



3D-Printed Yarn Winder - Gear-Driven Easy-Print Edition 100% Printable



BGDglider

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Summary

Organize yarn and cords with this fully 3D printed winder – simple design, no extra parts required. Now with Gears

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manualeuso textilecraft plaaufbau bobinagefacile
impressionpla equipomanual artesaniatextil outilcreatif
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sistematessile druckmechanik precisionwinder
mecanismogear spoolingdevice bobinadorcraft proyectotextil
dispositifфил soluzioneфilo spoolmaker mechanicalwinder
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Summary

This is a 100% printable yarn winder designed to turn loose yarn or threads into clean, compact balls — easily, quickly, and reliably.

Key Features

- Fully 3D printable — no screws, bearings, rubber bands or glue required
- Open guide spiral allows easy yarn removal without cutting
- Print-in-place rotary handle for smooth, comfortable turning
- Optimized for PLA only — no TPU or PETG required

About This Version

This model is based on everything I learned from my first TPU-belt version. After receiving a lot of helpful feedback, I wanted to create a winder that:

- prints more easily
- uses only standard PLA
- avoids flexible belts and additional materials
- integrates all improvements from the earlier design
- The result is a simpler, stronger, and more reliable yarn winder — still fully 3D printable, now even more accessible.

[Link to the previous version](#)



BOM

Quantity	Designation (normal process)	Alternatives (troubleshooting)
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1	Axis	
1	Axle end	
1 per clamp	Clamp mount	
1 per clamp	Clamping screw	
1	Drive screw	
1	Drive wheel screw	Gear screw + Drive wheel screw horizontal version
1	Drive wheel	
1 per clamp	Foot	
1	Gear screw / Gear screw shorter head	Gear screw + Drive wheel screw horizontal version
1	Gear	
1	Outrigger bolt	Outrigger bolt - horizontal version
1	Outrigger	
1	Plate	
1	Spinning center	

1	Spinning wheel (either length)	
1	Spinning wheel screw	
1	Weight	
2	Wheel spacer	
1	Yarn Guide	

Changelog

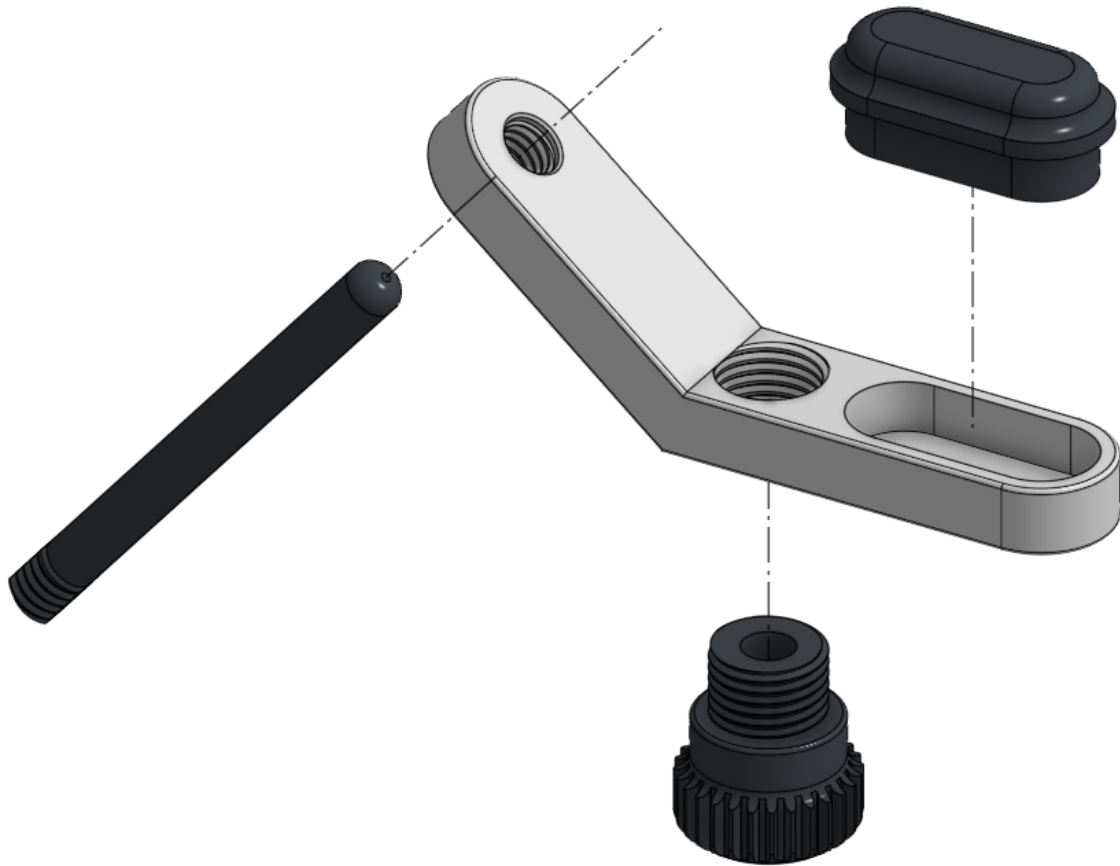
	Changes
V1.0	Initial Release
V2.0	<p>The Bearing Update</p> <ul style="list-style-type: none"> • Gear and drive wheel equipped with needle bearings • Both gears run more smoothly and no longer require support • Wheel spacers adjusted <p>Transition from previous version - reprint - gear and drive wheel and two wheel spacers.</p>
V2.1	<p>More screw options</p> <ul style="list-style-type: none"> • Two “new” screws, designed to print horizontally to take advantage of the stronger alignment. <p>Transition from previous version - if you have problems with the vertically printed screws (breaking off), please try the horizontally printed ones.</p>

Assembly

Tip: Lightly sanding and lubricating the rotating parts can improve smoothness.

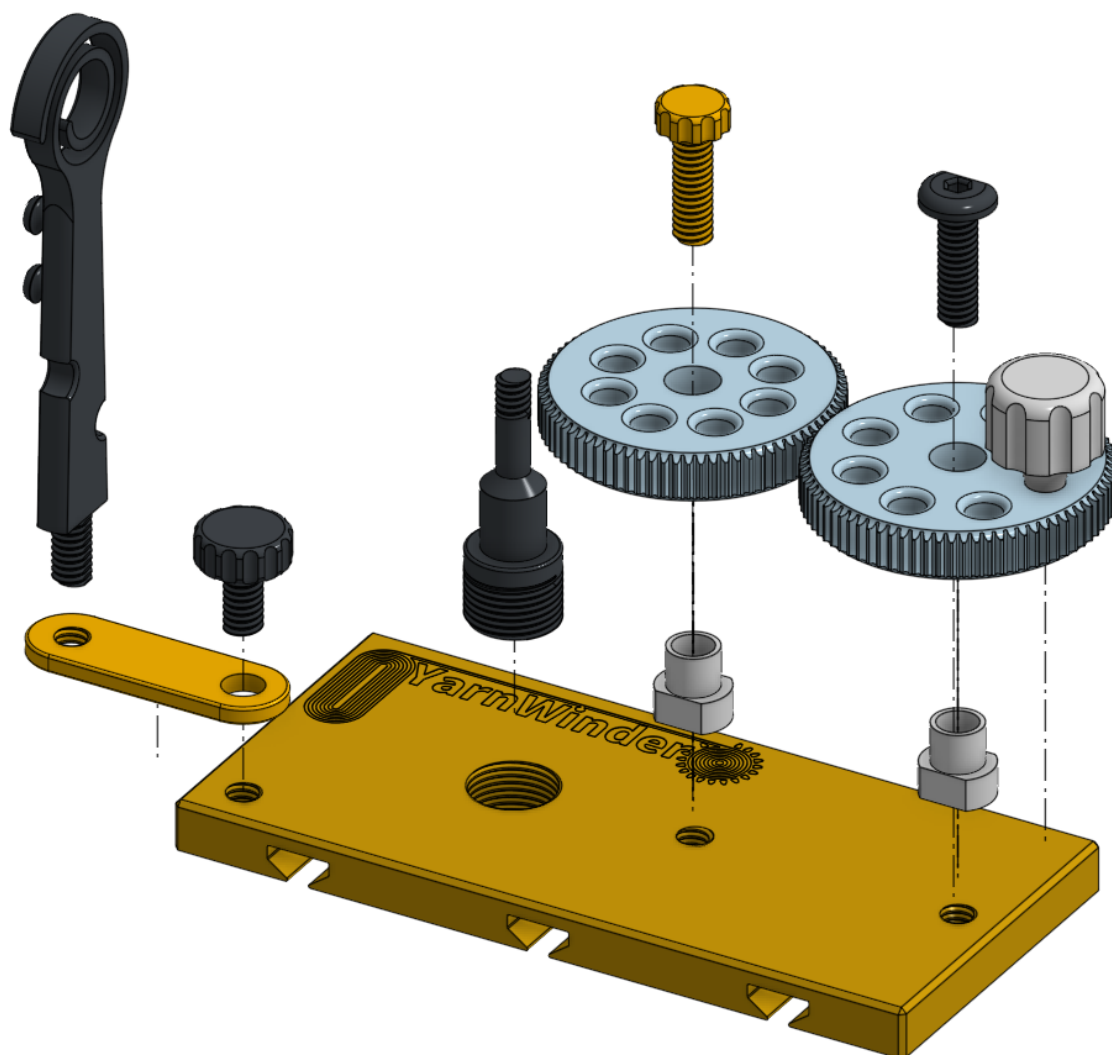
Step 1 - Spinning Unit Preparation

- Screw the spinning wheel screw into the spinning centre.
- Place the weight into the recess.
- Screw the drive screw into the spinning centre.



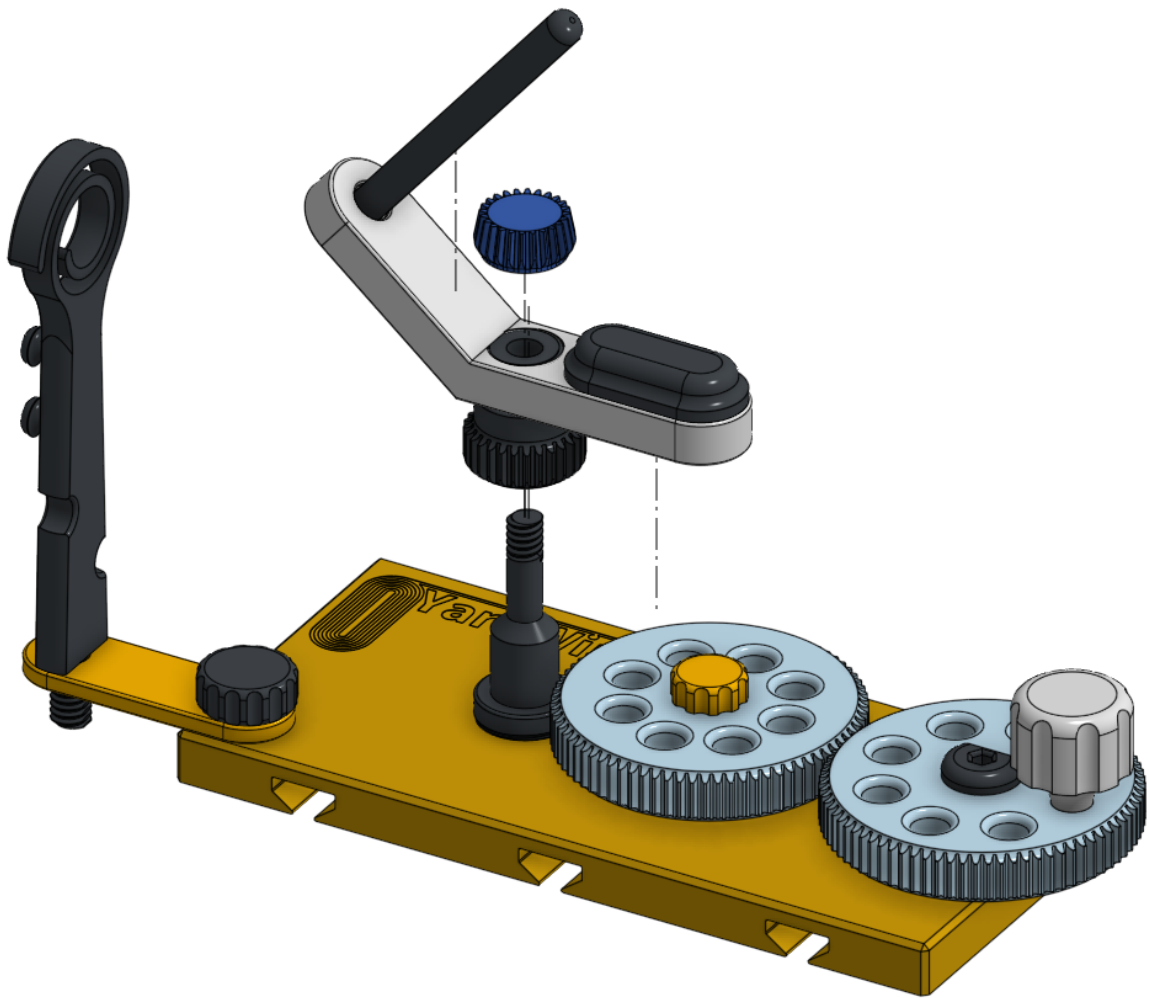
Step 2 - Plate Assembly

- Screw the axis into the plate.
- Insert the outrigger and secure it with the outrigger bolt.
- Screw the yarn guide into the outrigger.
- Mount the drive wheel into the plate using the wheel spacer and the drive wheel screw.
- Mount the gear into the plate using the wheel spacer and the gear screw.



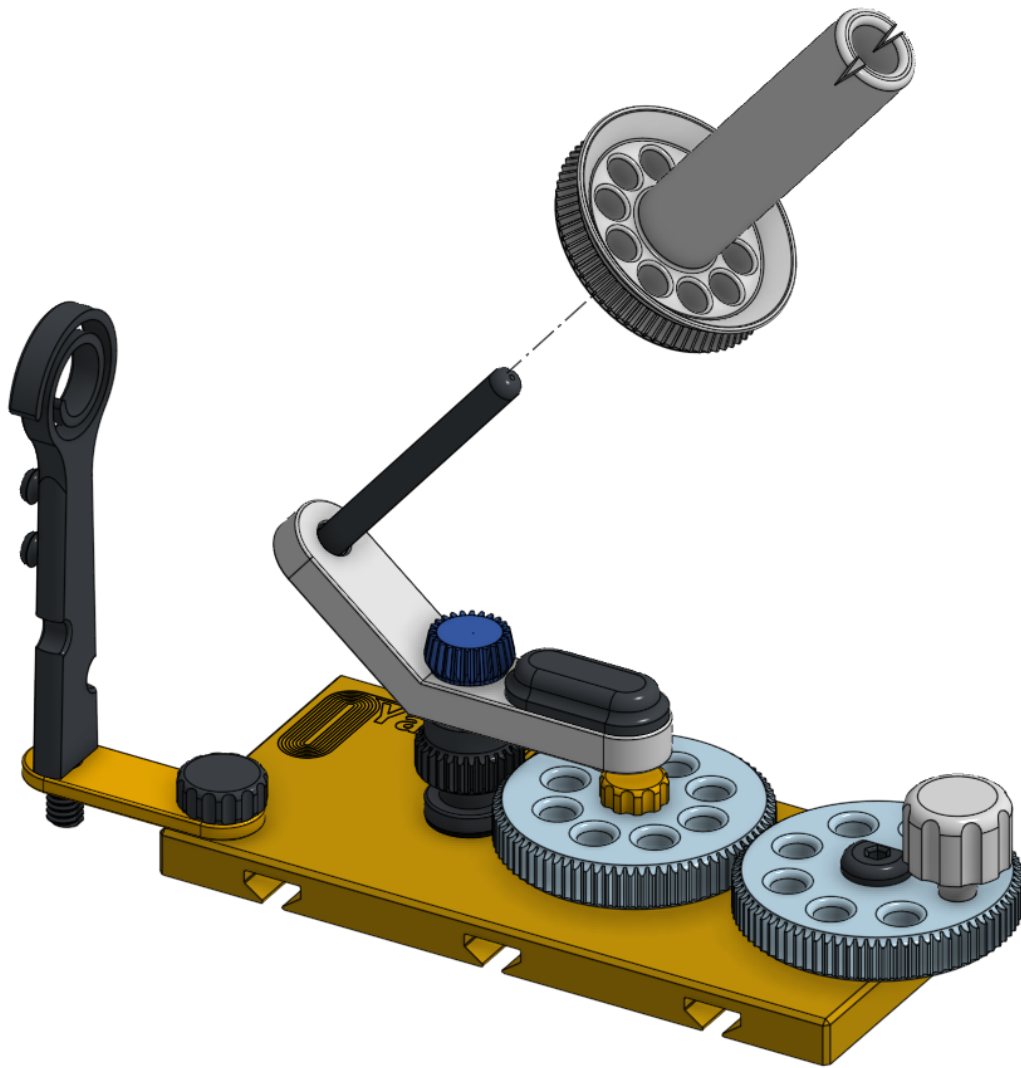
Step 3 - Install the Spinning Unit

- Place the assembled spinning unit (from Step 1) onto the axis.
- Secure it by screwing on the axle end.



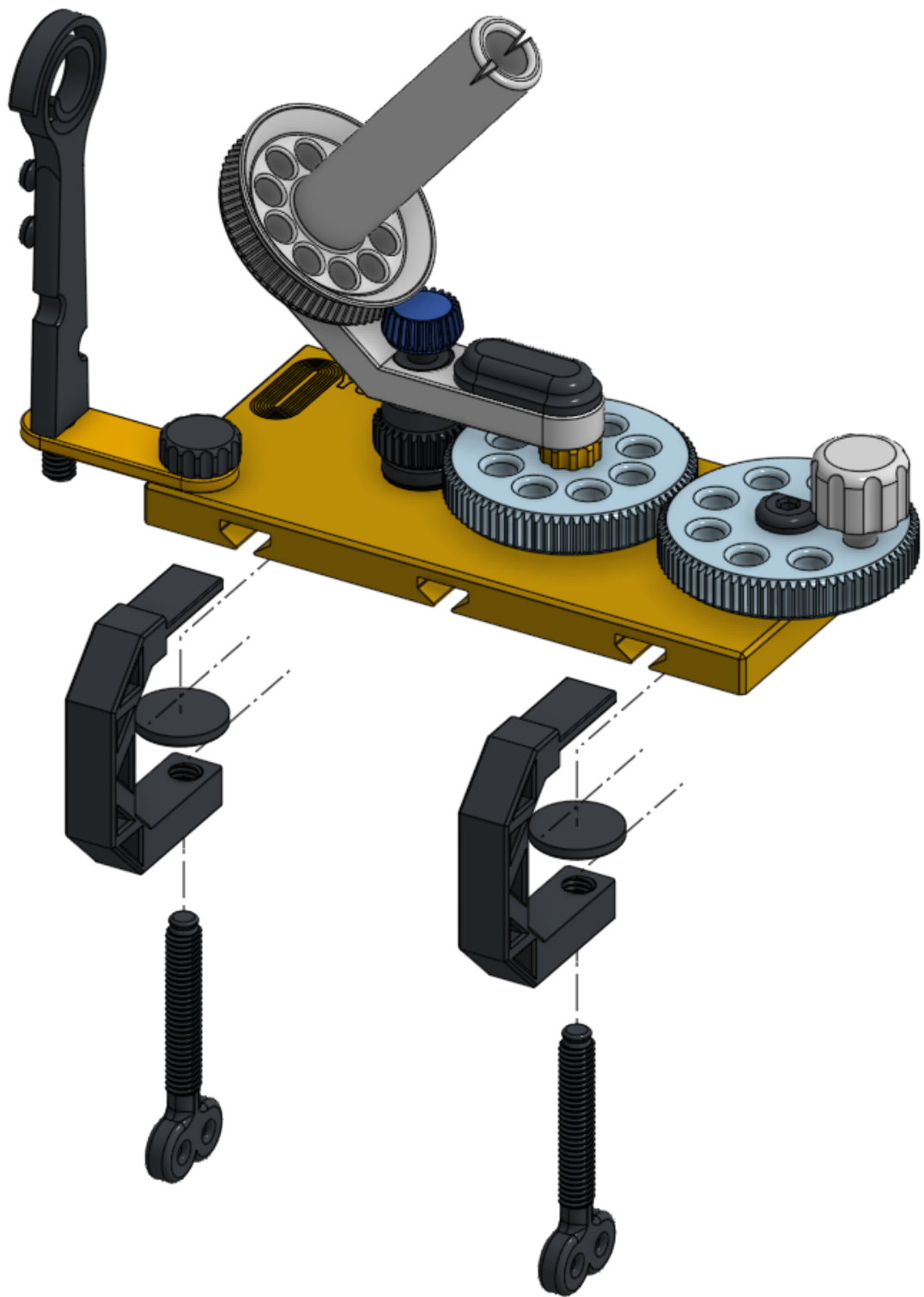
Step 4 - Install the Spinning Wheel & Engage the Gear

- Push the spinning wheel onto the spinning wheel screw.
- Lift the spinning unit slightly if needed to help the gear engage with the axle end.



Step 5 - Table Clamps (Optional)

- For each table clamp required:
- Screw the clamping screw through the clamp mount.
- Push the foot onto the joint of the clamping screw.
- Insert the clamp mount into any plate slot and tighten to secure the winder to a table.

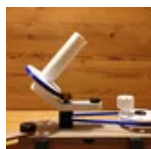


Done :)



Leave a comment if you like the project or leave a make if you made it too :) have fun winding

This remix is based on



3D Printed Yarn Winder - 100% Printable

by BGDglider

Model files



axis.stl

📄 PLA, 15% Infill, 0.2mm Layer, Supports NO



axle-end.stl

📄 PLA, 15% Infill, 0.2mm Layer, Supports NO



clamp-mount.stl

📄 PLA, 15% Infill, 0.2mm Layer, Supports NO



clamping-screw.stl

📄 PLA, 15% Infill, 0.2mm Layer, Supports NO



drive-screw.stl

📄 PLA, 15% Infill, 0.2mm Layer, Supports YES



drive-wheel-screw.stl

📄 PLA, 15% Infill, 0.2mm Layer, Supports NO



drive-wheel.stl

📄 PLA, 15% Infill, 0.2mm Layer, Supports NO



foot.stl

📄 PLA, 15% Infill, 0.2mm Layer, Supports NO



gear-screw-drive-wheel-screw-horizontal-version.stl

📄 PLA, 15% Infill, 0.2mm Layer, Supports NO



gear-screw-shorter-head.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO



gear-screw.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO



gear.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO



outrigger-bolt-horizontal-version.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO



outrigger-bolt.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO



outrigger.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO



plate.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO



spinning-center.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports YES



spinning-wheel-100mm.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO



spinning-wheel-110mm.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO



spinning-wheel-120mm.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO



spinning-wheel-140mm.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO



spinning-wheel-screw.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO



weight.stl

☐ PLA, 100% Infill, 0.2mm Layer, Supports YES



wheel-spacer.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO



yarn-guide.stl

☐ PLA, 15% Infill, 0.2mm Layer, Supports NO

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