## Thump n' Grind

Build Guide and User's Manual





# Thump n' Grind

Is brought to you by the minds of





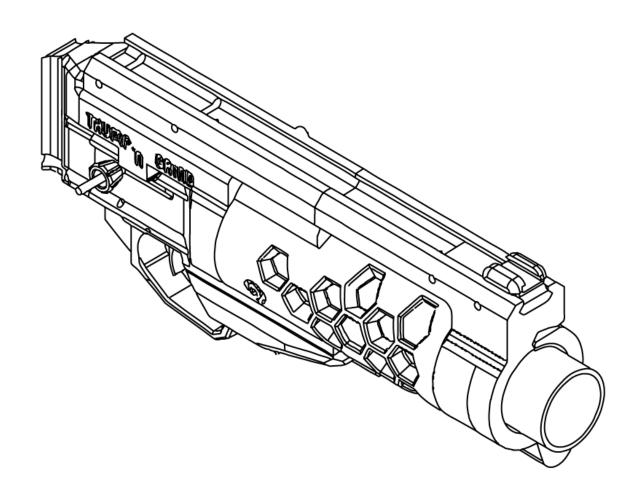


This device is for emergency communication purposes only



#### **\\\** TABLE OF CONTENTS

Prints and Parts	4
Barrel Assembly	7
Lower Receiver	12
Striker Assembly	21
Final Assembly	29
FAQ	34





#### N 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	Walls	Туре	Assembly
А	Fence Post Barrel Extractor.stl	PLA+	≥95%	≥5	PRINT	Barrel Assembly
В	Fence Post Barrel Retainer.stl	PLA+	≥95%	≥5	PRINT	Barrel Assembly
C	Barrel Release Latch.stl	PLA+	≥95%	≥5	PRINT	Lower Receiver
D	Barrel Release Latch Handle.stl	PLA+	≥95%	≥5	PRINT	Lower Receiver
E	Front Lower.stl	PLA+	≥95%	≥5	PRINT	Lower Receiver
F	Rear Lower.stl	PLA+	≥95%	≥5	PRINT	Lower Receiver
G	Charging Knobs for 60mm Screw.stl	PLA+	≥95%	≥5	PRINT	Lower Receiver
H1	Endcap (Low Profile Underbarrel).stl	PLA+	≥95%	≥5	PRINT	End Cap
H2	Endcap (Modular).stl	PLA+	≥95%	≥5	PRINT	End Cap
I	High Speed Low Drag Trigger.stl	PLA+	≥95%	≥5	PRINT	Striker
J	Hefty Striker	PLA+	≥95%	≥5	PRINT	Striker
К	1913 Hinge Adapter.stl	PLA+	≥95%	≥5	PRINT	Folding Stock
L	Standalone stock buttpad.stl	TPU	≥ 30%	≥3	PRINT	Folding Stock
М	Standalone stock cheekrest.stl	PLA+	≥95%	≥5	PRINT	Folding Stock
N	Standalone stock folding button.stl	PLA+	≥95%	≥5	PRINT	Folding Stock
0	Standalone stock insert.stl	PLA+	≥95%	≥5	PRINT	Folding Stock
Р	Evo Style Stock Lever.stl	PLA+	≥95%	≥5	PRINT	Folding Stock

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

Part No.	File Name	Material	Infill	Walls	Туре	Assembly
Х	Barrel Cutting Jig.stl	PLA+	25%	3	PRINT	Tool
Y	Sanding Drum.stl	PLA+	75%	4	PRINT	Tool

- Some tools are also required:
  - Allen Key Set
  - Drill w/ 1/4" Socket adapter
  - Sandpaper
  - JB Weld, Gorilla Glue, OR Epoxy
- Rubber Mallet
- Soldering Iron
- Xacto Knife



#### N 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 <u>www.pnwtacticalsupply.com</u> is the only known source of complete hardware part kits.



M5 x 60mm 12.9 Alloy Steel Hex Socket Head Cap Screws Bolt Black 10pcs Sold by: uxcell | Product question? Ask Seller \$7.49 Condition: New



Prime-Line 9178369 Socket Head Cap Screws, Hex (Allen) Drive, 1/4 in-28 X 3/4 in, Black Oxide Coated Steel, 10-Pack Sold by: Amazon.com Services LLC \$3.99 Condition: New



Length, Silver Tone

Condition: New

\$3.06

Sold by: uxcell Product question? Ask Seller

uxcell Straight Retaining 3mm x 30mm 304 Stainless Steel Dowel Pins Rod Fasten Elements 10 Pcs

uxcell Compression Spring 304 Stainless Steel.6mm OD.0.6mm Wire Size 305mm Free



uxcell 4mm x 200mm 304 Stainless Steel Solid Round Rod for DIY Craft - 2pcs

uxcell 6mm x 200mm 304 Stainless Steel Solid Round Rod for DIY Craft - 2pcs

TOPPROS 200mm x 3mm Stainless SteelSolid Round Bar Pack of 20



uxcell Compression Spring,304 Stainless Steel,6mm OD,0.8mm Wire Size,20mm Free Length,Silver Tone,10Pcs Sold by: uxcell | Product question? Ask Seller \$8.99

Condition: New



M4x40 Stainless Steel Hex Head Cap Socket Screws 10pcs Silver Tone Sold by: uxcell | Product question? Ask Seller \$6.49 Condition: New



Prime-Line 9087834 Finished Hex Nuts, Class 8 Metric, M6-1.0, Zinc Plated Steel, 25-Pack Sold by: Amazon.com Services LLC \$3.72 Condition: New



uxcell M6x40mm Machine Screws Hex Socket Round Head Screw 304 Stainless Steel Fasteners Bolts 10pcs Sold by: uxcell | Product question? Ask Seller \$8.49 Condition: New



\$23.98

uxcell M3x22mm 316 Stainless Steel Metric Hex Socket Head Cap Screws Bolts 20 Pcs Sold by: uxcell | Product question? Ask Seller



Condition: New



\$1.99

1-5/8-in x 1-5/8-in W x 8-ft H Silver Galvanized Steel Line Fence Post

\*\*\*\*\* 52

ADD TO CART



#### **N** 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 <u>www.pnwtacticalsupply.com</u> is the only known source of complete hardware part kits.



4 Pcs 5mm Brass Rod Brass Round Rod Brass Round Stock Brass Solid Round Rod Lathe Bar Stock 5MM/13/ 64Inch in Diameter 12 Inches in Length,C27400 (4 PCS)

✓prime & FREE Returns ✓
Delete | Move to cart | Move to Wish List | Compare with similar items



J-B Weld 50133 Plastic Bonder Structural Adhesive Syringe - Tan - 25 ml In stock soon. <prime & FREE Returns ~</p>
Delete | Move to cart | Move to Wish List | Compare with similar items

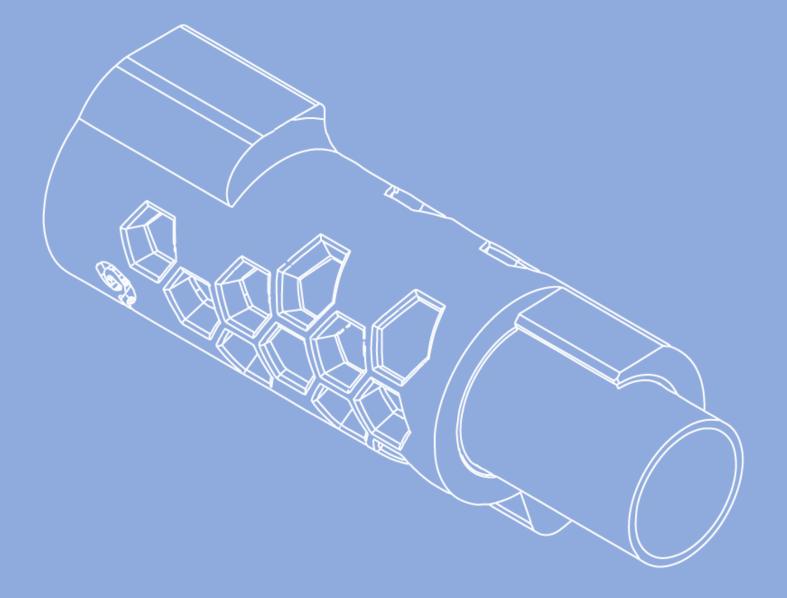
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TIG Welding Tungsten Electrode Pure Tungsten 3/32" x 7" (Green, EWP) 10-pk YESWELDER In Stock ✓prime & FREE Returns ✓ Size: 3/32" Delete Move to cart Move to Wish List Compare with similar items \$18.99

\$5.77

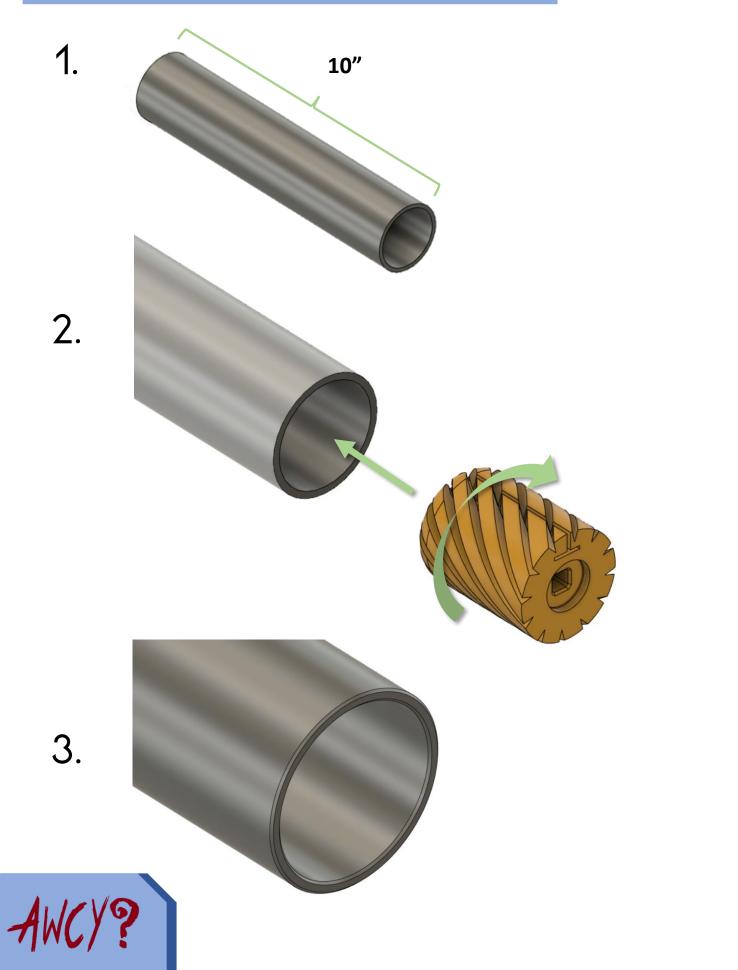


## Barrel Assembly





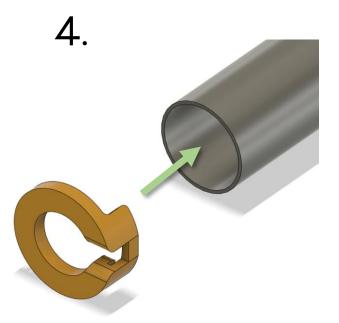


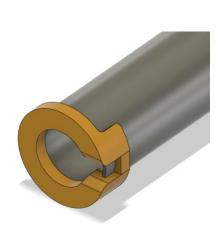


Before insertion into the barrel retainer, a slot must be cut into one side of the barrel. This will provide clearance to allow for proper functioning of the extractor.
 > IMPORTANT: Extractor and springs must be installed <u>before</u> the barrel section is installed!

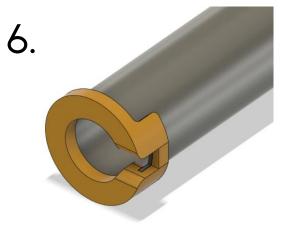
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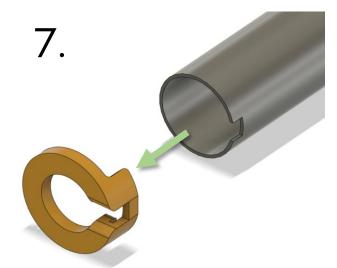
• Print the jig included in your part files to aid in cutting a proper sized slot.





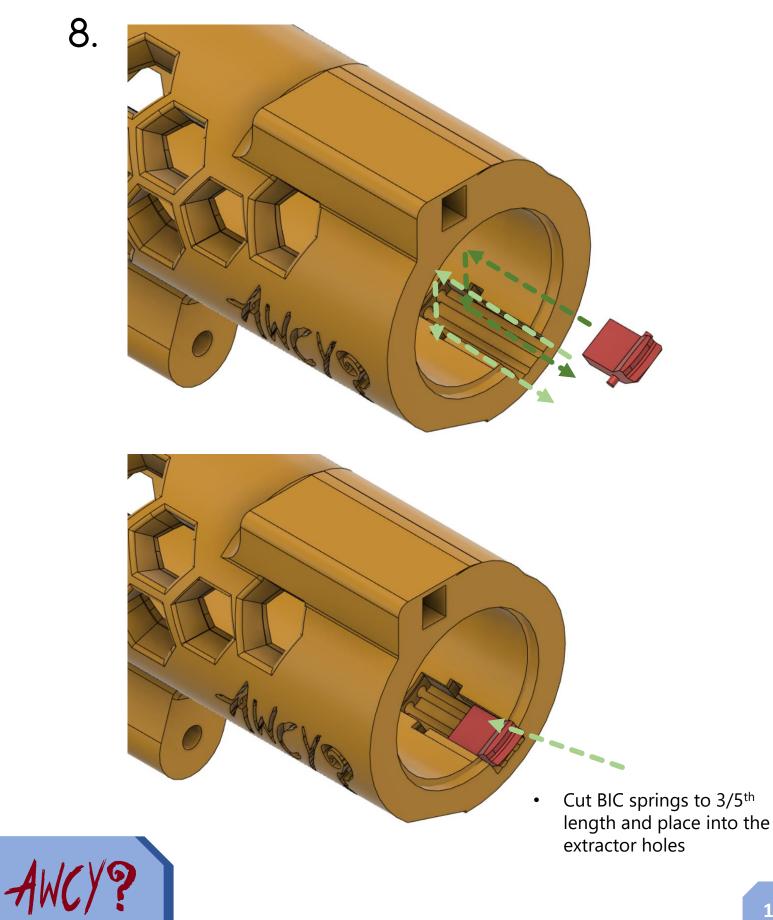
- You can use the jog as a cutting guide or as a stencil to mark the pipe with a permanent marker. It is recommended to use a Dremel or hand saw to create the slot.
- File or sand off any burrs that may have been formed during the cutting process.

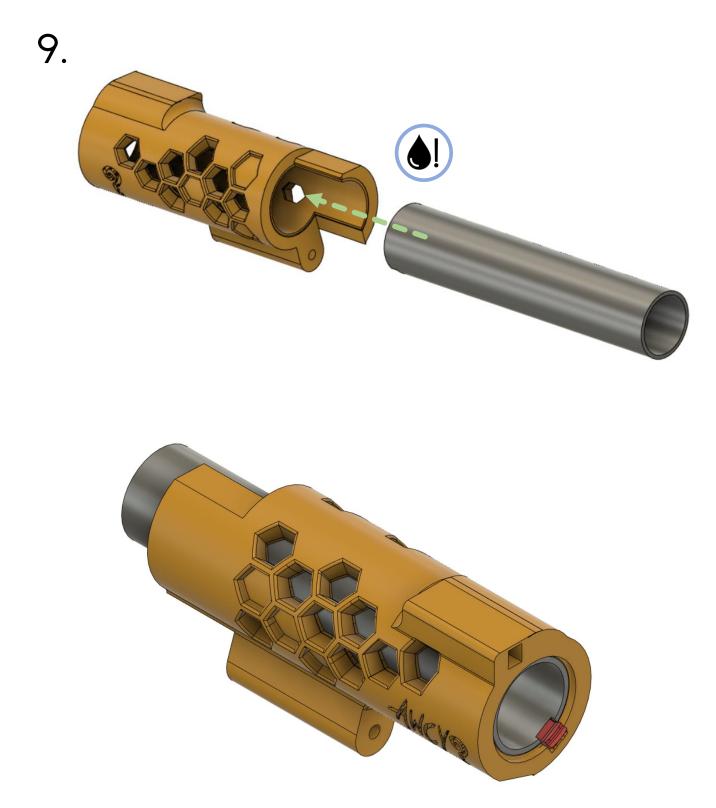




Congratulations! The barrel tube is complete. Set aside and proceed to the next step



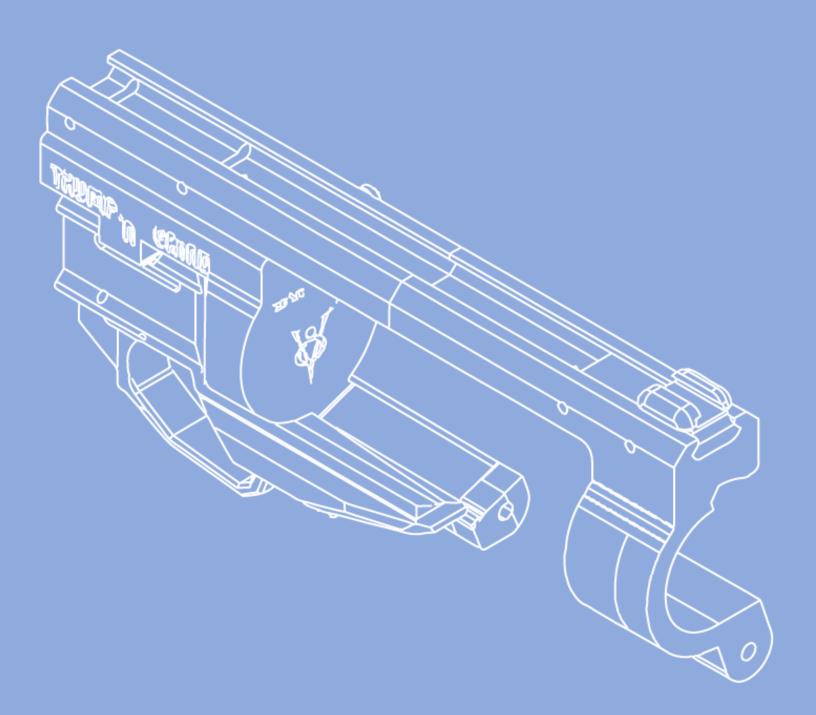




• Congratulations! The barrel assembly is complete. Set aside and proceed to the next step

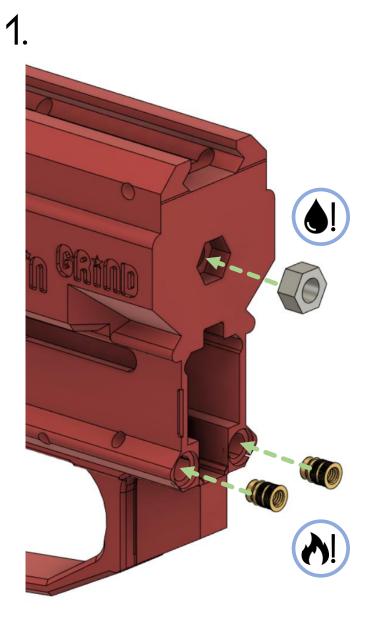


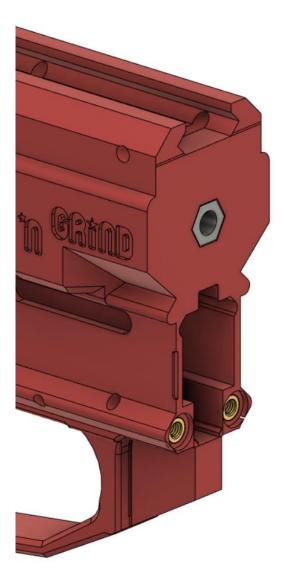
### lower Receiver



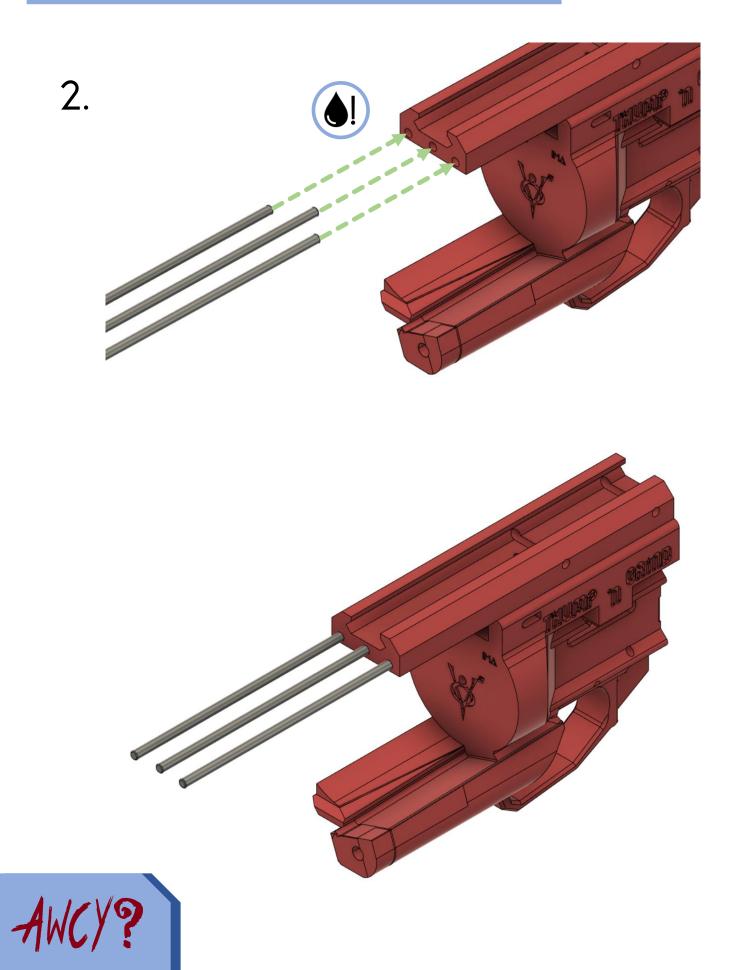


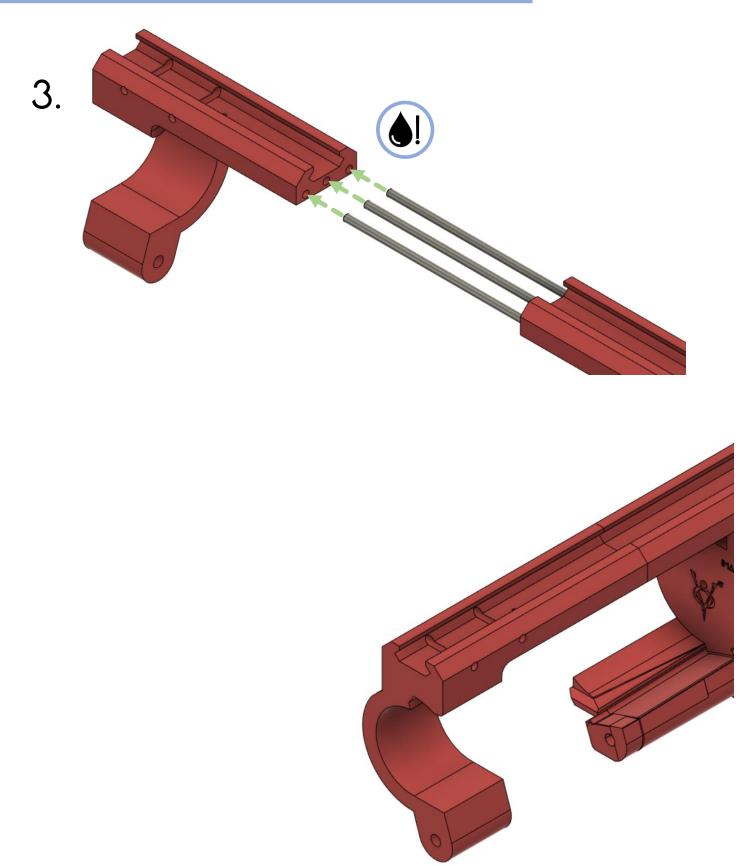




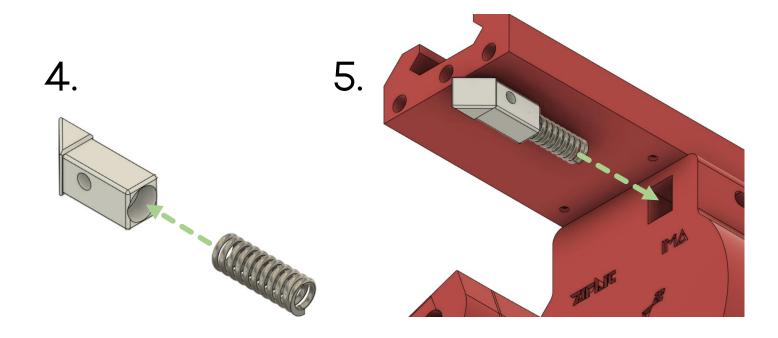


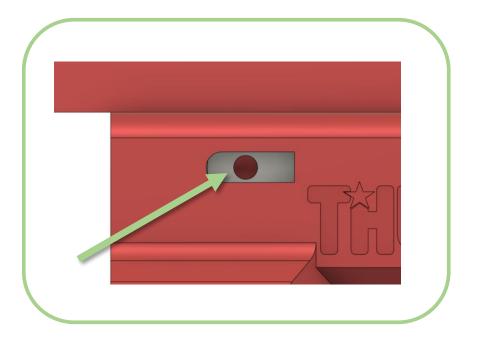






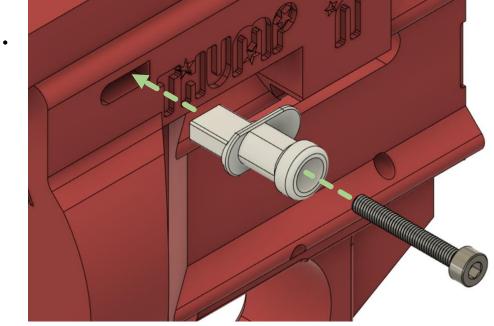




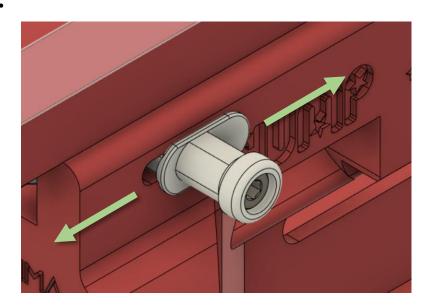




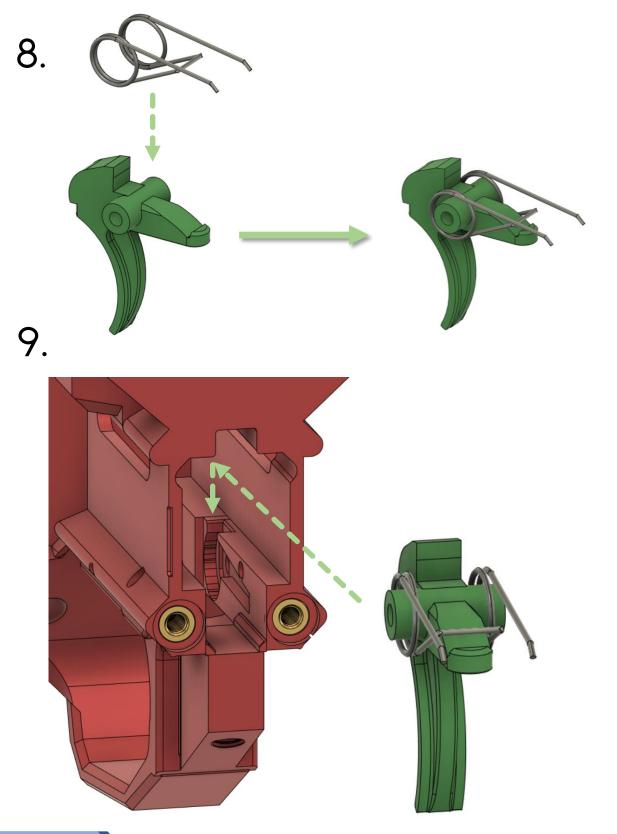
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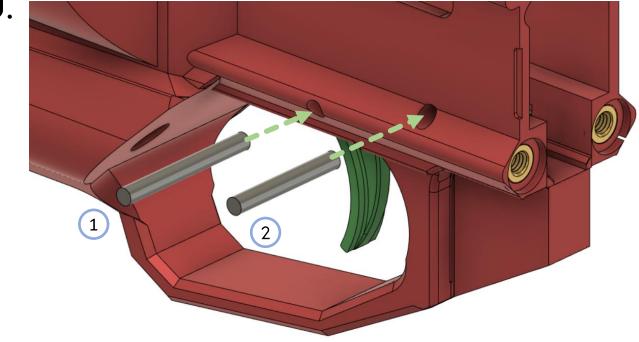




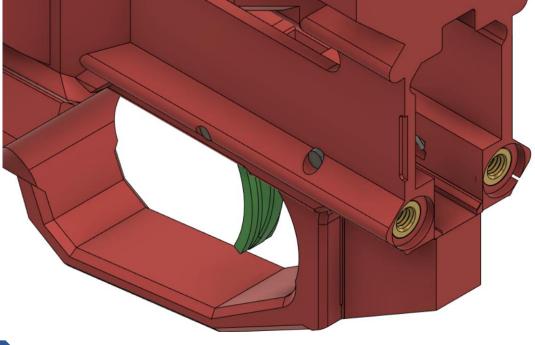


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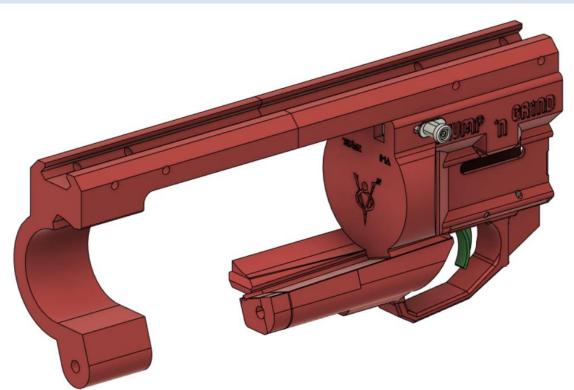
> **IMPORTANT:** Insert the trigger hinge pin first, then the rear pin for ease of installation.





<image>

IMPORTANT: Ensure that the trigger spring is properly seated into its pocket. You should feel spring tension when the trigger is pulled.

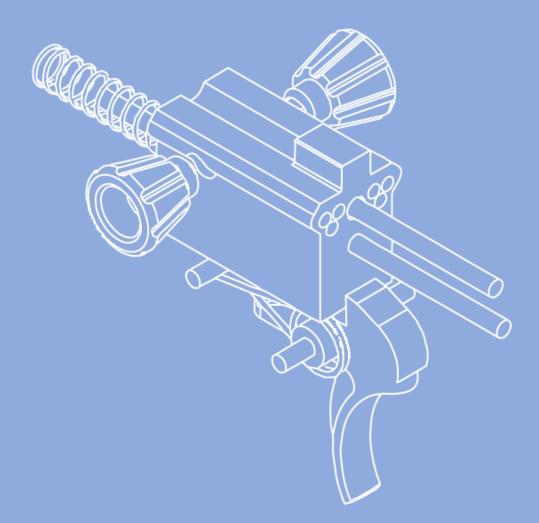


• Congratulations! The lower receiver is complete. Set aside and proceed to the next step



<u>/!</u>`

### Striker Assembly

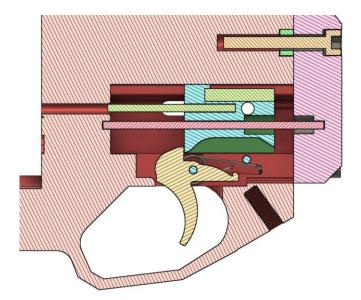


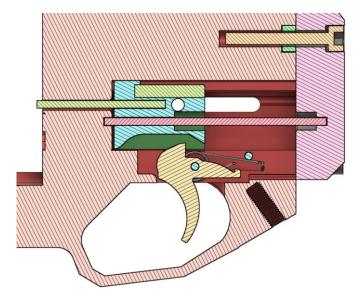




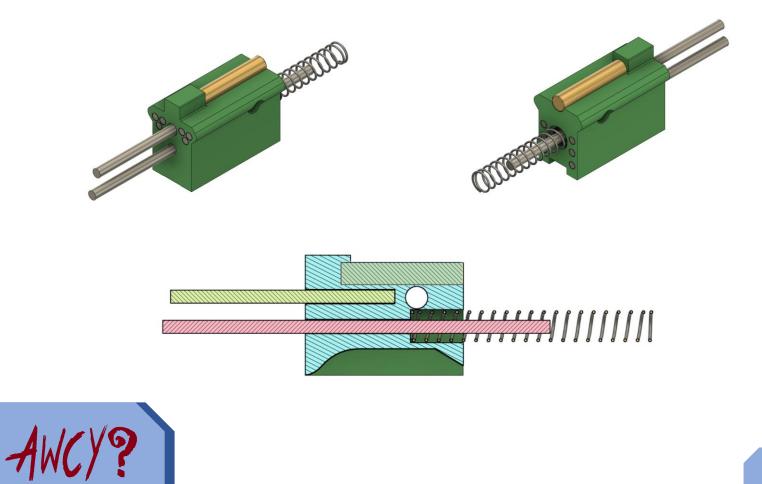
#### **\\\** OVERVIEW

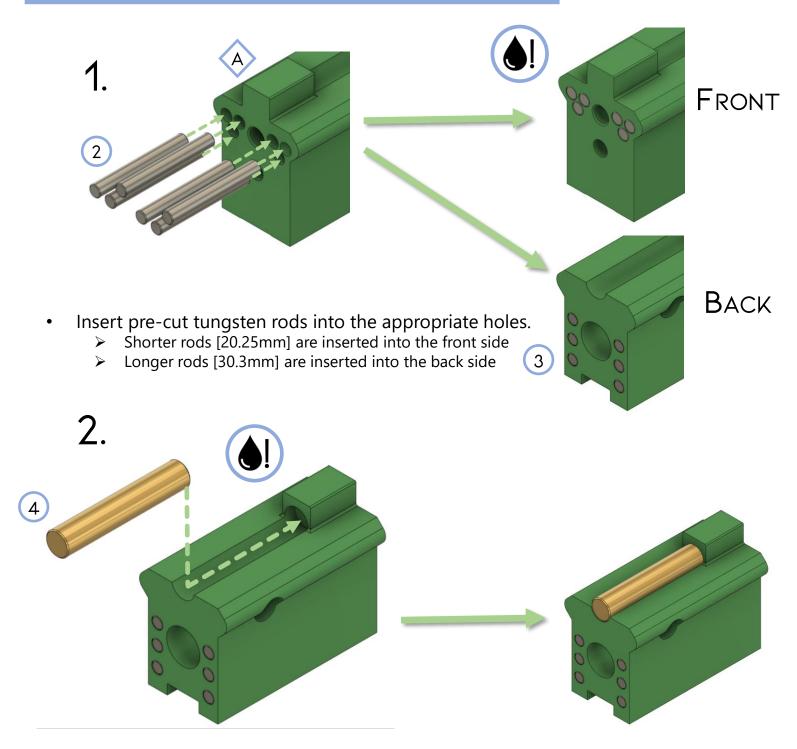
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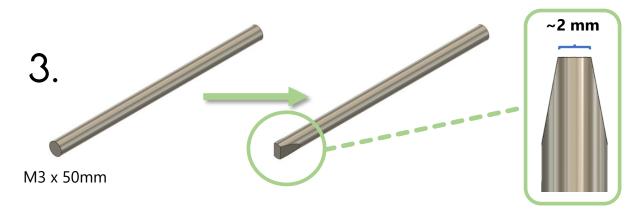
Guide rod will be held in place by the lower receiver and end cap. Spring in captured by the countersink in both the



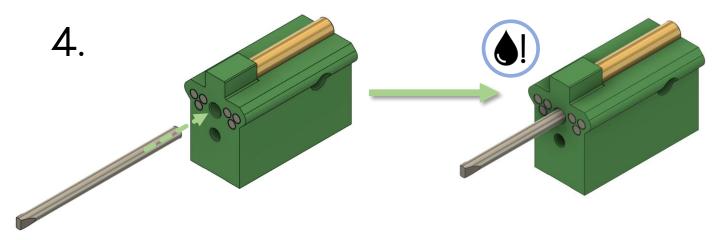


• Insert pre-cut brass rod into top cavity, secure in place with epoxy or JB Weld.





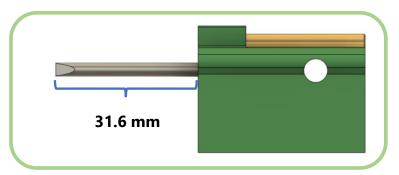
- The firing pin is made from a 50mm long M3 stainless rod. Before installation, adding a chiseled point is required for the most effective striking.
- File down rod on two sides so that the face has a width of approximately 2mm wide, see above diagram



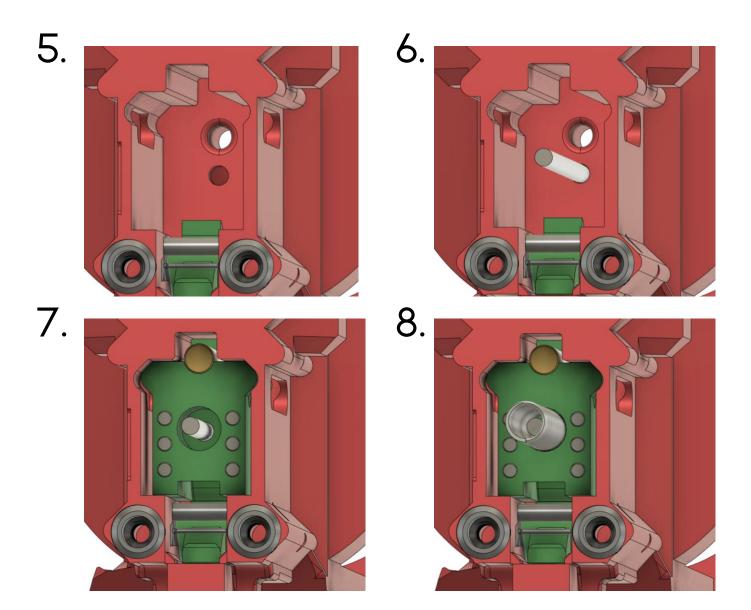
Secure pin in place with epoxy or JB Weld



**IMPORTANT:** Before the pin is set in place, adjust it so that the tip is **~31.6 mm** from the striker surface. This will ensure proper striking of the round.







- The guide rod is placed inside the lower receiver followed by the striker and the spring.
- It is necessary to lubricate the rod and striker sides to ensure the highest striking speed.

**IMPORTANT:** A lubricant should be added to the striker assembly and the fire control group cavity.

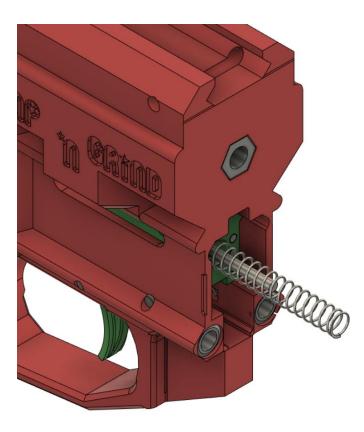
#### SUITABLE:

- 0w30 FULL SYNTHETIC
- PTFE
- Oil Based
- Graphite Powder

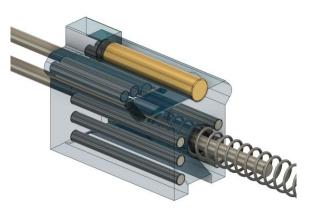


#### NOT SUITABLE

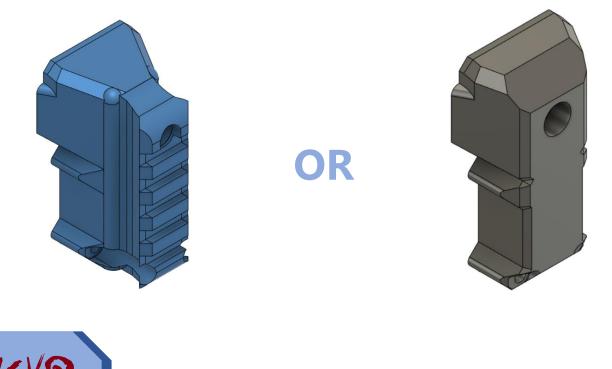
- Coconut Oil
- KY Jelly
- Saliva
- Anything Flavored



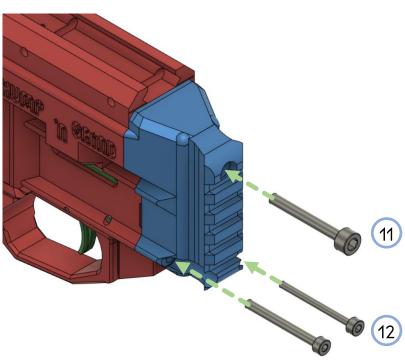
**NOTE:** Some builders may prefer to insert the guide rod into the end cap before installing it. This is entirely up to you. If you choose to epoxy it in place (NOT recommended) you will not be able to easily remove the striker for maintenance.

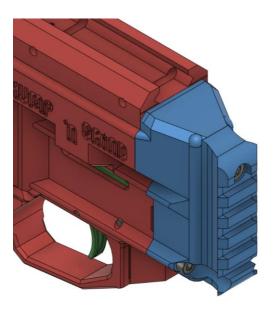


 To capture the spring and guide rod, an end cap is secured onto the lower. We have provided two types for your convenience:

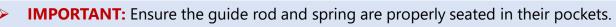


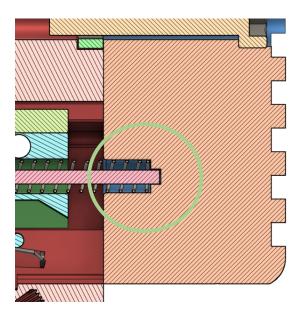






• As previously stated, the spring and guide rod are captured by the end cap, which is secured by 3 fasteners. See the cross section below

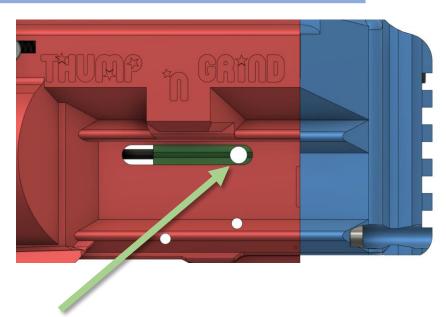




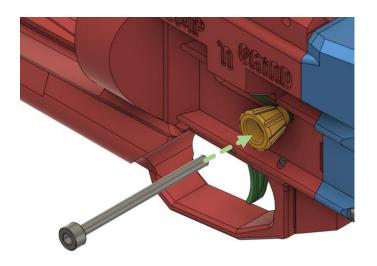


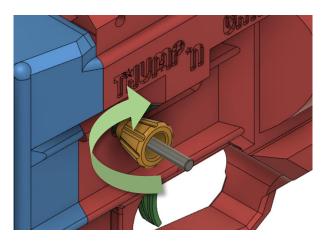
### STRIKER ASSEMBLY

10.



• There is a hole in the striker that is used to secure the charging handle. The handle is made of two knobs and a bolt. This design is very basic, and you may choose to make your own custom handle.

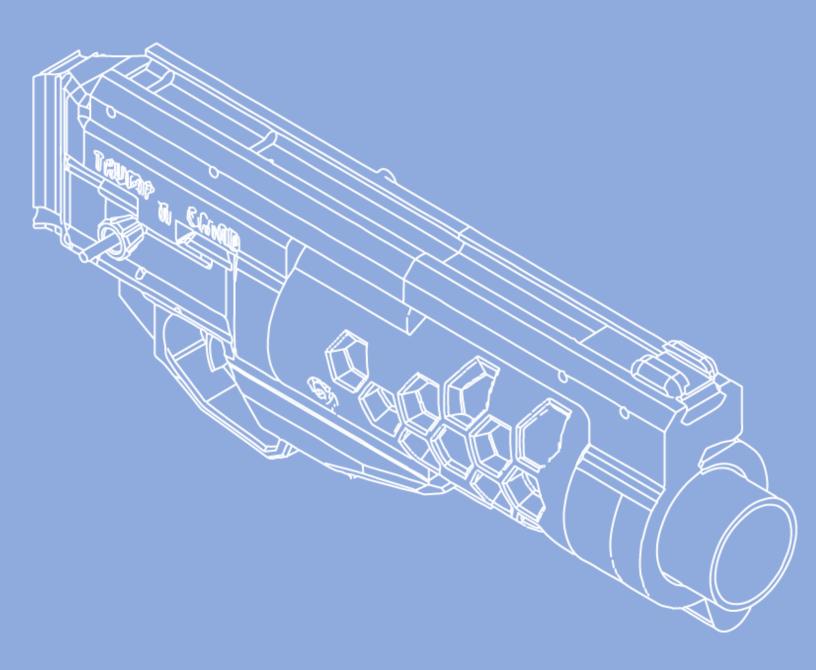




- Thread the bolt through one knob, through the striker, then tighten down the knob on the threads until they are secure. Over tightening will cause friction and slow the striker down.
- Congratulations! The striker is now fully installed. Set aside and proceed to the next step



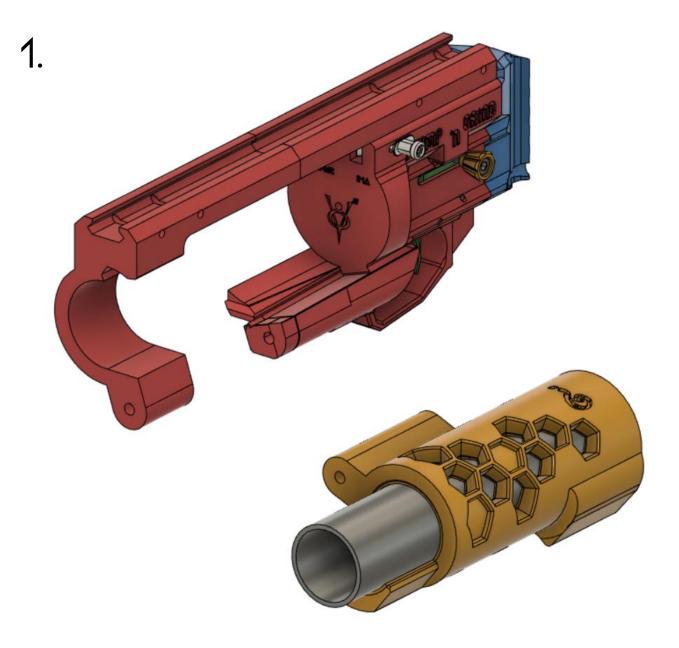
## final Assembly





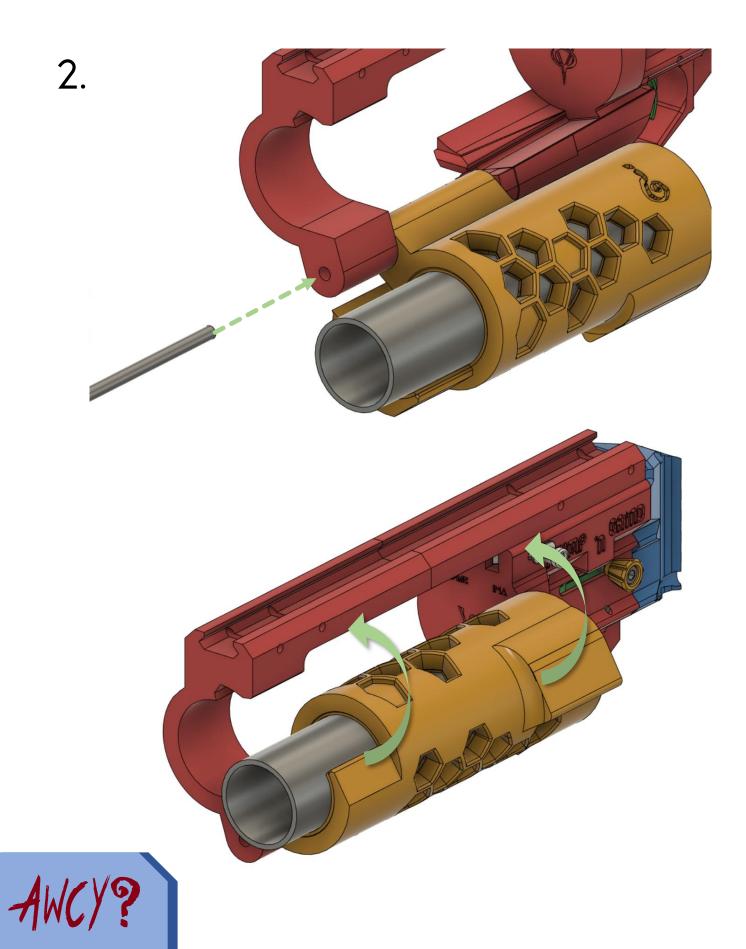


#### **\\\** FINAL ASSEMBLY

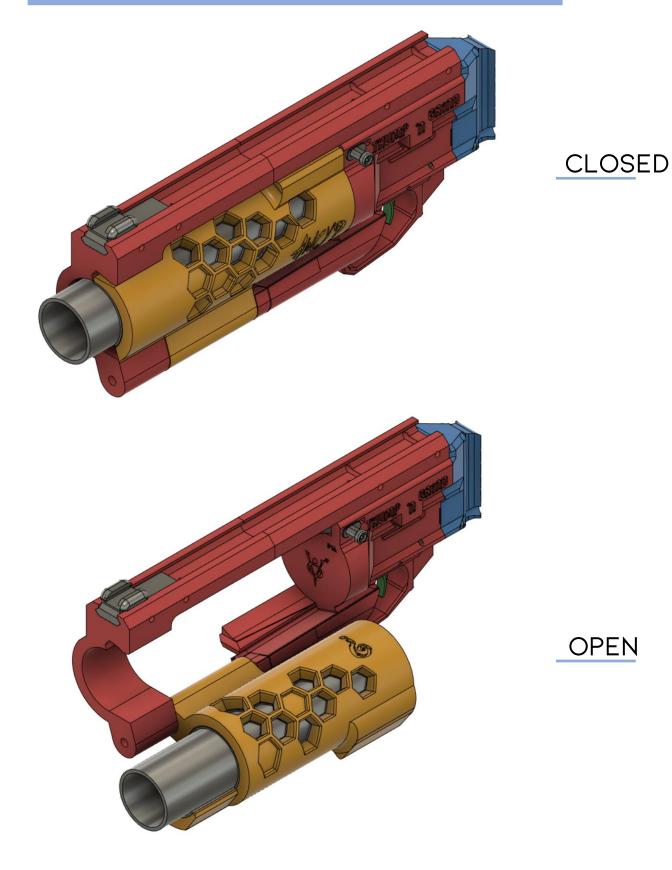




#### **\\\** FINAL ASSEMBLY

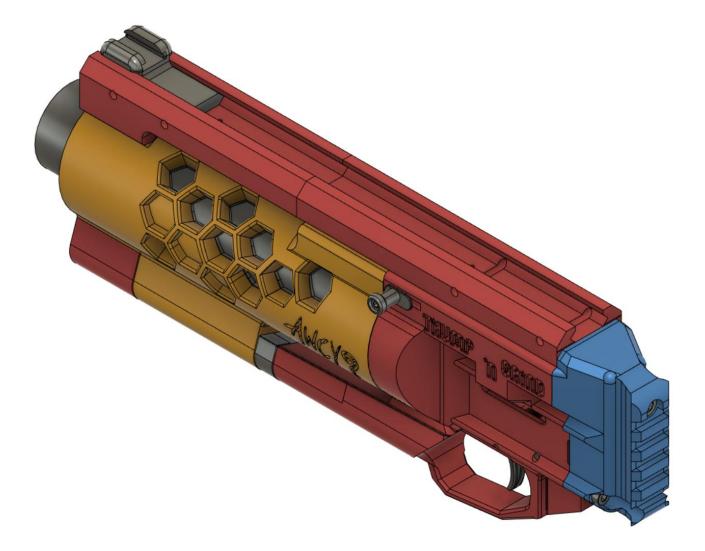


#### **\\\** FINAL ASSEMBLY









#### ARE WE COOL YET ?



#### **\\\** FREQUENTLY ASKED QUESTIONS

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

#### 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 Probably not.
- **Q** Can I use this as an under barrel?

A - Yes! However, make sure to use a secure mount, and the low-profile endcap we provided. Example: not a 3d printed handguard or some such.

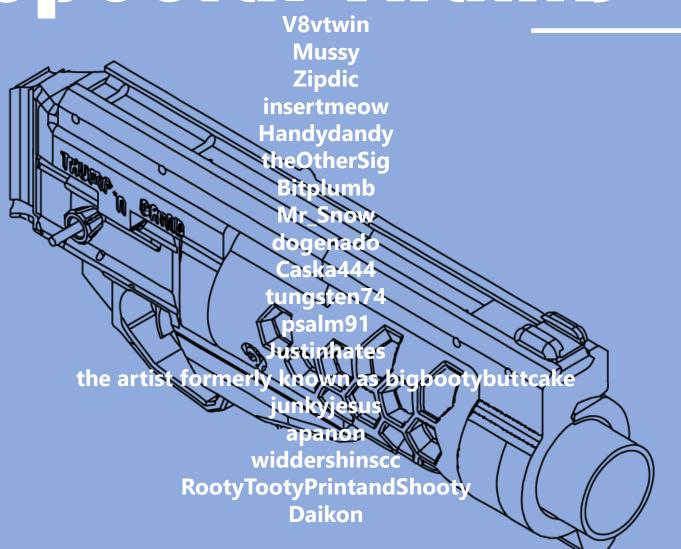
- **Q** I don't seem to be able to close the barrel retainer.
- A Not a question, but make sure the striker is cocked back.
- **Q** Where can I get a kit? Do I have to buy there?
- A PNW Tactical, no.
- **Q** Which bic spring gets used on the ejector?
- A Either one seems to work well, the longer one will need trimming.
- **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 <a href="http://www.arewecoolyet.wtf/">www.arewecoolyet.wtf/</a>
- **Q** My prints keep failing.

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

## Special Thanks



Hardware kits available for sale at www.pwntacticalsupply.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.

