

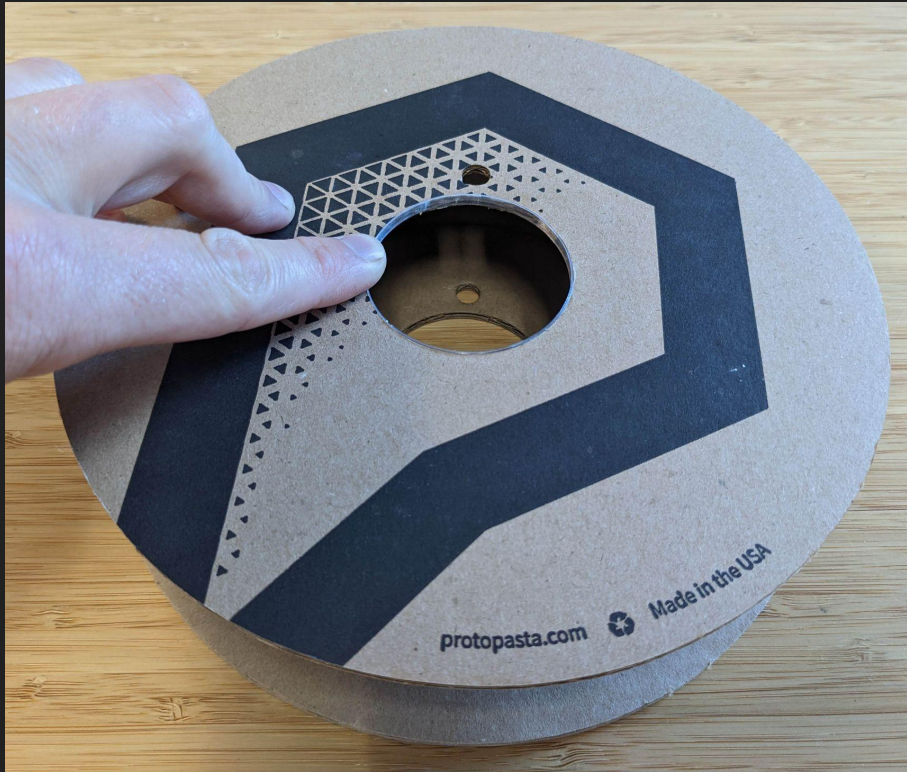
Quick Prints for a Better 3D Printing Experience

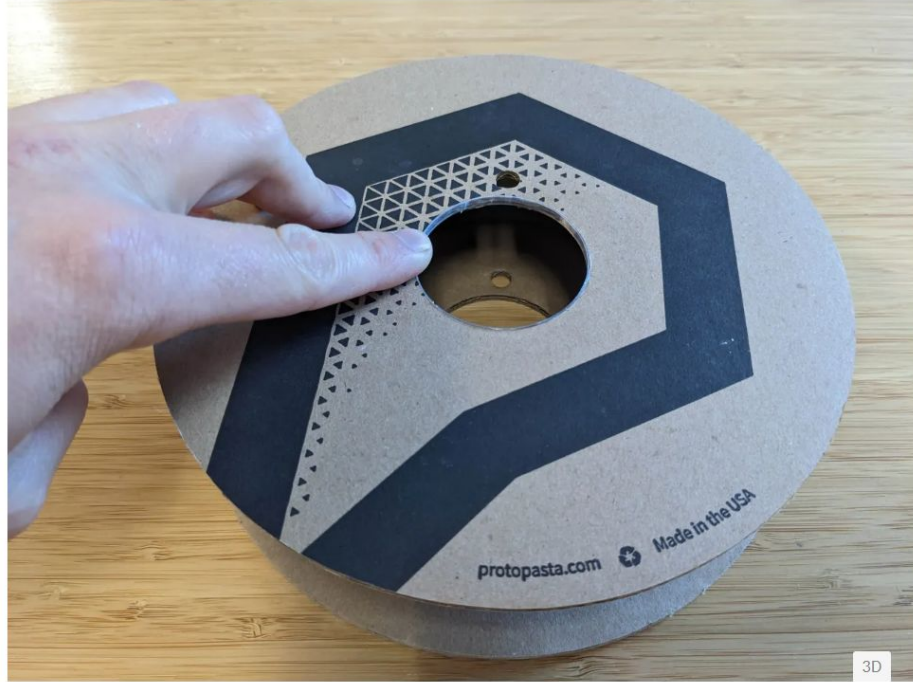
The filament works!
You CAN 3D print
with Protopasta!!!

All the variables at once can
be too much so let's simplify!

Let's print a single wall!!!

53mm OD Cardboard Spool Side Insert





< 3D Models < 3D Printers < Accessories

Protopasta cardboard spool side inner core insert for core rollers

☆☆☆☆☆ 0 reviews

Protopasta

This 53 mm OD x 4 mm tall cylinder fits the inner core of Protopasta corrugated spool sides. Print wall(s) & insert.

[↓ DOWNLOAD](#)

Like			Share
Edit model		Complete	



♡ 0 ↓ 0 📷 0 👁 0

updated October 3, 2022

Share your feedback

Protopasta Iridescent Ice Clear HTPLA





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Clear Translucent HTPLA



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Support

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★★★★★ 32 reviews

Iridescent Ice Clear Translucent HTPLA

Translucent PLA Filament

\$5.00 USD

**IN STOCK - SHIPS NEXT BUS DAY IF
NO BACKORDERED ITEMS IN ORDER**

DIAMETER
Select a diameter ▼

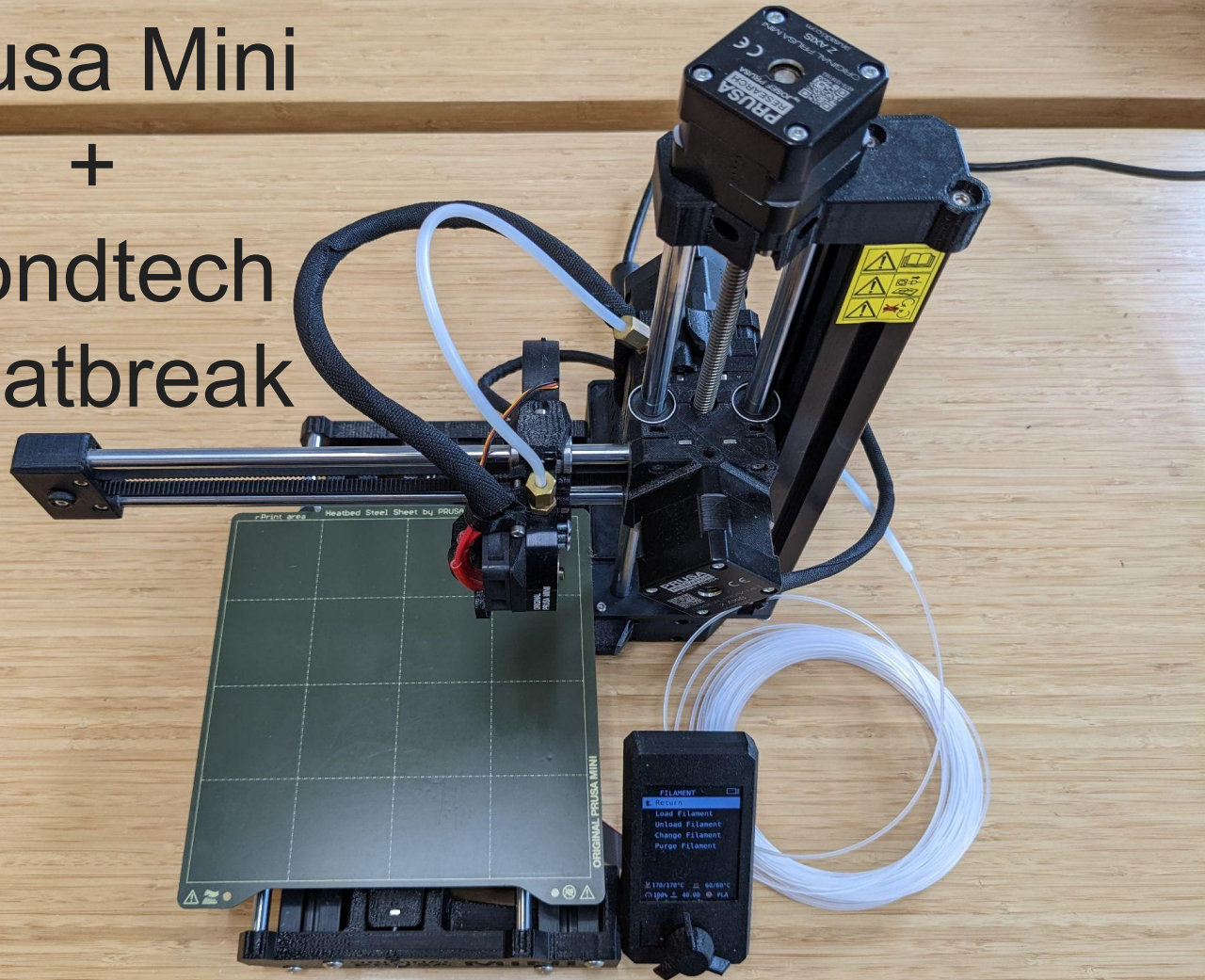
SIZE
Select a size ▼

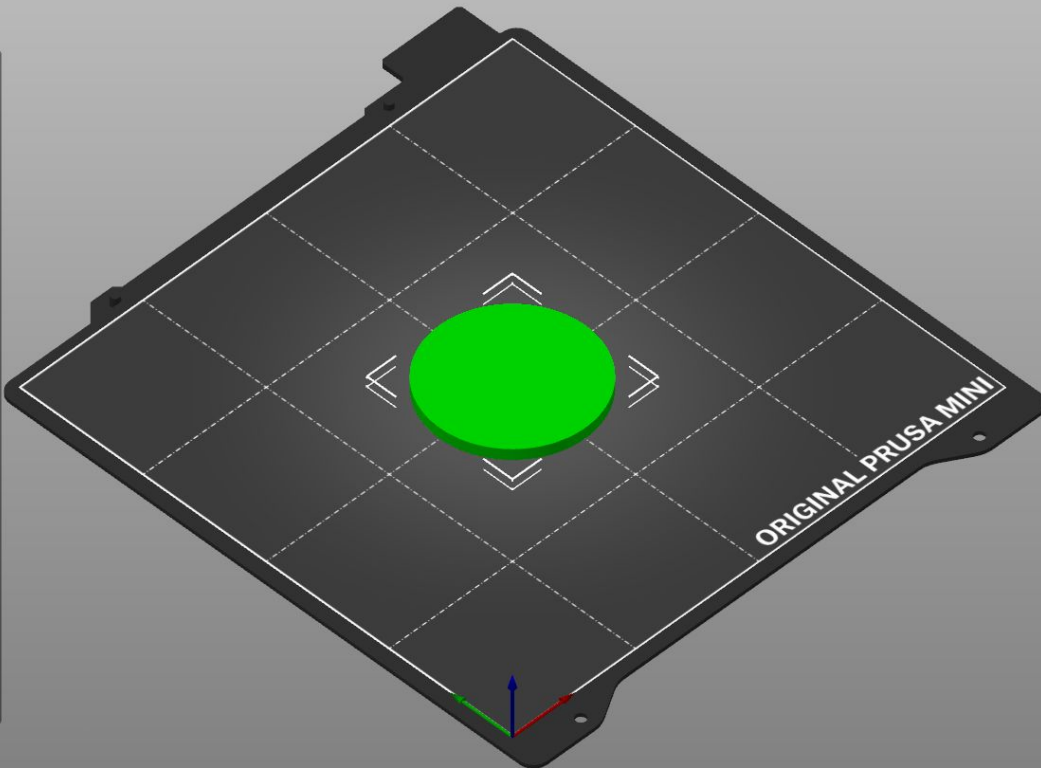
Make a selection

HTP2170-ICE



Prusa Mini + Bondtech Heatbreak





Print settings :

0.20mm QUALITY

Filament :
Generic PLA

Printer :
Original Prusa MINI & MINI+

Supports: None

Infill: 15% Brim:

Name	Editing
inner cylinder.STL	

Object manipulation

World coordinates	X	Y	Z	
Position:	90	90	2	mm
Rotate:	0	0	0	°
Scale factors:	100	100	100	%
Size:	53	53	4	mm

Inches

Info

Size: 53.00 x 53.00 x 4.00 Volume: 8824.25

Facets: 1440 (1 shell)

No errors detected

Slice now

Layers and perimeters

- Infill
- Skirt and brim
- Support material
- Speed
- Multiple Extruders
- Advanced
- Output options
- Notes
- Dependencies

Layer height

- Layer height: 0.2 mm
- First layer height: 0.2 mm

Vertical shells

- Perimeters: 1 (minimum)
- Spiral vase:

Recommended object thin wall thickness for layer height 0.20 and 2 lines: 0.86 mm

Horizontal shells

- Solid layers: Top: 0 Bottom: 0
- Minimum shell thickness: Top: 0.7 mm Bottom: 0.5 mm

Top is open.
Bottom is open.

Quality (slower slicing)

- Extra perimeters if needed:
- Ensure vertical shell thickness:
- Avoid crossing perimeters:
- Avoid crossing perimeters - Max detour length: 0 mm or % (zero to disable)
- Detect thin walls:
- Thick bridges:
- Detect bridging perimeters:

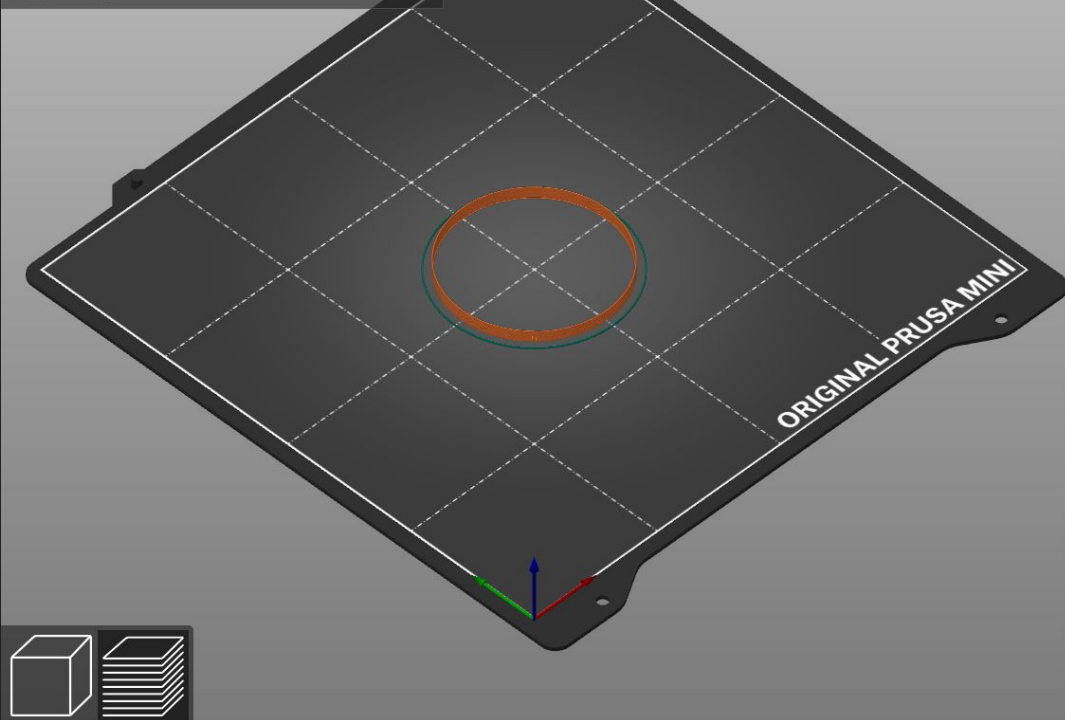
Advanced

Feature type Time Percentage Used filament

External perimeter	3m	81.9%	0.11 m 0.32 g
Skirt/Brim	25s	9.8%	0.02 m 0.05 g
Custom	21s	8.2%	0.02 m 0.05 g

Estimated printing times:

First layer: 33s
Total: 4m



View Feature type Show Options

3453

3323

3.80 (19)

Print settings :
 0.20mm QUALITY (modified)
 Filament :
 Generic PLA
 Printer :
 Original Prusa MINI & MINI+
 Supports: None
 Infill: 0% Brim:

Name	Editing
inner cylinder.STL	

Sliced Info

Used Filament (g)	0.43
Used Filament (m)	0.14
Used Filament (mm ³)	345.34
Cost	0.01
Estimated printing time:	
- normal mode	4m

0.20 (1)

Export G-code

A top-down view of a 3D printer's heated bed. The bed is dark grey with a white dashed grid. A circular metal ring is centered on the grid. At the top of the image, the text "Print area" and "Heated Steel Sheet By PRUSA3D.COM" is visible. The printer's frame is partially visible on the right side.

100 test prints possible w/ 50g!

- ✓ Extrusion quality
- ✓ Interlayer adhesion

Layers and perimeters

- Infill
- Skirt and brim
- Support material
- Speed
- Multiple Extruders
- Advanced
- Output options
- Notes
- Dependencies

Extrusion width

- Default extrusion width: 0.45 mm or %
- First layer: 0.42 mm or %
- Perimeters: 0.45 mm or %
- External perimeters: 0.45 mm or %
- Infill: 0.45 mm or %
- Solid infill: 0.45 mm or %
- Top solid infill: 0.4 mm or %
- Support material: 0.35 mm or %

Overlap

- Infill/perimeters overlap: 25% mm or %

Flow

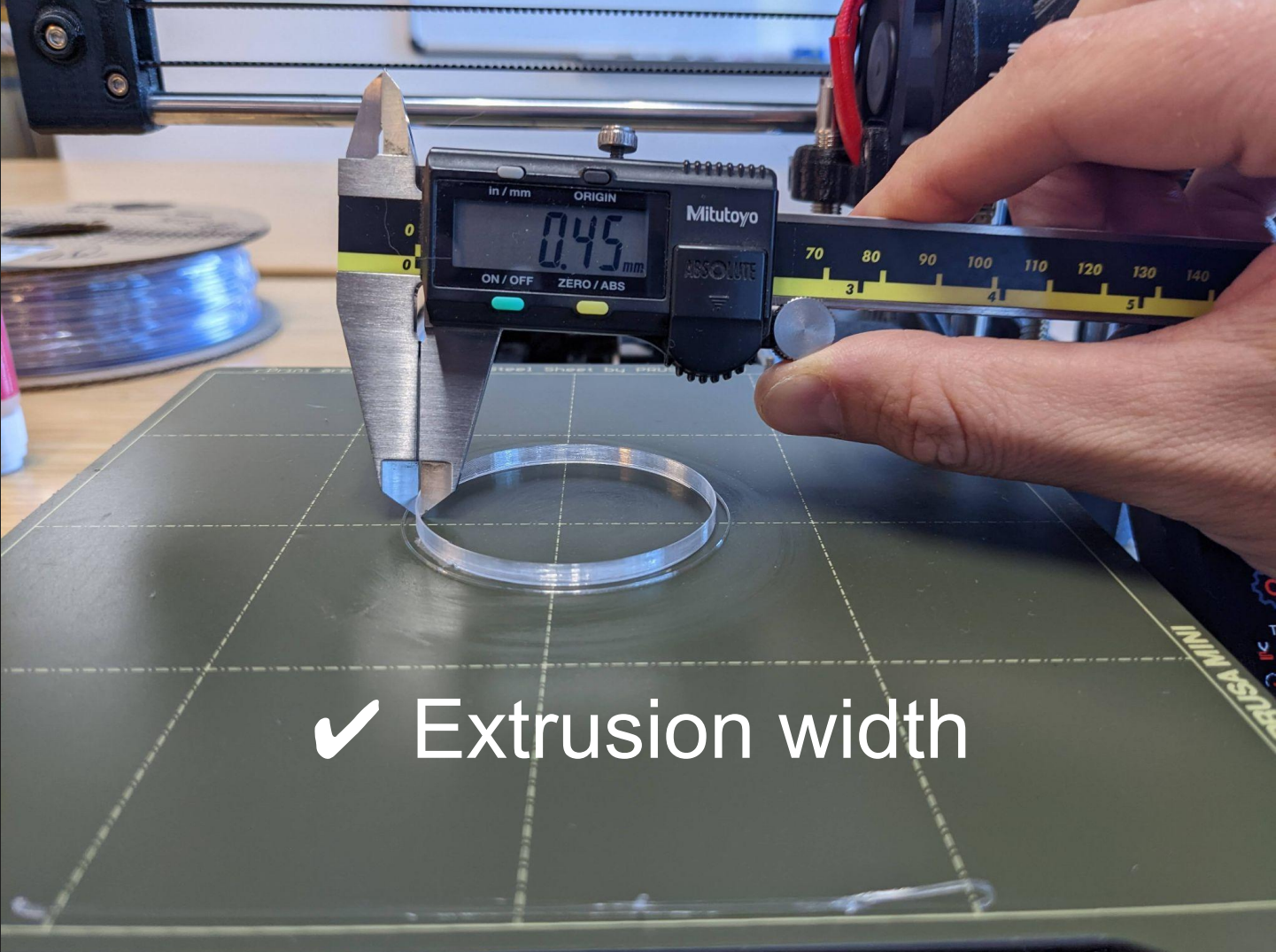
- Bridge flow ratio: 0.95

Slicing

- Slice gap closing radius: 0.049 mm
- Slicing Mode: Regular
- Slice resolution: 0 mm
- G-code resolution: 0.0125 mm
- XY Size Compensation: 0 mm
- Elephant foot compensation: 0.2 mm

Other

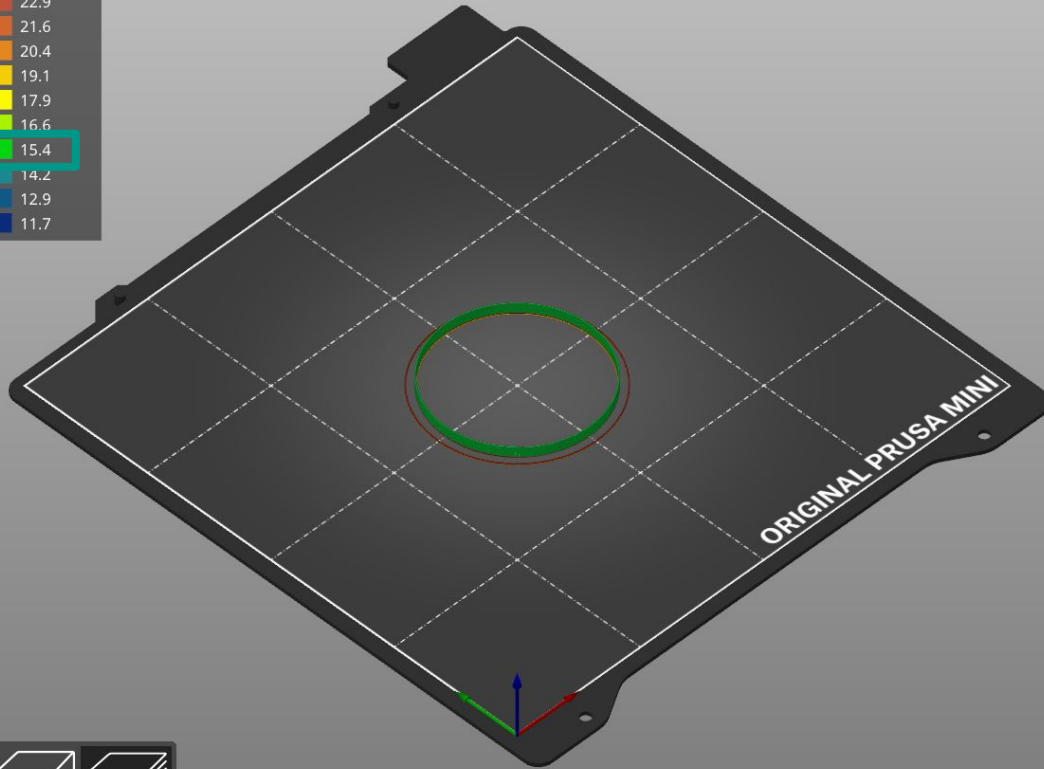
- Clip multi-part objects:



✓ Extrusion width

Speed (mm/s)

- 24.1
- 22.9
- 21.6
- 20.4
- 19.1
- 17.9
- 16.6
- 15.4
- 14.2
- 12.9
- 11.7



Print settings :
 0.20mm QUALITY (modified)
 Filament :
 Generic PLA
 Printer :
 Original Prusa MINI & MINI+
 Supports: None
 Infill: 0% Brim:

Name: inner cylinder.STL Editing

Sliced Info

Used Filament (g)	0.43
Used Filament (m)	0.14
Used Filament (mm ³)	345.34
Cost	0.01
Estimated printing time:	
- normal mode	4m

Export G-code

Layers and perimeters

- Infill
- Skirt and brim
- Support material
- Speed
- Multiple Extruders
- Advanced
- Output options
- Notes
- Dependencies

Speed for print moves

- Perimeters: 40 mm/s
- Small perimeters: 25 mm/s or %
- External perimeters: 30 mm/s or %
- Infill: 80 mm/s
- Solid infill: 80 mm/s or %
- Top solid infill: 40 mm/s or %
- Support material: 40 mm/s
- Support material interface: 80% mm/s or %
- Bridges: 25 mm/s
- Gap fill: 40 mm/s
- Ironing: 15 mm/s

Speed for non-print moves

- Travel: 150 mm/s
- Z travel: 12 mm/s

Modifiers

- First layer speed: 20 mm/s or %
- Speed of object first layer over raft interface: 30 mm/s or %

Acceleration control (advanced)

- Perimeters: 800 mm/s²
- Infill: 1000 mm/s²
- Bridge: 1000 mm/s²

Generic PLA

- Filament
- Cooling
- Advanced
- Filament Overrides
- Custom G-code
- Notes
- Dependencies

Enable

- Keep fan always on:
- Enable auto cooling:

If estimated layer time is below ~15s, fan will run at 100% and print speed will be reduced so that no less than 15s are spent on that layer (however, speed will never be reduced below 15mm/s).

If estimated layer time is greater, but still below ~100s, fan will run at 100%
Fan speed will be ramped from zero at layer 1 to 100% at layer 4.

Fan settings

- Fan speed: Min: % Max: %
- Bridges fan speed: %
- Disable fan for the first: layers
- Full fan speed at layer:

Cooling thresholds

- Enable fan if layer print time is below: approximate seconds
- Slow down if layer print time is below: approximate seconds
- Min print speed: mm/s

Generic PLA (modified)

- Filament
- Cooling
- Advanced
- Filament Overrides
- Custom G-code
- Notes
- Dependencies

Enable

- Keep fan always on:
- Enable auto cooling:

If estimated layer time is below ~0s, fan will run at 100% and print speed will be reduced so that no less than 0s are spent on that layer (however, speed will never be reduced below 15mm/s).

If estimated layer time is greater, but still below ~100s, fan will run at 100%
Fan speed will be ramped from zero at layer 1 to 100% at layer 4.

Fan settings

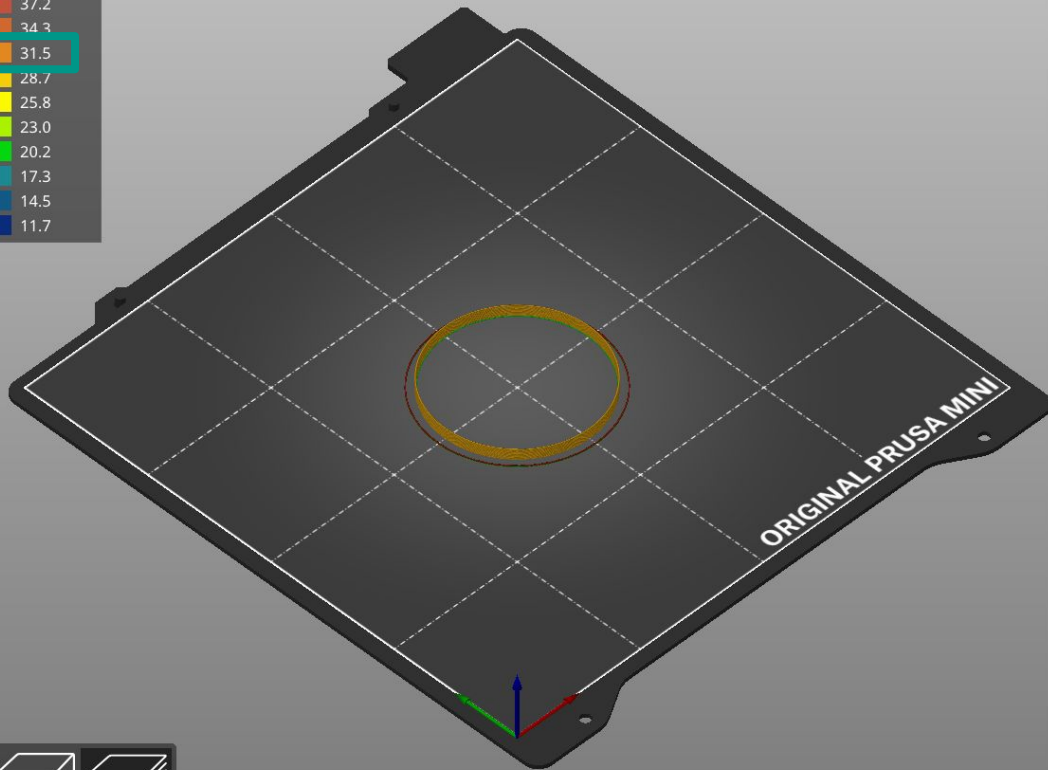
- Fan speed: Min: 100 % Max: 100 %
- Bridges fan speed: 100 %
- Disable fan for the first: 1 layers
- Full fan speed at layer: 4

Cooling thresholds

- Enable fan if layer print time is below: 100 approximate seconds
- Slow down if layer print time is below: 0 approximate seconds
- Min print speed: 15 mm/s

Speed (mm/s)

- 40.0
- 37.2
- 34.3
- 31.5**
- 28.7
- 25.8
- 23.0
- 20.2
- 17.3
- 14.5
- 11.7



View Speed Show Options Feature types

3443
3315

3.80
(19)

Print settings :

0.20mm QUALITY (modified)

Filament :
Generic PLA (modified)

Printer :
Original Prusa MINI & MINI+

Supports: None

Infill: 0% Brim:

Name: inner cylinder.STL

Editing:

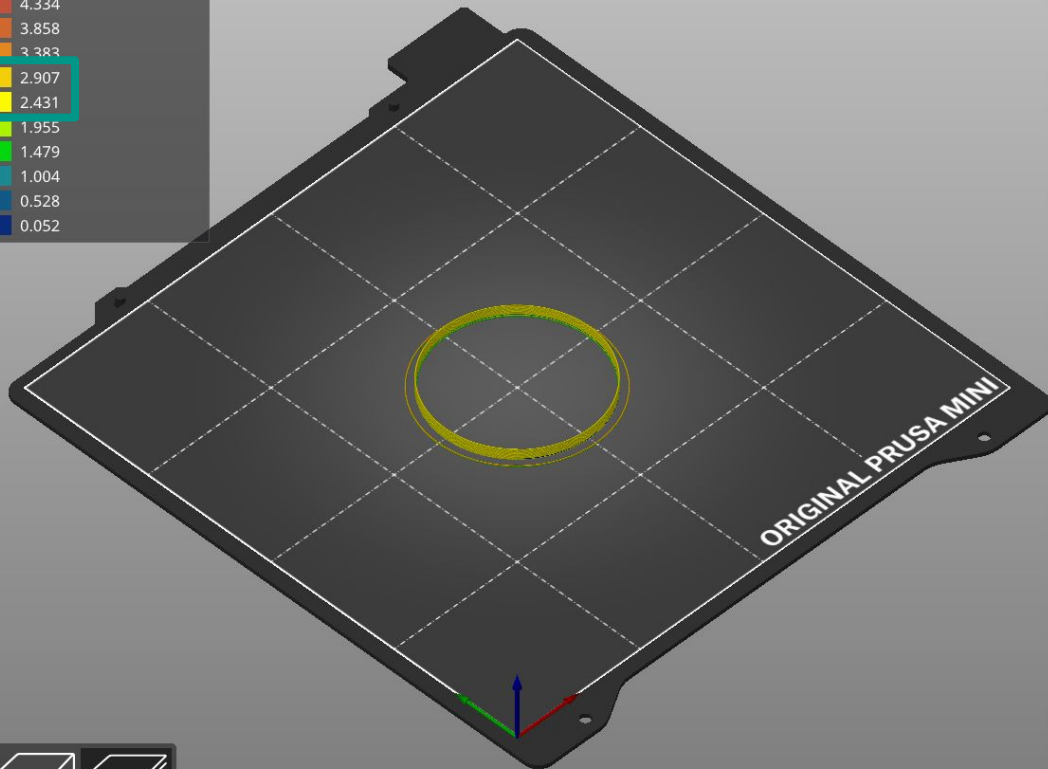
Sliced Info

Used Filament (g)	0.43
Used Filament (m)	0.14
Used Filament (mm ³)	345.34
Cost	0.01
Estimated printing time: - normal mode	3m

Export G-code

Volumetric flow rate (mm³/s)

- 4.810
- 4.334
- 3.858
- 3.383
- 2.907
- 2.431
- 1.955
- 1.479
- 1.004
- 0.528
- 0.052



View Volumetric flow Show Options Feature types

3443
3315

3.80
(19)

Print settings :

0.20mm QUALITY (modified)

Filament :
Generic PLA (modified)

Printer :
Original Prusa MINI & MINI+

Supports: None

Infill: 0% Brim:

Name: inner cylinder.STL

Editing:

Sliced Info

Used Filament (g)	0.43
Used Filament (m)	0.14
Used Filament (mm ³)	345.34
Cost	0.01
Estimated printing time: - normal mode	3m

Export G-code

Vary part height, layer height,
extrusion width, or speed.

Larger printer? Edge roller?
Scale to 203 mm ID xy for edge!



View type Layer view

Color scheme Speed



CE3-10050-PLA - S...d Quality - 0.2mm



1...



Off



...

20



Object list

CE3PRO_outer cylinder 205mm OD

205.0 x 205.0 x 4.0 mm

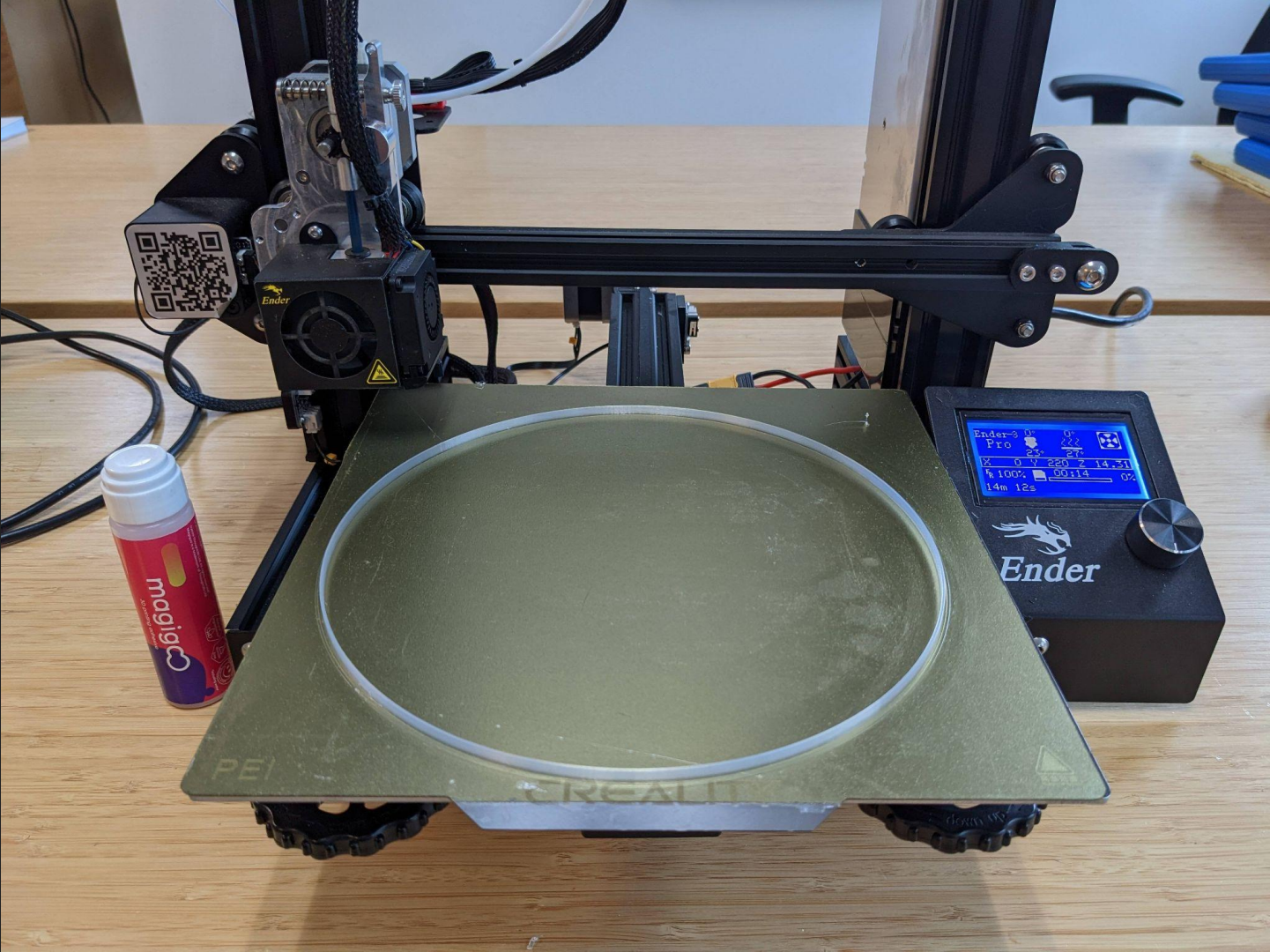


11 minutes



4g · 1.46m

Save to Disk

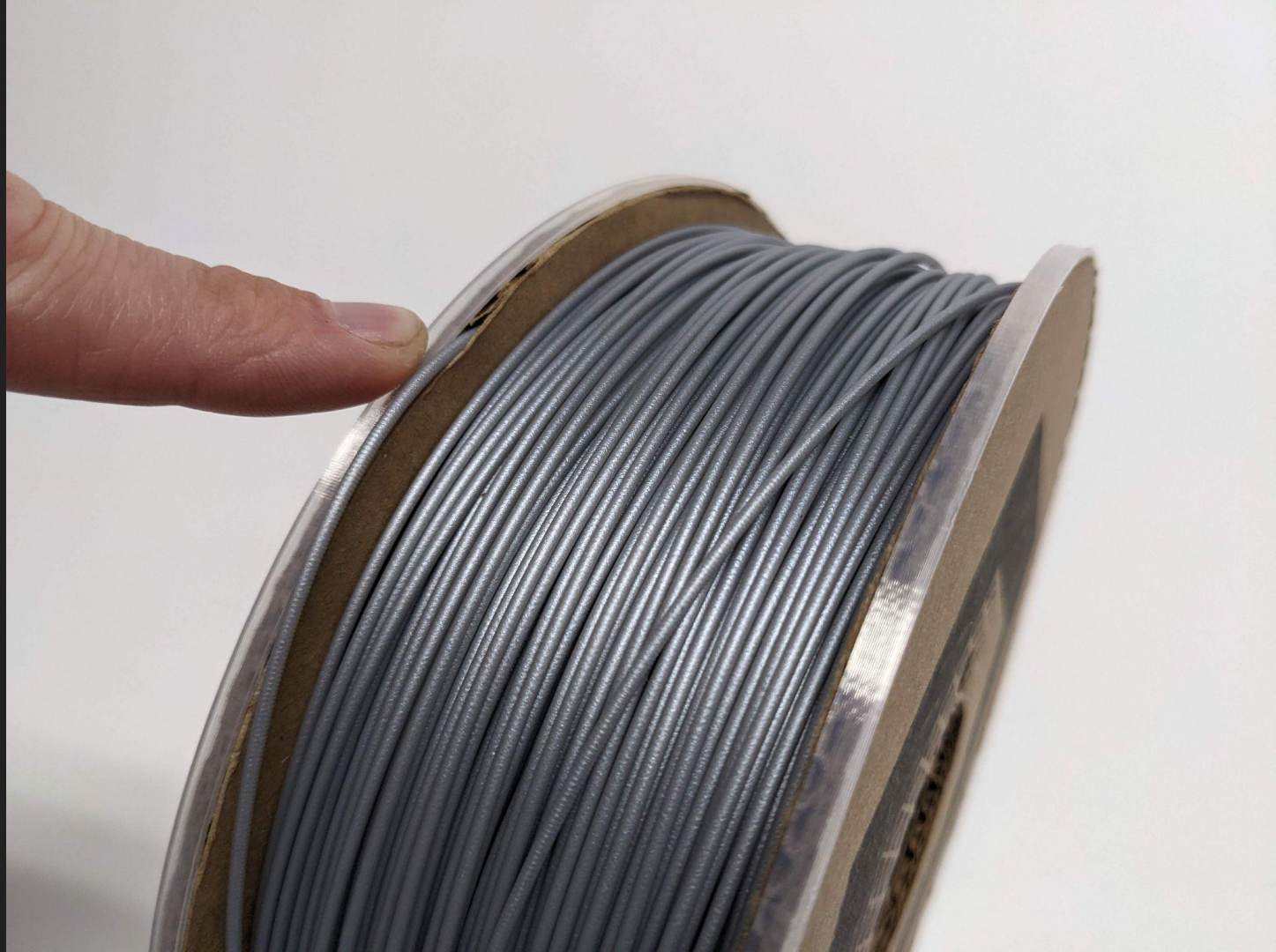


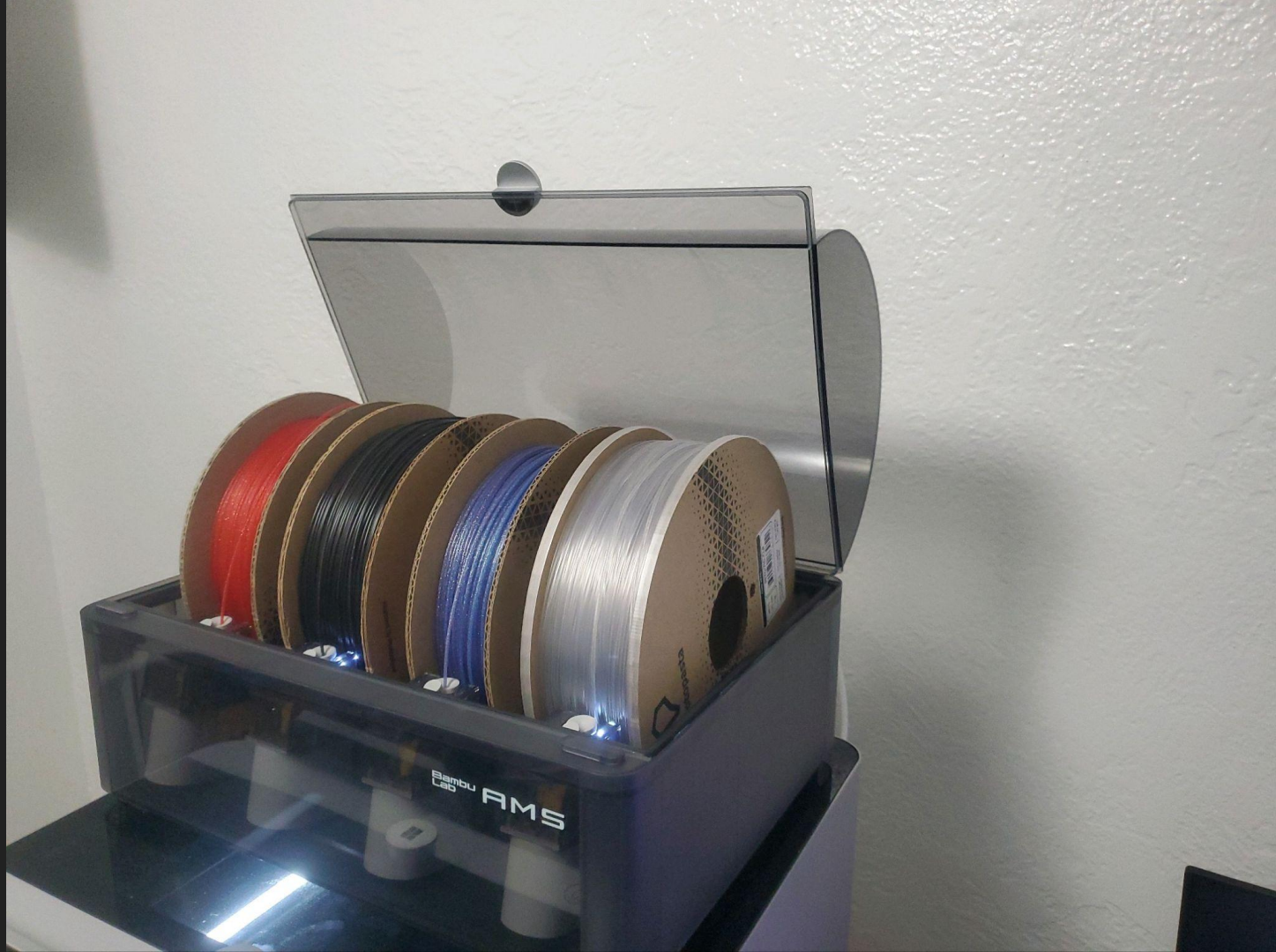


protopasta.com



Made in the USA





Single wall prints can help solve problems & explore process limits with less contributing variables.

Let's turn off spiral vase,
add more walls, &
explore our print area.





< 3D Models < 3D Printers < Test Models

Protopasta Hex P logo mark charm great for keychains - use to test first (1st) layer & extents

☆☆☆☆☆ 0 reviews

Protopasta

Small test print. Same size as hex P on Protopasta retail boxes found at Microcenter. Use to test 1st layer & extents.

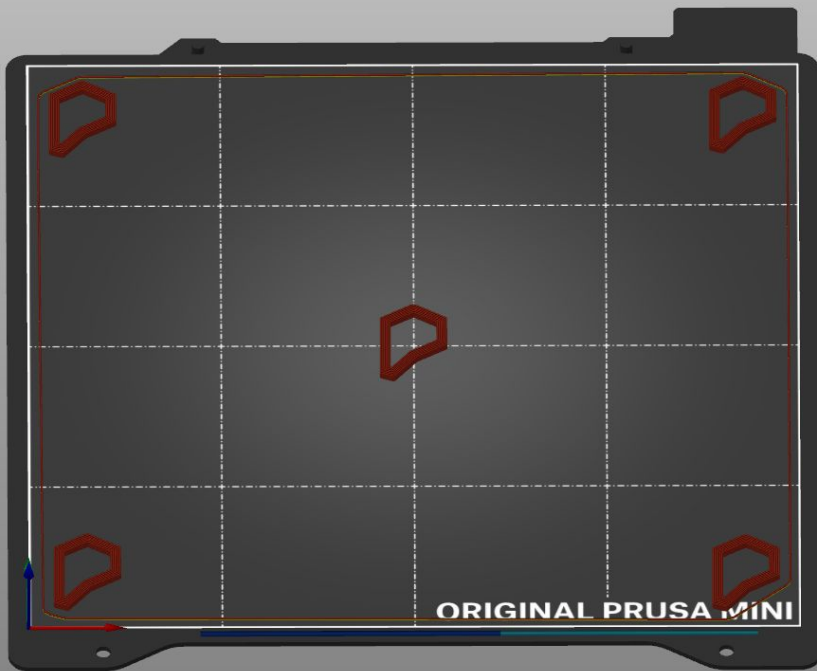
DOWNLOAD

Like	Bookmark	Share
Edit model	Complete	

Share your feedback

Speed (mm/s)

- 30.0
- 28.2
- 26.3
- 24.5
- 22.7
- 20.8
- 19.0
- 17.2
- 15.3
- 13.5
- 11.7



14969 16558

Original Prusa MINI & MINI+

Supports: None

Infill: 100% Brim:

Name		Editing
Protopasta hex P box size.stl	<input type="checkbox"/>	<input type="checkbox"/>
Protopasta hex P box size.stl	<input type="checkbox"/>	<input type="checkbox"/>
Protopasta hex P box size.stl	<input type="checkbox"/>	<input type="checkbox"/>
Protopasta hex P box size.stl	<input type="checkbox"/>	<input type="checkbox"/>
Protopasta hex P box size.stl	<input type="checkbox"/>	<input type="checkbox"/>

Object manipulation

World coordinates

	X	Y	Z	
Position:	166.97	162.56	1	mm
Rotate:	0	0	0	°
Scale factors:	100	100	100	%
Size:	15.81	23.4	2	mm

Inches

Info

Size: 15.81 x 23.40 x 2.00 Volume: 286.79

Facets: 314 (1 shell)

No errors detected

Sliced Info

Used Filament (g)	2.01
Used Filament (m)	0.67
Used Filament (mm ³)	1622.46
Cost	0.05
Estimated printing time:	
- normal mode	13m

2.00 (10)

1.80

1.60

1.40

1.20

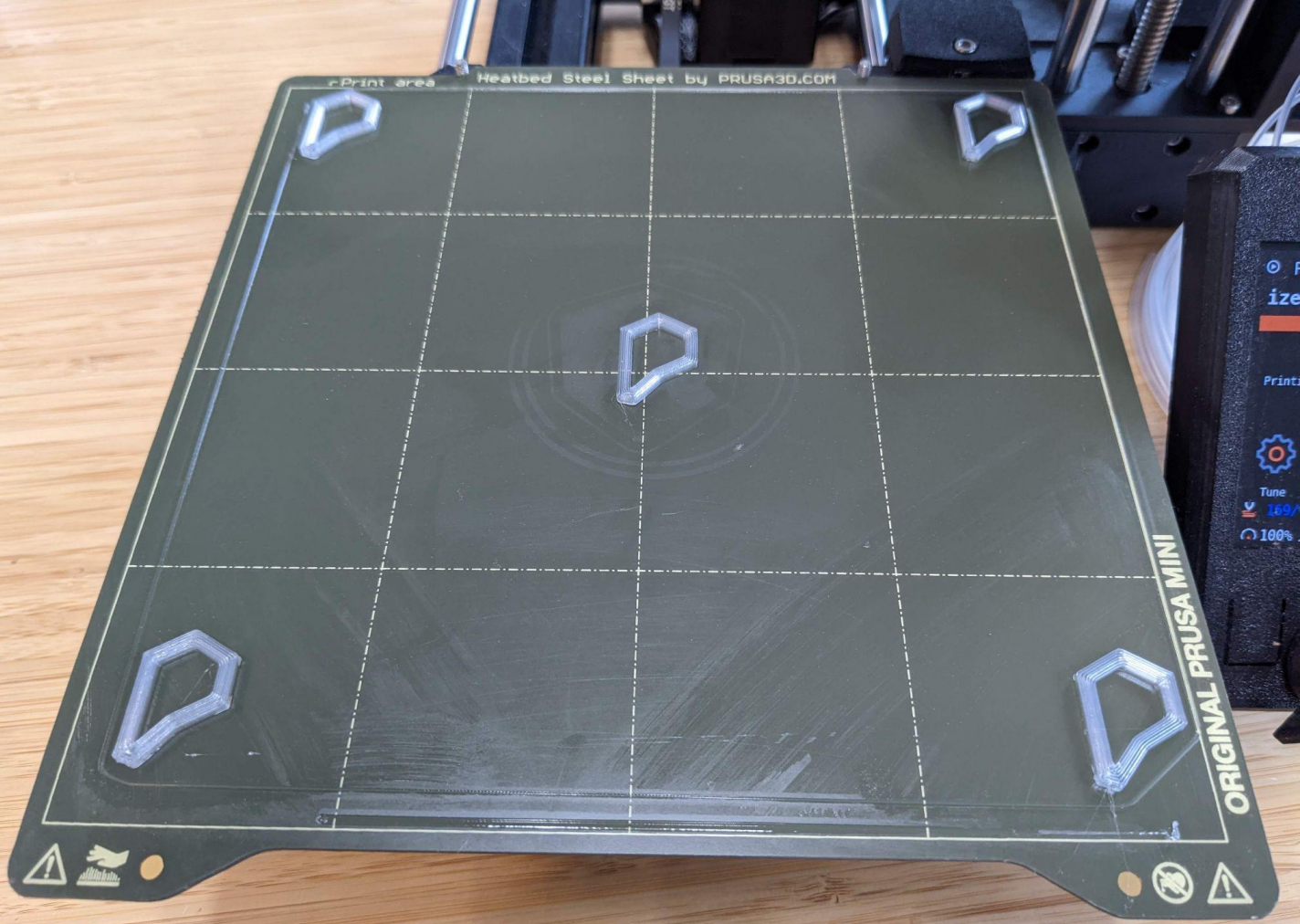
1.00

0.80

0.60

0.40

0.20 (1)



Print area

Heatbed Steel Sheet by PRUSA3D.COM

Size

Print

Tune

169

100%

ORIGINAL PRUSA MINI



Let's try a more complex
shape with top + bottom
surfaces without infill.





< 3D Models < 3D Printers < Test Models

Protopasta Protognome Gnome Mascot updated with hex P logo mark on back

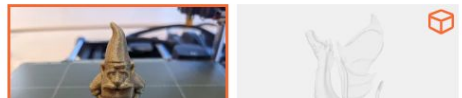
☆☆☆☆☆ 0 reviews

Protopasta

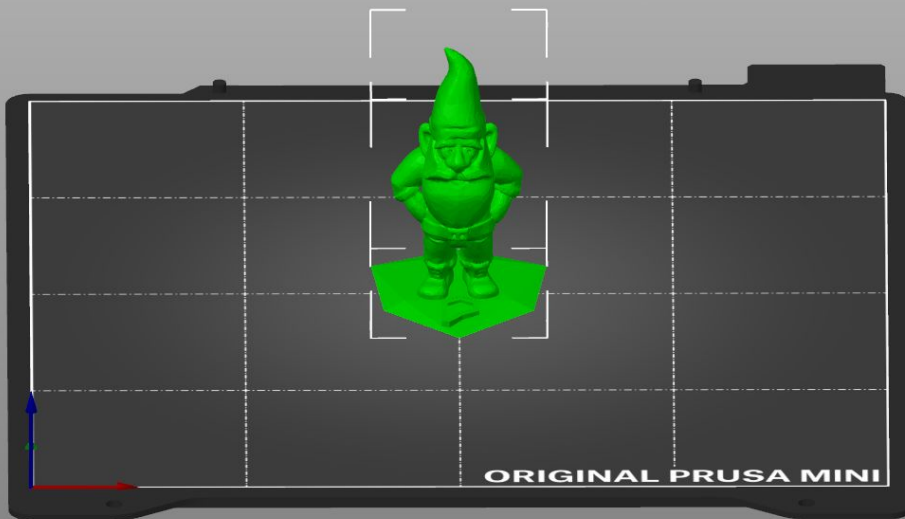
Our original gnome mascot from the mid 2010s with our hex P logo introduced in 2020 on his back. A great benchmark part!

DOWNLOAD

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Edit model		Complete	



Share your feedback



Print settings :

0.20mm QUALITY (modified)

Filament : Generic PLA (modified)

Printer : Original Prusa MINI & MINI+

Supports: None

Infill: 0% Brim:

Name	Editing
Protognome he...osa stand.stl	

Object manipulation

World coordinates

	X	Y	Z	
Position:	90	90	28.07	mm
Rotate:	0	0	0	°
Scale factors:	100	100	100	%
Size:	37	41.73	56.14	mm

Inches

Info

Size: 37.00 x 41.73 x 56.14 Volume: 8689.84

Facets: 17368 (0 shells)

16 open edges
Auto-repaired 34 errors

Sliced Info

Export G-code

Layers and perimeters

- Infill
- Skirt and brim
- Support material
- Speed
- Multiple Extruders
- Advanced
- Output options
- Notes
- Dependencies

Speed for print moves

- Perimeters: 30 mm/s
- Small perimeters: 30 mm/s or %
- External perimeters: 30 mm/s or %
- Infill: 30 mm/s
- Solid infill: 30 mm/s or %
- Top solid infill: 30 mm/s or %
- Support material: 30 mm/s
- Support material interface: 80% mm/s or %
- Bridges: 30 mm/s
- Gap fill: 0 mm/s
- Ironing: 15 mm/s

Speed for non-print moves

- Travel: 150 mm/s
- Z travel: 12 mm/s

Modifiers

- First layer speed: 20 mm/s or %
- Speed of object first layer over raft interface: 30 mm/s or %

Acceleration control (advanced)

- Perimeters: 800 mm/s²
- Infill: 1000 mm/s²
- Bridge: 1000 mm/s²

0.20mm SPEED @MK3 (modified)

Layers and perimeters

- Infill
- Skirt and brim
- Support material
- Speed
- Multiple Extruders
- Advanced
- Output options
- Notes
- Dependencies

Layer height

- Layer height: mm
- First layer height: mm

Vertical shells

- Perimeters: (minimum)
- Spiral vase:

Recommended object thin wall thickness for layer height 0.20 and 2 lines: 0.86 mm , 4 lines: 1.67 mm , 6 lines: 2.49 mm

Horizontal shells

- Solid layers: Top: Bottom:
- Minimum shell thickness: Top: mm Bottom: mm

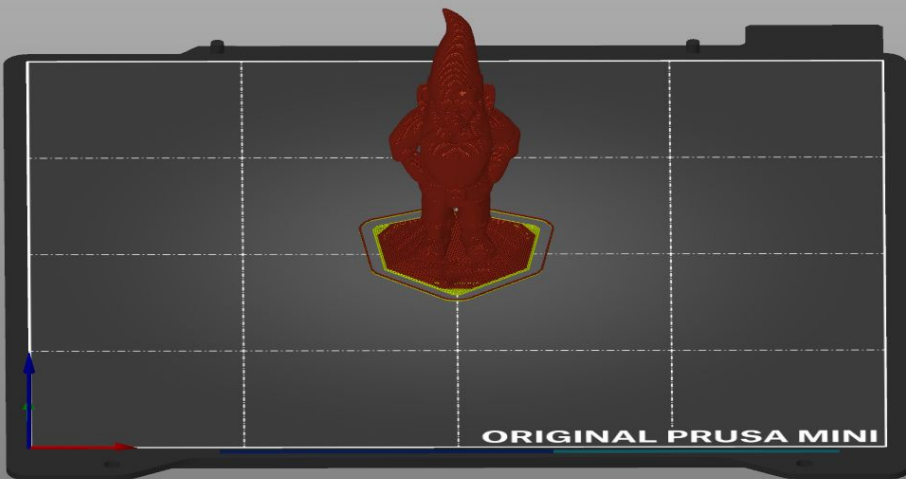
Top shell is 0.8 mm thick for layer height 0.2 mm. Minimum top shell thickness is 0.7 mm.
Bottom shell is 0.8 mm thick for layer height 0.2 mm. Minimum bottom shell thickness is 0.5 mm.

Quality (slower slicing)

- Extra perimeters if needed:
- Ensure vertical shell thickness:
- Avoid crossing perimeters:
- Avoid crossing perimeters - Max detour length: mm or % (zero to disable)
- Detect thin walls:

Speed (mm/s)

- 30.0
- 28.2
- 26.3
- 24.5
- 22.7
- 20.8
- 19.0
- 17.2
- 15.3
- 13.5
- 11.7



Print settings :
 0.20mm QUALITY (modified)

Filament :
 Generic PLA (modified)

Printer :
 Original Prusa MINI & MINI+

Supports: None
 Infill: 0% Brim:

Name	Editing
Protognome he...osa stand.stl	<input type="checkbox"/>

Object manipulation

World coordinates

	X	Y	Z	
Position:	90	90	28.07	mm
Rotate:	0	0	0	°
Scale factors:	100	100	100	%
Size:	37	41.73	56.14	mm

Inches

Info
 Size: 37.00 x 41.73 x 56.14 Volume: 8689.84
 Facets: 17368 (0 shells)
 16 open edges
 Auto-repaired 34 errors

Sliced Info
 (1)
 Export G-code

92823

92813



Adding some infill...

Layers and perimeters

- Infill
- Skirt and brim
- Support material
- Speed
- Multiple Extruders
- Advanced
- Output options
- Notes
- Dependencies

Extrusion width

- Default extrusion width: 0.45 mm or %
- First layer: 0.42 mm or %
- Perimeters: 0.45 mm or %
- External perimeters: 0.45 mm or %
- Infill: 0.45 mm or %
- Solid infill: 0.45 mm or %
- Top solid infill: 0.4 mm or %
- Support material: 0.35 mm or %

Overlap

- Infill/perimeters overlap: 0 mm or %

Flow

- Bridge flow ratio: 0.95

Slicing

- Slice gap closing radius: 0.049 mm
- Slicing Mode: Regular
- Slice resolution: 0 mm
- G-code resolution: 0.0125 mm
- XY Size Compensation: 0 mm
- Elephant foot compensation: 0.2 mm

Other

- Clip multi-part objects:

100% infill?!?!

0.20mm QUALITY @MINI (modified)

Layers and perimeters

- Infill
- Skirt and brim
- Support material
- Speed
- Multiple Extruders
- Advanced
- Output options
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- Dependencies

Infill

- Fill density: 100% %
- Fill pattern: Rectilinear
- Length of the infill anchor: 2.5 mm or %
- Maximum length of the infill anchor: 12 mm or %
- Top fill pattern: Monotonic
- Bottom fill pattern: Monotonic

Ironing

- Enable ironing:
- Ironing Type: All top surfaces
- Flow rate: 15 %
- Spacing between ironing passes: 0.1 mm

Reducing printing time

- Combine infill every: 1 layers
- Only infill where needed:

Advanced

- Solid infill every: 0 layers
- Fill angle: 45 °
- Solid infill threshold area: 0 mm²
- Bridging angle: 0 °
- Only retract when crossing perimeters:
- Infill before perimeters:

Layers and perimeters

- Infill
- Skirt and brim
- Support material
- Speed
- Multiple Extruders
- Advanced
- Output options
- Notes
- Dependencies

Layer height

- Layer height: mm
- First layer height: mm

Vertical shells

- Perimeters: (minimum)
- Spiral vase:

Recommended object thin wall thickness for layer height 0.20 and 2 lines: 0.86 mm , 4 lines: 1.67 mm

Horizontal shells

- Solid layers: Top: Bottom:
- Minimum shell thickness: Top: mm Bottom: mm

Top is open.
Bottom is open.

Quality (slower slicing)

- Extra perimeters if needed:
- Ensure vertical shell thickness:
- Avoid crossing perimeters:
- Avoid crossing perimeters - Max detour length: mm or % (zero to disable)
- Detect thin walls:
- Thick bridges:
- Detect bridging perimeters:

Advanced

Manage variables, make tests
& build on success for a
foundation of experience.

And make awesome things!!!



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