

ZINC 3D Printing Guide

Version 1.0 - 2/2/2020

118 Design

NOTICE:

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Introduction

- The files for all 3D printed parts can be found at: <https://github.com/118design/ZINC/>
- Please send any questions or comments to: support@118.design
- Hardware kits may be purchased at: www.118.design

Required tools & materials

All parts can be printed on a Prusa MK3s or an Ender 3. In order to fit these common printers the frame has been divided into 2 pieces and must be glued together. Files for single-piece frames are included in the repository but will require careful support placement and a much larger printer. I highly recommend sticking with the 2 piece frame.

Additionally there are 2 frame variations to choose from: one with a rail and one without. They are label FRAME_TOP_RAIL and FRAME_TOP_COMPACT respectively.

All pieces must be printed from a high-quality PETG or a filament with similar characteristics.

Visually inspect each part after printing and do not use any parts that show discoloration, layer separation, or warping.

Parts List - blaster

Recommended Groupings

- FRAME_TOP_COMPACT **OR** FRAME_TOP_RAIL
- FRAME_FRONT_COMPACT **OR** FRAME_FRONT_RAIL
- FRAME_BOTTOM

PRIMARY COLOR
(0.2mm layer height)

- SLIDE_FRONT
- SLIDE_REAR **OR** SLIDE_REAR_TPULL **AND** TPULL

ACCENT COLOR 1
(0.15mm layer height)

- TRIGGER_LEFT
- TRIGGER_RIGHT
- MAG_RELEASE
- SEAR
- CATCH

ACCENT COLOR 2
(0.15mm layer height)

- MUZZLE_COMPACT **OR** MUZZLE_EXTENDED

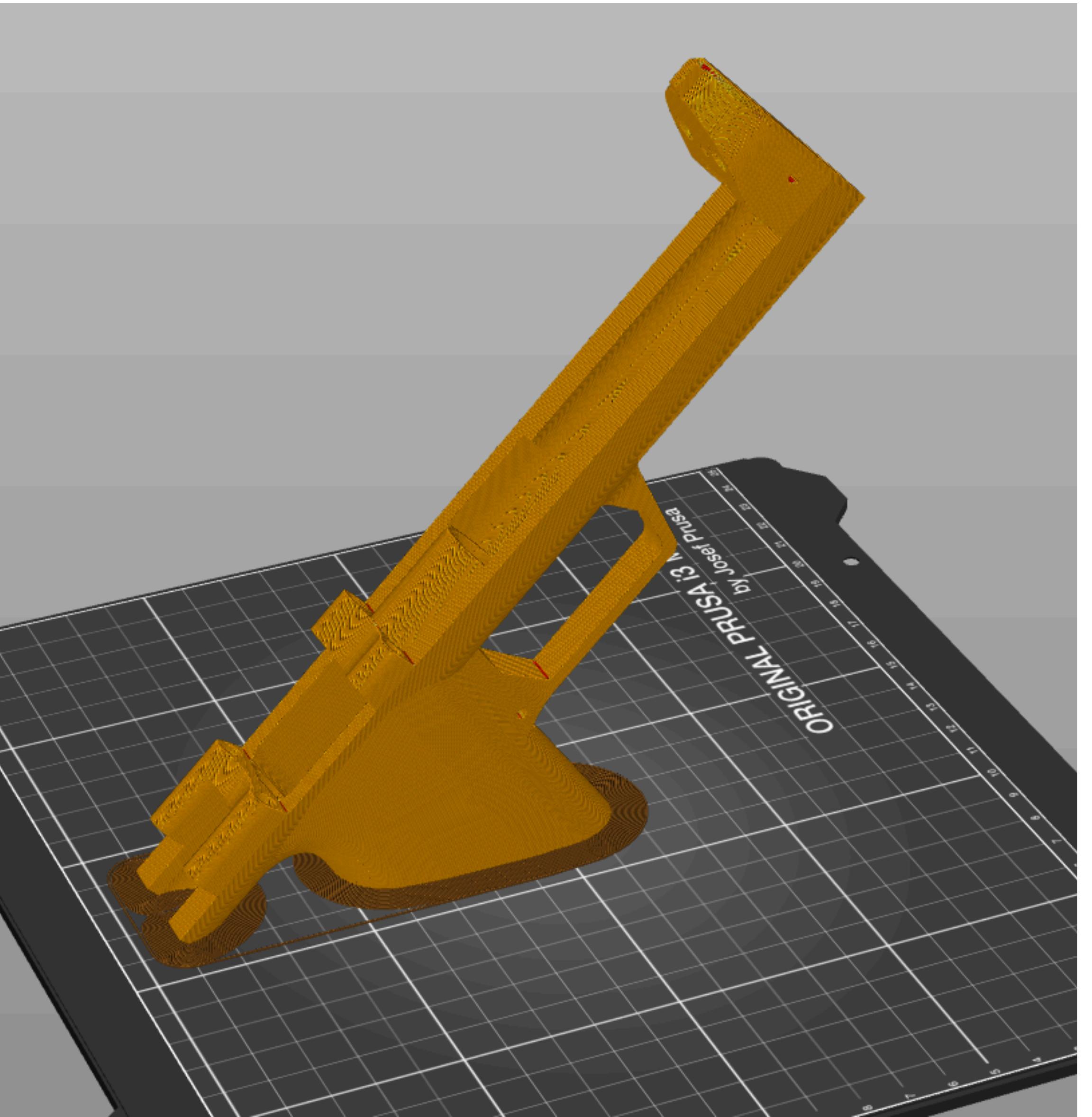
HIGH-VIS ORANGE

Parts List - magazine

- MAG_BODY (any length)
- MAG_FOLLOWER
- MAG_BASE

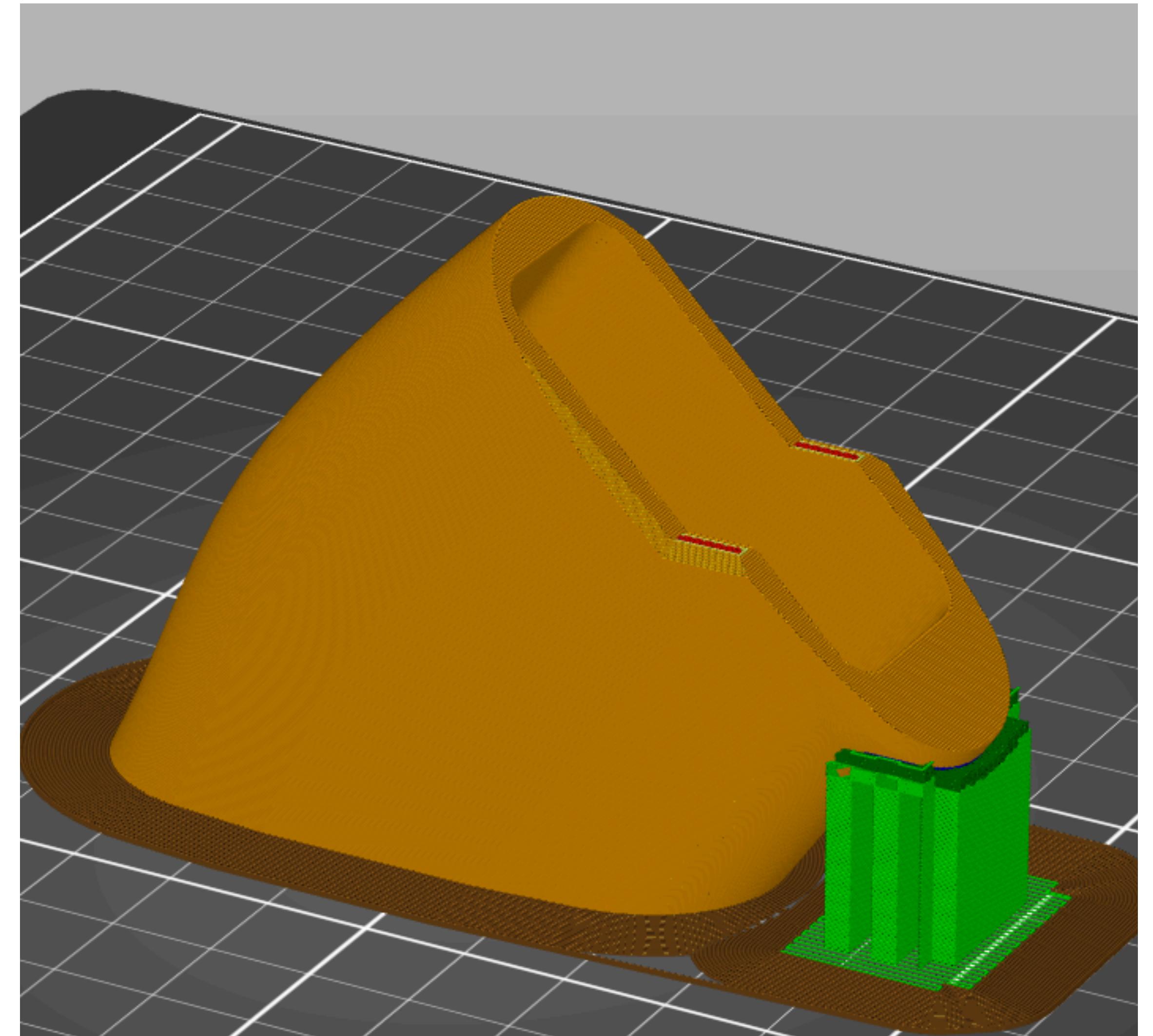
FRAME_TOP_(any)

- 2 variations: FRAME_TOP_RAIL or FRAME_TOP_COMPACT
- 0.2mm layer height
- At least 6 perimeters, 100% infill
- No support
- Brim
- Ensure there is excellent bed adhesion so the frame can be properly glued
- Inspect after printing. DO NOT USE if there are any signs of shifted layers, under extrusion, or excessive moisture.



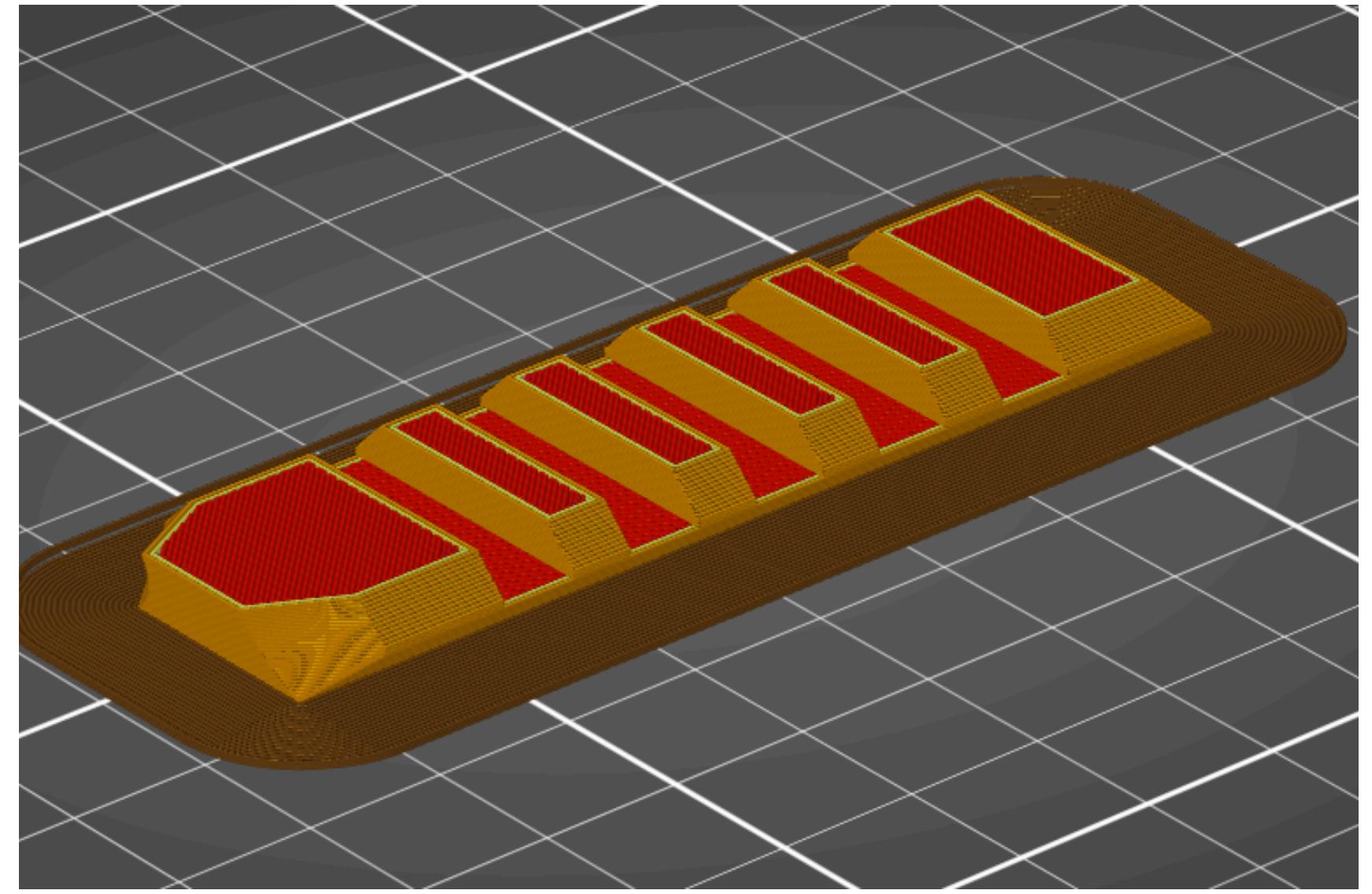
FRAME_BOTTOM

- 0.2mm layer height
- At least 6 perimeters, 100% infill
- Support underneath the overhang
- Brim
- Ensure there is excellent bed adhesion so the frame can be properly glued

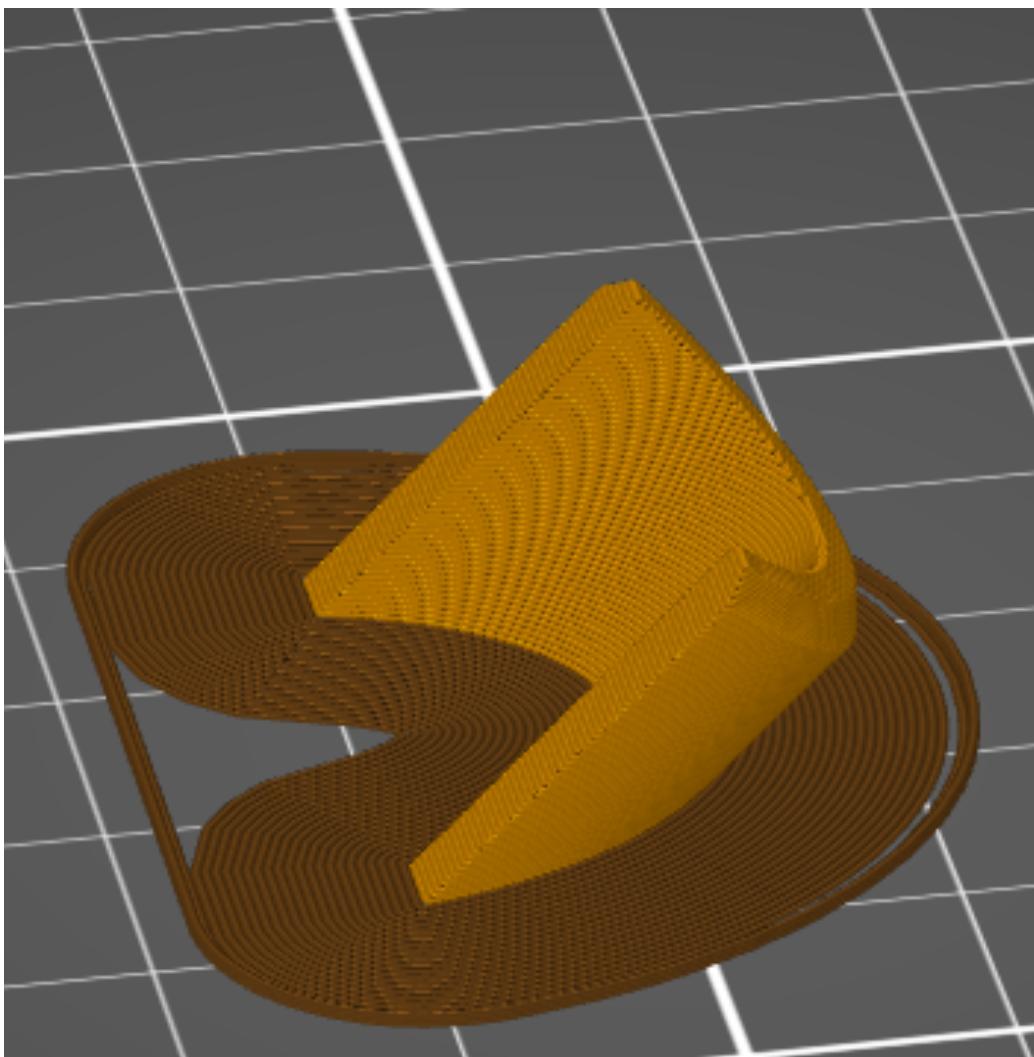


FRAME_FRONT_(any)

- 2 variations: FRAME_FRONT_RAIL or FRAME_FRONT_COMPACT
- 0.2mm layer height
- At least 4 perimeters, 100% infill

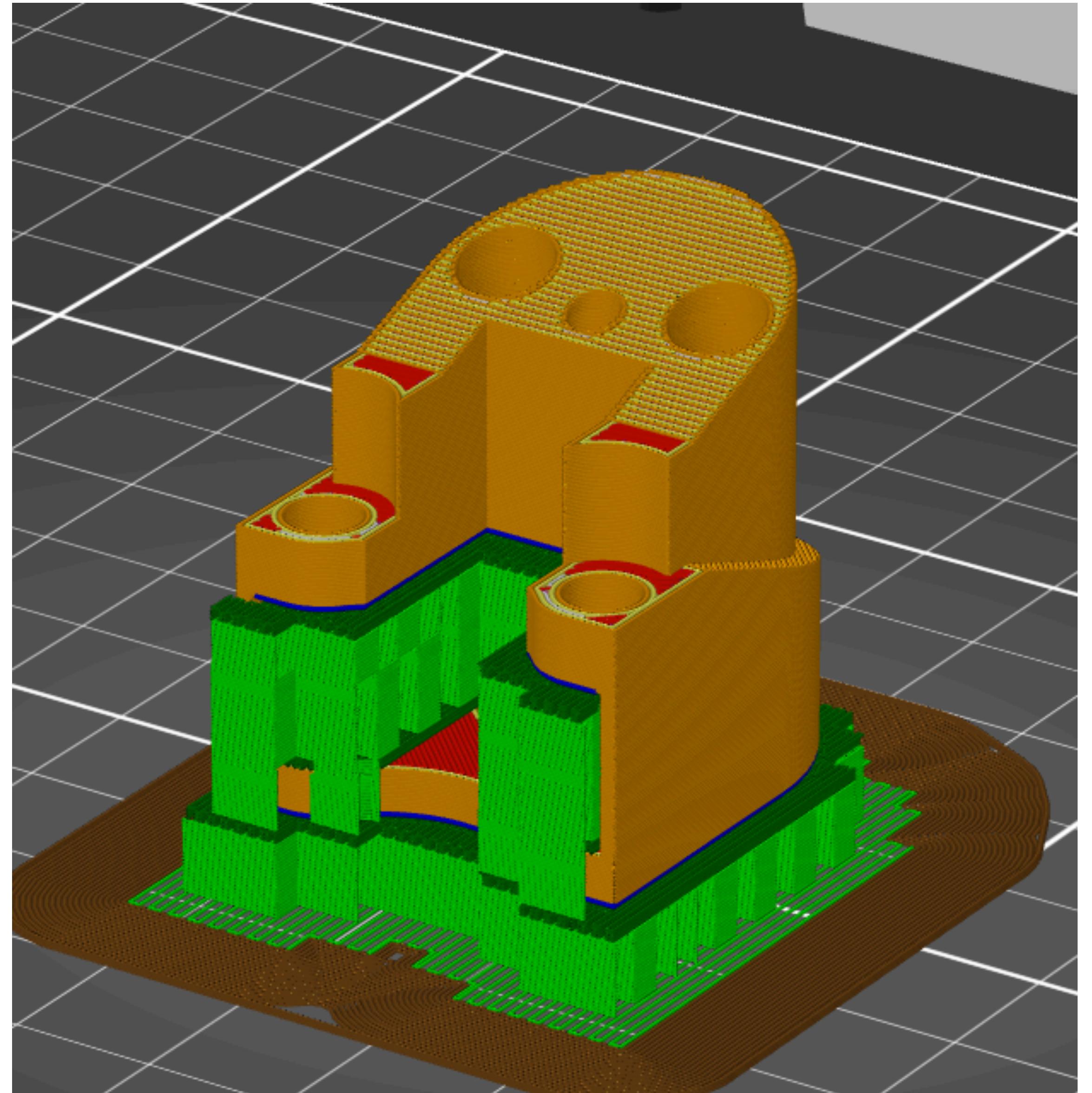


- No support
- Brim for COMPACT only
- Ensure there is excellent bed adhesion so the frame can be properly glued



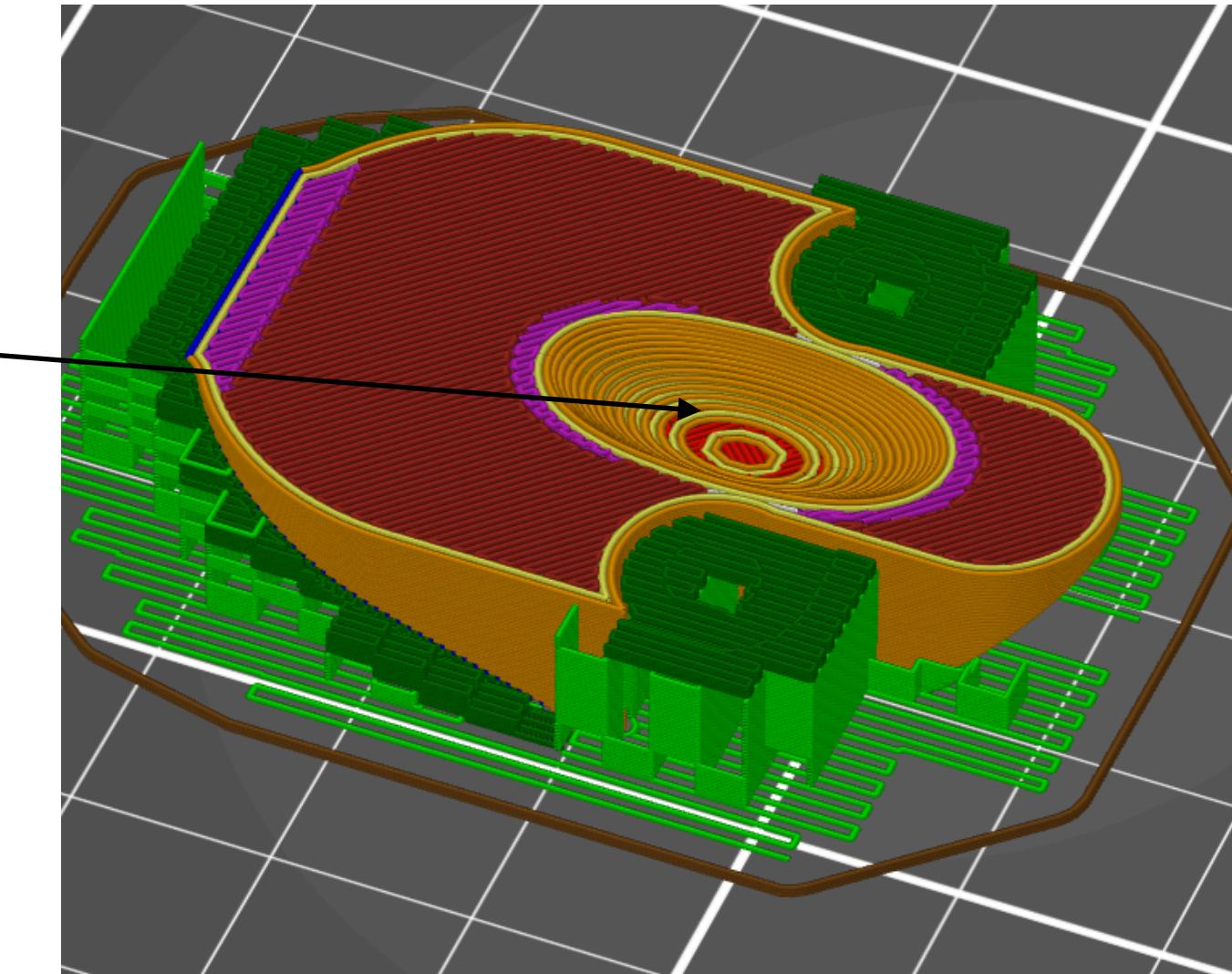
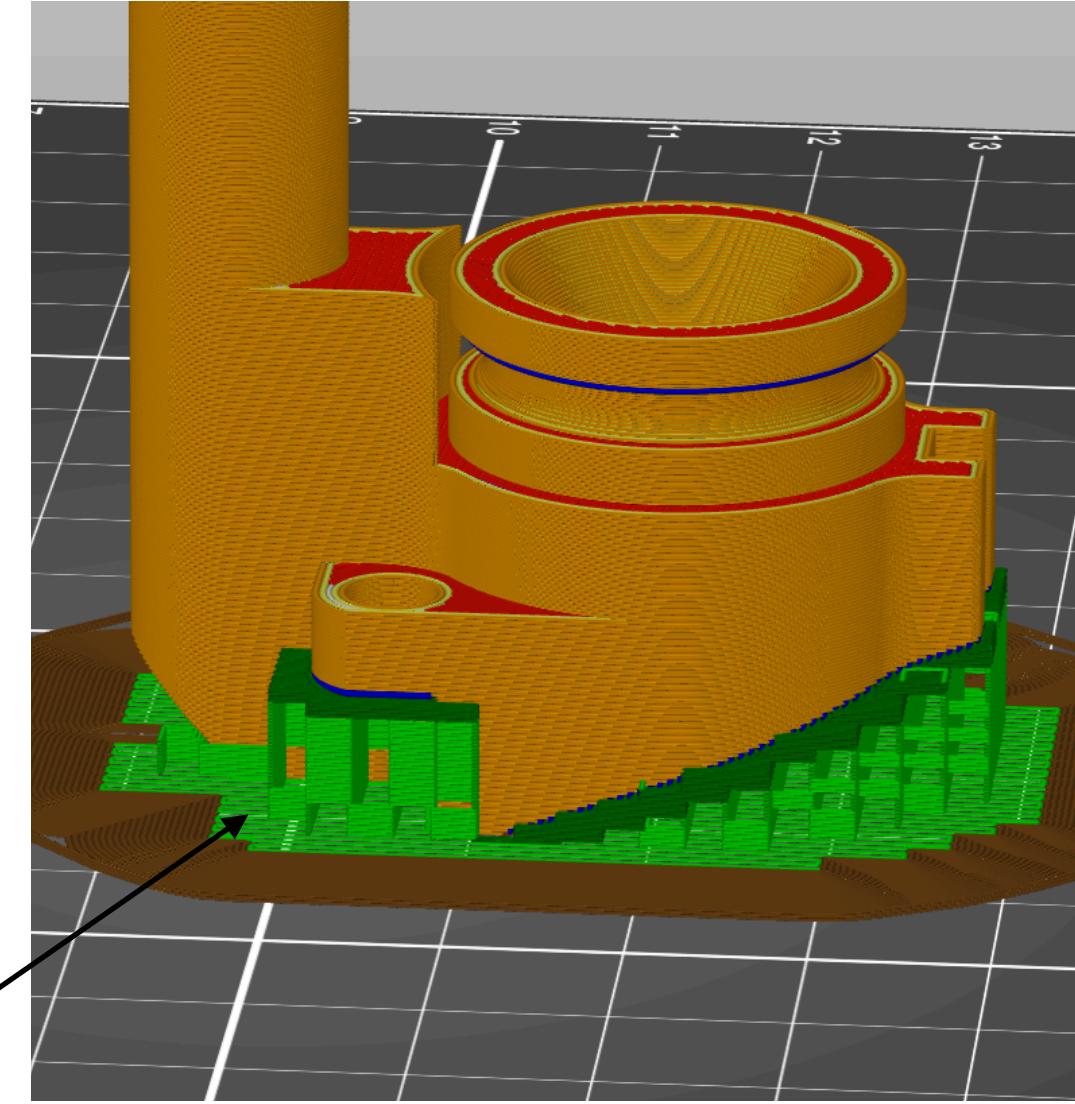
SLIDE_FRONT

- 0.15mm layer height
- At least 6 perimeters, 100% infill
- Support everywhere
- This part will require cleanup to function properly. Take your time removing the support material



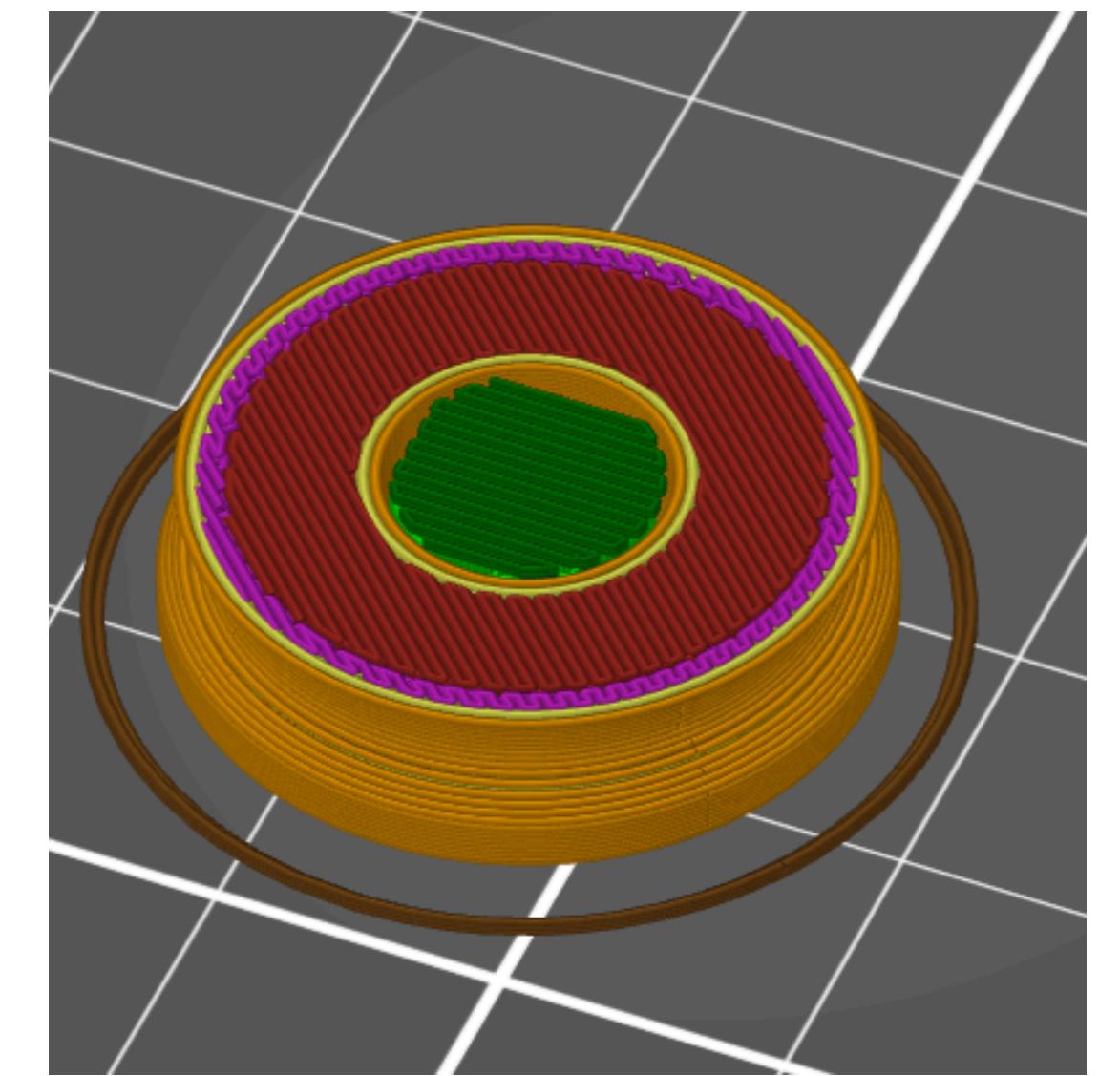
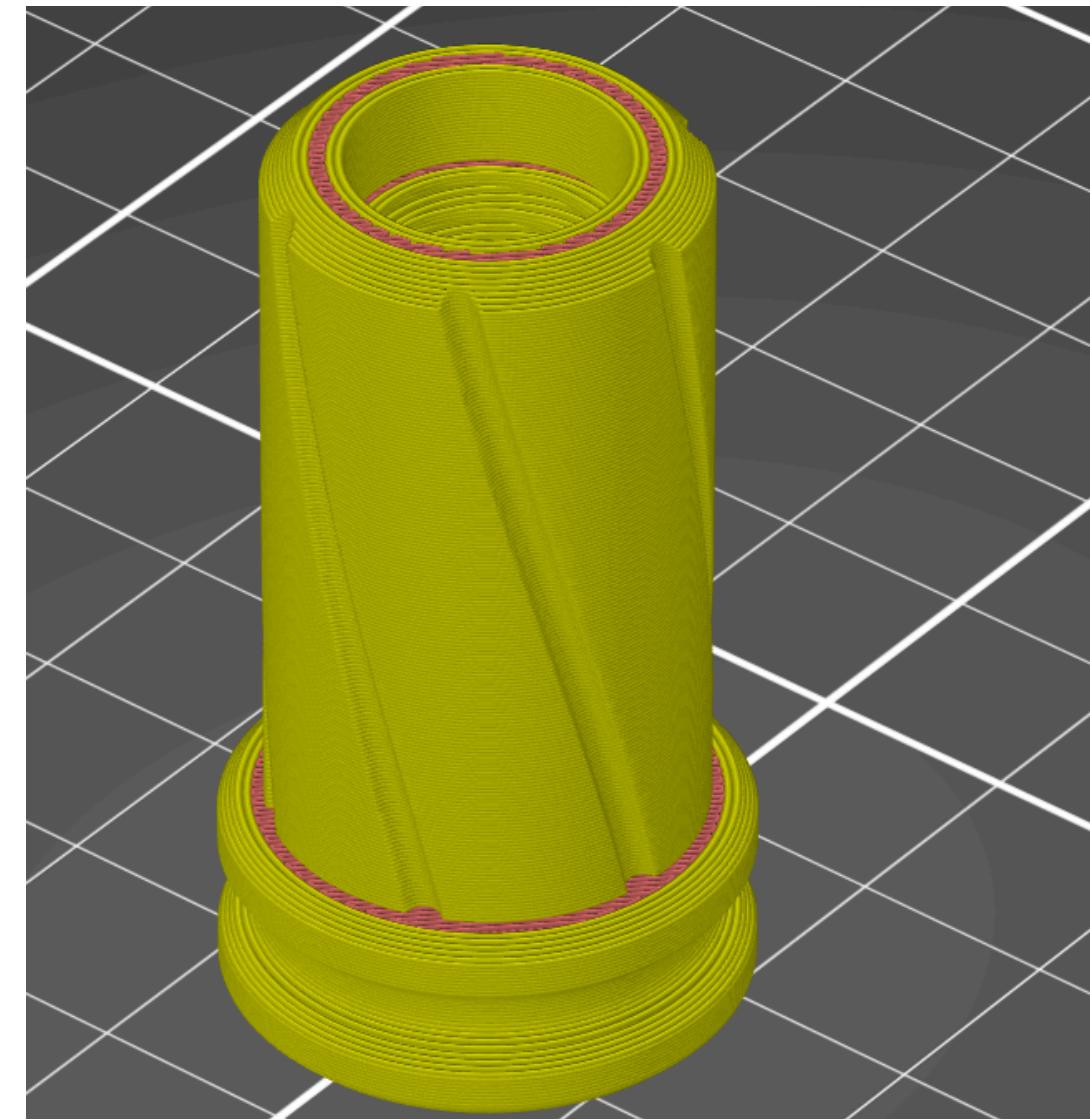
SLIDE_REAR_(any)

- 0.15mm layer height
- At least 6 perimeters, 100% infill
- Support for the overhangs but NOT in the internal turnaround as it will be impossible to remove



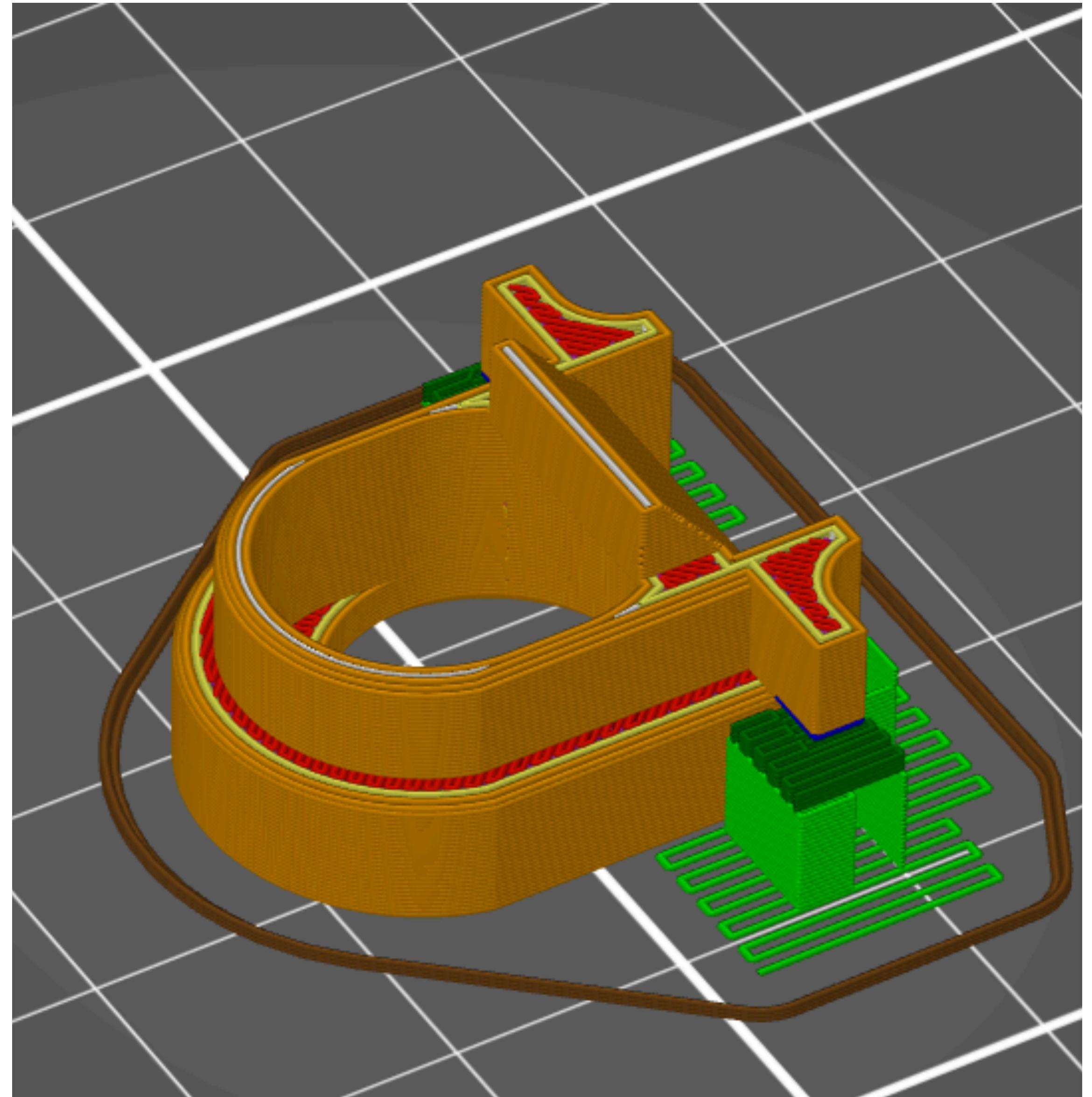
PLUNGER

- 0.15mm layer height
- Support for the overhang at the base only
- 6 perimeters, 100% infill



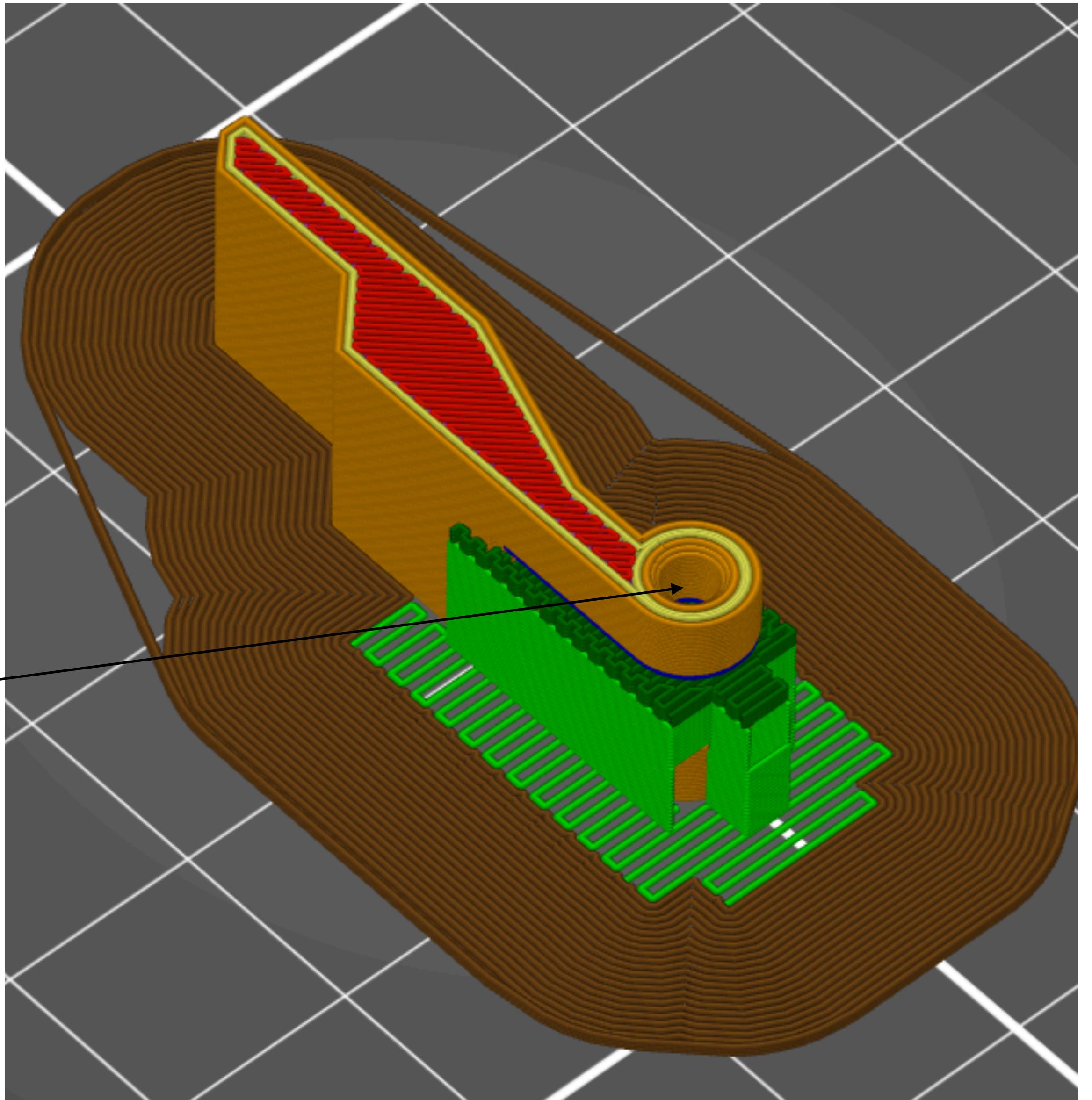
CATCH

- 0.2mm layer height
- 4 perimeters, 100% infill
- Ensure excellent bed adhesion
- Support everywhere
- You may need to file/sand/trim this part if your printer produces an “elephant’s foot” at the base of prints
- This is a wear part. Print extras and replace periodically.



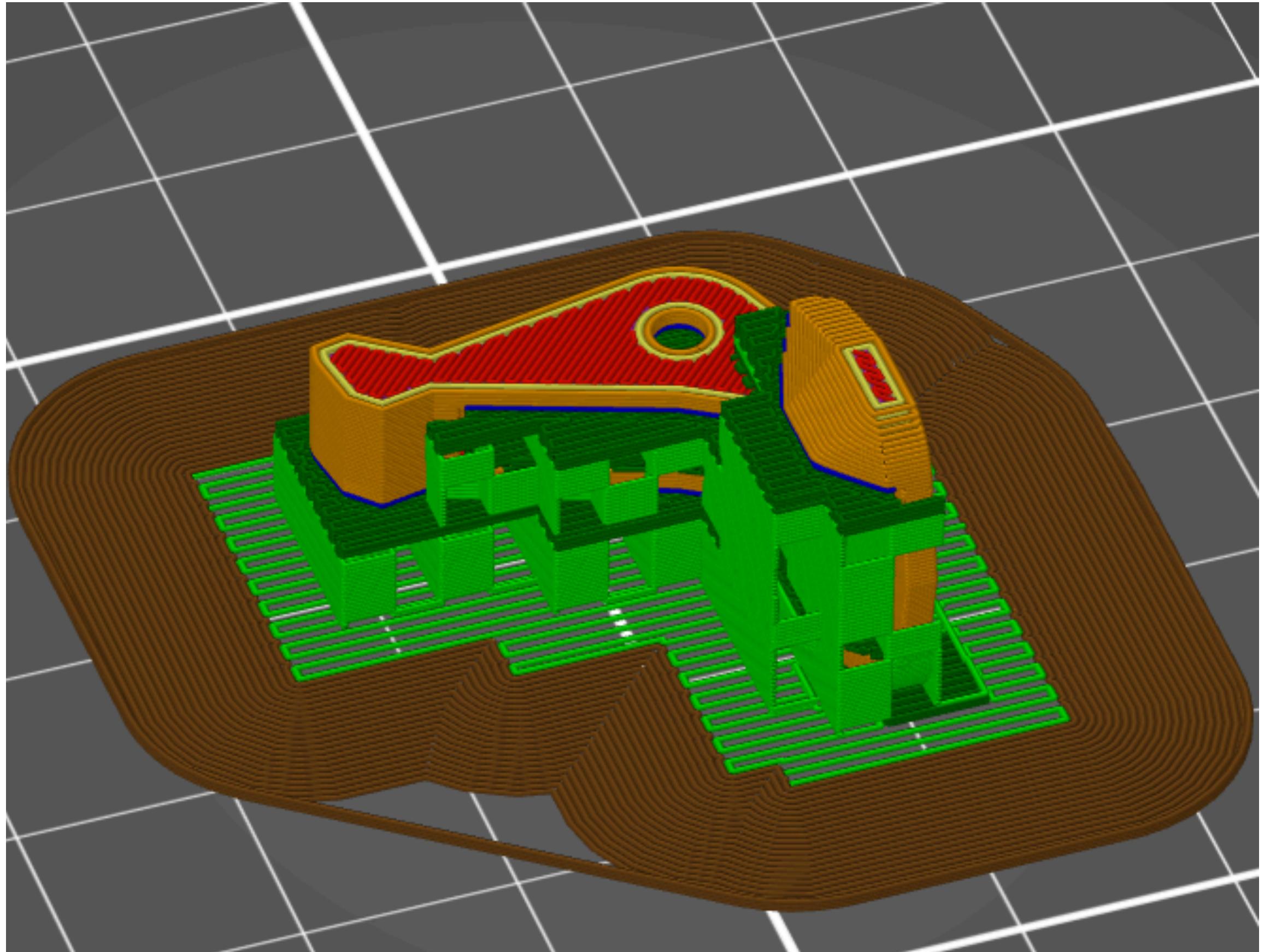
SEAR

- 0.15mm layer height
- 4 perimeters, 100% infill
- Support everywhere
- Ensure the chamfer is printed facing up



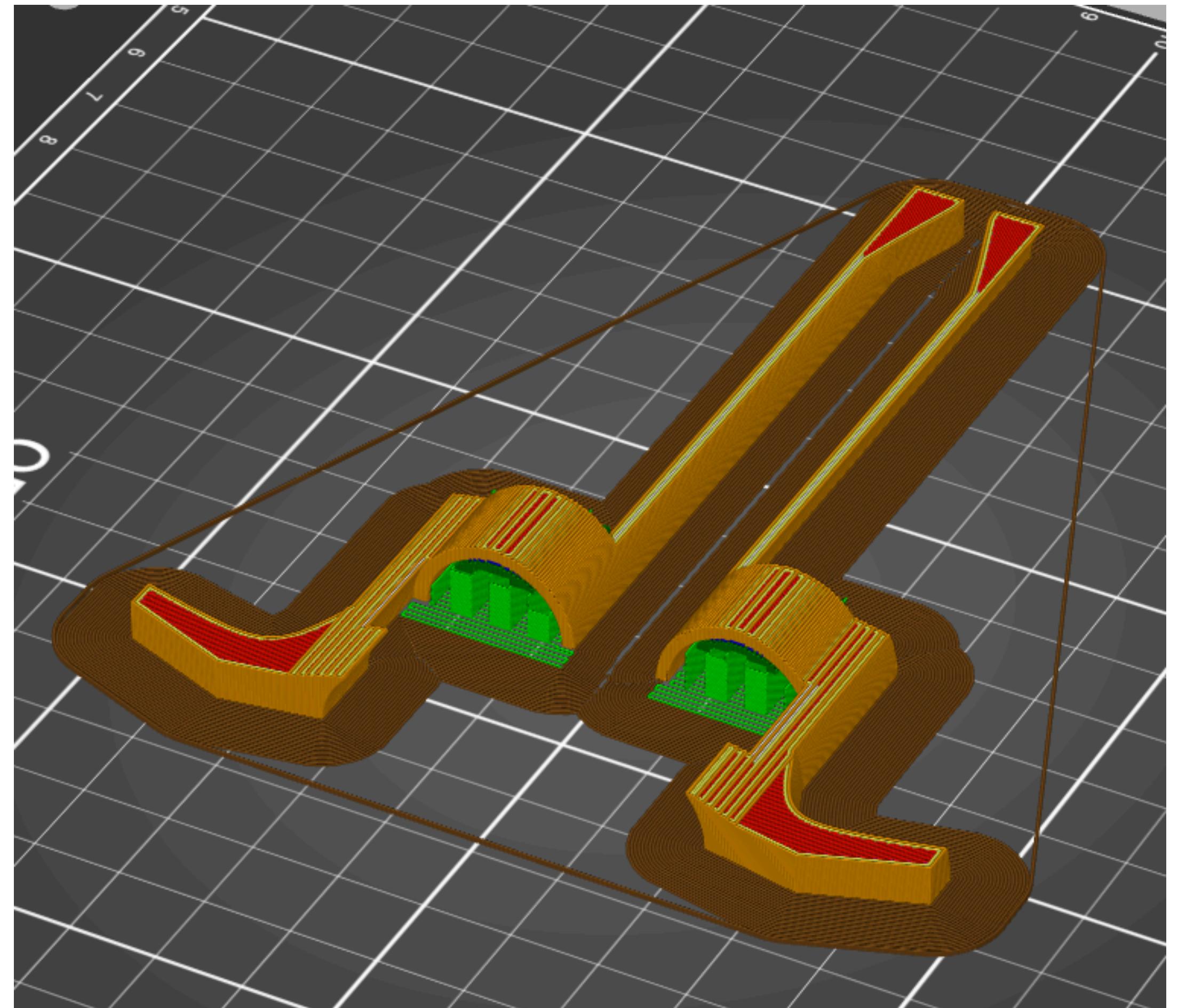
MAG_RELEASE

- 0.15mm layer height
- 100% infill
- Support everywhere



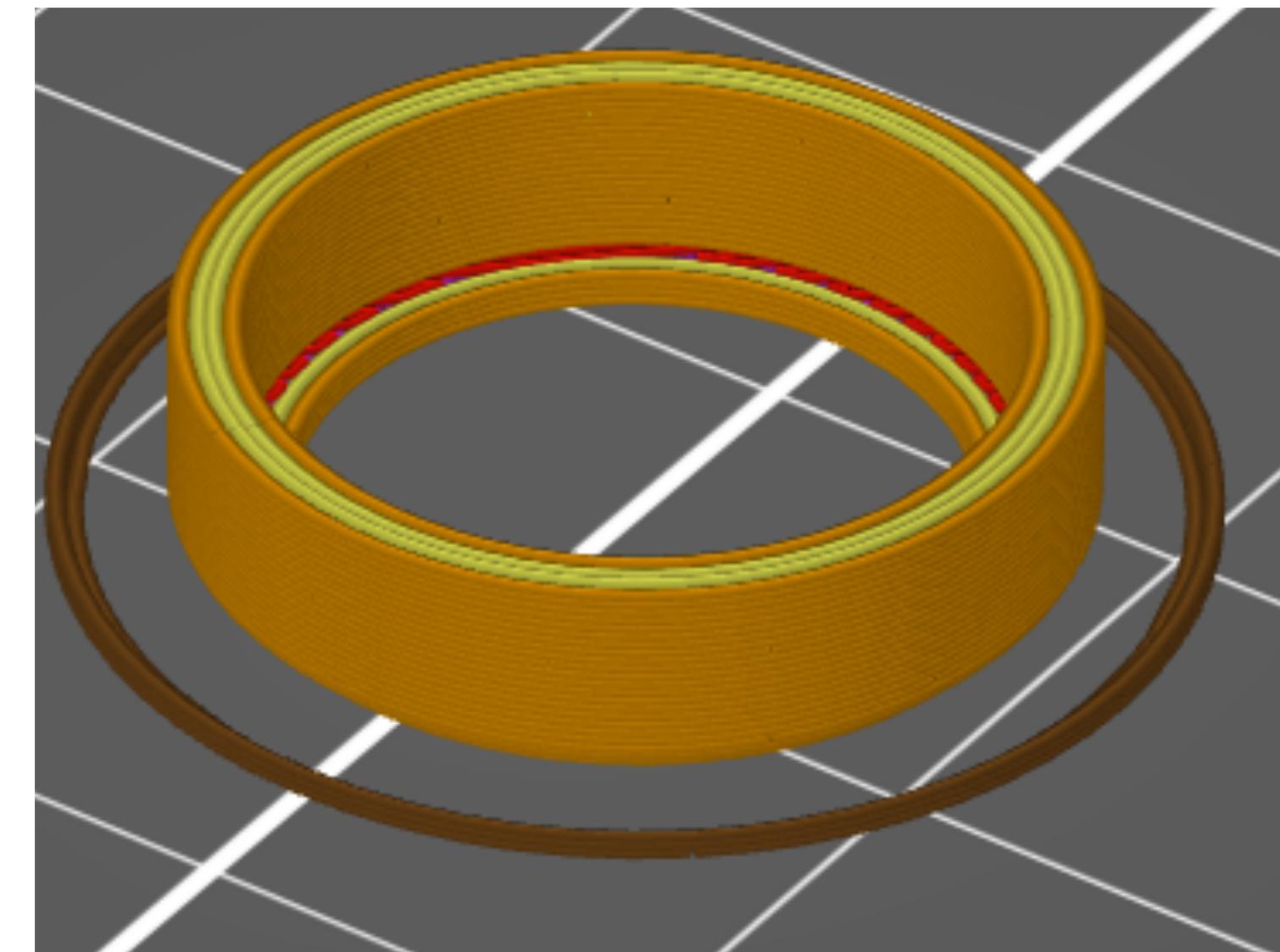
TRIGGER

- 0.15mm layer height
- 4 perimeters, 100% infill
- Brim
- Supports under the overhang if your printer requires it
- Ensure there is excellent bed adhesion as these parts must be glued together
- These parts are delicate before they are glued. Be careful removing supports



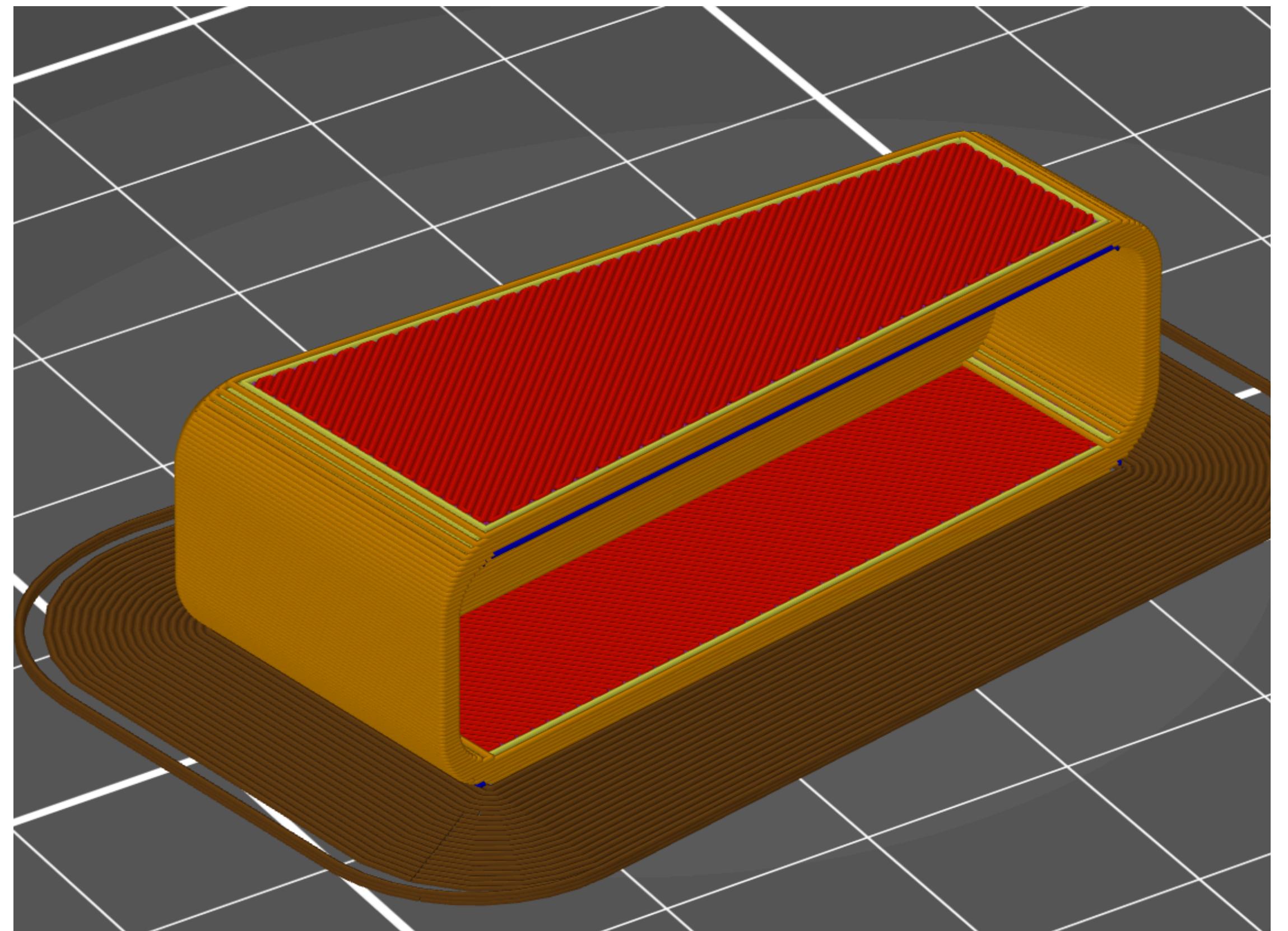
MUZZLE_(any)

- Print in a HIGH-VIS filament!



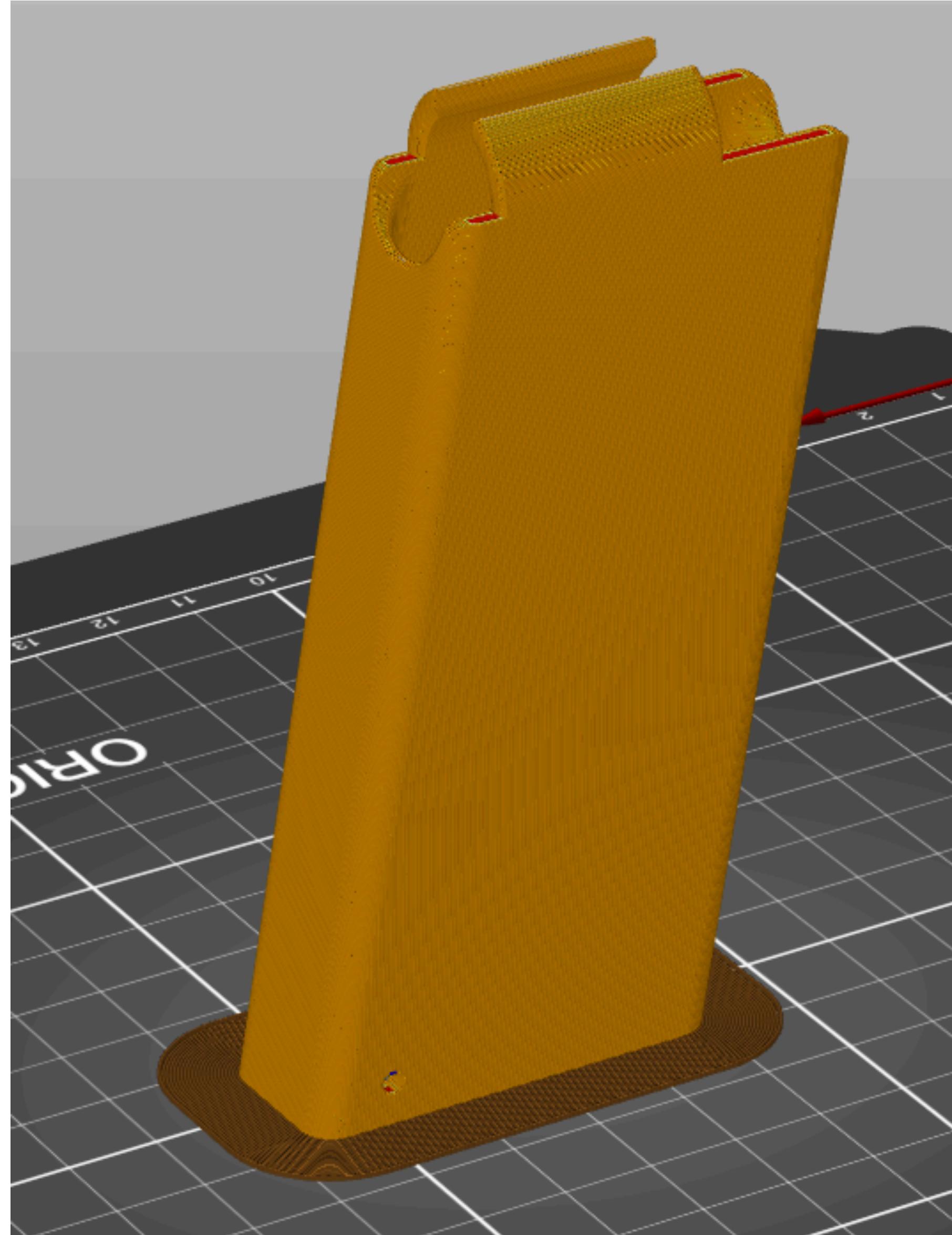
MAG_FOLLOWER

- 0.15m player height
- 4 perimeters, 100% infill
- No support needed if you're printer is dialed in for bridging
- Print in this orientation to prevent binding against the magazine body, sand as needed



MAG_BODY

- 0.15mm layer height
- 4 perimeters, 100% infill
- Brim



MAG_BOTTOM

- 0.15mm layer height
- 100% infill

