3D Printing

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- FreeCAD
- Filaments
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  - Paper Towel Holder
  - Screw Case Wall Mount Bracket
  - Filament Spool Wall Hanger
  - Small Parts Tray
  - Shower Wall Holder
  - IKEA Sofa Fix
  - Tetra Fish Feeder
  - Ikea Besta Corner Stabiliser
  - Pipe holder 35mm
  - Numbers

Projects TODO

- Composter bin auto-open
- Shower drain easy clean
- Door stop
- RC2014 case

FreeCAD

Exporting STL

Best way is to use *Mesh* workbench and *Create mesh from shape...* . Once mesh is rendered it can be exported via *File -> Export...* and selecting STL.

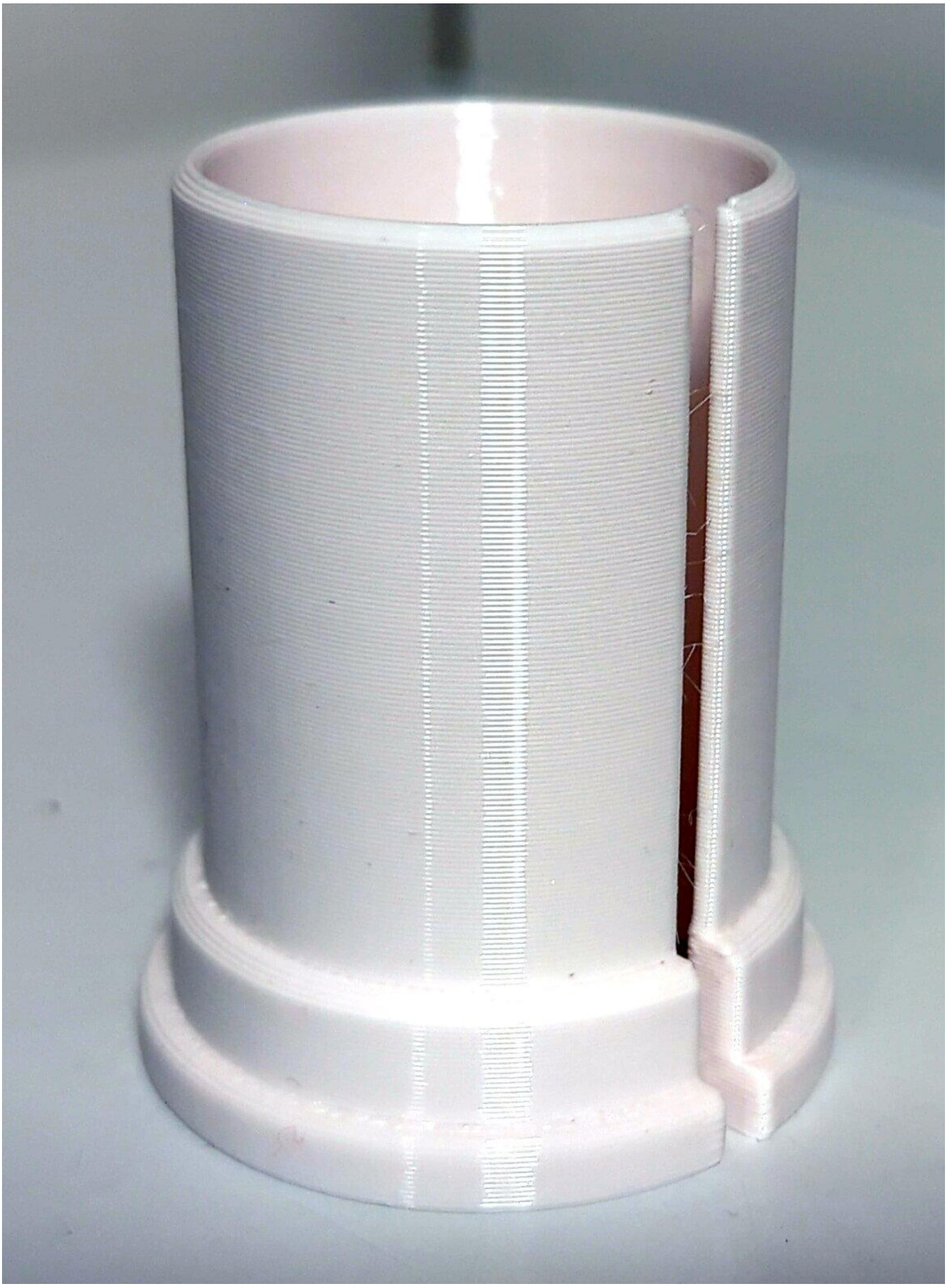
Filaments

MATERIAL	HARDWARE			TEMPERATURES		SHEETS							PHYSICAL FEATURES		
	Enclosure	Drybox	Hardened nozzle	Nozzle	Bed	Textured	Smooth PEI	Satin	Special PA Nylon	PP	HT	Easily soluble	Heat deflection	Impact resistance	Tensile strength
PLA	No	-	No	185-235 °C	50-60 °C	✓	✓	✓	✗	⚠ First, print with PP	✗	✗			
PETG	No	No	No	215-270 °C	70-90 °C	✓	⚠ with glue stick	✓	✓ Cleaned with water	✓	✗	✗			
PETG HT	No	No	No	270 °C	110 °C	✓	⚠ with glue stick	✓	✓ Cleaned with water	✓	✗	✗			
ASA	Recommended	No	No	220-275 °C	90-110 °C	⚠ with glue stick	⚠ with glue stick	✓	✗	✓	✗	✓			
ABS	Recommended	No	No	230-255 °C	95-110 °C	⚠ with glue stick	⚠ with glue stick	✓	✗	✓	✗	✓			
PC (Polycarbonate)	Recommended	No	No	270-275 °C	100-115 °C	⚠ with glue stick	⚠ with glue stick	✓	✗	✓	✗	✗			
CPE	No	Yes	No	275 °C	90-110 °C	✓	⚠ with glue stick	✓	✗	✗	✗	✗			
PVA / BVOH	No	Yes	No	195-215 °C	60 °C	✓	✓	✓	✗	✓	✗	✓			
HIPS	No	No	No	225-255 °C	100-110 °C	✓	✓	✓	✗	✗	✗	✓			
PP (Polypropylene)	-	No	No	220-245 °C	70-100 °C	✗	⚠ with PP tape	-	✗	✓	✗	✗			
Flex	No	-	No	220-260 °C	40-85 °C	✓	⚠ with glue stick	-	-	✓	✗	✗			
nGen	No	No	No	240 °C	90 °C	✓	⚠ with glue stick	✓	✗	✗	✗	✗			
PA (Nylon)	Recommended	Yes	No	240-285 °C	70-115 °C	⚠ with glue stick	✗	⚠ with glue stick	-	✗	✗	✗			
Composite materials	-	-	Yes	225-285 °C	40-115 °C	-	-	-	-	-	-	✗			
Wood / metal filled	No	No	-	190-270 °C	60-100 °C	-	-	✓	-	-	✗	✗			
PVB	No	No	No	215 °C	75 °C	✗	✓	✓	✗	✓	✗	✓			
PEI	Yes Necessary 90-190 °C	Yes Necessary	No	430 °C	150 °C	✓ with MagiGoo HT	✗	✗	✗	✗	✓ with MagiGoo HT	✗			

Source: https://help.prusa3d.com/filament-material-guide

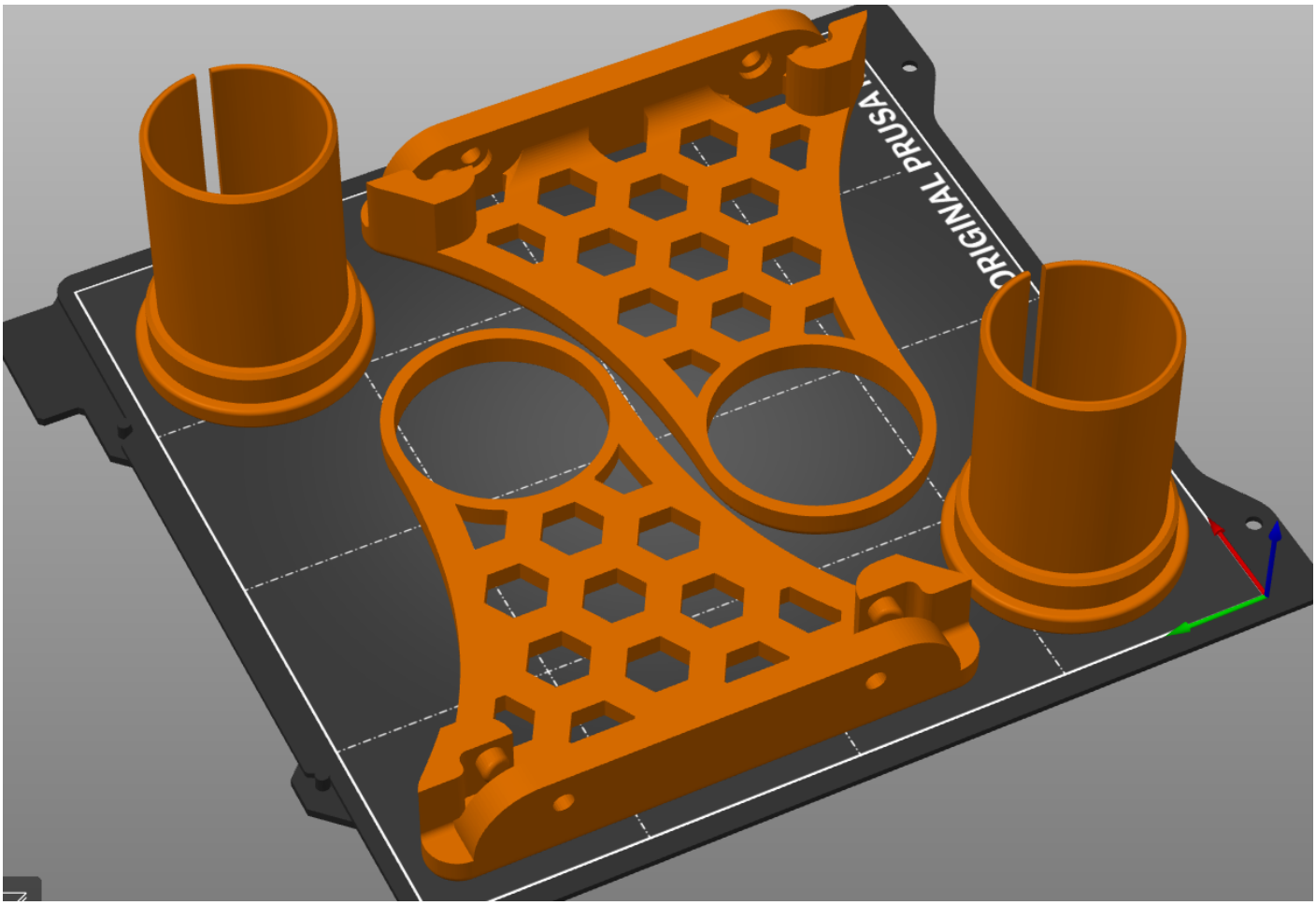
3D Print Designs

Paper Towel Holder



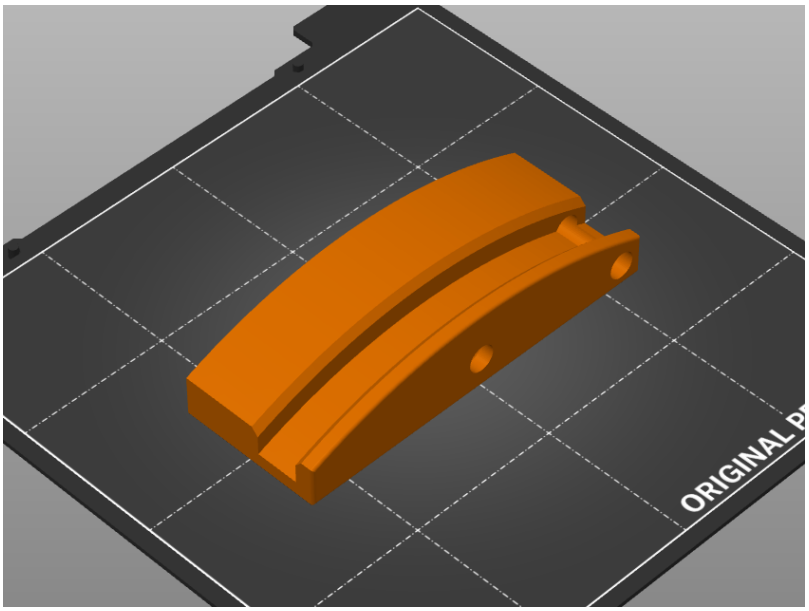
This is a remix of https://www.thingiverse.com/thing:5182572/files but with better fitting inserts (Part 2):

1. FreeCAD project: Paper Towel Holder - Custom.FCStd
2. STL: Paper Towel Holder - Custom-Body.stl



Screw Case Wall Mount Bracket

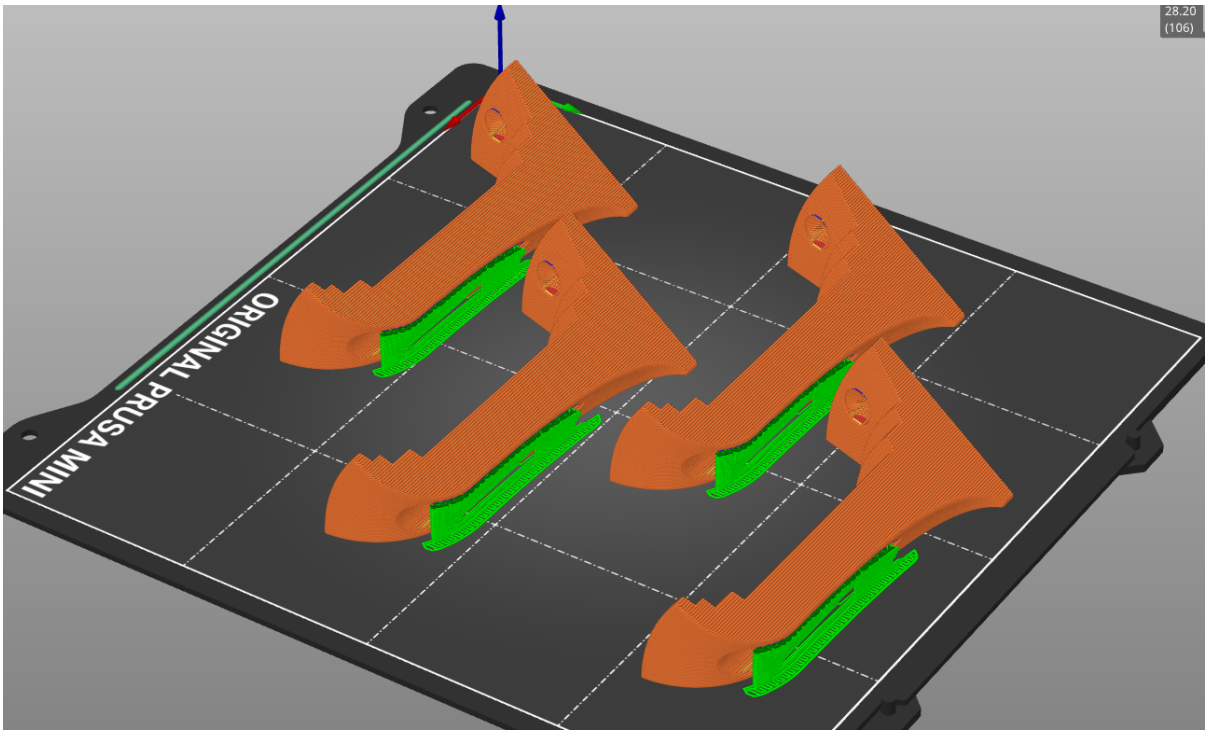
PARKSIDE



- FreeCAD: Skrew box wall mount.FCStd
- STL: Skrew box wall mount-Body.stl

Filament Spool Wall Hanger

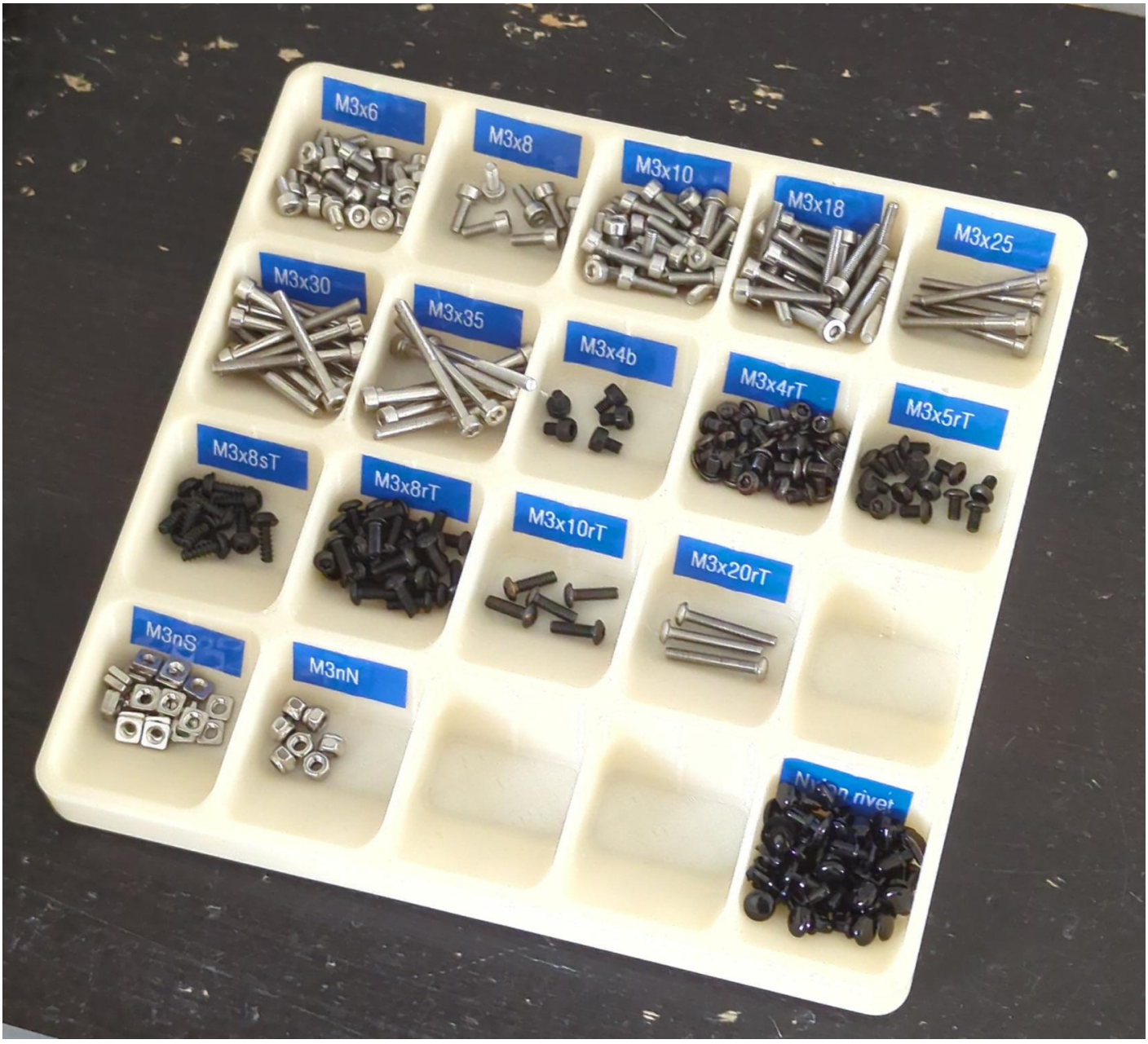
filamentum
PLA
filamentum
Flexfil TPU 98A
filamentum
filamentum
PLA



- Filament_holder.FCStd
- Filament_holder-Body.stl
- Filament_holder-Body.3mf

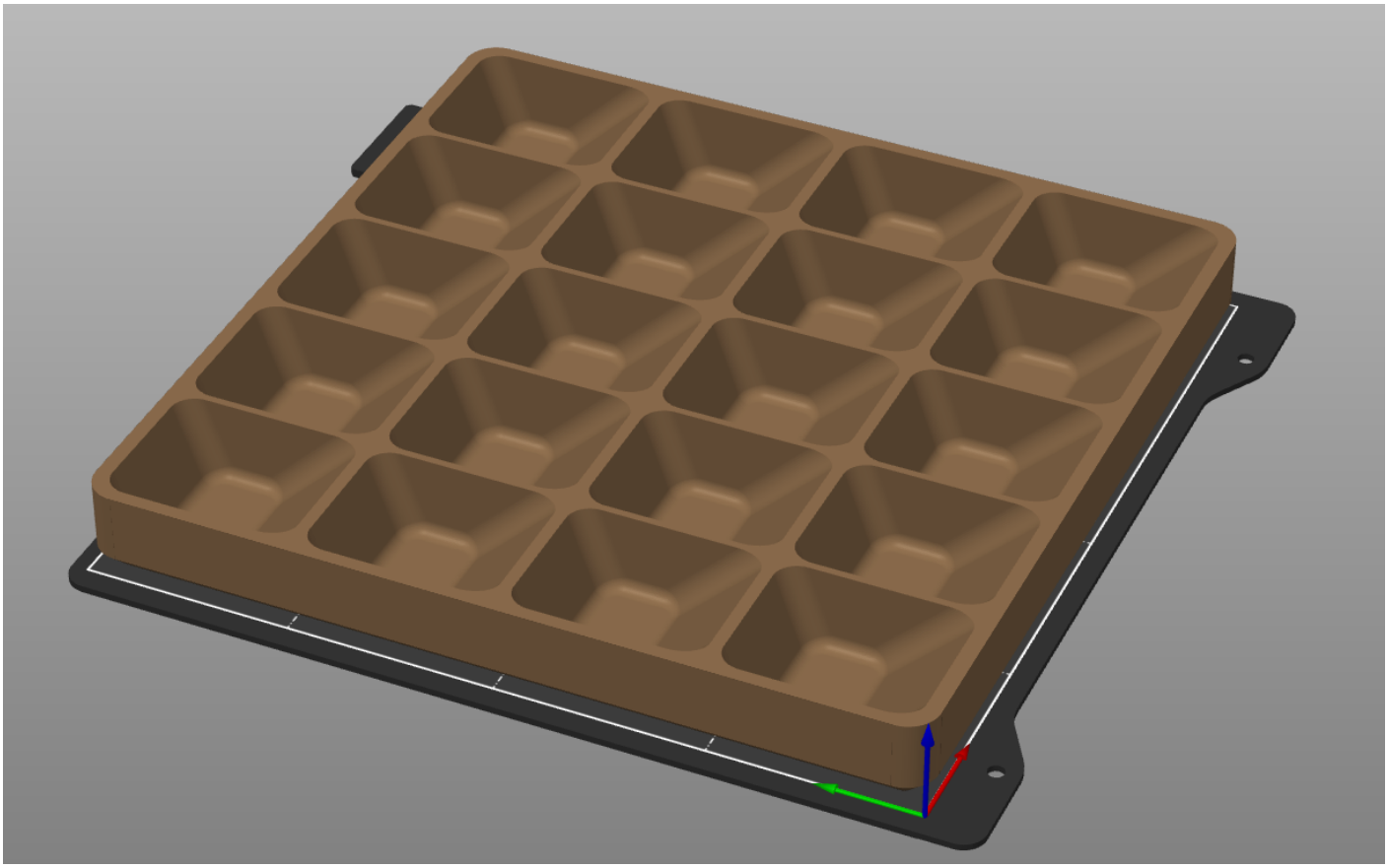
3D Print Designs

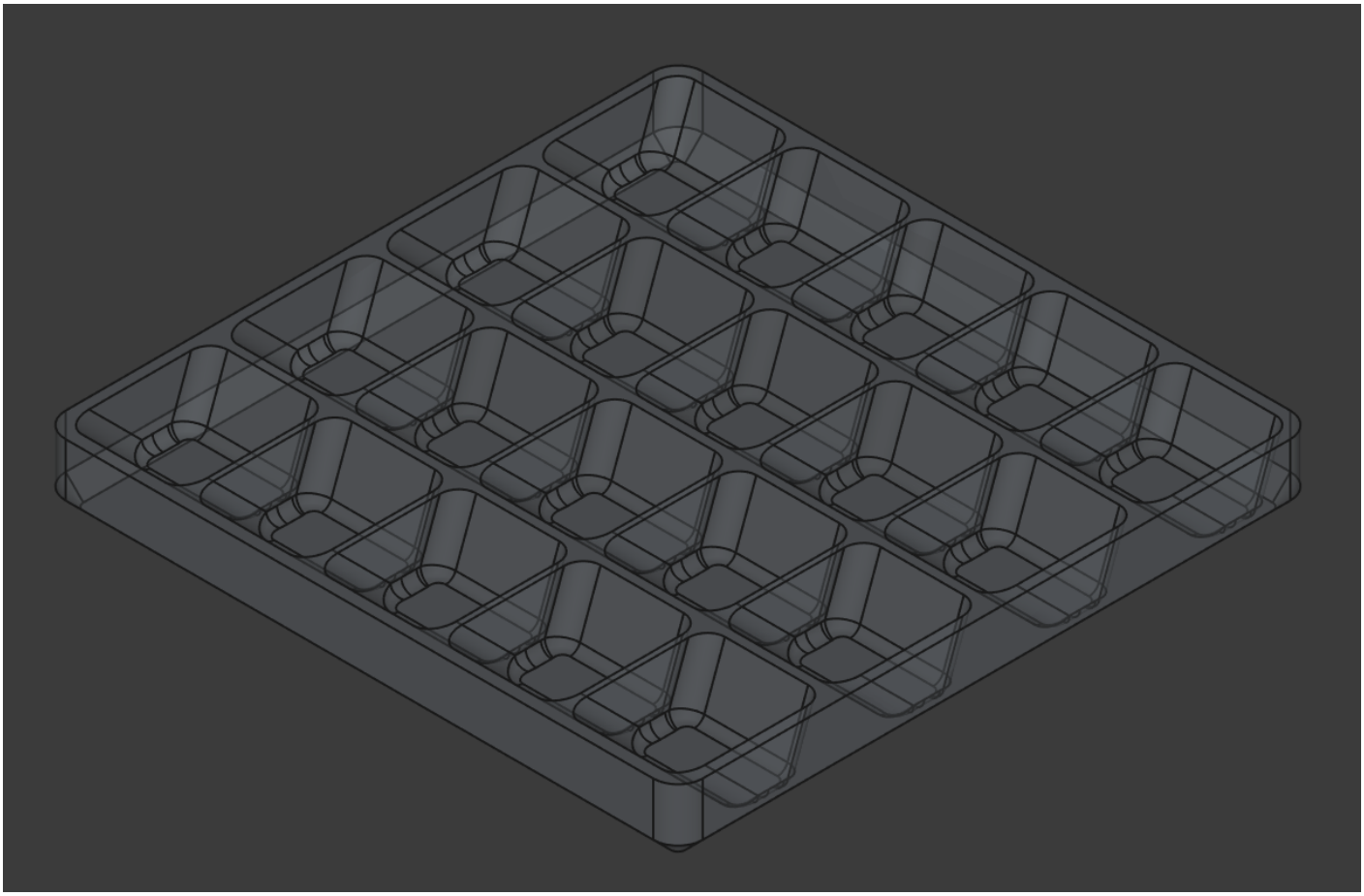
Small Parts Tray

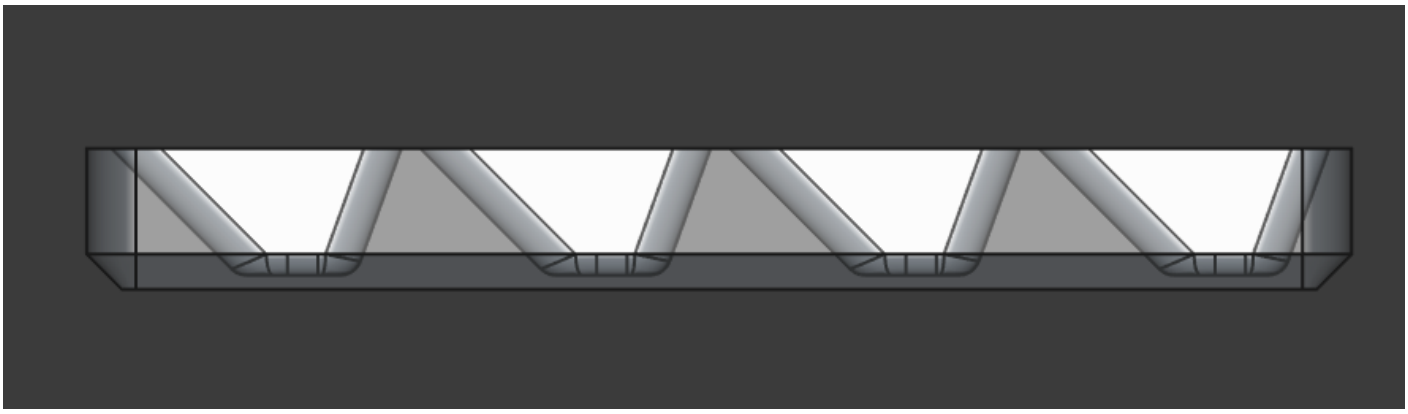


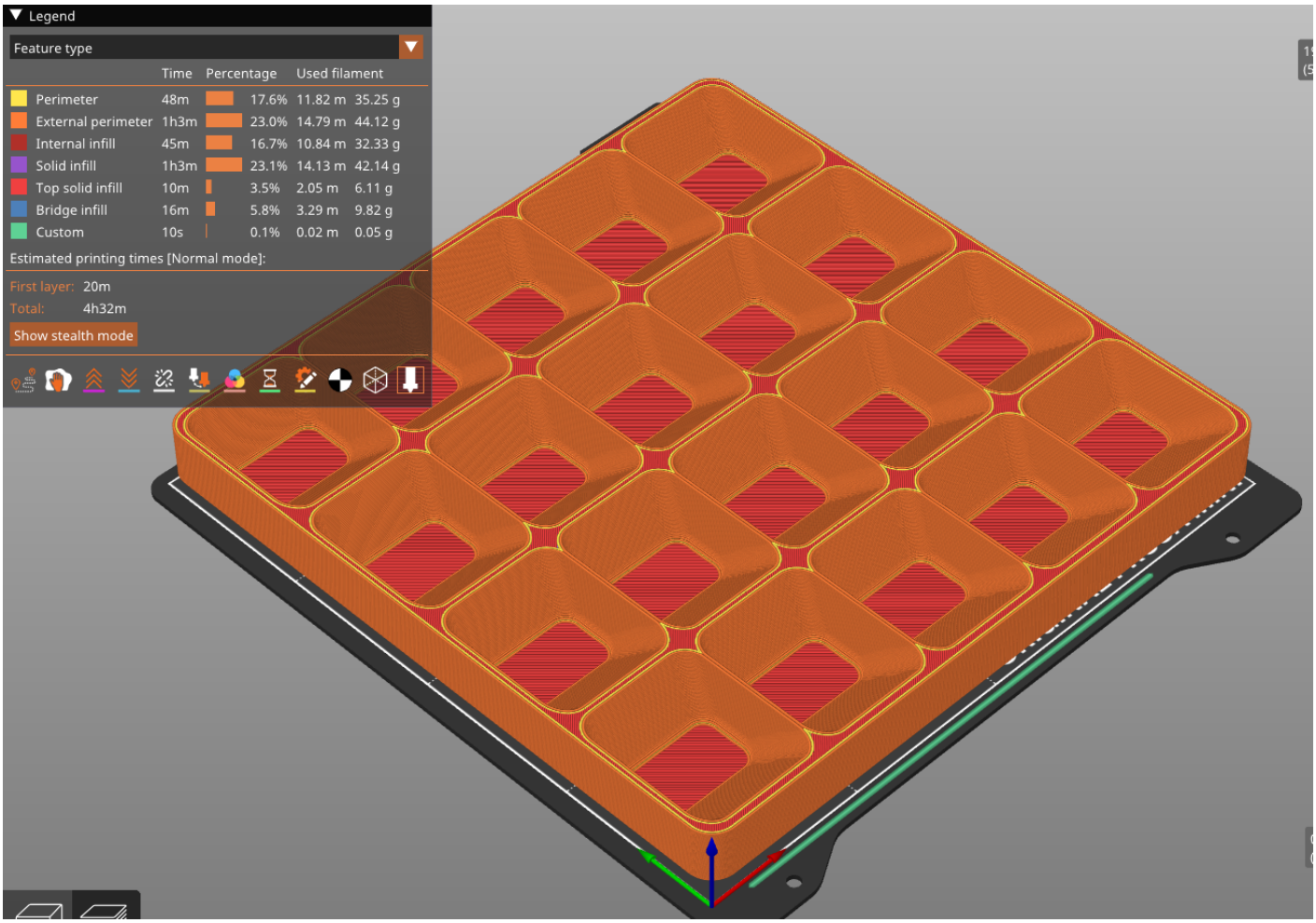
Useful tray for keeping small parts, nuts, bolts, screws etc. organized for assembly.

- parts-tray.FCStd
- parts-tray.3mf
- parts-tray.stl



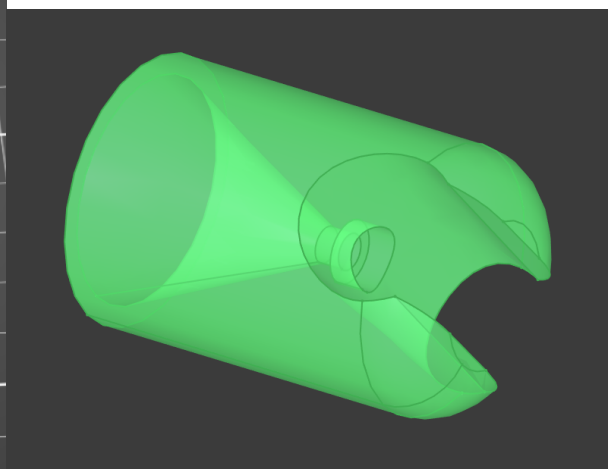





Legend
Feature type
Time Percentage Used filament
Perimeter 48m 17.6% 11.82 m 35.25 g
External perimeter 1h3m 23.0% 14.79 m 44.12 g
Internal infill 45m 16.7% 10.84 m 32.33 g
Solid infill 1h3m 23.1% 14.13 m 42.14 g
Top solid infill 10m 3.5% 2.05 m 6.11 g
Bridge infill 16m 5.8% 3.29 m 9.82 g
Custom 10s 0.1% 0.02 m 0.05 g
Estimated printing times [Normal mode]:
First layer: 20m
Total: 4h32m
Show stealth mode

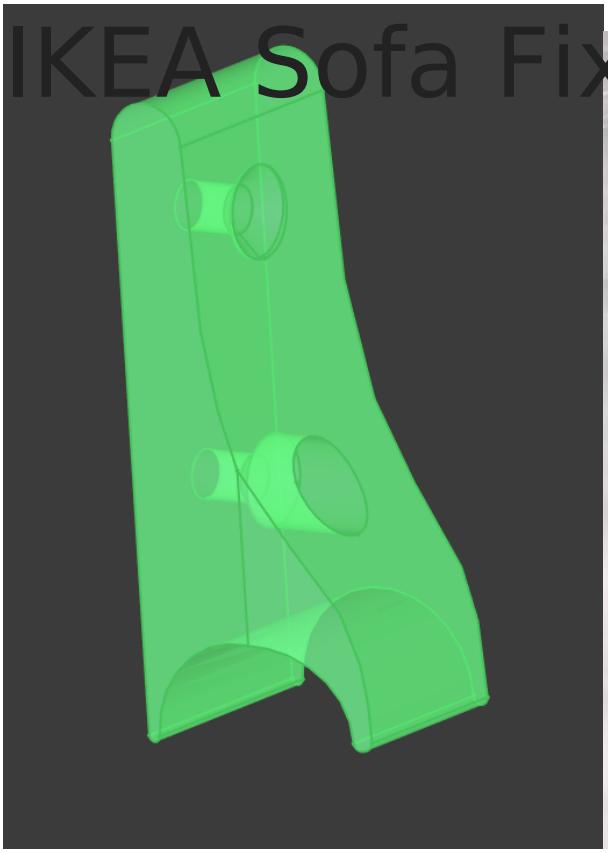
3D Print Designs

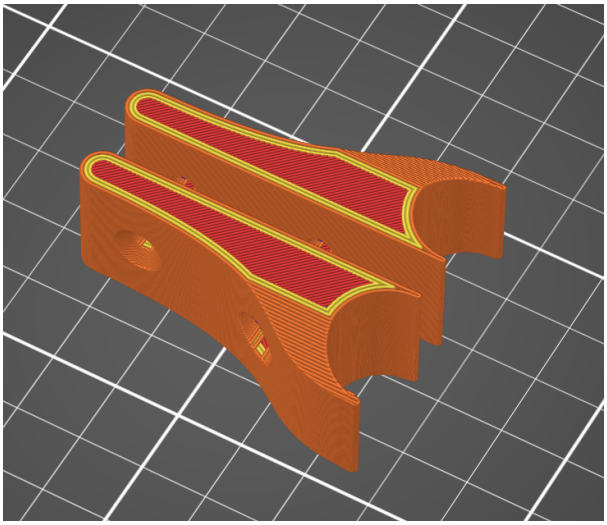
Shower Wall Holder



- Shower_Wall_Holder.FCStd
- Shower_Wall_Holder.stl

3D Print Designs

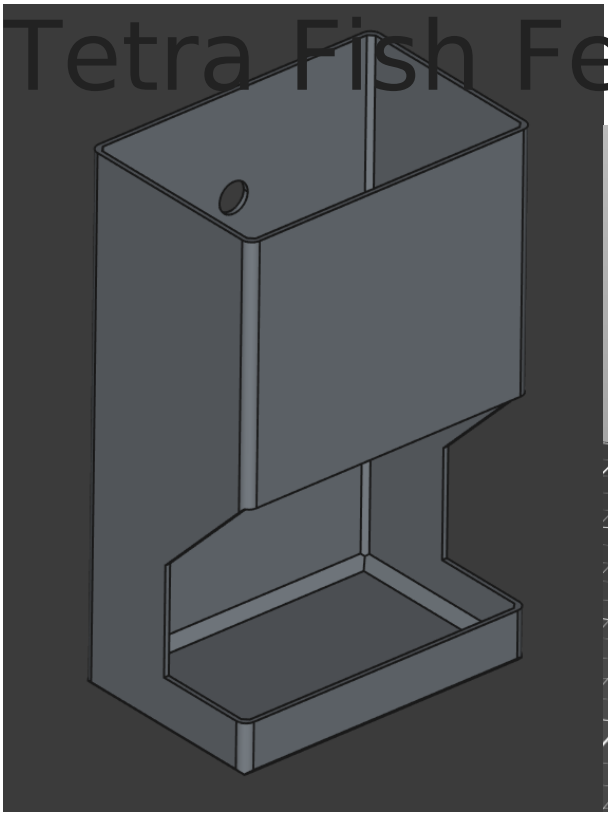


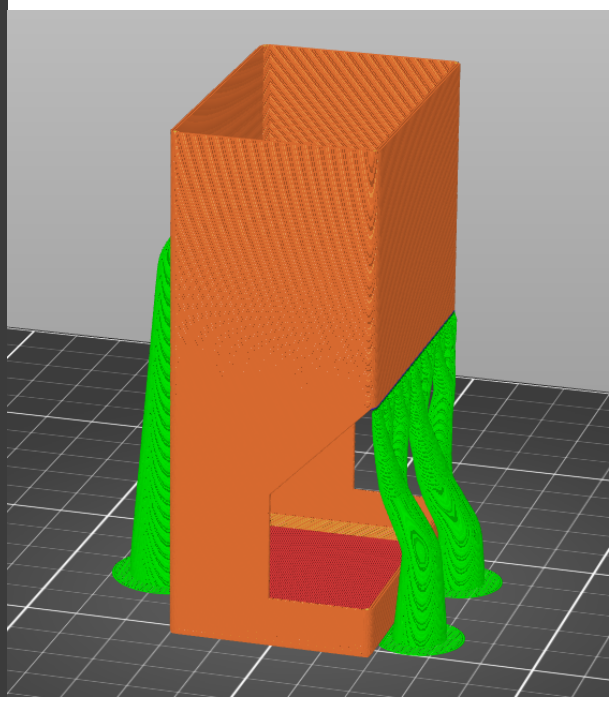


- Ikea_Sofa_Fix.FCStd
- Ikea_Sofa_Fix.stl

3D Print Designs

Tetra Fish Feeder

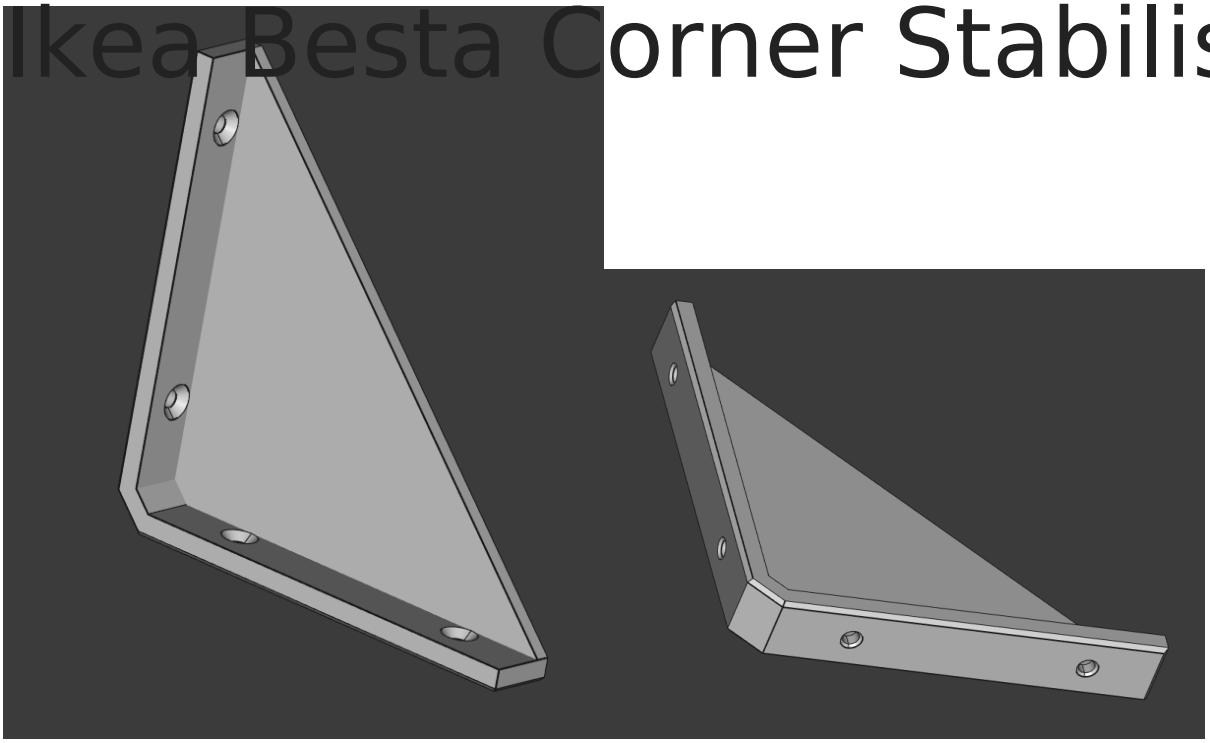




- Tetra Feeder.FCStd
- Tetra Feeder.3mf
- Tetra Feeder.stl

3D Print Designs

Ikea Besta Corner Stabiliser



Print 4 and screw in the corners at the back of your Ikea Besta cupboard or storage unit to reduce its sideways wobble.

- Besta_stabilizer.FCStd

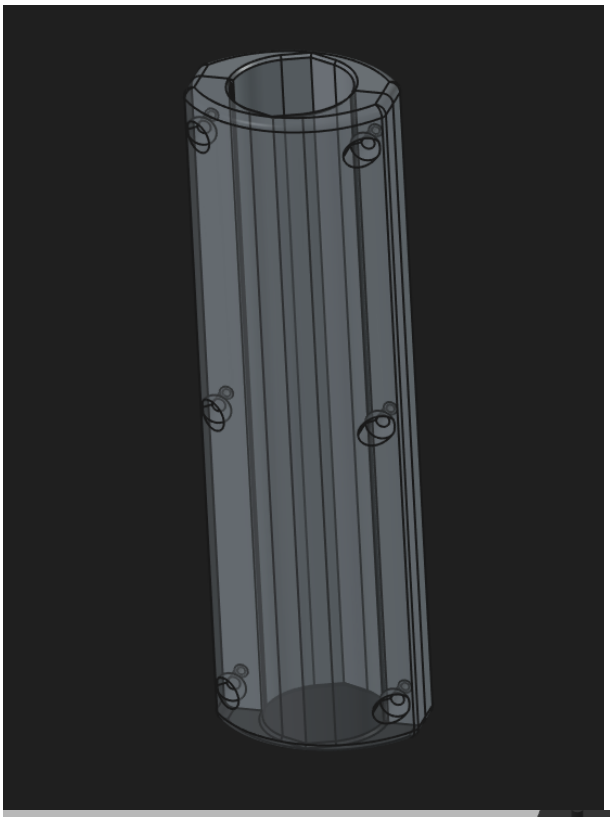
- Besta_stabilizer.stl
- Besta_stabilizer.3mf

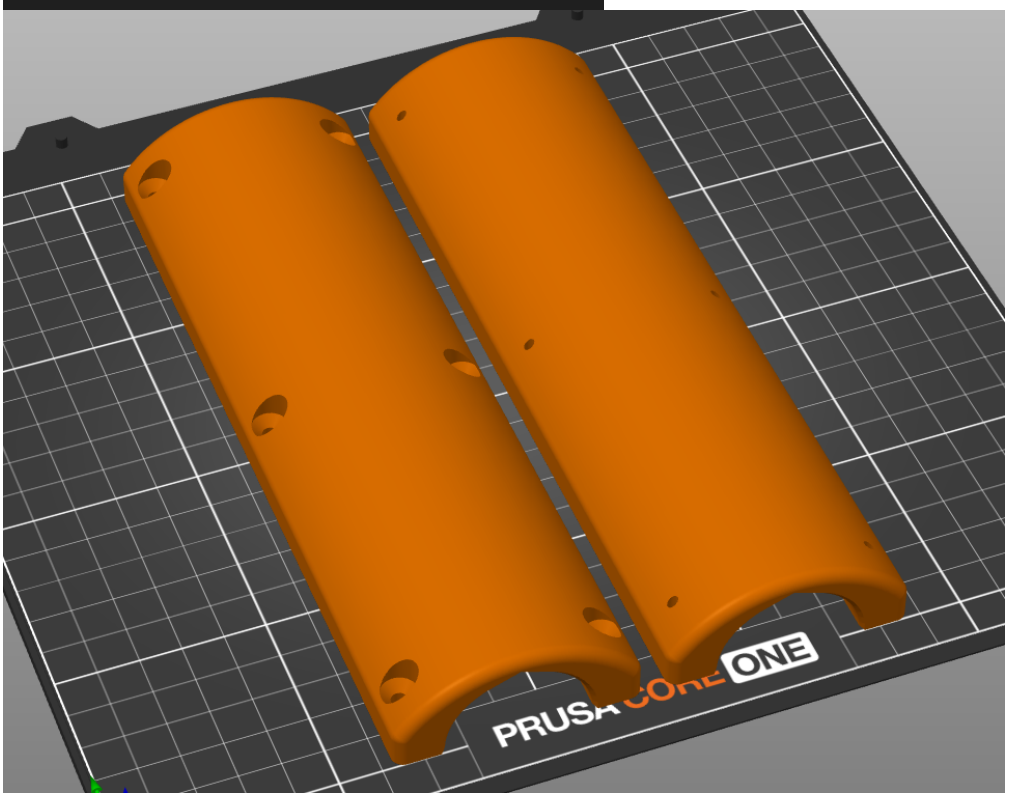
3D Print Designs

Pipe holder 35mm

Holder to fix 35mm umbrella pipe and bushing for the base.

Screw over 35/200mm

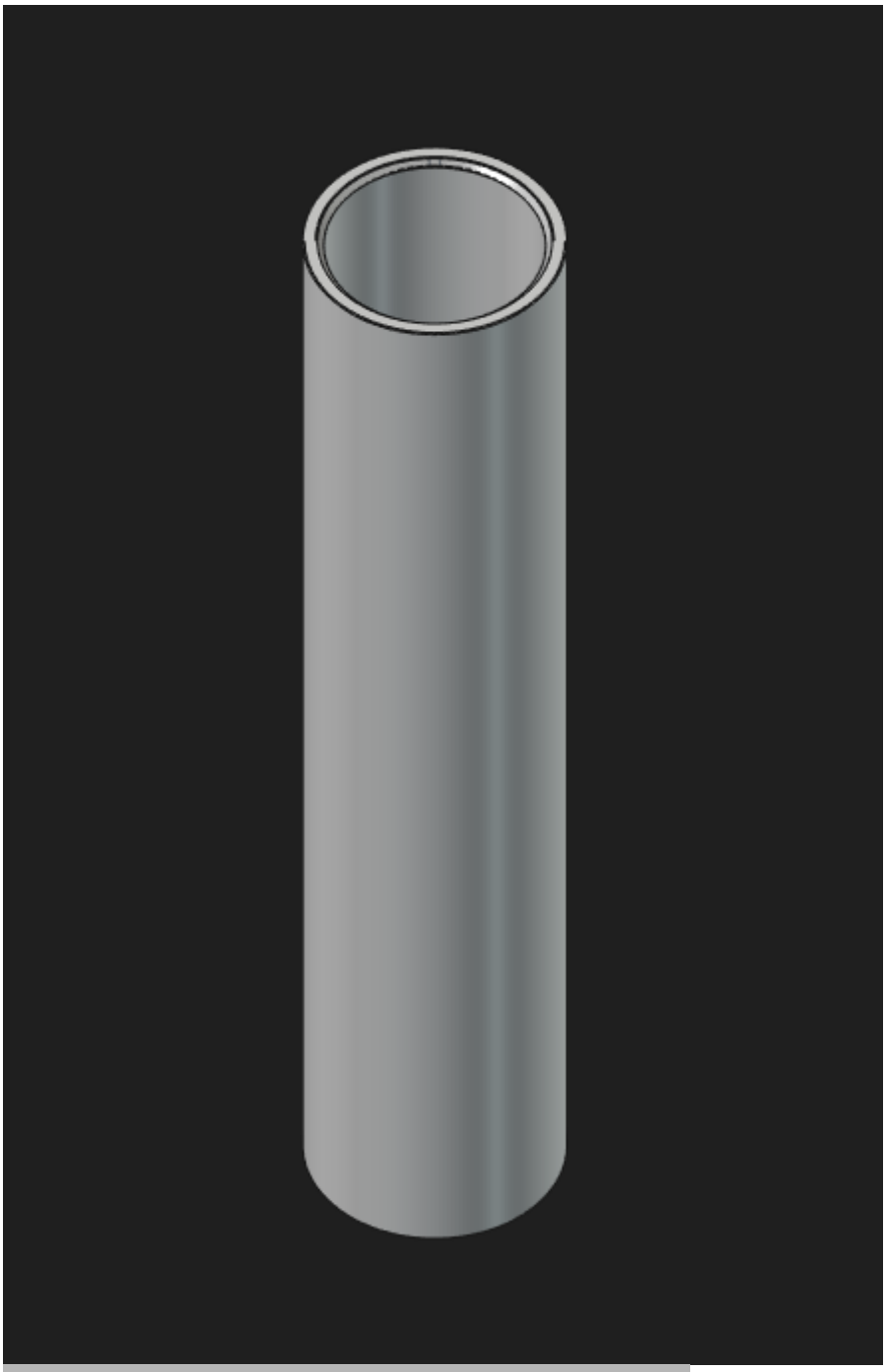


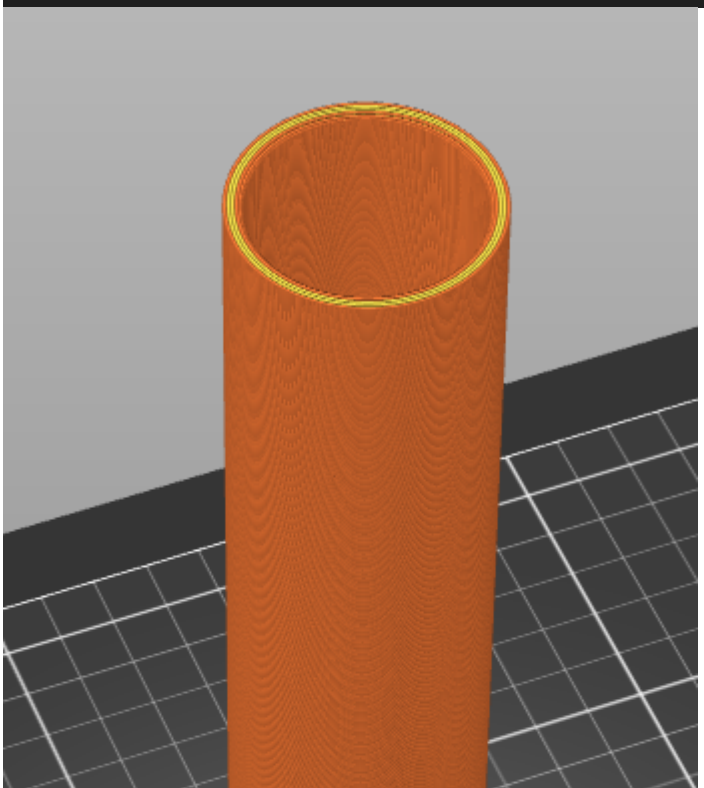


Files

- Pipe-Holder-Front.stl
- Pipe-Holder-Back.stl
- Pipe-Holder-Back.3mf
- pipe-holder.FCStd

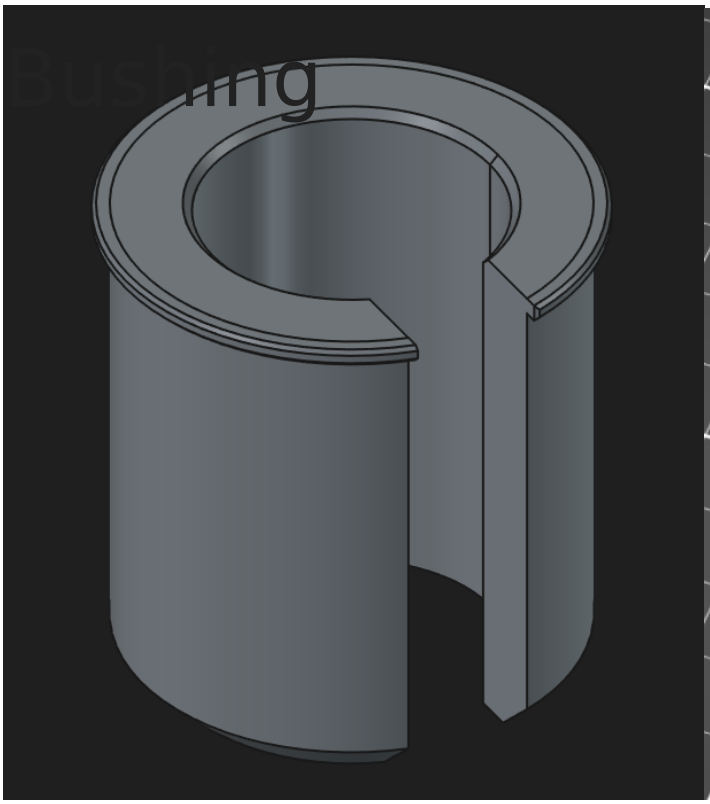
Pipe 35/200mm

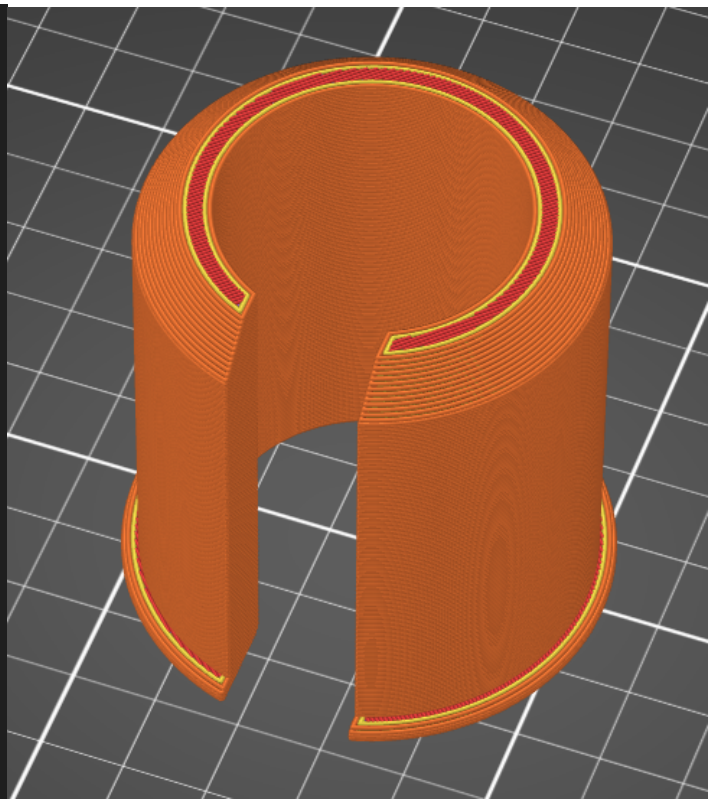




Files

- Pipe-35-200.stl
- Pipe-35-200.3mf



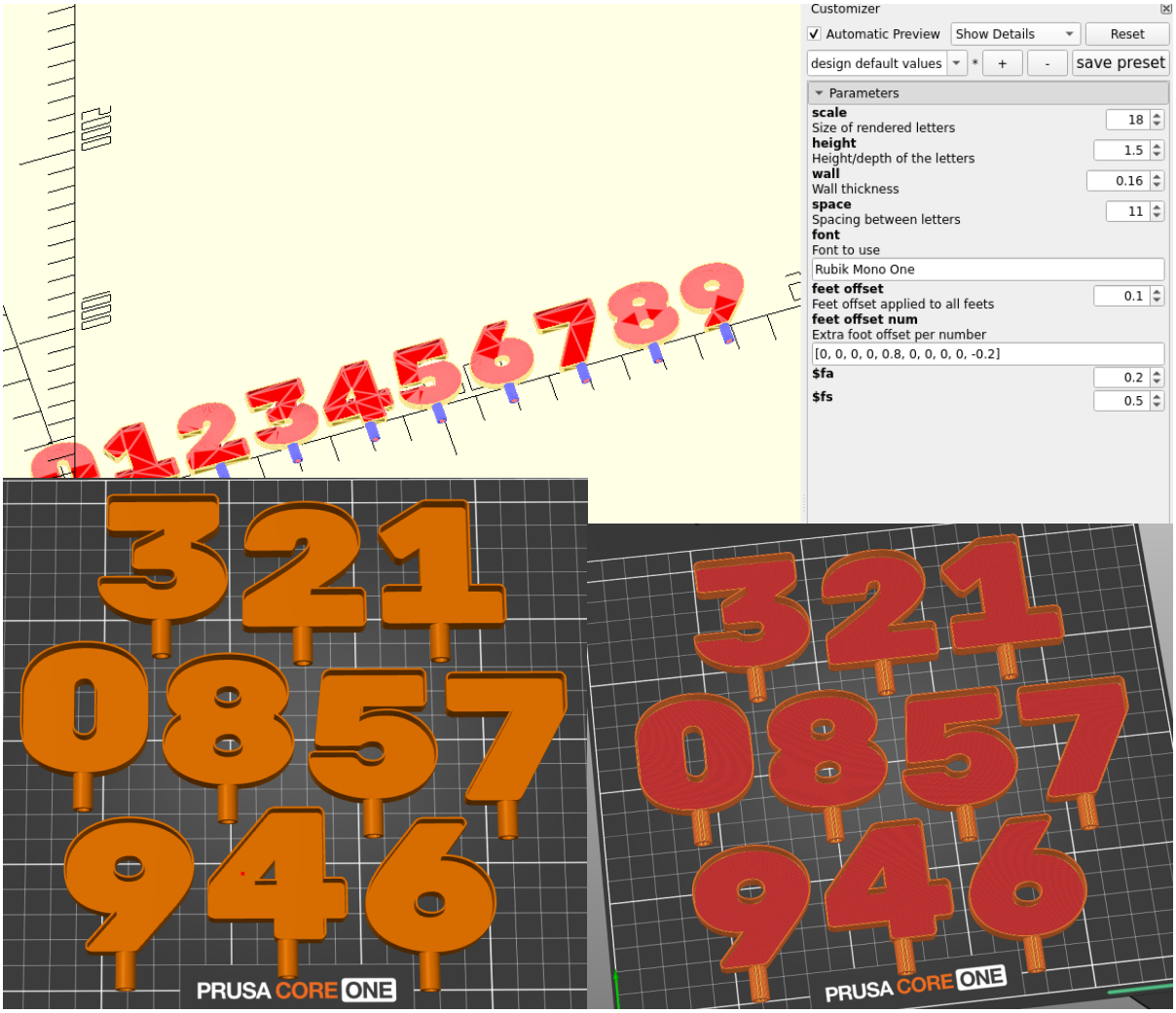


Files

- Bushing.stl
- bushing.FCStd
- Bushing.3mf

3D Print Designs

Numbers



- Numbers.scad - Customizable OpentSCAD project
- Numbers.stl - All numbers; can be split in slicer to get selected numbers
  - Numbers_0.stl
  - Numbers_1.stl
  - Numbers_2.stl
  - Numbers_3.stl
  - Numbers_4.stl
  - Numbers_5.stl
  - Numbers_6.stl

- Numbers_7.stl
- Numbers_8.stl
- Numbers_9.stl