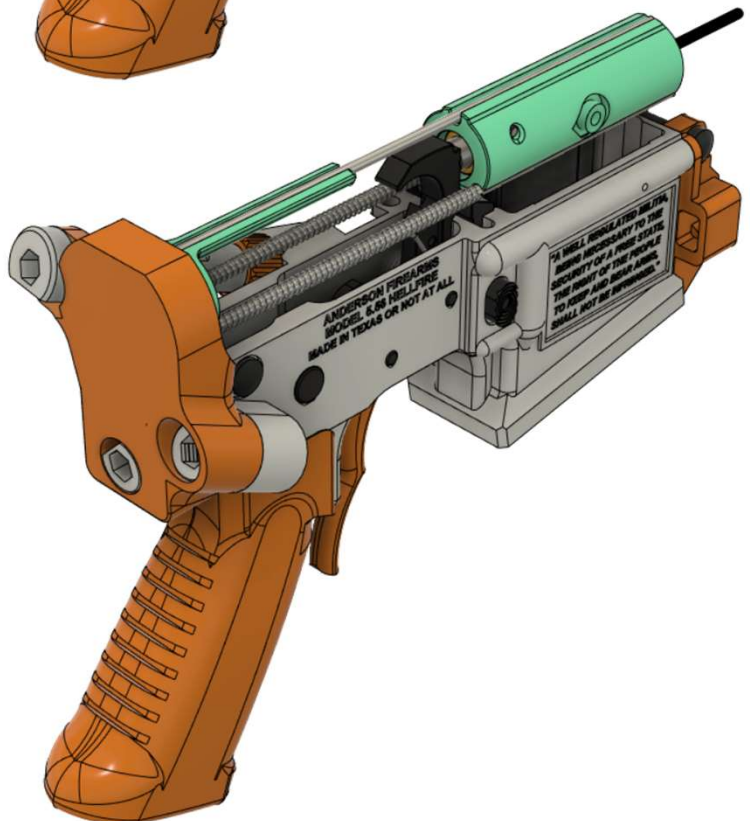
BUFFERED OPERATION

- Open backing allows a buffer tube to be attached to the lower and provide the force to reset the hammer.



BUFFER-LESS OPERATION

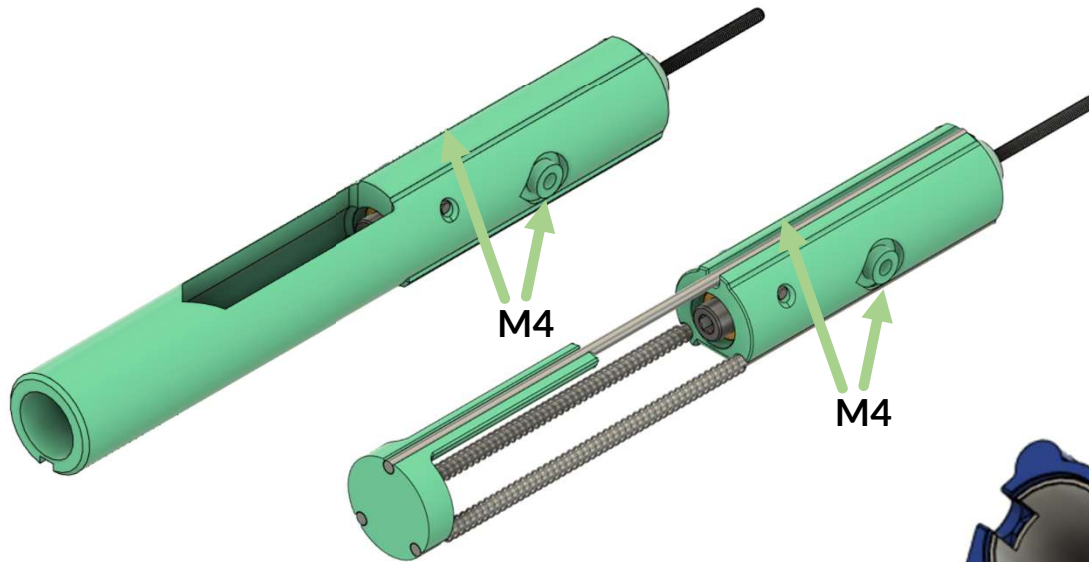
- Solid backing allows recoil springs in the contained bolt to reset the hammer.
- The bufferless option also works with lowers that utilize a buffer tube (just like the CMMG bolt).



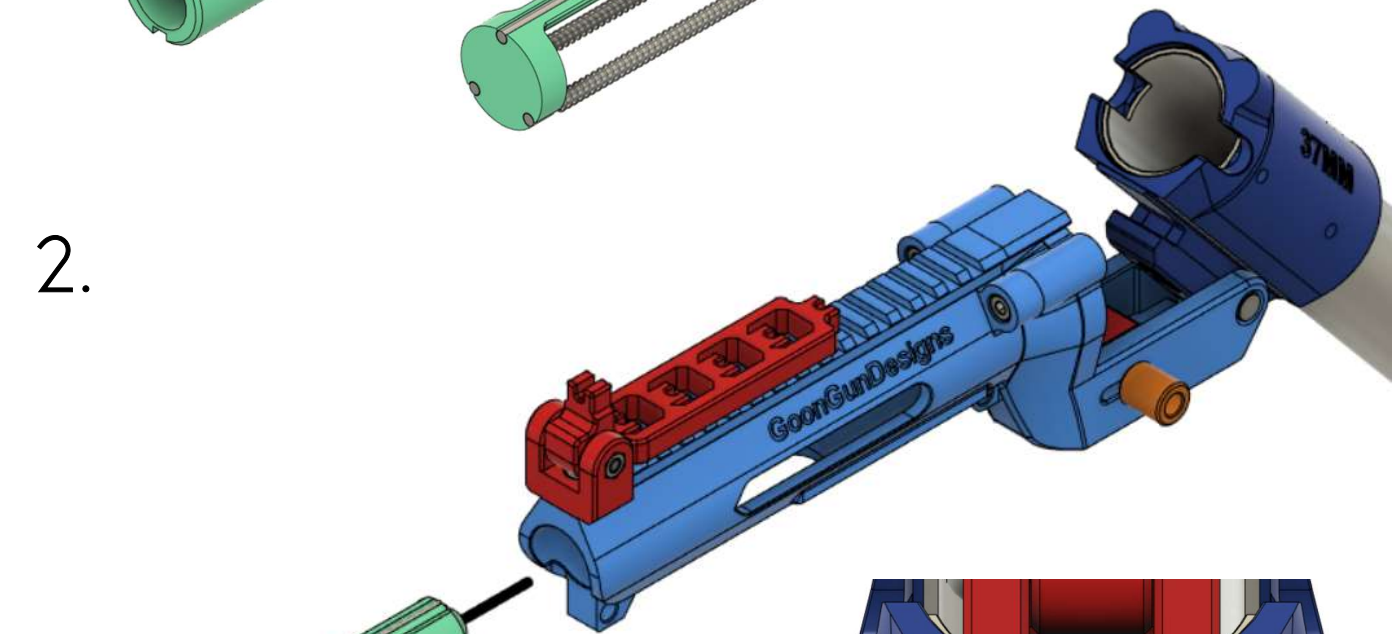
FINAL ASSEMBLY

1. Inserting the bolt:

- Assembly for both the buffered and bufferless bolt is the same.
- Use an M4 tap, and tap holes shown below.
- Take the completed upper and ensure debris are cleared from inside the receiver.
- Before insertion open the breech and remove any rounds that may be inside.

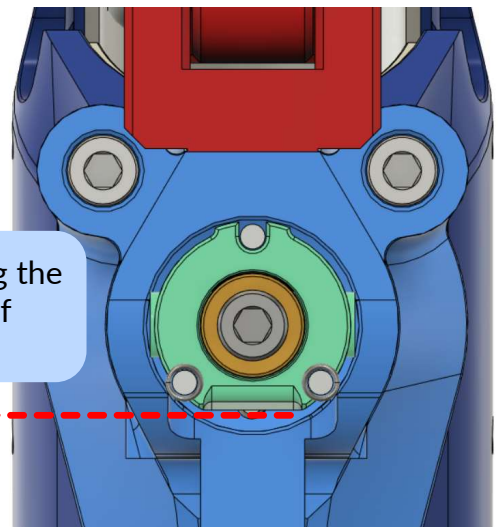


2.



➤ **IMPORTANT:** When inserting the bolt, make sure the flat side of the bolt is facing DOWN.

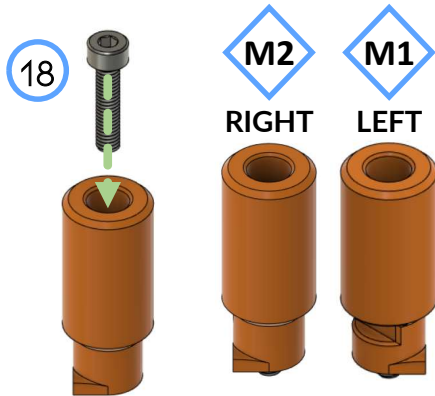
DOWN



AWCY?

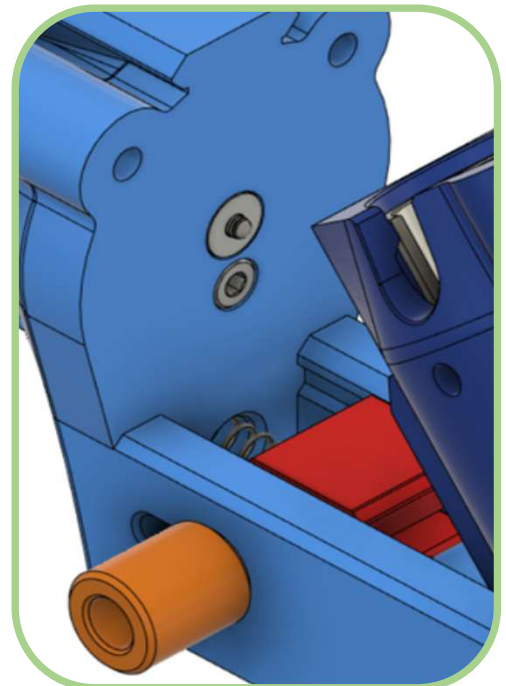
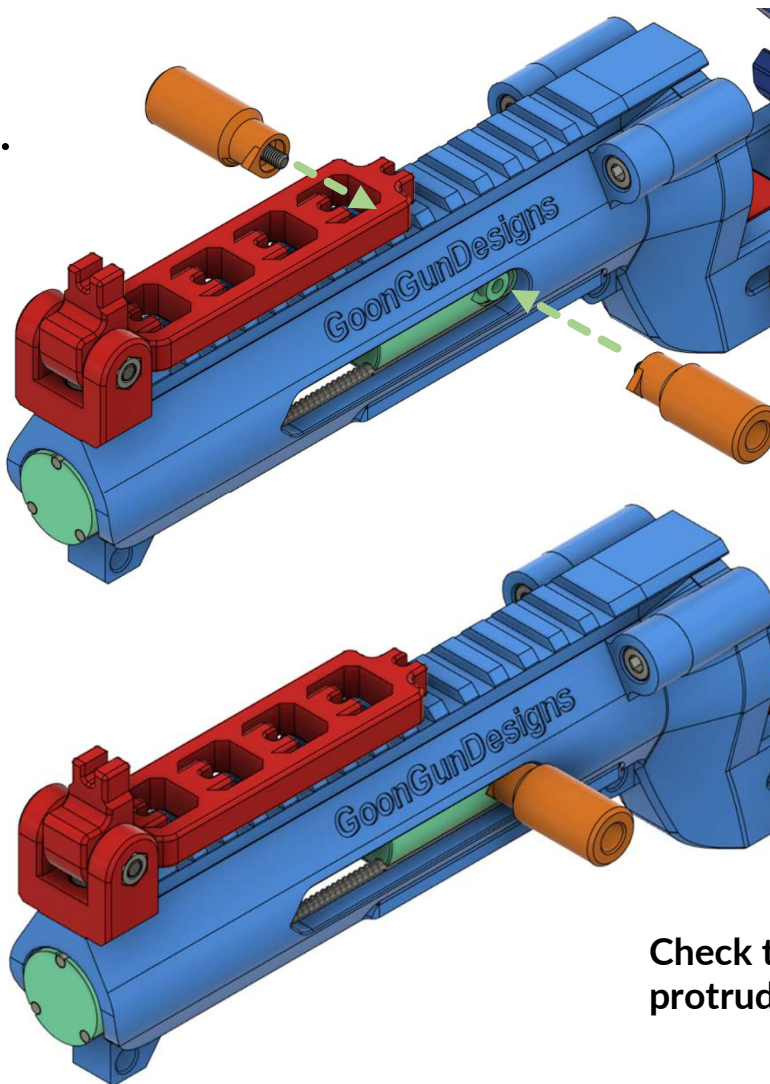
FINAL ASSEMBLY

3. To assemble the charging handles (make left AND right):
- Start by inserting a M4 x 16mm fastener fully into a charging handle,
 - After the printed bolt has been inserted into the upper, attach each handle to its corresponding side.
 - The charging handle geometry will sit inside the pocket on the side of the bolt.



➤ **IMPORTANT:** The slot on the left-hand charging handle must be facing DOWN

4.

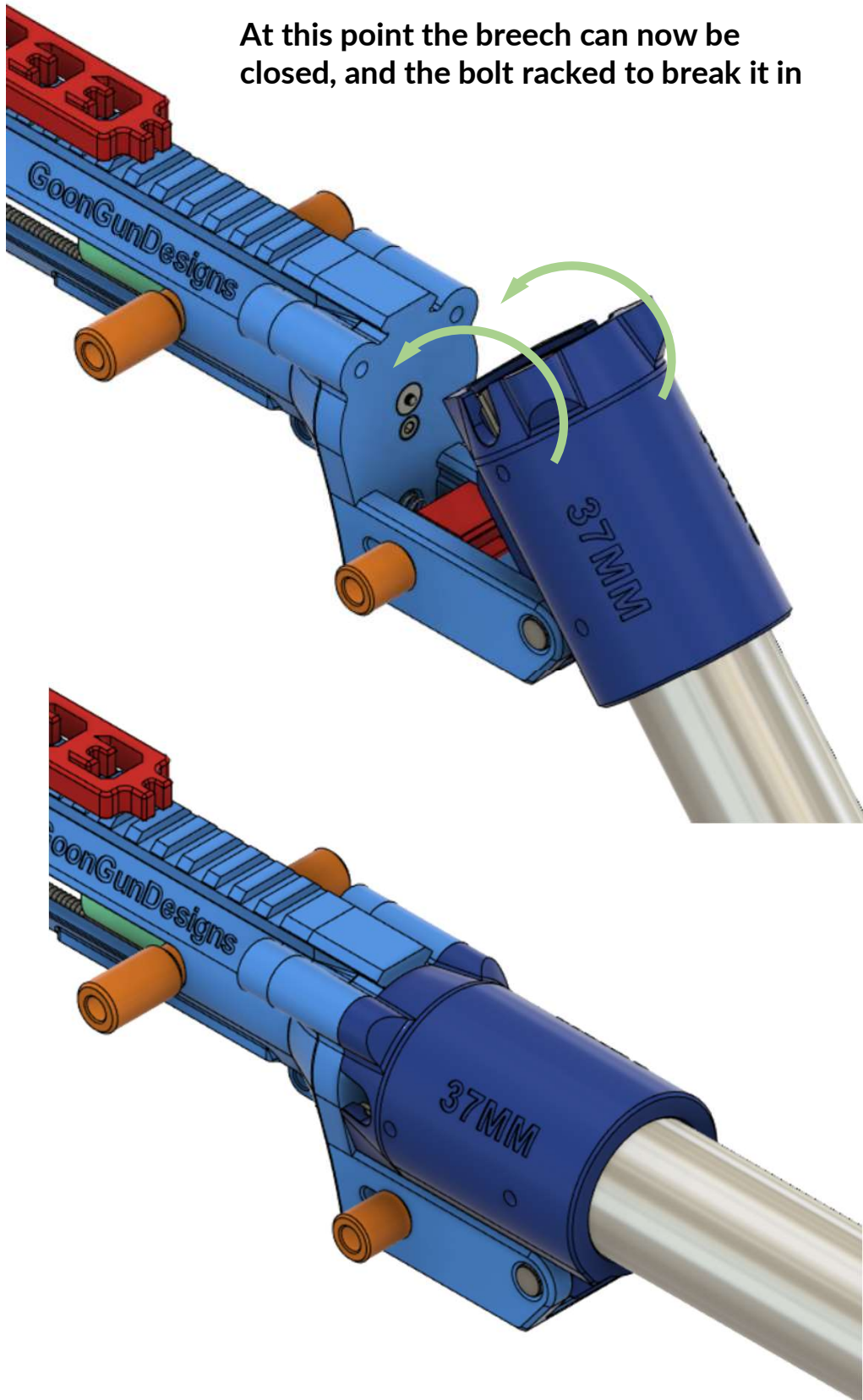


Check to make sure the striker pin protrudes slightly from the breech face

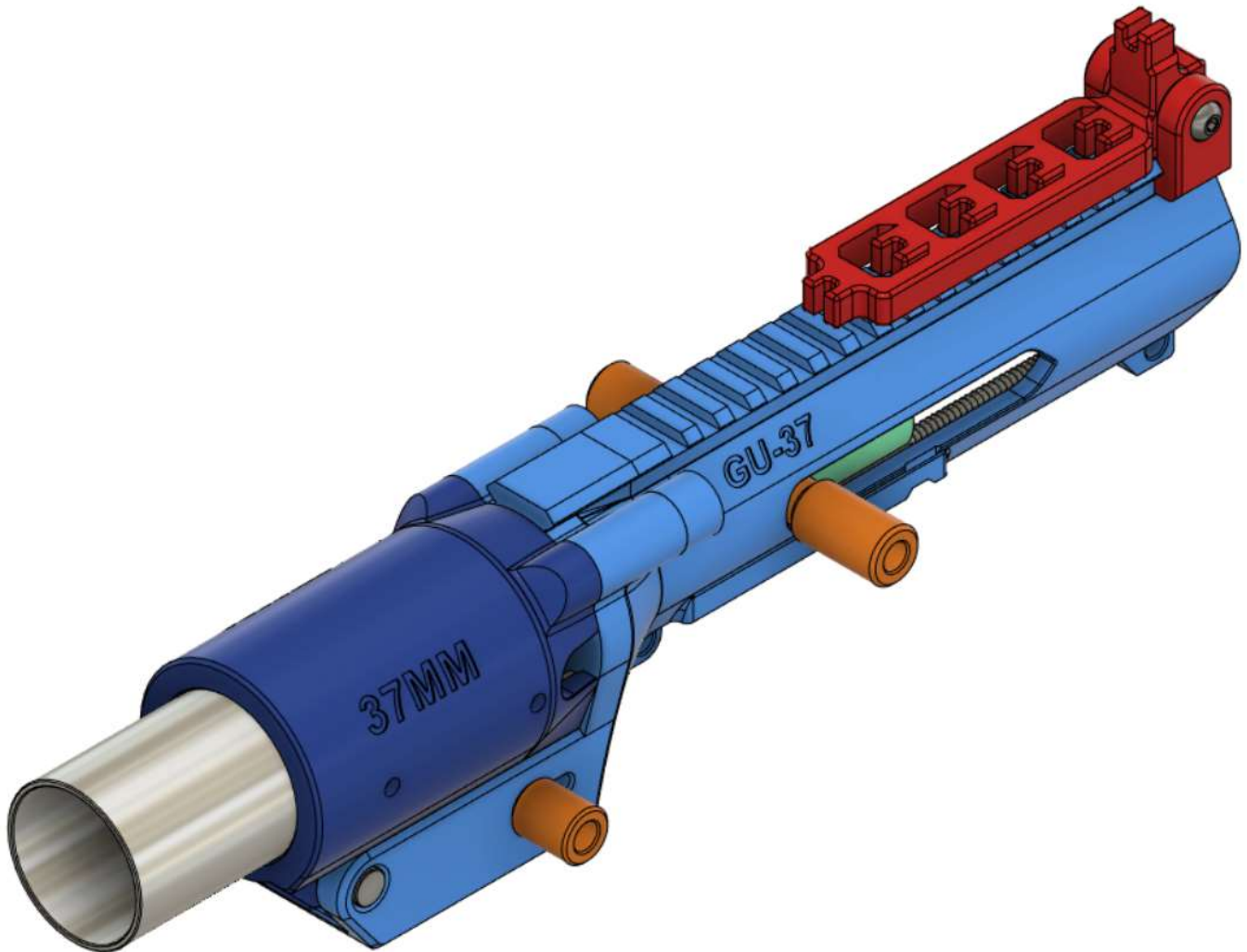
FINAL ASSEMBLY

5.

At this point the breech can now be closed, and the bolt racked to break it in



\\ FINAL ASSEMBLY

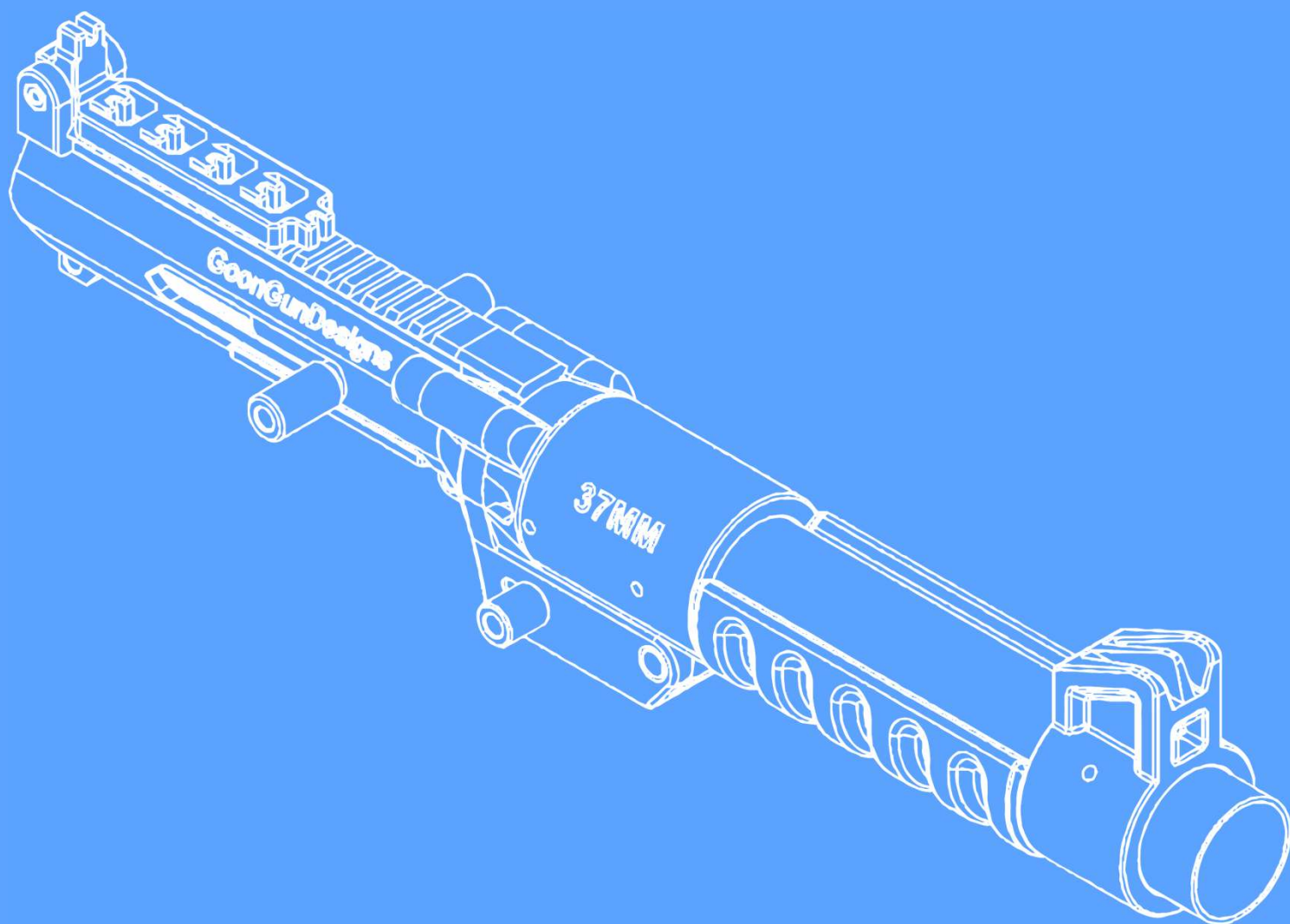


Congratulations! At this point your GU-37 is complete and functional.

It can now be added to any lower of your choice!

At this point you may now add hand guards, front sights, and other accessories these are described in the pages ahead.

ACCESSORIES



ACCESSORIES

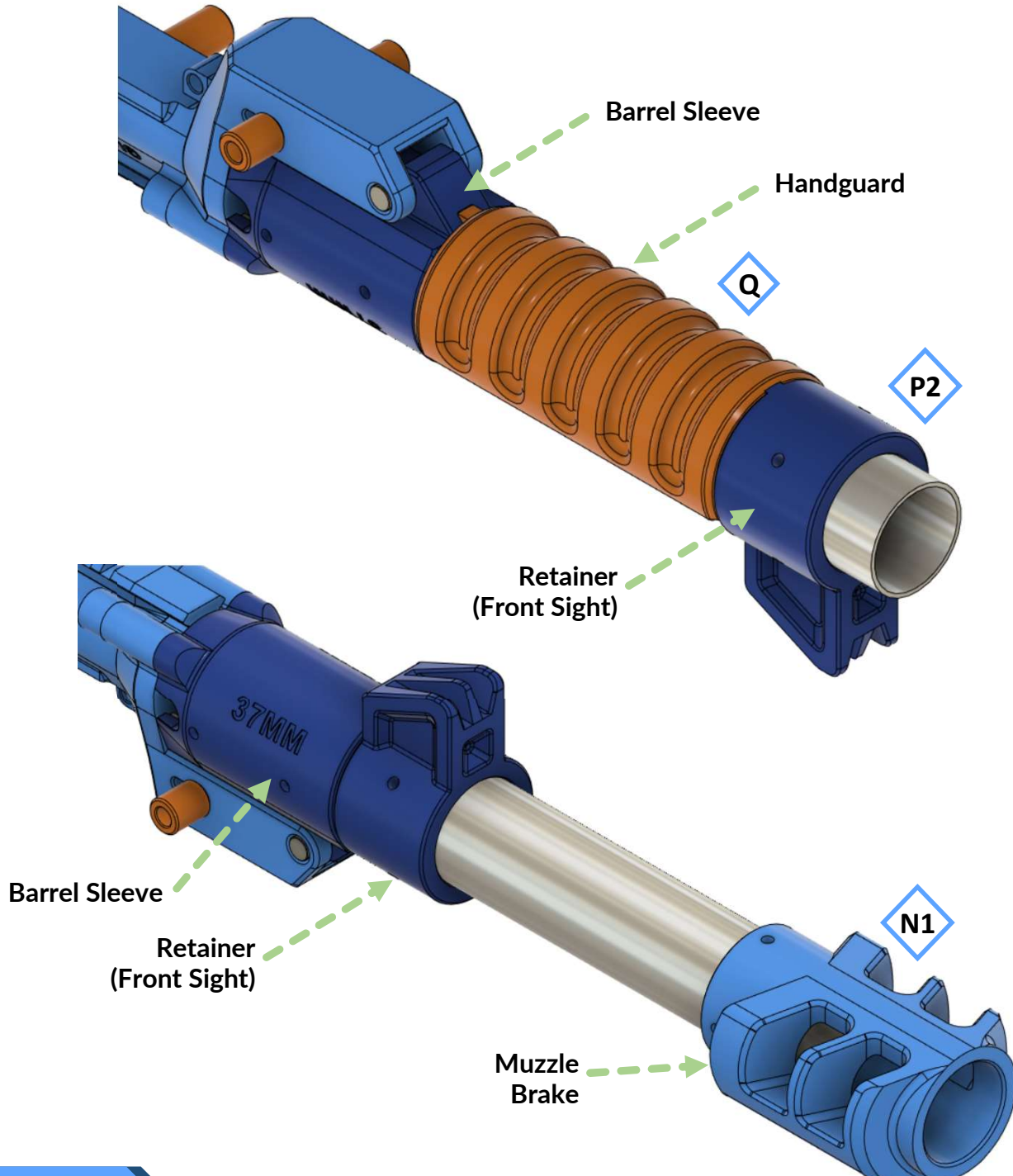
The GU-37 has several ways to be personalized:

- There are several versions of handguards, retainers, and muzzles included.
- The assembly of these are all the same but will require different barrel lengths.



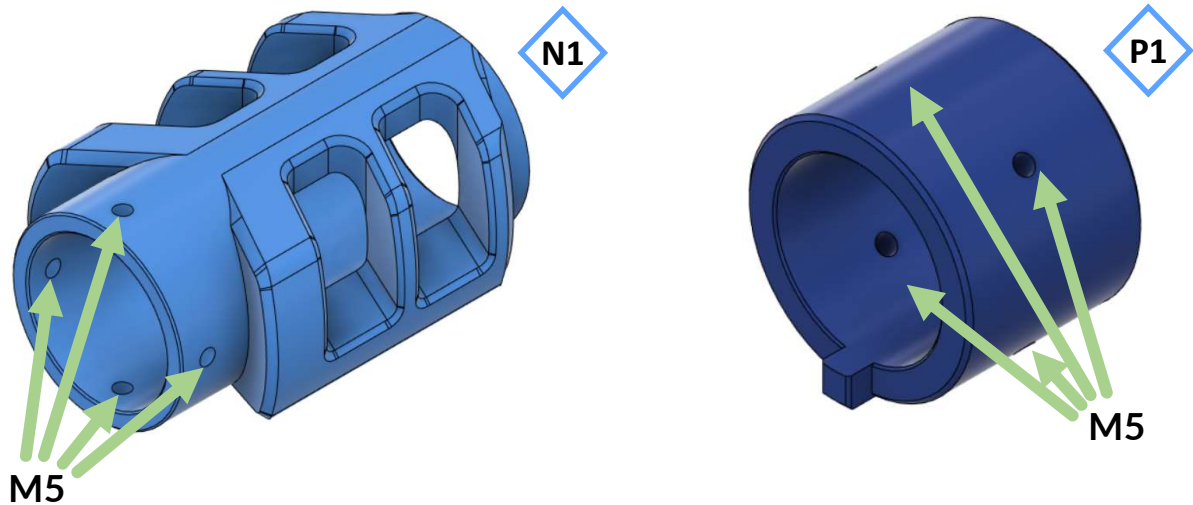
➤ **IMPORTANT:** A handguard requires a retainer to be placed after it to hold it on the barrel



For Example:



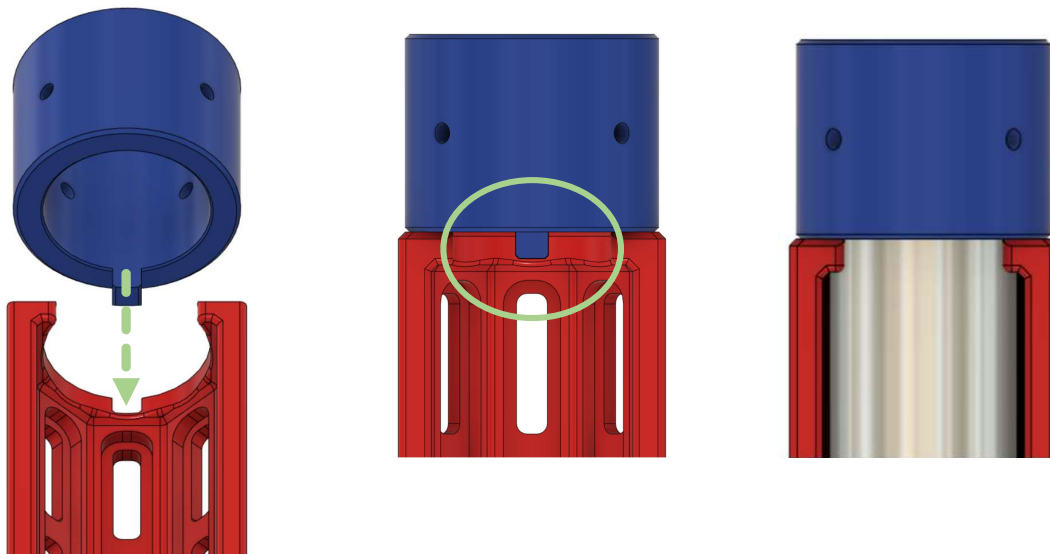
ACCESSORIES

1. To prepare the retainers and muzzles:
 - Tap all the holes with M5 threads.
 - These are secured to the barrel with the same M5 grubs as the barrel



 **For ALL muzzle devices, after installation check the bore of the device for any obstructions - remove them if present** 

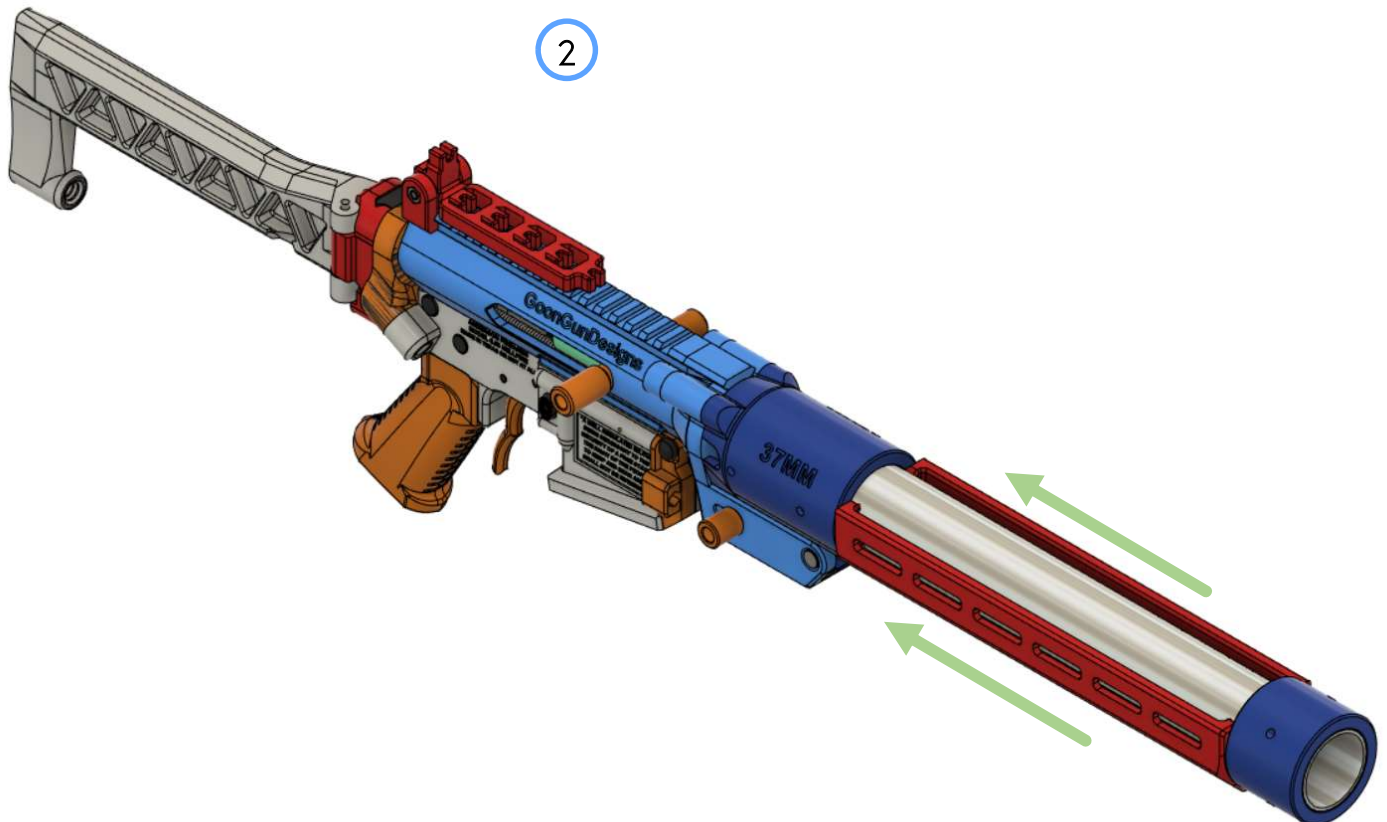
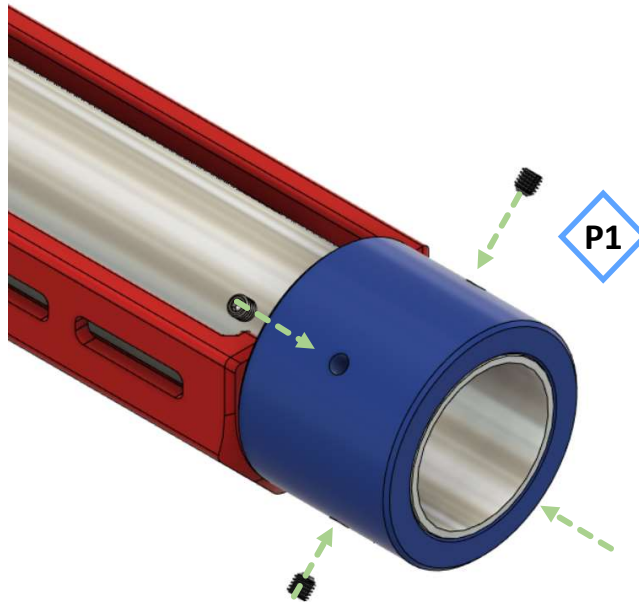
2. To secure the handguards:
 - Slide the guard onto the barrel and follow it with a retainer.
 - Tabs on both parts will interlock keeping them all inline and secure.



ACCESSORIES

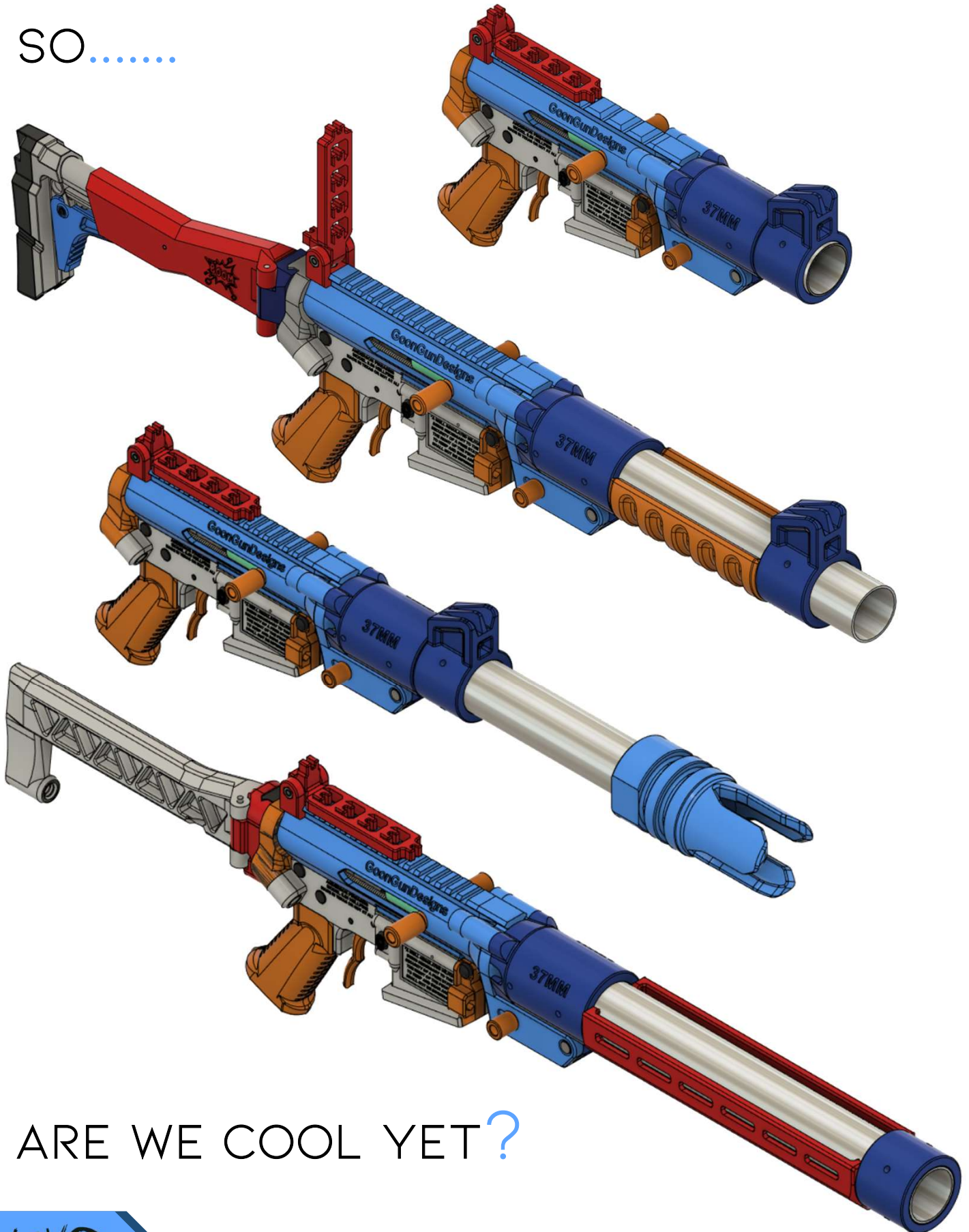
3. Secure the retainer:

- Secure the retainer with [4] M5 x 5 grub screw into the previously tapped holes.
- Make sure to push the retainer towards the sleep to ensure the part stack is tight.
- This process is the same for both the retainers and the muzzle devices.



\\ MAKE IT YOUR OWN!

SO.....



ARE WE COOL YET?

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\\ FREQUENTLY ASKED QUESTIONS

Q - *I see that the barrel sleeve is sized for a 40mm shell, can I fire one using just the plastic sleeve?*

A - You can fire just one. You will need to brace the chamber area with both hands.

Q - *Can I (Fill in blank)?*

A - Probably, but should you?

Q - *Should I use superglue to hold my printed signals together?*

A - No. We recommend epoxy and steel reinforcements as described in the manual

Q - *Can I add this upper to any lower?*

A - Yes, you can use any AR-15 lower, printed or traditional.

Q - *Can I use this as an under barrel?*

A - Not at this time.

Q - *I don't seem to be able to close the barrel sleeve.*

A - Not a question, but make sure the striker is cocked back. Also, if the 'headspace' for the cartridge being used is off, the breach wont close - see page 36.

Q - *Where can I get a kit? Do I have to buy there?*

A - Daikon Defense, no.

Q - *What about using Epoxy "X"?*

A - You may have success with other epoxies, but it has to be able to bond well with plastics and metals

Q - *How can I help with future projects?*

A - You should be able to find your way from www.arewecoolyet.wtf/

Q - *My prints keep failing.*

A - Play the tutorial at www.arewecoolyet.wtf/ if still unclear, YouTube your specific issues.

SPECIAL THANKS

GoonGunDesigns

Ptact15

Bitplumb

Methmetics

FastFreddy20

Daikon

Dogenado | Butters

V8vtwin

and the entire AWCY? Team...

Hardware kits available for sale at:
www.DaikonDefense.com

****Visit us on our Matrix chatroom for more information****



Designed in the United States of America



*A well-regulated Militia, being necessary to the security of a free State,
the right of the people to keep and bear Arms shall not be infringed.*

AWCY?

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DEFENSE

