

5. 3D Print the Exoskeleton parts: Front

T teslarcs.com/assembly-manuals/cybertruck/4-13-3d-print-the-cybertruck-parts/5-3d-print-the-exoskeleton-parts-front/



Difficulty

Moderate



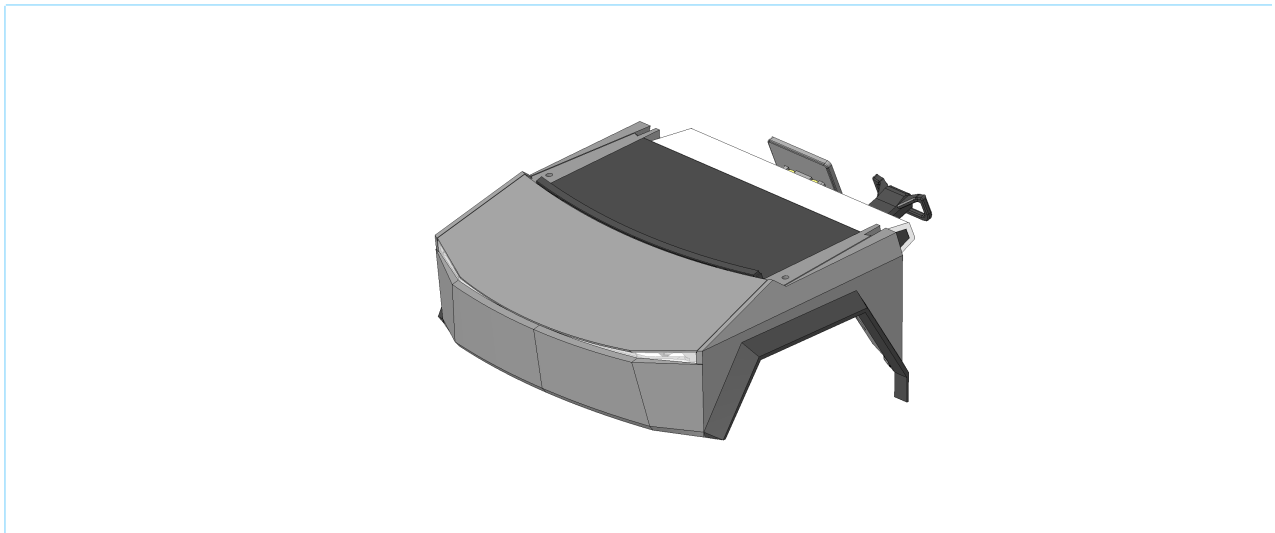
Steps

12



Get entire manual as PDF

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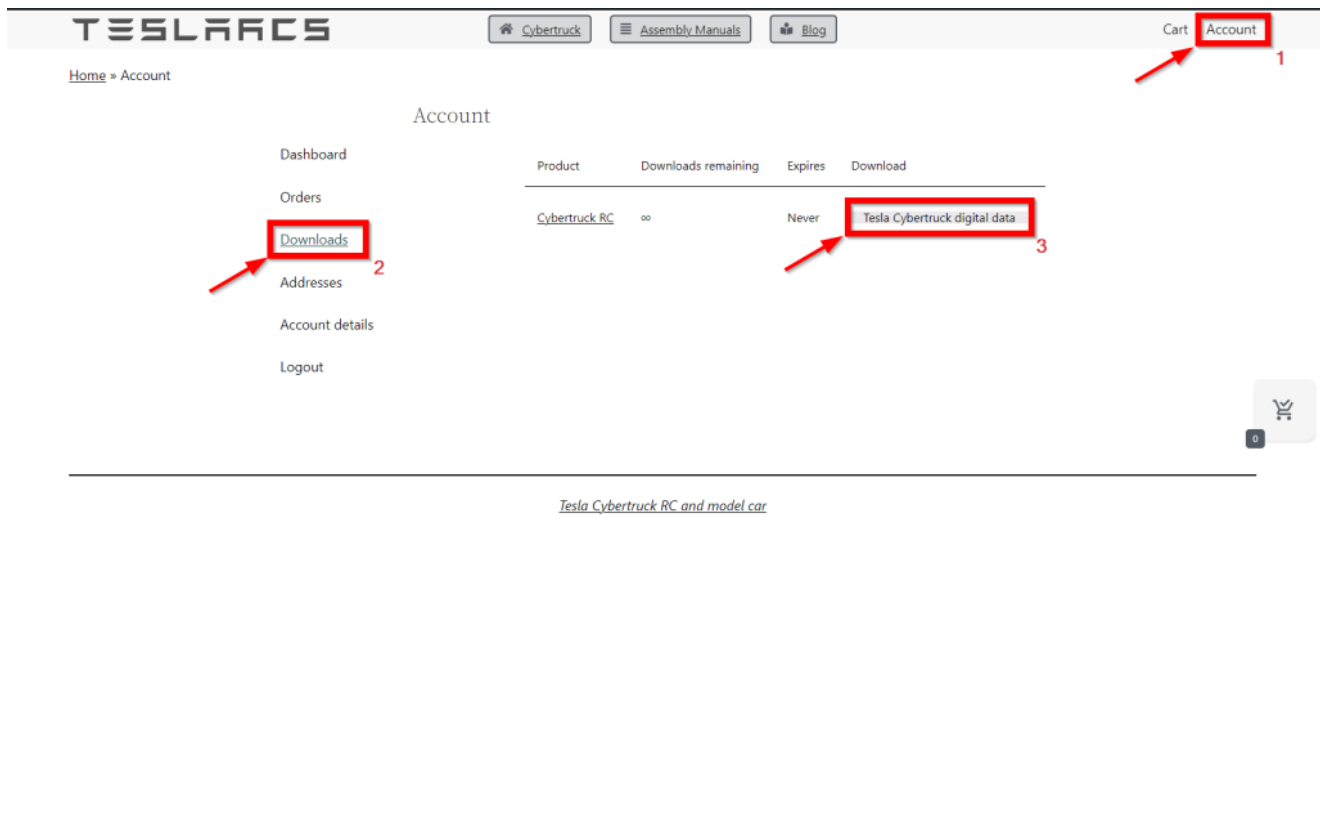
Step 1: Important information!

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: EX_FENDER_FRONT

Printing files:

- 1X EX_FENDER_FRONT_L
- 1X EX_FENDER_FRONT_R

Printing parameters:

- **Filament material:** PLA
- **Color:** Black ●

- **Layer height:** 0,2 mm
- **Support:** no
- **Infill:** 15%

- **Filament weight:** ca. 13 g
- **Prusa Mini compatible:** Yes
- **Quantity:** 2 x 1 piece

Print settings for PrusaSlicer 2.5.0 based on Slic3r. The interface shows a 3D model of a printer bed with a printed fender. The printer is identified as 'Original Prusa MINI & MINI+'. The print settings are configured for 0.20mm QUALITY, Prusament PLA filament, and a 15% infill rate. The estimated printing time is 1h26m.

Feature type	Time	Percentage	Used filament
Perimeter	18m	20.5%	1.15 m 3.42 g
External perimeter	22m	25.6%	1.14 m 3.41 g
Overhang perimeter	0s	0.0%	0.00 m 0.00 g
Internal infill	12m	13.4%	0.53 m 1.57 g
Solid infill	33m	37.8%	1.36 m 4.04 g
Top solid infill	10s	0.2%	0.01 m 0.02 g
Bridge infill	1m	1.2%	0.04 m 0.12 g
Skirt/Brim	52s	1.8%	0.05 m 0.14 g
Custom	19s	0.4%	0.02 m 0.05 g

Estimated printing times:
 First layer: 7m
 Total: 1h26m

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

Sliced Info:
 Used Filament (g) 12.78 (213.78)
 (including spool)
 Used Filament (m) 4.29
 Used Filament (mm³) 10309.57
 Cost 0.46
 Estimated printing time:
 - normal mode 1h26m
 - stealth mode 0.20

Print settings for PrusaSlicer 2.5.0 based on Slic3r. The interface shows a 3D model of a printer bed with a printed fender. The printer is identified as 'Original Prusa i3 MK3 & MK3.5 by Josef Prusa'. The print settings are configured for 0.20mm QUALITY, Prusament PLA filament, and a 15% infill rate. The estimated printing time is 1h31m in normal mode and 1h32m in stealth mode.

Feature type	Time	Percentage	Used filament
Perimeter	17m	18.3%	1.15 m 3.42 g
External perimeter	26m	28.5%	1.14 m 3.41 g
Overhang perimeter	1s	0.0%	0.00 m 0.00 g
Internal infill	12m	13.7%	0.53 m 1.57 g
Solid infill	34m	37.0%	1.36 m 4.04 g
Top solid infill	10s	0.2%	0.01 m 0.02 g
Bridge infill	1m	1.1%	0.04 m 0.12 g
Skirt/Brim	47s	0.9%	0.05 m 0.14 g
Custom	14s	0.3%	0.02 m 0.06 g

Estimated printing times (Normal mode):
 First layer: 7m
 Total: 1h31m
 Show stealth mode

Print settings:
 Print settings: 0.20mm QUALITY
 Filament: Prusament PLA
 Printer: Original Prusa i3 MK3 & MK3.5+
 Supports: None
 Infill: 15%
 Brims:

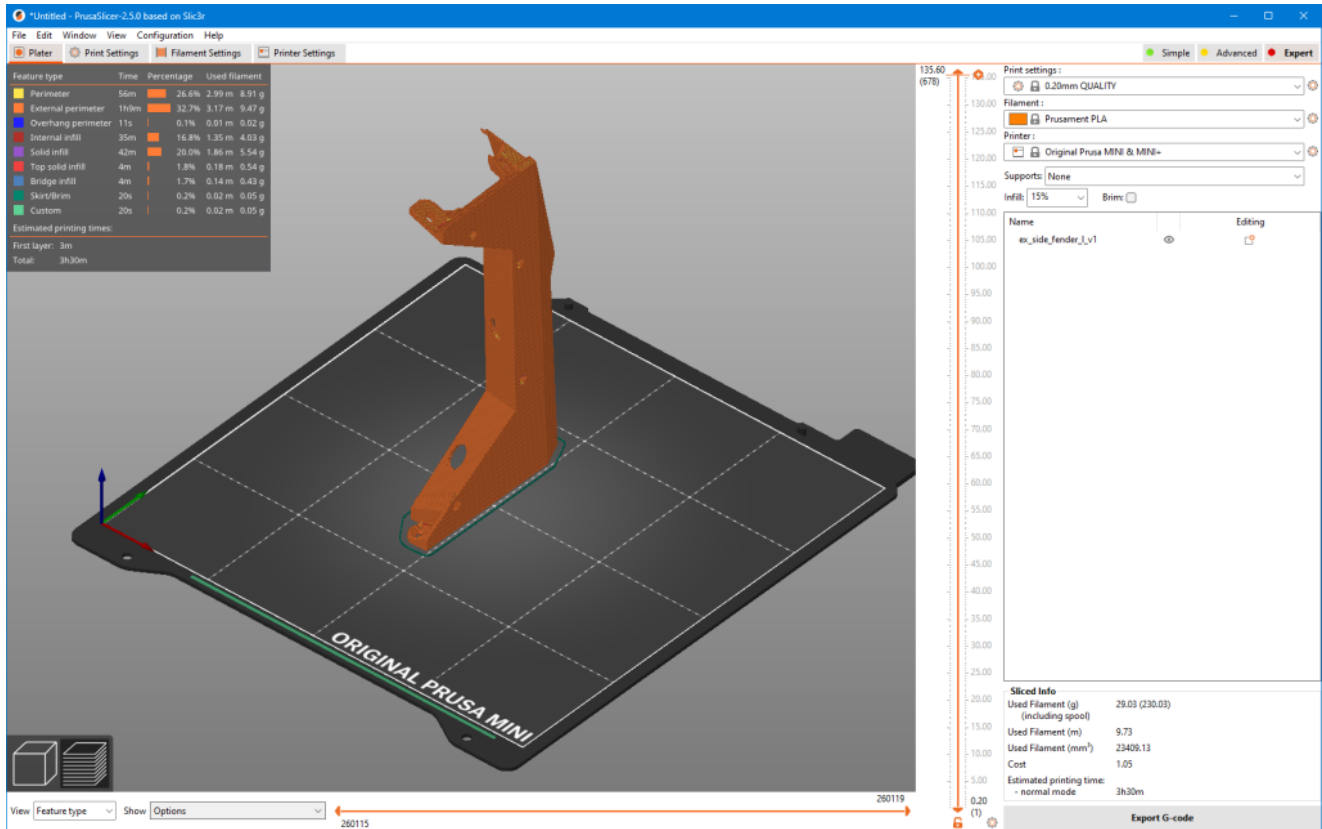
Sliced Info:
 Used Filament (g) 12.79 (213.79)
 (including spool)
 Used Filament (m) 4.29
 Used Filament (mm³) 10317.97
 Cost 0.46
 Estimated printing time:
 - normal mode 1h31m
 - stealth mode 1h32m

Step 3: EX_SIDE_FENDER_L

Printing parameters:

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

- **Filament weight:** ca. 30 g
- **Prusa Mini compatible:** Yes
- **Quantity:** 1 piece

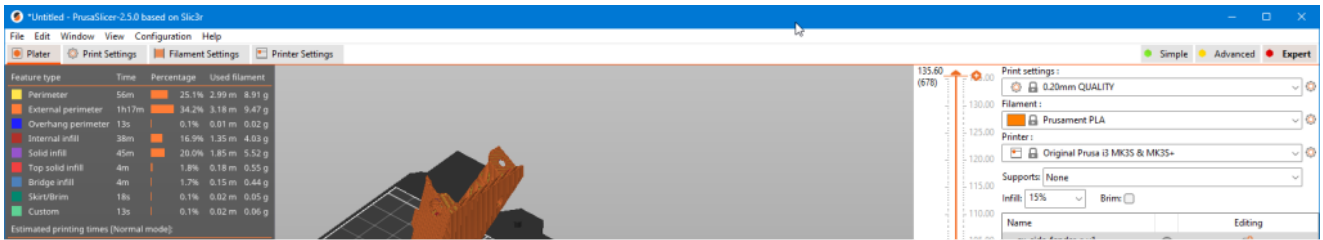
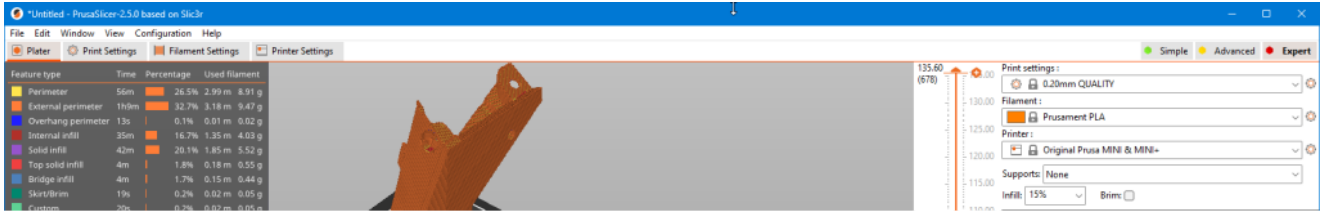


Step 4: EX_SIDE_FENDER_R

Printing parameters:

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

- **Filament weight:** ca. 30 g
- **Prusa Mini compatible:** Yes
- **Quantity:** 1 piece



Step 5: EX_FRONT

Printing parameters:

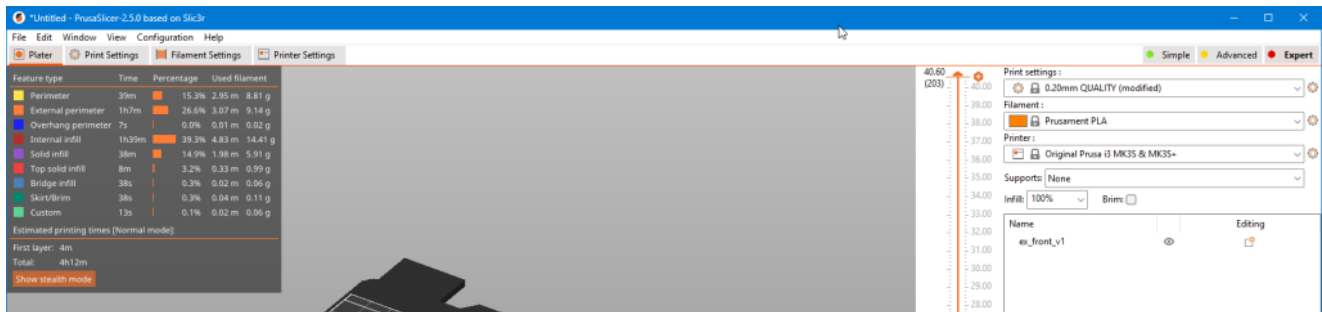
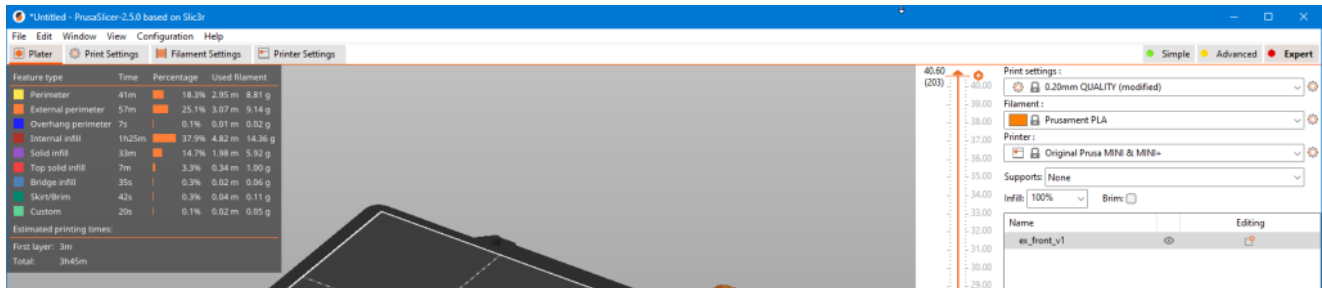
- **Filament material:** PLA
- **Color:** Silver 
- **Layer height:** 0,2 mm
- **Support:** no
- **Infill: 100% for RC**, 15% for model

- **Filament weight:** ca. 40 g
- **Prusa Mini compatible:** Yes (diagonally)
- **Quantity:** 1 piece

Why 100% infill?



If you use front LED and the infill is low, than the LED light go through on the PLA too and looks stupid!

If you don't plan to use LED, 15% infill enough!



Step 6: EX_FRONT_LIGHT

Printing parameters:

- **Filament material:** PLA
- **Color:** Transparent 
(Alternative: White )
- **Layer height:** 0,2 mm
- **Support:** no
- **Infill:** 15%

- **Filament weight:** ca. 2 g
- **Prusa Mini compatible:** Yes (diagonally)
- **Quantity:** 1 piece

Print settings: Simple Advanced Expert

Print settings: 0.20mm QUALITY (modified)

Filament: Prusament PLA

Printer: Original Prusa MINI & MINI+

Supports: None

Infill: 15% Brim:

Name	Editing
ex_front_light_v1	

Object manipulation

World coordinates: X Y Z

Position: 90 90 5.68 mm

Rotate: 0 0 0 °

Scale factors: 100 100 100 %

Size: 128.21 128.21 11.36 mm

Inches

Info

Size: 21.71 x 178.77 x 11.36 Volume: 1482.15

Facets: 2570 (1 shell)

No errors detected

Sliced Info

Used Filament (g): 1.90 (202.90)

Used Filament (m): 0.64

Used Filament (mm³): 1535.30

Cost: 0.07

Estimated printing time: 14m

- normal mode

Export G-code

Feature type: External perimeter 13m 92.8% 0.58 m 1.74 g

Overhang perimeter 0s 0.0% 0.00 m 0.00 g

Skirt/Brim 39s 4.7% 0.04 m 0.11 g

Custom 21s 2.5% 0.02 m 0.05 g

Estimated printing times:

First layer: 54s

Total: 14m

View: Feature type Show Options

13690 13721

Print settings: Simple Advanced Expert

Print settings: 0.20mm QUALITY (modified)

Filament: Prusament PLA

Printer: Original Prusa MINI & MINI+

Supports: None

Infill: 15% Brim:

Object manipulation

World coordinates: X Y Z

Position: 90 90 5.68 mm

Rotate: 0 0 0 °

Scale factors: 100 100 100 %

Size: 128.21 128.21 11.36 mm

Inches

Info

Size: 21.71 x 178.77 x 11.36 Volume: 1482.15

Facets: 2570 (1 shell)

No errors detected

Sliced Info

Used Filament (g): 1.90 (202.90)

Used Filament (m): 0.64

Used Filament (mm³): 1535.30

Cost: 0.07

Estimated printing time: 14m

- normal mode

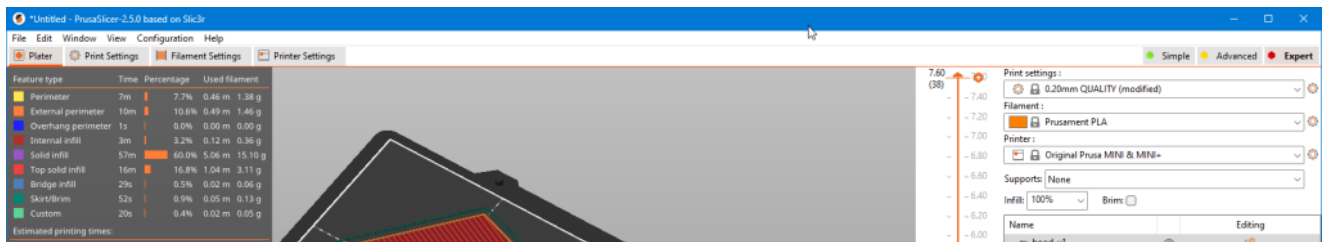
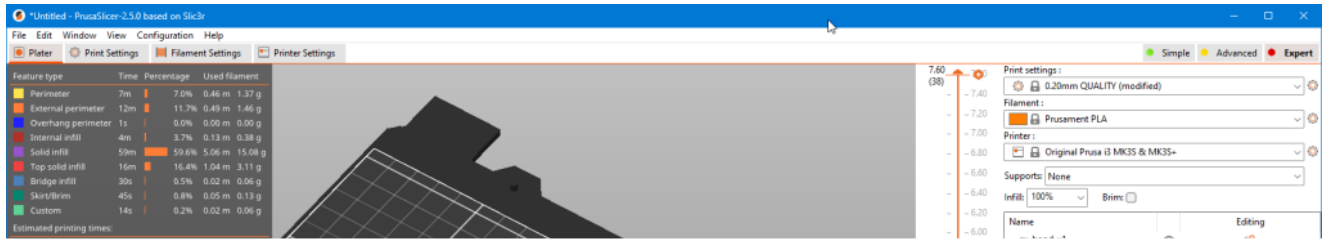
Export G-code

Step 7: EX_HOOD

Printing parameters:

- **Filament material:** PLA
- **Color:** Silver 
- **Layer height:** 0,2 mm
- **Support:** no
- **Infill:** 100% for RC, 15% for model

- **Filament weight:** ca. 22 g
- **Prusa Mini compatible:** Yes (diagonally)
- **Quantity:** 1 piece



Step 8: EX HOOD ARM

Printing files:

- 2X EX_HOOD_ARM_1
- 2X EX_HOOD_ARM_2

Printing parameters:

- **Filament material:** PLA
- **Color:** Silver ●
- **Layer height:** 0,2 mm
- **Support:** Everywhere
- **Infill:** 100%

- **Filament weight:** ca. 1 g
- **Prusa Mini compatible:** Yes (diagonally)
- **Quantity:** 2 x 2 pieces

PrusaSlicer 2.5.0 based on Slic3r

Print settings: Simple Advanced Expert

Print settings: 0.20mm QUALITY (modified)

Filament: Prusament PLA

Printer: Original Prusa MINI & MINI+

Supports: Everywhere

Infill: 100% Brim:

Name	Editing
ex_hood_arm_1_v1	
Instances	
Instance 1	

Feature type	Time	Percentage	Used filament
Perimeter	2m	19.4%	0.05 m 0.15 g
External perimeter	3m	37.7%	0.10 m 0.30 g
Overhang perimeter	4s	1.0%	0.00 m 0.01 g
Internal infill	34s	7.3%	0.02 m 0.07 g
Solid infill	1m	13.2%	0.04 m 0.13 g
Top solid infill	13s	2.9%	0.01 m 0.03 g
Bridge infill	5s	1.2%	0.00 m 0.01 g
Skirt/brim	24s	5.2%	0.02 m 0.07 g
Support material	26s	5.5%	0.01 m 0.03 g
Support material interface	10s	2.1%	0.00 m 0.01 g
Custom	20s	4.4%	0.02 m 0.05 g

Estimated printing times:
First layer: 1m

PrusaSlicer 2.5.0 based on Slic3r

Print settings: Simple Advanced Expert

Print settings: 0.20mm QUALITY (modified)

Filament: Prusament PLA

Printer: Original Prusa i3 MK3S & MK3S+

Supports: Everywhere

Infill: 100% Brim:

Name	Editing
ex_hood_arm_1_v1	

Feature type	Time	Percentage	Used filament
Perimeter	2m	19.7%	0.05 m 0.15 g
External perimeter	3m	39.1%	0.10 m 0.30 g
Overhang perimeter	5s	1.1%	0.00 m 0.01 g
Internal infill	37s	7.6%	0.02 m 0.07 g
Solid infill	1m	13.3%	0.04 m 0.13 g
Top solid infill	14s	2.9%	0.01 m 0.03 g
Bridge infill	6s	1.3%	0.00 m 0.01 g
Skirt/brim	23s	4.7%	0.02 m 0.07 g
Support material	27s	5.5%	0.01 m 0.03 g
Support material interface	10s	2.1%	0.00 m 0.01 g
Custom	13s	2.8%	0.02 m 0.06 g

Estimated printing times:
First layer: 1m

Step 9: EX_FRUNK

Printing parameters:

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

- **Filament weight:** ca. 104 g
- **Prusa Mini compatible:** Yes
- **Quantity:** 1 piece

Print settings for a 3D model in PrusaSlicer 2.5.0. The interface shows a table of feature types, a 3D model, and a settings panel.

Feature type	Time	Percentage	Used filament
Perimeter	2h57m	29.0%	13.31 m 39.69 g
External perimeter	2h53m	38.2%	13.05 m 38.92 g
Overhang perimeter	21s	0.1%	0.02 m 0.05 g
Internal infill	1h13m	12.0%	3.15 m 9.39 g
Solid infill	1h53m	18.6%	4.59 m 13.69 g
Top solid infill	5m	0.8%	0.26 m 0.78 g
Bridge infill	8m	1.3%	0.33 m 0.99 g
Skirt/Brim	35s	0.1%	0.03 m 0.10 g
Custom	21s	0.1%	0.02 m 0.05 g

Print settings:

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

Print settings for a 3D model in PrusaSlicer 2.5.0. The interface shows a table of feature types, a 3D model, and a settings panel.

Feature type	Time	Percentage	Used filament
Perimeter	2h47m	25.7%	13.31 m 39.69 g
External perimeter	4h33m	42.0%	13.05 m 38.92 g
Overhang perimeter	21s	0.1%	0.02 m 0.05 g
Internal infill	1h17m	11.9%	3.15 m 9.39 g
Solid infill	1h59m	18.3%	4.59 m 13.69 g
Top solid infill	5m	0.8%	0.26 m 0.78 g
Bridge infill	8m	1.2%	0.33 m 0.99 g
Skirt/Brim	33s	0.1%	0.03 m 0.10 g
Custom	14s	0.0%	0.02 m 0.06 g

Print settings:

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

Step 10: EX_DASHBOARD

Printing parameters:

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

- **Filament weight:** ca. 26 g
- **Prusa Mini compatible:** Yes
- **Quantity:** 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	1h0m	30.0%	3.02 m 9.02 g
External perimeter	1h7m	33.1%	3.14 m 9.35 g
Overhang perimeter	5s	0.0%	0.00 m 0.01 g
Internal infill	54m	26.6%	1.81 m 5.38 g
Solid infill	6m	3.0%	0.23 m 0.69 g
Top solid infill	27s	0.2%	0.02 m 0.06 g
Bridge infill	39s	0.2%	0.02 m 0.06 g
Skin/brim	14s	0.1%	0.01 m 0.04 g
Support material	12m	6.1%	0.35 m 1.05 g
Support material interface	1s	0.0%	0.00 m 0.00 g

Print settings:

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

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	1h4m	29.5%	3.02 m 9.02 g
External perimeter	1h12m	33.4%	3.14 m 9.35 g
Overhang perimeter	5s	0.0%	0.00 m 0.01 g
Internal infill	58m	27.1%	1.81 m 5.38 g
Solid infill	6m	3.0%	0.23 m 0.69 g
Top solid infill	28s	0.2%	0.02 m 0.06 g
Bridge infill	39s	0.2%	0.02 m 0.06 g

Print settings:

- 0.20mm QUALITY (modified)
- Filament: Prusament PLA
- Printer: Original Prusa i3 MK3S & MK3S+
- Supports: For support enforcers only






Step 11: EX_SCREEN

Printing parameters:

- **Filament material:** PLA
- **Multi-Color:** Black  / White 
- **Layer height:** 0,2 mm
- **Support:** No
- **Infill:** 15%

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

Multi-Color Printing:

- 1. Layer: 0 – 0,2mm: Black  ->Filament change to White 
- 1-2. Layer: 0 – 0,4 mm: White  ->Filament change to Black 
- 2 – Last layer: 0,2 – 8,0 mm: Black 

Use the downloaded .3mf, or .gcode files for the proper multi color settings!

Step 12: EX_YOKE_STEERING_WHEEL

Printing parameters:

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

- **Filament weight:** ca. 5 g
- **Prusa Mini compatible:** Yes
- **Quantity:** 1 piece

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