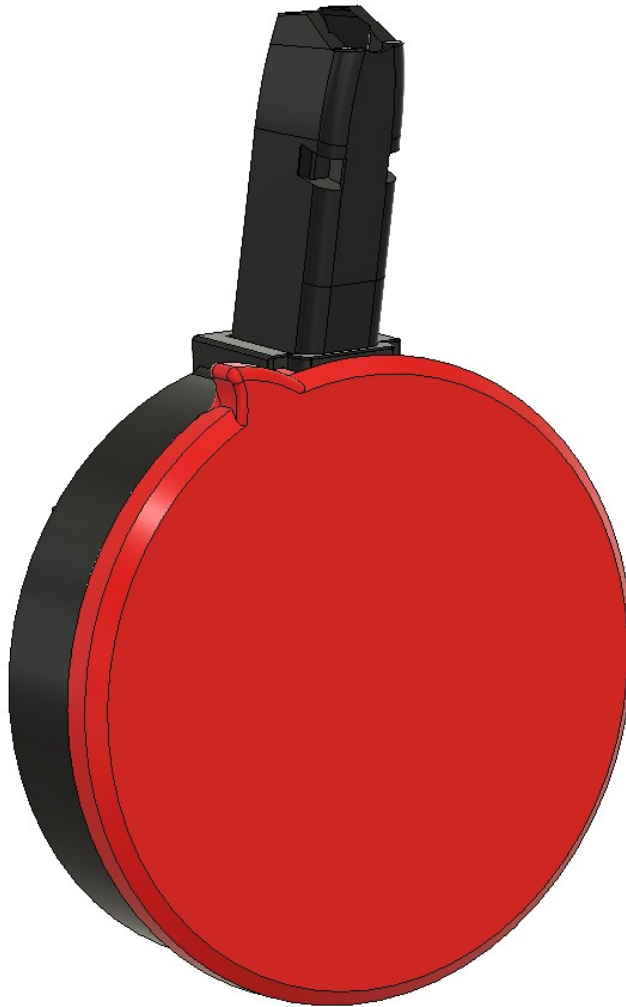
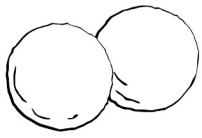


Danny Meatball & Co.

The D.R.U.M.



An AWCY? & WTF/GCI Production



Description

Included in this file pack is all components needed to build the D.R.U.M.. There are a variety of magazine towers included for maximum compatibility with different platforms.

Hardware

- 8x M3 Threaded heat inserts (Preferably 5-6mm in length)
- 6x M3 x16mm screws (Preferably Socket Heads)
- 2x 8mm(ID) x 22mm(OD) x 7mm (Depth) Skateboard bearings (Standard)
- 3x ~5mm x15mm springs
- 1x 5/16 x 2in bolt w/ washer and nut
- 1x Main Spring:

([Option 1](#)) Part #: 28442-ZH8-003

([Option 2](#)) 0.8 * 8 * 680 * 36

([Option 3](#)) 0.8 * 8 * 1000 * 42 (Dev's Choice)

Settings

In the interest of not wasting large amounts of filament, some parts require different infill setting. Please see below:

- Main Body: 4-6 walls @ 15-25% infill. Excessive infill/wall count can add unnecessary weight to the magazine.
- Magazine Tower: 6-8 walls @ 25+ infill.
- Tension Knob: 4-6 walls @ 15-25% infill.
- All other parts: 100% infill.

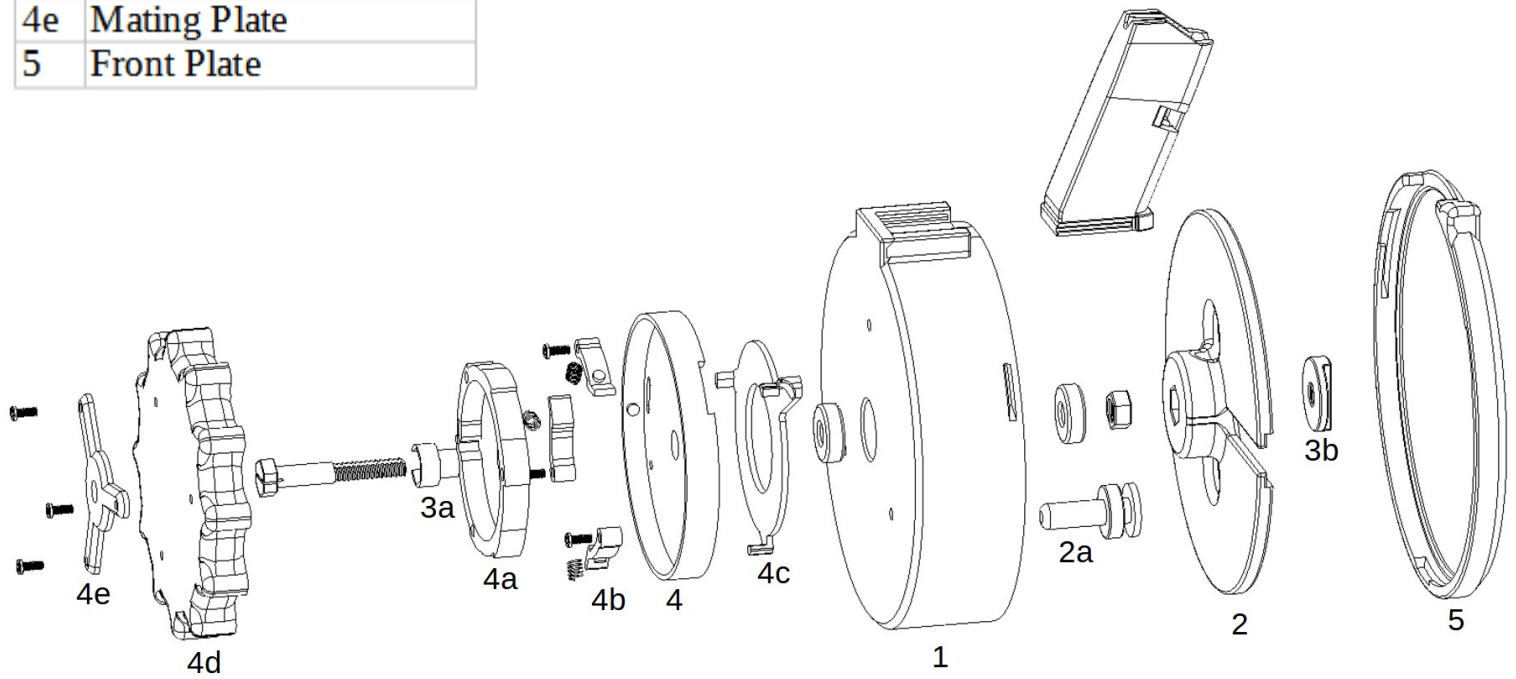
Print Orientation

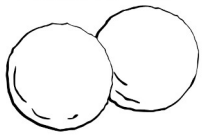
All files are in the best print orientation.



Printed Parts Breakdown

1	Main Body
2	Follower Guide
2a	Follower
3a	Spring Shaft Spacer
3b	Top Nut
4	Ratchet Cup
4a	Ratchet
4b	Ratchet Arm
4c	Tension Relief
4d	Tension Knob
4e	Mating Plate
5	Front Plate





Assembly

Please follow this assembly guide step by step. Pay attention to the “NOTES” as they will inform you of tricky procedures or good to know information. Please wear gloves and eye protection while cutting or grinding.

WARNING: The Main Spring is capable of storing a lot of energy. Please use extreme caution when handling the Spring, or whenever the Spring is installed.

This is not a simple build. Not following this guide WILL cause malfunctions and issues.

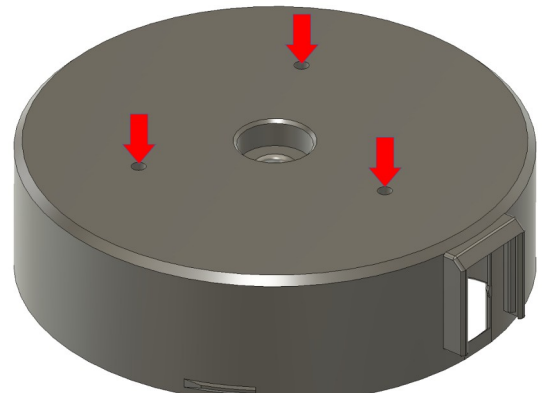
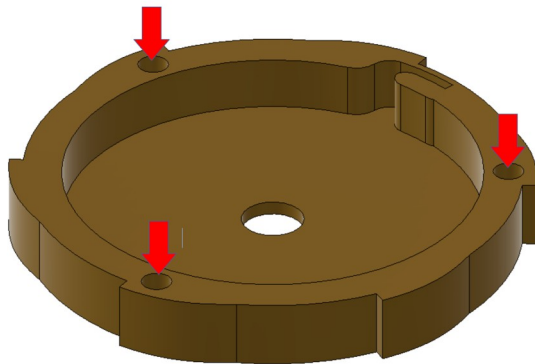
Lets get started.

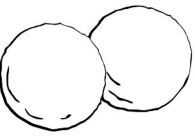
Step 1: Preparation

Ensure there are no strings or support material remaining on any of the prints. During assembly, always be on the lookout for excess material that will cause fitment issues. No printed parts should need to be forced together.

We'll start by installing the threaded heat inserts (M3).

There are 3 inserts in the Ratchet. (These will be inserted flush). 3 additional inserts go into the Main Mag Body (Do not over insert, as you will push through to the internals of the mag). With 5mm long heat inserts, insertion should stop ~.5mm from being flush. This will act as a spacer for the Ratchet Cup and allow the Tension Relief to move freely. Remember you can always reheat and further insert the heat inserts, but it will be difficult to pull them out once set. Use caution, as soldering irons may heat the brass too fast and cause the insert to sink quickly. Take your time.

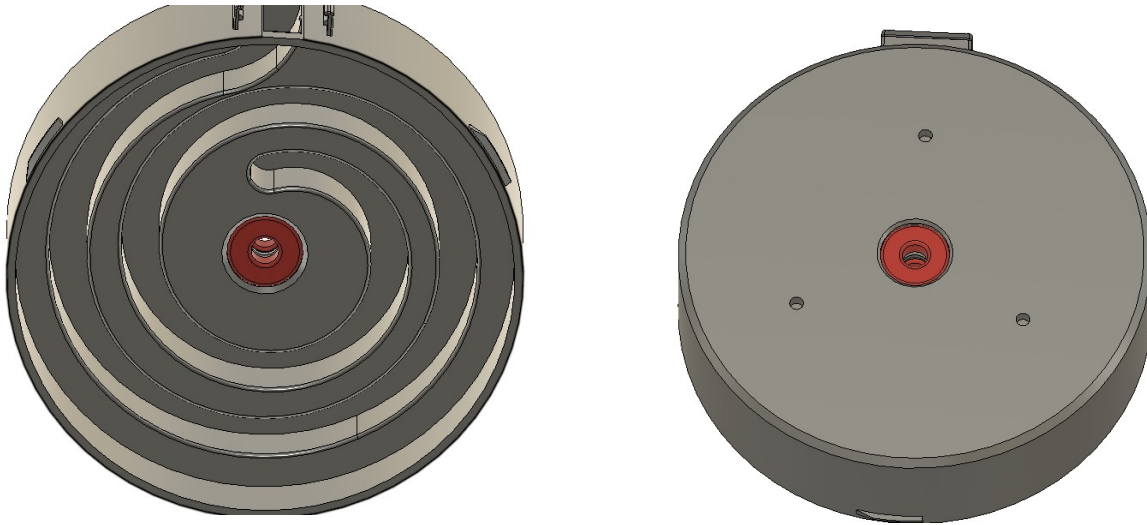




Step 2: Installing the bearings

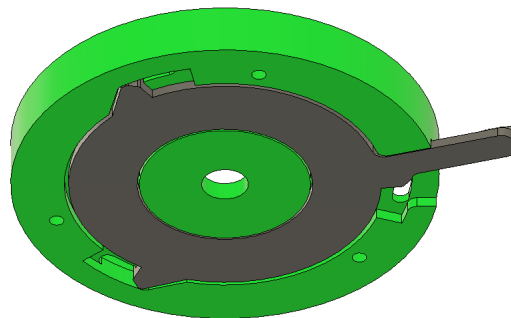
Included in the files is a bearing press tool. I used a hammer and a socket. The bearings will be tight in the body ensuring they remain in place during use.

Press the bearings into place.



Step 3: Ratchet Cup Assembly

Take the Tension Relief and insert into the bottom of the Ratchet Cup. The camming arms should easily slide into the slots of the Ratchet Cup. Ensure that the Tension Relief can move back and forth with relative ease. You may remove any elephants foot, or sand the sides to assist in the fitment.





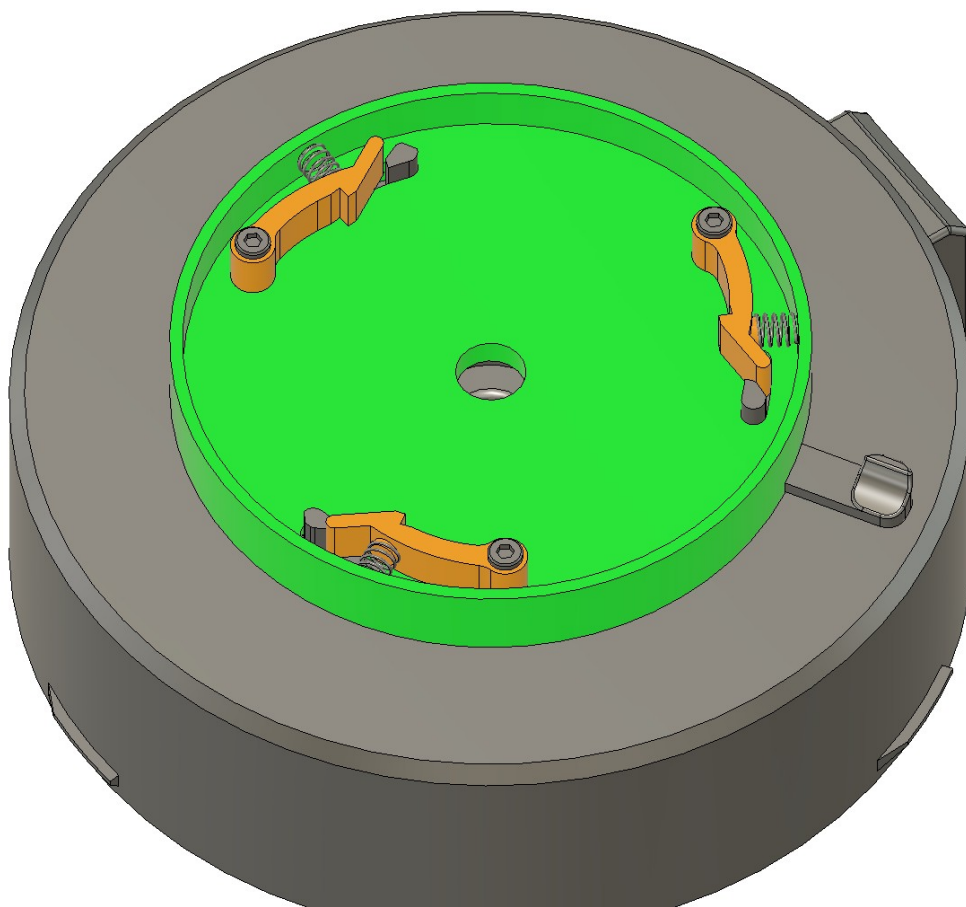
Step 3 (Cont.)

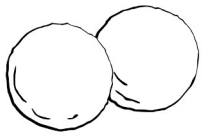
Take your Ratchet Arms (3ea) with M3 screws and screw them and the Ratchet Cup onto the Main Mag Body. Thread lock is suggested, as the screw may back out over extended use. Ensure that the Ratchet Arms aren't screwed on too tight as this may cause the Arms to lock up due to friction. Also ensure that the Tension Relief can still move freely. If not, you can add small washers to raise the Ratchet Cup.

NOTE: Ensure the cam surface of the Ratchet Arm is behind the cams of the Tension Relief.
(See Picture Below)

Next we will be inserting the Ratchet Arm Springs. You will likely need a flat tool, as the springs need to be compressed completely to fit. A razor blade or similar tool works well. Place the springs and ensure the ratchet arms can still move and return to position. Also, work the Tension Relief to ensure the cams are properly engaging the ratchet arms. The Tension Relief should return to its original position.

NOTE: Ensure the cam surface of the tension relief doesn't sit too low allowing the ratchet arm to jump over. If this is the case, you will need to set the heat inserts in the body a little further.





Step 4: Spring Shaft

Ensure your 5/16th bolt head and accompanying nut is ½ in wide.

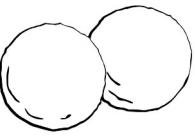


Use a hacksaw or suitable tool to cut approximately 8mm deep, as centered as you can. Cutting deeper is acceptable.



Screw on the nut and grind parallel sides of the exposed threads down. The goal is to get that area 5mm wide. Again, use caution and grind a little at a time, checking the width as you go. Use a file to make fine adjustments as needed. The shaft should be a consistent width all the way down.





Step 5 Spring Assembly

Add the Spring Shaft Spacer, ensure the slot is visible through the cutout. Add the spring. You may need to sand the lower part of the Spring Shaft Spacer to ensure it moves freely within the Ratchet Cup and Ratchet. The goal is to get the bottom surface of the Spring Shaft Spacer to touch the middle raceway of the bearing. A washer may be used to fill that gap if needed. (but shouldn't be needed)



Insert Spring with Spring Shaft into the Ratchet, then insert the assembly into the Main Mag Body.

NOTE: Depending on the spring you chose, you may have to install the Spring into the Ratchet, then install the Spring Shaft. This should be accomplished using caution, as the spring can slip out of the Ratchet with considerable force. Once the Spring is installed, it is a good idea to temporarily install the Mating Plate on 2 of the 3 inserts to contain the spring, should any unforeseen issues arise.



**Step 5 (Cont.)**

Tighten the nut on the other side. A washer may be needed as the goal is to get a pointed part of the nut perpendicular with the flats on the threads. This will allow the Follower Guide to seat fully. Over tightening may result in binding the system. You should aim for slightly more than hand tight.



You can test fit the Follower Guide to ensure that the nut is in the correct position and the flats on the shaft are the correct size.

You can now install the Tension Knob and Mating Plate. The rear of the magazine is now complete.





Step 6: Follower and Follower Guide

To strengthen the mating surface between the Follower Guide and Spring Shaft, we've included provisions for 2 additional heat inserts. This should help with longevity over time. Set the heat inserts until they bottom out. Its preferred that you DO NOT go any deeper as that may cause spacing issues when trying to put the Front Cover on.

The follower then slides into its slot. Ensure it moves and rotates relatively freely within the Follower Guide.



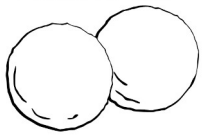
Step 7: Linked Follower

The Linked Follower is a series of dummy rounds meant to push the last few rounds through the Mag Tower/Riser. To assemble it, you must find the correct number of links for your respective Mag Tower/Riser. The lead link is the only one that is different. The build calls for a short clipping of TPU or other flexible filament to run through the center of the links. You then melt the ends and smoosh them against the links. Any flexible material can be used in lieu of the TPU. Fishing line, twine, and string also work well.

Follower Link Quantities:

- Short Glock: 9 + Lead
- G17: 14 + Lead
- G19: 12 + Lead
- Scorpion: 9 + Lead
- Tec-9: 8 + Lead
- SVTR: 9 + Lead





Step 8: Loading

Insert the Magazine Tower/Riser into the base plate rails of the Main Body. Ensure the front of the Mag Tower/Riser sits flush with the Main Body.

Place the magazine on a flat surface. Place the Linked Follower close to the center, allowing space to insert the follower. Load the rounds nose up. Slide rounds into the Mag Tower and continue to load for max capacity.

Once the magazine is fully loaded, place the Follower Guide and Follower into the magazine. Align the Follower behind the Snake Follower. You can spin the Tension knob to align the Spring Shaft to a more desirable position. Place the Follower Guide over the Spring Shaft, thread on the Top Nut and install the Front Plate.

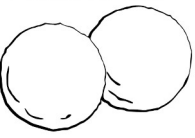
Tension the system by twisting the Tension Knob counter-clockwise. This will take multiple rotations. You will reach a point where the Tension Knob stops. DO NOT turn any further. You will damage the Follower Guide slot. Use care during this step, as any space left between the Follower and rounds may result in a round falling over and causing issues.

Step 9: Tension Release

CAUTION: Pushing Tension Relief will cause the Tension Knob to spin with a lot of force, if not controlled. It hurts.

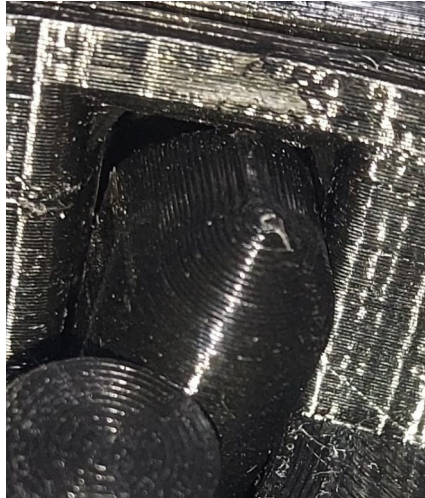
If a malfunction occurs, or the magazine is empty, you will need to release any remaining tension in the system. This is done by pushing the Tension Release Lever counter-clockwise. Please control the Tension Knob while you do this, as uncontrolled releasing of tension can damage the system. Additionally, you can “back feed” the system by holding the tension release and spinning the Tension Knob clockwise. This will turn the follower plate, giving more space inside.



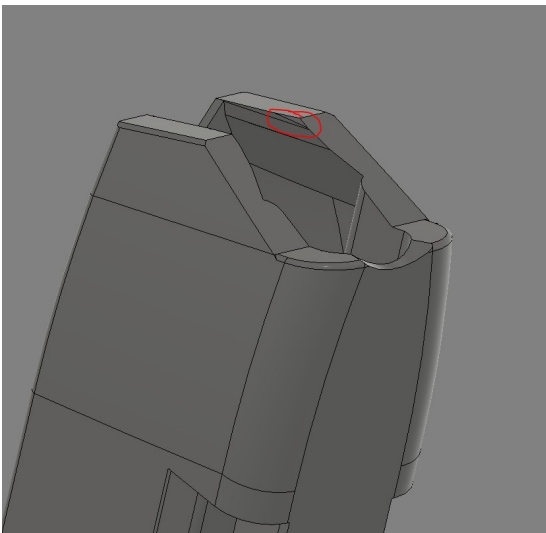


Trouble Shooting

Some testers have reported stoppages when the Lead Follower starts to enter the Mag Tower. This can be fixed by ensuring the nose of the lead follower and lip right below the base plate rails on the Main Body are sanded smooth, allowing the lead follower to smoothly transition into the Mag Tower. (Please see pictures)



If you are having issues with the round running into the bottom of the feed ramp and getting stuck, you may have to remove some material from the inside of the feed lips. Use sandpaper and start small, testing often until the proper round orientation is achieved.



**Credits:****Special Thanks To:**

Dr. Mussy & V555 from WTF/GCI

Dr. Mussy and V555 lent us the ratcheting mechanism and drum body design concepts which were instrumental in the development of the design.

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Special thanks to everyone in the DMB & Co. room who helped contribute and to everyone who cheered us on.

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