

13. 3D Print the Skateboard parts: Wheel

T teslarcs.com/assembly-manuals/cybertruck/4-13-3d-print-the-cybertruck-parts/13-3d-print-the-skateboard-parts-wheel/



Difficulty

Moderate



Steps

6



Get entire manual as PDF

Downloading soon



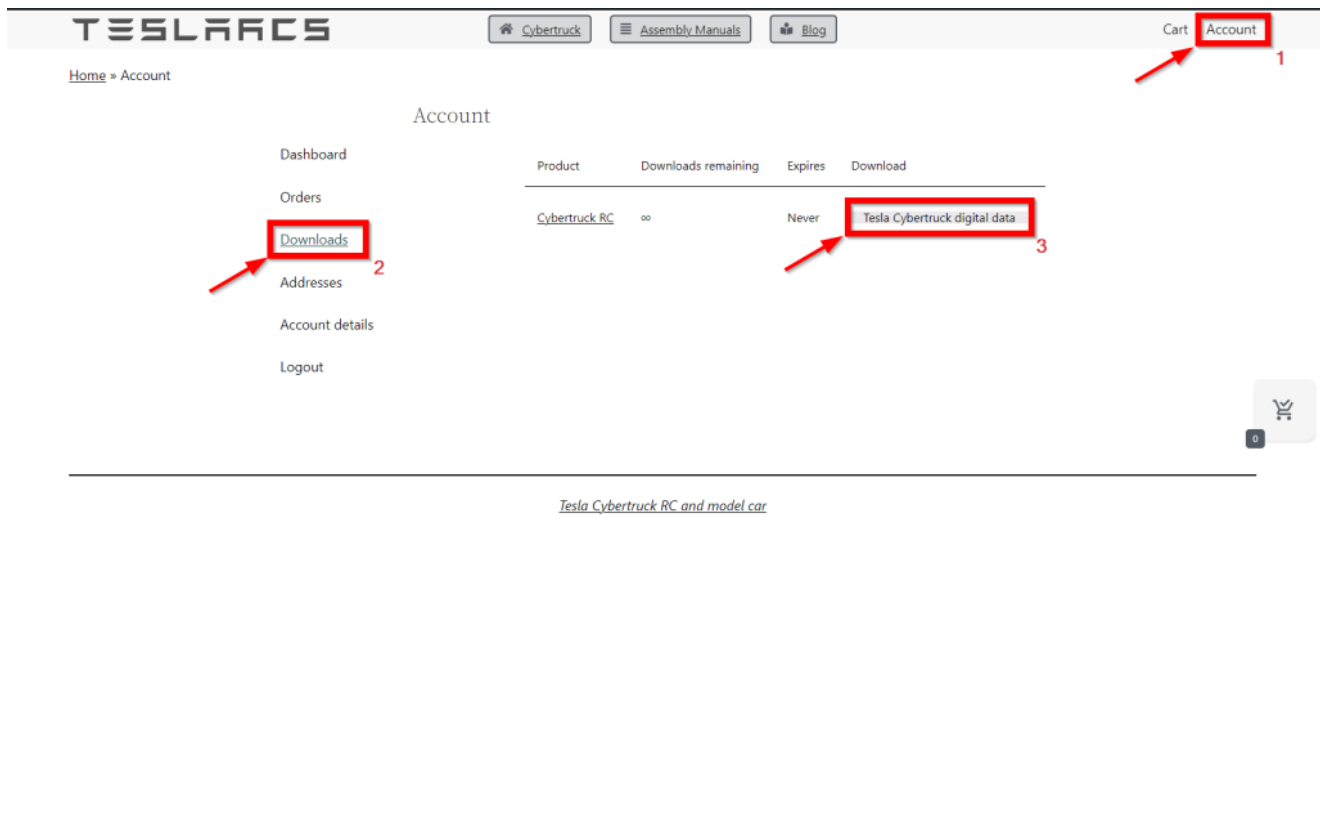
Step 1: Important information!

Important Information / Downloadable Files:

If you purchased the Cybertruck digital data from our [Shop](#) than you will be able to download from your [Account](#):

- All **.stl** files,
(which contain the Cybertruck 3D geometry),
- PrusaSilcer **.3mf** files,
(which contain the 3D Printing orientations and printing settings),

- and **.gcode** files for *Prusa Mini* and *Prusa Mk3S+*.
(which contain the necessary information for the 3D printer to print the geometry)



Important Information / Slicer software:

Our suggestion for 3D Printing slicer software:

The Freeware Prusa Slicer last stable version: <https://help.prusa3d.com/downloads>

Alternative 3D Printing slicer:

Any other slicer what you like, but than you should check the basic 3D Printing parameters from our manual in this and the next chapter.

Important Information / 3D Printer:

Our suggestion for 3D Printer:

Prusa Mk3s+: <https://www.prusa3d.com/product/original-prusa-i3-mk3s-kit-3>



Alternative 3D Printer:

- Prusa Mini: <https://www.prusa3d.com/product/original-prusa-mini-kit-2/>
- Any other FDM 3D Printer, with 180×180 build plate at least



Step 2: SK_WHEEL_DISC

Printing parameters:

- **Filament material:** PLA
- **Color:** Black  / Silver 
- **Layer height:** 0,2 mm
- **Support:** Yes (Paint on support)
- **Infill:** 15%

- **Filament weight:** ca. 17 g

- **Prusa Mini compatible:** Yes
- **Quantity:** 4 x 1 piece

PrusaSlicer 2.5.0 based on Slic3r

File Edit Window View Configuration Help

Printer Print Settings Filament Settings Printer Settings

| Feature type | Time | Percentage | Used filament |
|----------------------------|------|------------|---------------|
| Perimeter | 20m | 17.8% | 1.33 m 3.97 g |
| External perimeter | 30m | 26.1% | 1.30 m 3.89 g |
| Overhang perimeter | 17s | 0.3% | 0.01 m 0.04 g |
| Internal infill | 13m | 11.5% | 0.53 m 1.58 g |
| Solid infill | 32m | 28.4% | 1.54 m 4.58 g |
| Top solid infill | 2m | 1.8% | 0.09 m 0.27 g |
| Bridge infill | 3m | 2.4% | 0.11 m 0.32 g |
| Skirt/Brim | 23s | 0.3% | 0.02 m 0.06 g |
| Support material | 11m | 9.4% | 0.46 m 1.37 g |
| Support material interface | 2m | 1.8% | 0.09 m 0.26 g |
| Custom | 21s | 0.3% | 0.02 m 0.05 g |

Estimated printing times:
First layer: 6m
Total: 1h54m

ORIGINAL PRUSA MINI

196022

Print settings:
0.20mm QUALITY (modified)
Filament: Prusament PLA
Printer: Original Prusa MINI & MINI+
Supports: For support enforcers only
Infill: 15%
Brim:

Object manipulation
World coordinates: X Y Z
Position: 90 90 6 mm
Rotate: 0 0 0 °
Scale factors: 100 100 100 %
Size: 65 65 12 mm
Inches:

Info
Size: 65.00 x 65.00 x 12.00 Volume: 14091.18
Facets: 111368 (1 shell)
No errors detected

Sliced Info
Used Filament (g) (including spool): 16.40 (217.40)
Used Filament (m): 5.50
Used Filament (mm³): 13224.27
Cost: 0.60
Estimated printing time: - normal mode 1h54m

Export G-code

PrusaSlicer 2.5.0 based on Slic3r

File Edit Window View Configuration Help

Printer Print Settings Filament Settings Printer Settings

| Feature type | Time | Percentage | Used filament |
|----------------------------|------|------------|---------------|
| Perimeter | 19m | 16.2% | 1.33 m 3.97 g |
| External perimeter | 33m | 28.0% | 1.30 m 3.89 g |
| Overhang perimeter | 17s | 0.2% | 0.01 m 0.04 g |
| Internal infill | 14m | 12.0% | 0.53 m 1.58 g |
| Solid infill | 34m | 28.5% | 1.54 m 4.58 g |
| Top solid infill | 2m | 1.8% | 0.09 m 0.27 g |
| Bridge infill | 3m | 2.3% | 0.11 m 0.32 g |
| Skirt/Brim | 21s | 0.3% | 0.02 m 0.06 g |
| Support material | 11m | 8.8% | 0.46 m 1.37 g |
| Support material interface | 2m | 1.5% | 0.09 m 0.26 g |
| Custom | 13s | 0.2% | 0.02 m 0.06 g |

Estimated printing times [Normal mode]:
First layer: 6m
Total: 1h59m
[Show stealth mode](#)

ORIGINAL PRUSA i3 MK3 by Josef Prusa

200867

Print settings:
0.20mm QUALITY (modified)
Filament: Prusament PLA
Printer: Original Prusa i3 MK3S & MK3S+
Supports: For support enforcers only
Infill: 15%
Brim:

Object manipulation
World coordinates: X Y Z
Position: 125 105 6 mm
Rotate: 0 0 0 °
Scale factors: 100 100 100 %
Size: 65 65 12 mm
Inches:

Info
Size: 65.00 x 65.00 x 12.00 Volume: 14091.18
Facets: 111368 (1 shell)
No errors detected

Sliced Info
Used Filament (g) (including spool): 16.41 (217.41)
Used Filament (m): 5.50
Used Filament (mm³): 13232.69
Cost: 0.60
Estimated printing time: - normal mode 1h59m
- stealth mode 2h0m

Export G-code

Step 3: SK_WHEEL_RIM_1

Printing parameters:

- **Filament material:** PLA
- **Color:** Black  / Silver 
- **Layer height:** 0,2 mm
- **Support:** no
- **Infill:** 15%

- **Filament weight:** ca. 14 g
- **Prusa Mini compatible:** Yes
- **Quantity:** 4 x 1 piece

PrusaSlicer 2.5.0 based on Slic3r

Print settings: Simple Advanced Expert

Print settings: 0.20mm QUALITY

Filament: Prusament PLA

Printer: Original Prusa MINI & MINI+

Supports: None

Infill: 15% Brim:

Name: sk_wheel_rim_1_v1 Editing

| Feature type | Time | Percentage | Used filament |
|--------------------|------|------------|---------------|
| Perimeter | 19m | 22.2% | 1.35 m 4.02 g |
| External perimeter | 27m | 31.3% | 1.31 m 3.89 g |
| Overhang perimeter | 0s | 0.0% | 0.00 m 0.00 g |
| Internal infill | 21m | 23.6% | 1.06 m 3.15 g |
| Solid infill | 16m | 18.1% | 0.69 m 2.06 g |
| Top solid infill | 2m | 2.0% | 0.09 m 0.28 g |
| Bridge infill | 2m | 2.0% | 0.08 m 0.22 g |
| Skirt/Brim | 21s | 0.4% | 0.02 m 0.05 g |
| Custom | 20s | 0.4% | 0.02 m 0.05 g |

Estimated printing times:
First layer: 2m
Total: 1h28m

Sliced Info:
Used Filament (g) (including spool): 13.73 (214.73)
Used Filament (m): 4.60
Used Filament (mm³): 11074.68
Cost: 0.50
Estimated printing time: - normal mode: 1h28m

Export G-code

PrusaSlicer 2.5.0 based on Slic3r

Print settings: Simple Advanced Expert

Print settings: 0.20mm QUALITY

Filament: Prusament PLA

Printer: Original Prusa i3 MK3S & MK3S+

Supports: None

Infill: 15% Brim:

Name: sk_wheel_rim_1_v1 Editing

| Feature type | Time | Percentage | Used filament |
|--------------------|------|------------|---------------|
| Perimeter | 18m | 19.9% | 1.35 m 4.02 g |
| External perimeter | 32m | 34.1% | 1.31 m 3.89 g |
| Overhang perimeter | 0s | 0.0% | 0.00 m 0.00 g |
| Internal infill | 22m | 23.5% | 1.06 m 3.15 g |
| Solid infill | 17m | 18.1% | 0.69 m 2.06 g |
| Top solid infill | 2m | 1.9% | 0.09 m 0.28 g |
| Bridge infill | 2m | 1.9% | 0.08 m 0.22 g |
| Skirt/Brim | 19s | 0.4% | 0.02 m 0.05 g |
| Custom | 13s | 0.2% | 0.02 m 0.06 g |

Estimated printing times:
First layer: 1m
Total: 1h33m

Sliced Info:
Used Filament (g) (including spool): 13.74 (214.74)
Used Filament (m): 4.61
Used Filament (mm³): 11083.10
Cost: 0.50
Estimated printing time: - normal mode: 1h33m
- stealth mode: 1h33m

Export G-code

Step 4: SK_WHEEL_RIM_2

Printing parameters:

- **Filament material:** PLA
- **Color:** Black  / Silver 
- **Layer height:** 0,2 mm
- **Support:** no
- **Infill:** 15%

- **Filament weight:** ca. 11 g
- **Prusa Mini compatible:** Yes
- **Quantity:** 4 x 1 piece

PrusaSlicer 2.5.0 based on Slic3r

Print Settings | Filament Settings | Printer Settings

| Feature type | Time | Percentage | Used filament |
|--------------------|------|------------|---------------|
| Perimeter | 15m | 21.7% | 0.92 m 2.73 g |
| External perimeter | 20m | 27.4% | 0.97 m 2.90 g |
| Overhang perimeter | 0s | 0.0% | 0.00 m 0.00 g |
| Internal infill | 10m | 13.7% | 0.42 m 1.24 g |
| Solid infill | 24m | 33.5% | 1.16 m 3.47 g |
| Top solid infill | 53s | 1.3% | 0.05 m 0.15 g |
| Bridge infill | 1m | 1.4% | 0.04 m 0.13 g |
| Skirt/Brim | 23s | 0.5% | 0.02 m 0.06 g |
| Custom | 20s | 0.5% | 0.02 m 0.06 g |

Estimated printing times:
First layer: 3m
Total: 1h11m

Print settings:
Quality: 0.20mm QUALITY
Filament: Prusament PLA
Printer: Original Prusa MINI & MINI+
Supports: None
Infill: 15%
Brim:

Sliced Info:
Used Filament (g) (including spool): 10.75 (211.75)
Used Filament (m): 3.60
Used Filament (mm³): 8665.92
Cost: 0.39
Estimated printing time: - normal mode: 1h11m

Export G-code

PrusaSlicer 2.5.0 based on Slic3r

Print Settings | Filament Settings | Printer Settings

| Feature type | Time | Percentage | Used filament |
|--------------------|------|------------|---------------|
| Perimeter | 15m | 20.1% | 0.92 m 2.73 g |
| External perimeter | 23m | 30.2% | 0.97 m 2.90 g |
| Overhang perimeter | 1s | 0.0% | 0.00 m 0.00 g |
| Internal infill | 10m | 13.9% | 0.42 m 1.24 g |
| Solid infill | 24m | 32.5% | 1.16 m 3.47 g |
| Top solid infill | 53s | 1.2% | 0.05 m 0.15 g |
| Bridge infill | 1m | 1.4% | 0.04 m 0.13 g |
| Skirt/Brim | 21s | 0.5% | 0.02 m 0.06 g |
| Custom | 13s | 0.3% | 0.02 m 0.06 g |

Estimated printing times (Normal mode):
First layer: 3m
Total: 1h15m
Show stealth mode



Print settings:
Quality: 0.20mm QUALITY
Filament: Prusament PLA
Printer: Original Prusa i3 MK3S & MK3S+
Supports: None
Infill: 15%
Brim:

Sliced Info:
Used Filament (g) (including spool): 10.76 (211.76)
Used Filament (m): 3.61
Used Filament (mm³): 8674.34
Cost: 0.39
Estimated printing time: - normal mode: 1h15m
- stealth mode: 1h16m

Export G-code

Step 5: Tools

Printing parameters:

- **Filament material:** PLA
- **Color:** Any: Black  / Silver 
- **Layer height:** 0,2 mm
- **Support:** no
- **Infill:** 50%

- **Filament weight:** ca. 57 g
- **Prusa Mini compatible:** Yes
- **Quantity:** 1 piece

*Tools_v1 - PrusaSlicer-2.5.2 based on Slic3r

File Edit Window View Configuration Help

Printer Print Settings Filament Settings Printer Settings

| Feature type | Time | Percentage | Used filament |
|--------------------|-------|------------|----------------|
| Perimeter | 1h3m | 15.7% | 5.26 m 15.70 g |
| External perimeter | 1h56m | 29.0% | 4.91 m 14.65 g |
| Internal infill | 2h25m | 36.2% | 4.23 m 12.62 g |
| Solid infill | 58m | 14.4% | 3.66 m 10.92 g |
| Top solid infill | 8m | 2.0% | 0.42 m 1.24 g |
| Bridge infill | 10m | 2.6% | 0.47 m 1.39 g |
| Skirt/drain | 33s | 0.1% | 0.03 m 0.10 g |
| Custom | 14s | 0.1% | 0.02 m 0.06 g |

Estimated printing times (Normal mode):
 First layer: 8m
 Total: 6h41m
 Show stealth mode

33.00 (165)

Print settings:
 0.20mm QUALITY (modified)
 Filament: Prusament PLA
 Printer: Original Prusa i3 MK3S & MK3S+
 Supports: None
 Infill: 50% Brim

| Name | Editing |
|---------------|---------|
| tool_1_v1.stl | |
| tool_2_v1.stl | |
| tool_3_v1.stl | |
| tool_4_v1.stl | |
| tool_5_v1.stl | |
| tool_6_v1.stl | |
| tool_7_v1.stl | |
| tool_8_v1.stl | |

Group manipulation

| | X | Y | Z | |
|------------|--------|--------|-----|----|
| Translate: | 0 | 0 | 0 | mm |
| Rotate: | 0 | 0 | 0 | ° |
| Scale: | 100 | 100 | 100 | % |
| Size: | 116.74 | 108.46 | 33 | mm |

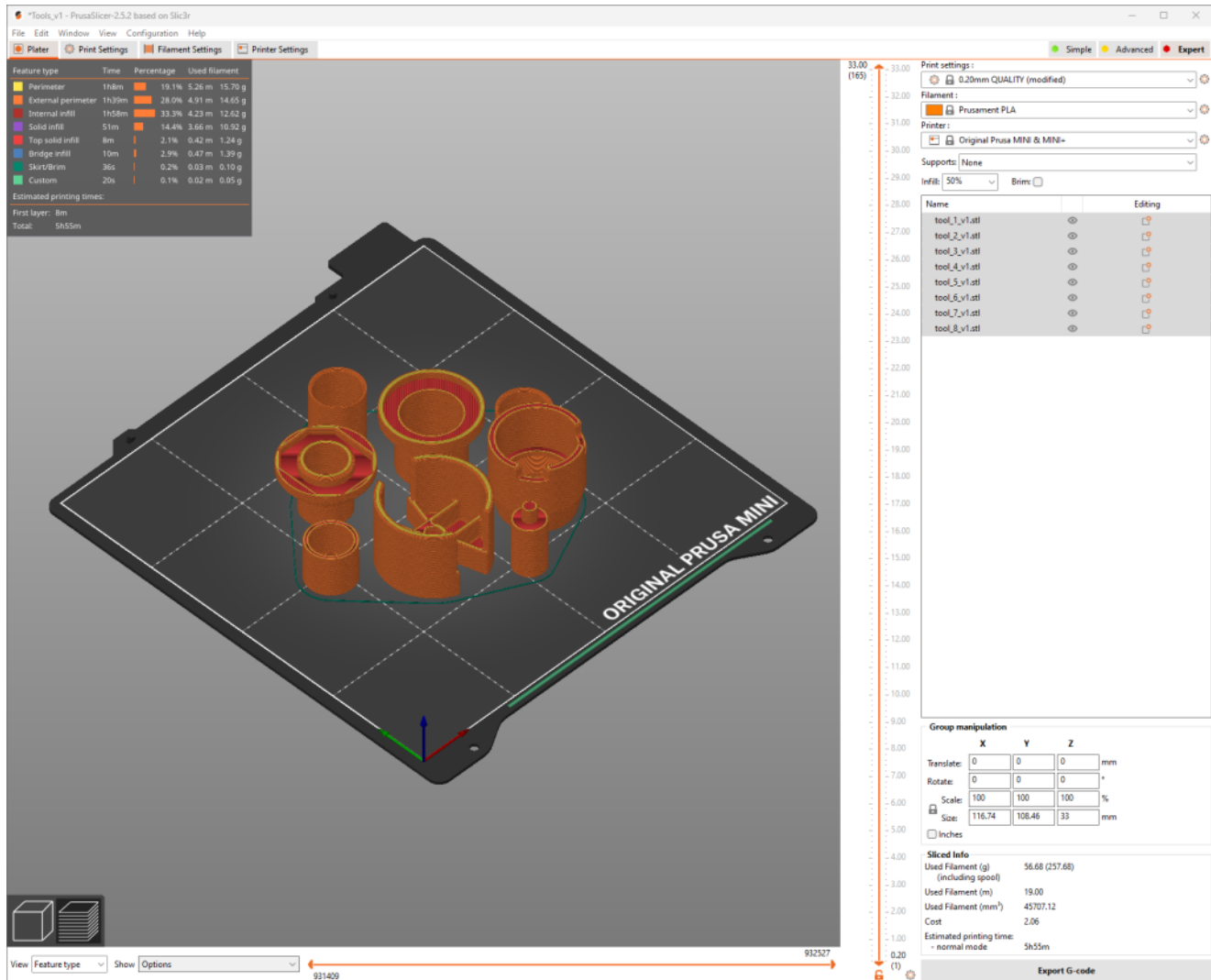
Inches

Sliced Info

| | |
|-------------------------------------|----------------|
| Used Filament (g) (including spool) | 56.69 (257.69) |
| Used Filament (m) | 19.01 |
| Used Filament (mm ³) | 45715.55 |
| Cost | 2.06 |
| Estimated printing time: | |
| - normal mode | 6h41m |
| - stealth mode | 6h43m |

Export G-code

View Feature type Show Options 958581 959460



Step 6: SK_Wheel_cover (optional)

Printing parameters:

- Filament material: PLA
- Color: Black ●
- Layer height: 0,2 mm / 0,1 mm
- Support: yes
- Infill: 15%
- Filament weight: ca. 22 g
- Prusa Mini compatible: Yes
- Quantity: 4 x 1 piece

*1x_sk_wheel_cover - PrusaSlicer-2.5.2 based on Slic3r

File Edit Window View Configuration Help

Plater Print Settings Filament Settings Printer Settings

| Feature type | Time | Percentage | Used filament |
|----------------------------|------|------------|---------------|
| Perimeter | 15m | 8.6% | 0.62 m 1.85 g |
| External perimeter | 24m | 13.6% | 0.69 m 2.06 g |
| Overhang perimeter | 19s | 0.2% | 0.01 m 0.02 g |
| Internal infill | 15m | 8.3% | 0.39 m 1.16 g |
| Solid infill | 44m | 25.0% | 1.76 m 5.25 g |
| Top solid infill | 15m | 8.9% | 0.31 m 0.93 g |
| Bridge infill | 8m | 4.5% | 0.20 m 0.59 g |
| Skirt/brim | 27s | 0.3% | 0.03 m 0.08 g |
| Support material | 46m | 26.5% | 2.77 m 8.26 g |
| Support material interface | 7m | 4.1% | 0.46 m 1.36 g |
| Custom | 13s | 0.1% | 0.02 m 0.06 g |

Estimated printing times [Normal mode]:
 First layer: 11m
 Total: 2h55m
 Show stealth mode

View Feature type Show Options

172470 172510

Print settings:
 0.20mm QUALITY (modified)
 Filament: Prusament PLA
 Printer: Original Prusa i3 MK3S & MK3S+
 Supports: For support enforcers only
 Infill: 15% Brims

Name: sk_wheel_cover_v1

Paint-on supports
 Layers
 Range 11.00-16.60 (mm)

Object manipulation
 World coordinates X Y Z
 Position: 125 105 8.27 mm
 Rotate: 0 0 0 °
 Scale factors: 100 100 100 %
 Size: 72.18 73.87 16.55 mm
 Inches

Info
 Size: 72.18 x 73.87 x 16.55 Volume: 13267.15
 Facets: 19650 (1 shell)
 No errors detected

Sliced Info
 Used Filament (g) (including spool): 21.65 (222.65)
 Used Filament (m): 7.26
 Used Filament (mm³): 17456.60
 Cost: 0.79
 Estimated printing time:
 - normal mode: 2h55m
 - stealth mode: 2h56m

Export G-code

*1x_sk_wheel_cover_Mini - PrusaSlicer-2.5.2 based on Slic3r

File Edit Window View Configuration Help

Plater Print Settings Filament Settings Printer Settings

| Feature type | Time | Percentage | Used filament |
|----------------------------|------|------------|---------------|
| Perimeter | 15m | 8.8% | 0.62 m 1.85 g |
| External perimeter | 22m | 12.8% | 0.69 m 2.06 g |
| Overhang perimeter | 19s | 0.2% | 0.01 m 0.02 g |
| Internal infill | 13m | 7.4% | 0.39 m 1.16 g |
| Solid infill | 39m | 22.5% | 1.76 m 5.25 g |
| Top solid infill | 14m | 8.3% | 0.31 m 0.93 g |
| Bridge infill | 8m | 4.6% | 0.20 m 0.59 g |
| Skirt/brim | 30s | 0.3% | 0.03 m 0.08 g |
| Support material | 51m | 29.9% | 2.77 m 8.26 g |
| Support material interface | 9m | 5.0% | 0.46 m 1.36 g |
| Custom | 20s | 0.2% | 0.02 m 0.05 g |

Estimated printing times:
 First layer: 11m
 Total: 2h51m

View Feature type Show Options

180835 180875

Print settings:
 0.20mm QUALITY (modified)
 Filament: Prusament PLA
 Printer: Original Prusa MINI & MINI+
 Supports: For support enforcers only
 Infill: 15% Brims

Name: sk_wheel_cover_v1

Paint-on supports
 Layers
 Range 11.00-16.60 (mm)

Object manipulation
 World coordinates X Y Z
 Position: 90 90 8.27 mm
 Rotate: 0 0 0 °
 Scale factors: 100 100 100 %
 Size: 72.18 73.87 16.55 mm
 Inches

Info
 Size: 72.18 x 73.87 x 16.55 Volume: 13267.15
 Facets: 19650 (1 shell)
 No errors detected

Sliced Info
 Used Filament (g) (including spool): 21.64 (222.64)
 Used Filament (m): 7.25
 Used Filament (mm³): 17448.19
 Cost: 0.79
 Estimated printing time:
 - normal mode: 2h51m

Export G-code

Leave a Reply

You must be logged in to post a comment.

By continuing to browse this site, you agree to our use of cookies.