

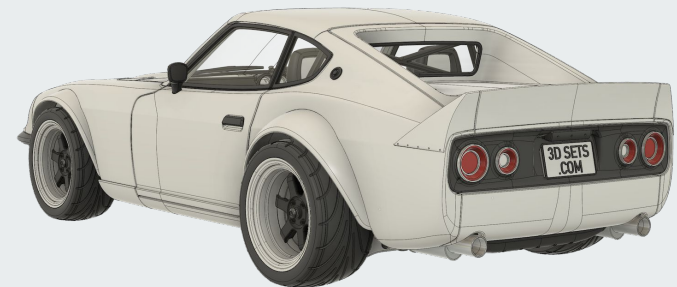
Build Guide

Sport Pack for Model 17

Accessory for "Model 17: Sakura 240"

This set consist of these items:

- "G-Nose" long front, inspired by racing car
- Detailed Seats
- Sport Tailgate
- Rear Spoilers and Wing
- Tail Light Panels - 2 different designs
- Hood with Vents
- Dual Exhausts
- Mirrors located on Doors
- Plain Fender Flares
- Wheels - design K
- Alternative Grille for short-nose Sakura



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Version 1.0



Sakura 240 Sport Pack – version 1.0 technical specs.

- Dimensions: 52.5 cm length (long “G-Nose”), 51 cm (standard nose), 23 cm width (incl. mirrors), 15.5 cm height
- Model weights roughly 2.5 kg (including battery)
- Permanent rear wheel drive with opened differential (locked differential alternatively for non-stop skid)
- Remote controlled steering and speed control
- Suspension with real springs and dampers for great on-road capabilities
- BeltDrive gearbox with 1:8 gear ratio
- Doors, hood , trunk can be manually opened, door handles are functional
- Electronics and battery hidden inside the trunk
- Easy to replace front body parts for effortless crash repairs





Sport Pack – version 1.0.0 changelog

“Sport Pack for Model 17” v1.0.0, release date: April 16, 2024:

First model release



Before you start

- Get ready all tools.
- Buy necessary parts that cannot be printed (screws, bearings, motor etc.), these parts are listed on next page.
- Make sure that your **printer is calibrated** well – print our “calibration part” to ensure that you can fit bearings on shafts properly! Calibration part is located on “Print 0 - Calibration”.
- Use **higher printing temperatures** – use about 210-215°C for PLA to have firm layer adhesion!
- Use some **heat-resistant filament** (PC Blend) for specific drivetrain parts noted later in this Guide!
- Most of the bodywork (middle & rear parts, roof) are optimized for **0% infill** setting to reduce printing time dramatically. Open provided .3mf files in [Prusa Slicer](#) to see the printing setup for specific prints.
- If you will generate your own GCodes, test one side Body Panel if you want to use “Arachne” perimeter generator. Parts are optimized to “classic” perimeter generator, Arachne may cause visible marks on the surface.

- Build guide is divided on steps and subassemblies. Subassembly is a sequence, where you will make some independent sub-part like gearbox, axles etc. Later you will install subassembly in the car.



Are you **new** to the Radio Controlled models?

Don't worry, Radio Controlled (RC) models are not as complicated as they can look! However, it's a good to know some basics before you will start buying parts.

Most mechanical parts in our products will be 3d printed on your own printer, so we will focus here on RC electronics.

On-line beginners guides:

- [Steemit.com](https://www.steemit.com) – a basic introduction to RC car models
- [Instructables.com](https://www.instructables.com) – another beginners guide, general (not focused on car models)
- [Youtube](#) – a nice video showing RC electronic basics

If you have any questions regarding our models, feel free to ask us (or other 3D Sets builders) on our Facebook discussion group, available here: [Facebook – 3D Sets](#)





Sakura 240 Sport Pack – version 1.0.0: What do you need?

- **LINKS for PARTS PURCHASE!** ➔ list of required non-printed parts is here (continuously updated): [click for non-printed parts spreadsheet](#)
- Print Filament: To print this model you will need around 3500 g of print filament in total. We print our models from PLA material. **For the opened differential gears its recommended to use Prusament PC Blend.** Locked differential is OK from good-quality PLA. You can use variable color for chassis and body. Tested and recommended filament: [Fillamentum PLA Extrafill](#) or [Prusament PLA](#).
- **BeltDrive 4x4 gearbox** (recommended option):
 - Model is driven by brushless motor **3530** - size
 - **Timing belts: HTD 144-3M-06 (HTD profile, 144 mm long, 3 mm teeth distance, 6 mm wide) – 3 pcs**
 - All parts can be printed from PLA or similar filaments
- Steering servo in standard size (39x19,5x38,5mm) – minimum torque: 10kg, optimum 20kg
- Speed controller (ESC) max size 40x50x35mm – for placing under the trunk floor
- Ball Bearing 10x15x4 mm - 6700ZZ: 26 pcs. (or less depending on gearbox type and axles configuration)
- Shock -Coil springs, inner diameter max 18mm, length 50-55mm: 4 pcs. Top shock mounts are included in 3 different variants allows you to fine-tune ground clearance.
- Tires informations: (**Please follow these dimensions**, otherwise the tyres could collide with fenders):
 - Front Wheels – **outer diameter 85 mm maximum!**, maximum width **31 mm**, rim diameter 2.2 inches
 - Rear Wheels – **outer diameter 85 mm maximum!**, maximum width **46 mm**, rim diameter 2.2 inches
 - If you cannot wait for the rubber tires delivery, **you can 3D print tires** from TPU filament using .stl/.3mf data we provide. These tires has special design to be printed with 0% infill and they can be used for driving the model.
- 7.2V (2S) or 9,4V (3S) Battery with dimensions max 138x48x30mm; Alternatively you can use “shorty” battery.
- Electric connectors: 2 pairs (battery connectors, motor <-> ESC connectors)
- Servo cable extension – about 30 cm long
- cables & soldering equipment – for extending wires from ESC to motor
- Clear Binding Covers, or any transparent foil up to 0,5 mm thick – material for “Glass”.
- Grease and Thread Locker for securing fasteners on moving parts

Sport Pack for Model 17 – version 1.0.0: Required hardware

Sport Pack only – Screws and nuts (in metric size):

- M2x6: 38 pcs.
- M2x8: 8 pcs.
- M2x10: 2 pcs.
- M2x12: 8 pcs.
- M3x6: 18 pcs.
- M3x8: 52 pcs.
- M3x10: 6 pcs.
- M3x16: 4 pcs.
- M3 nuts: 4 pcs.
- M3x6 **Socket(!)** Head: 6 pcs.



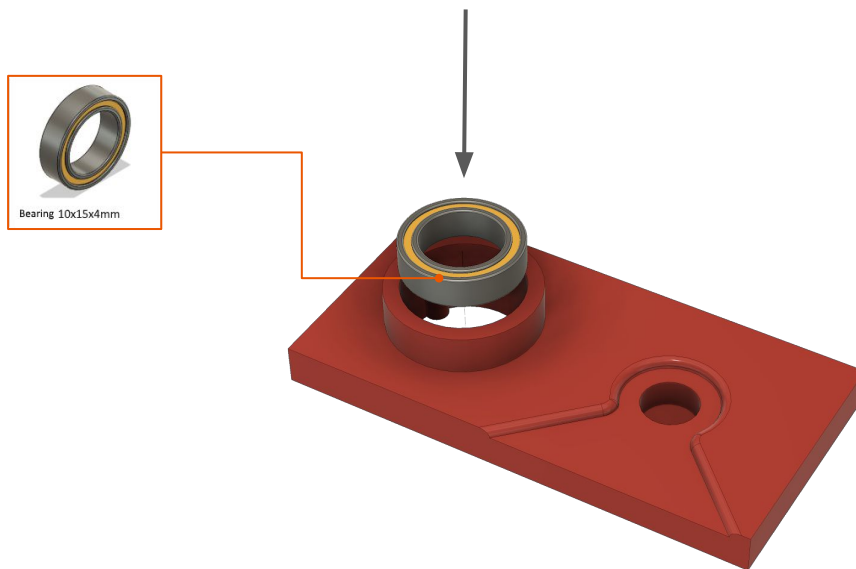
Sakura 240 + Sport Pack - Screws and nuts (in metric size):

- M2x6: 60 pcs.
- M2x8: 20 pcs.
- M2x10: 9 pcs.
- M2x12: 10 pcs.
- M3x6: 28 pcs.
- M3x8: 95 pcs.
- M3x10: 60 pcs.
- M3x12: 25 pcs
- M3x14: 3 pcs
- M3x16: 40 pcs.
- M3x20: 4 pcs.
- M3x25: 8 pcs.
- M3 nuts: 40 pcs.
- M3 locknuts: 5 pcs.
- M3x6 **Socket(!)** Head: 8 pcs.



Check 3d printer calibration!

Please at first test whether the bearing can be inserted into the calibration part. If you have problems or the bearing fits too loose, please make sure that the printer is properly calibrated. Dimensions of the printed parts should match dimensions of the 3d model.



Sport Pack – C-Shape Tail Lights

In this procedure you will assemble the alternative Tail Light Panel.

Required print plates from Sport Pack:

- "Tail Lights C-Shape"
- "Tail Panel C-Shape"

Required print plates from Sakura 240:

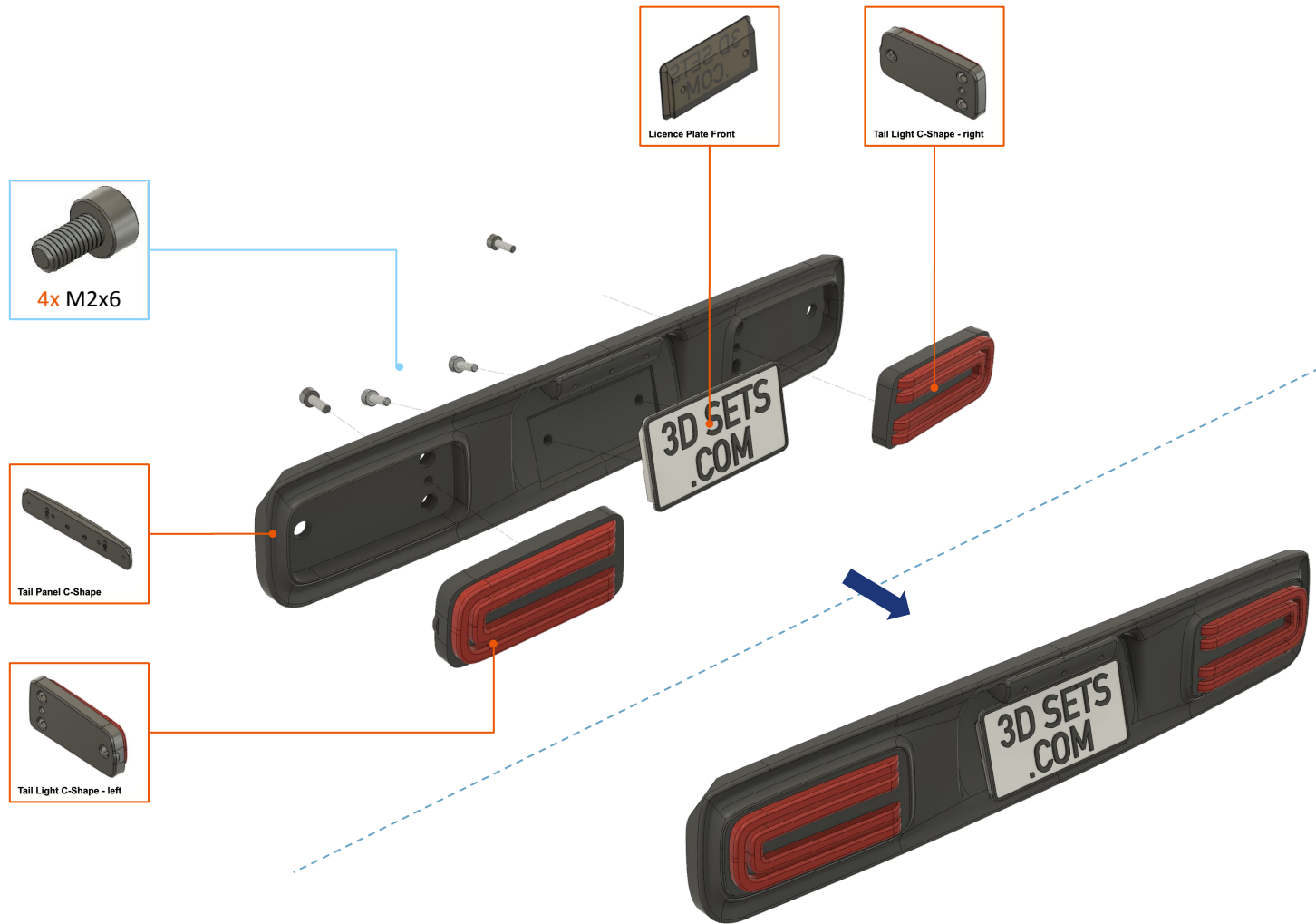
- "Print 3 - color change Licence Plate"

Non-printed parts:

- Screw M2x6: 4 pcs.



C-Shape Tail Lights Panel



[Continue in Build Guide Sakura 240 on page 12](#)



Sport Pack – O-Shape Tail Lights

In this procedure you will assemble the alternative Tail Light Panel.

Required print plates Sport Pack:

- "Tail Light O-Shape Frames"
- "Tail Light O-Shape White"
- "Tail Lights O-Shape Red 1"
- "Tail Panel O-Shape"

Required print plates from Sakura 240:

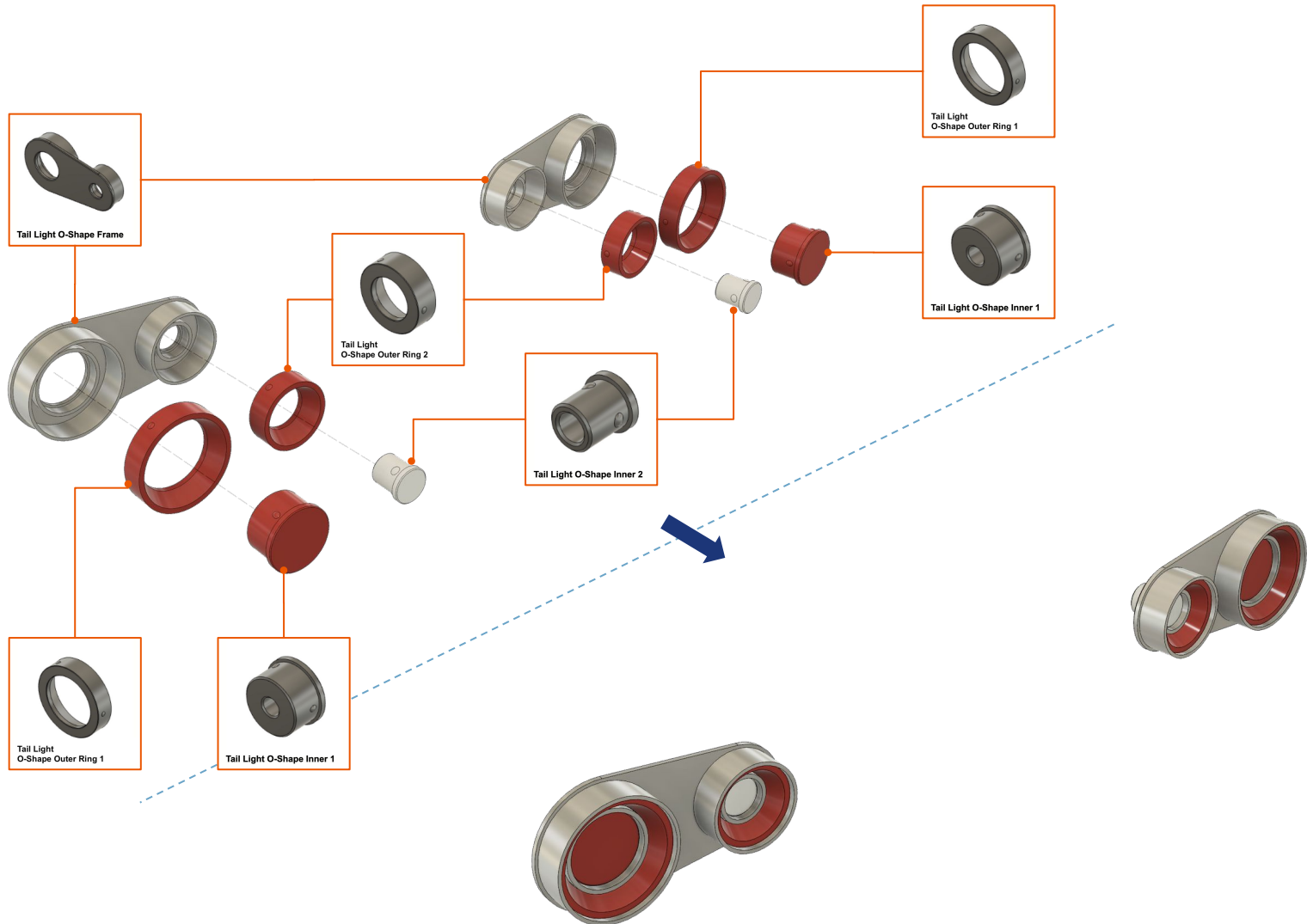
- "Print 3 - color change Licence Plate"

Non-printed parts:

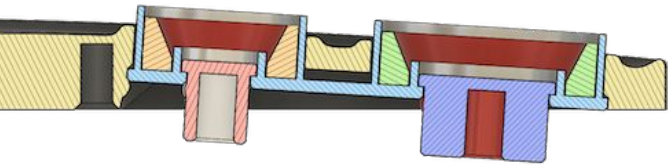
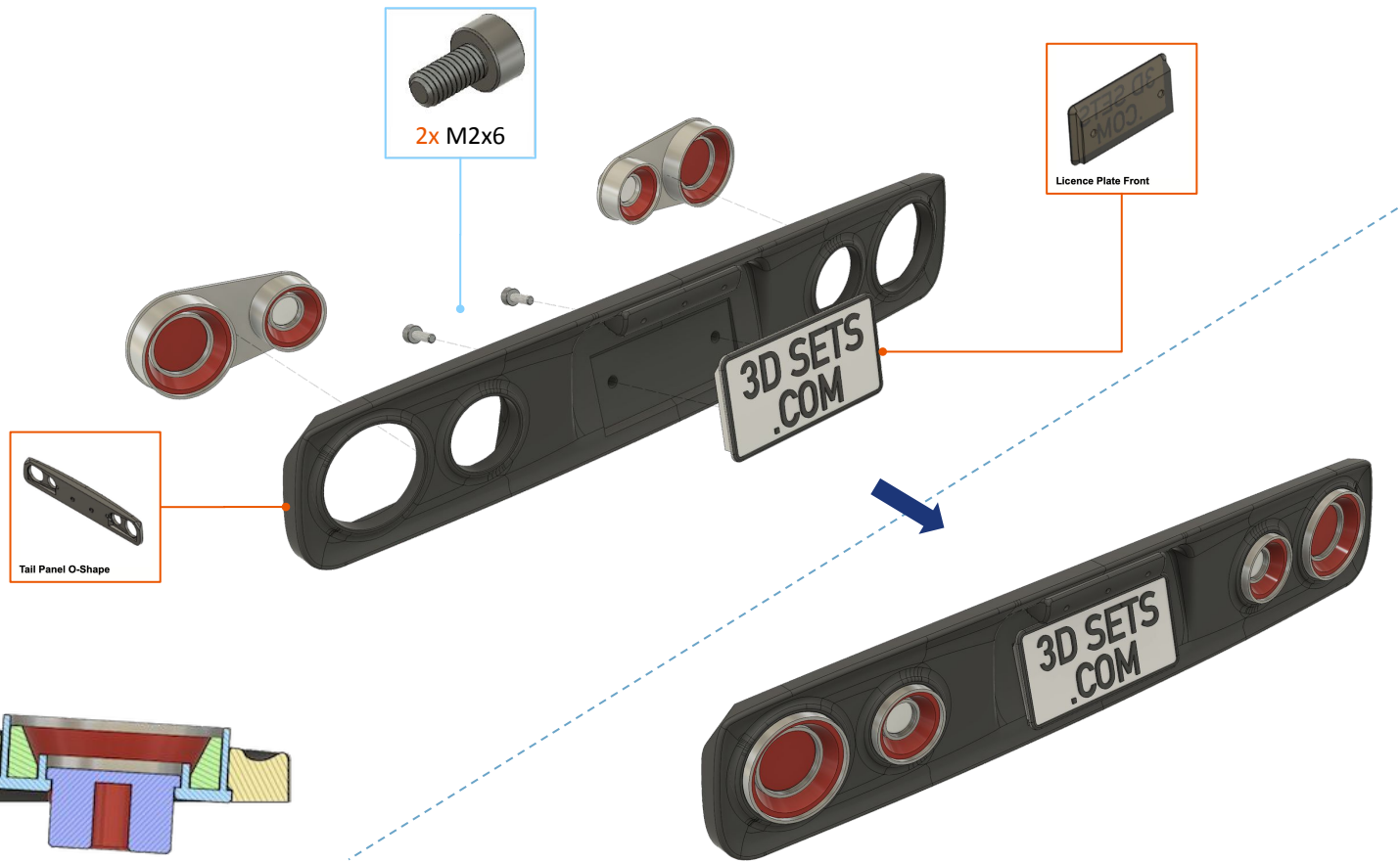
- Screw M2x6: 2 pcs.



O-Shape Tail Lights Panel



Tail Lights Panel



Correct position of assembly.

[Continue in Build Guide Sakura 240 on page 12](#)



Sport Pack – Dual Exhausts

In this procedure you will start assemble the body of the car with dual exhausts.

Required print plates Sport Pack:

- "Large Exhausts"
- "Rear End Dual Exhausts"

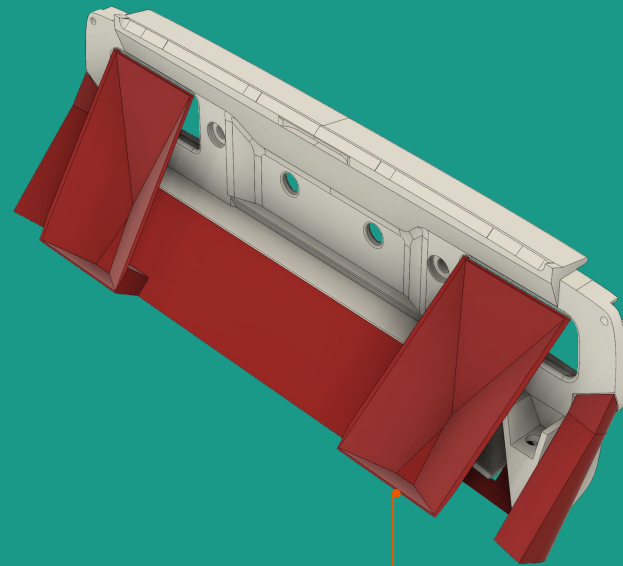
Non-printed parts:

- Screw M2x8: 2 pcs.
- Screw M3x8: 4 pcs.
- Screw M3x10: 2 pcs.



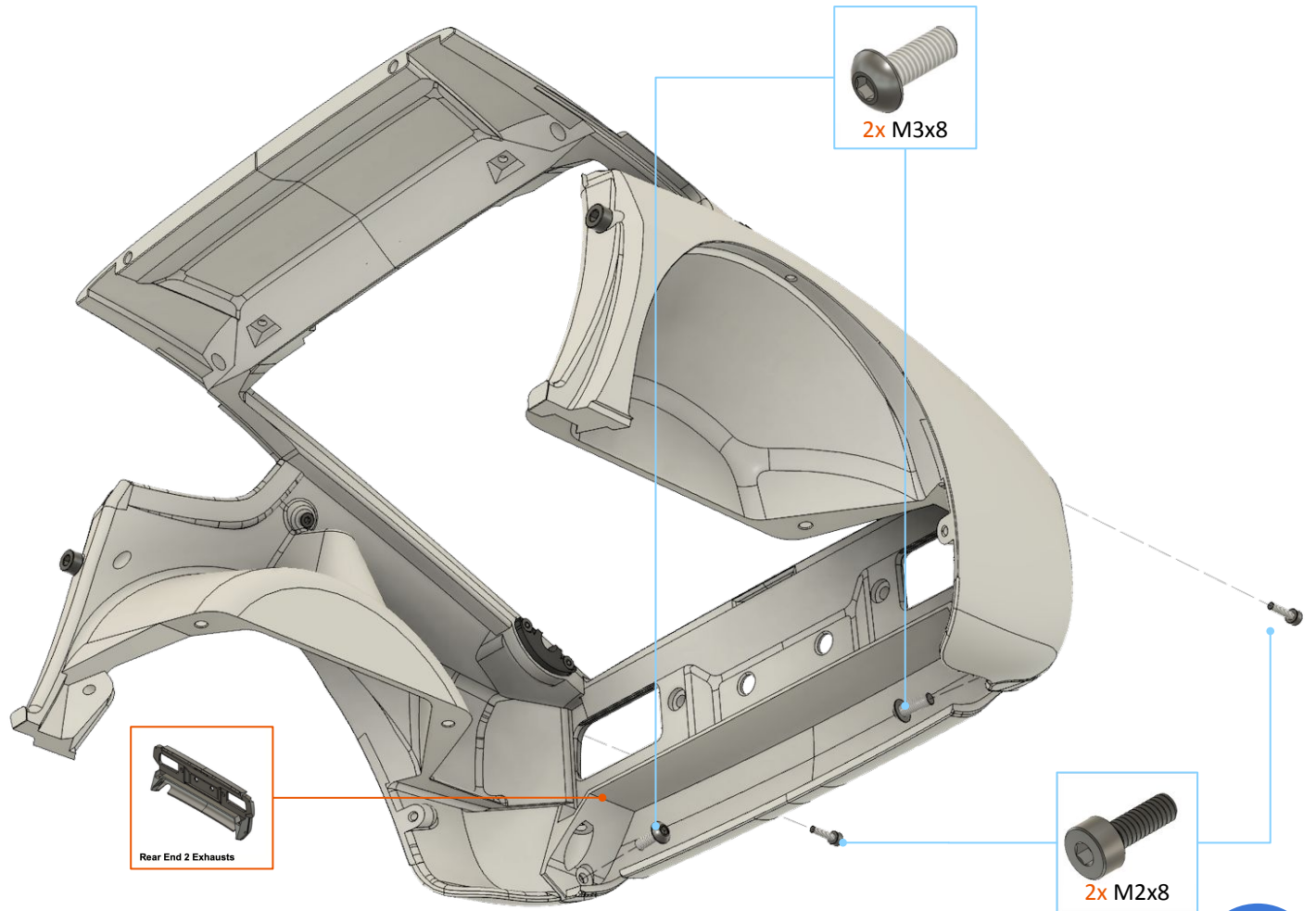
Postprocessing – removing supports

Before you start building, carefully remove printing supports (marked red) integrated to specific parts rendered below. You can use pliers and sharp knife to make the procedure easier. Be very careful as you can harm yourself!



All supports marked in red has to be removed.

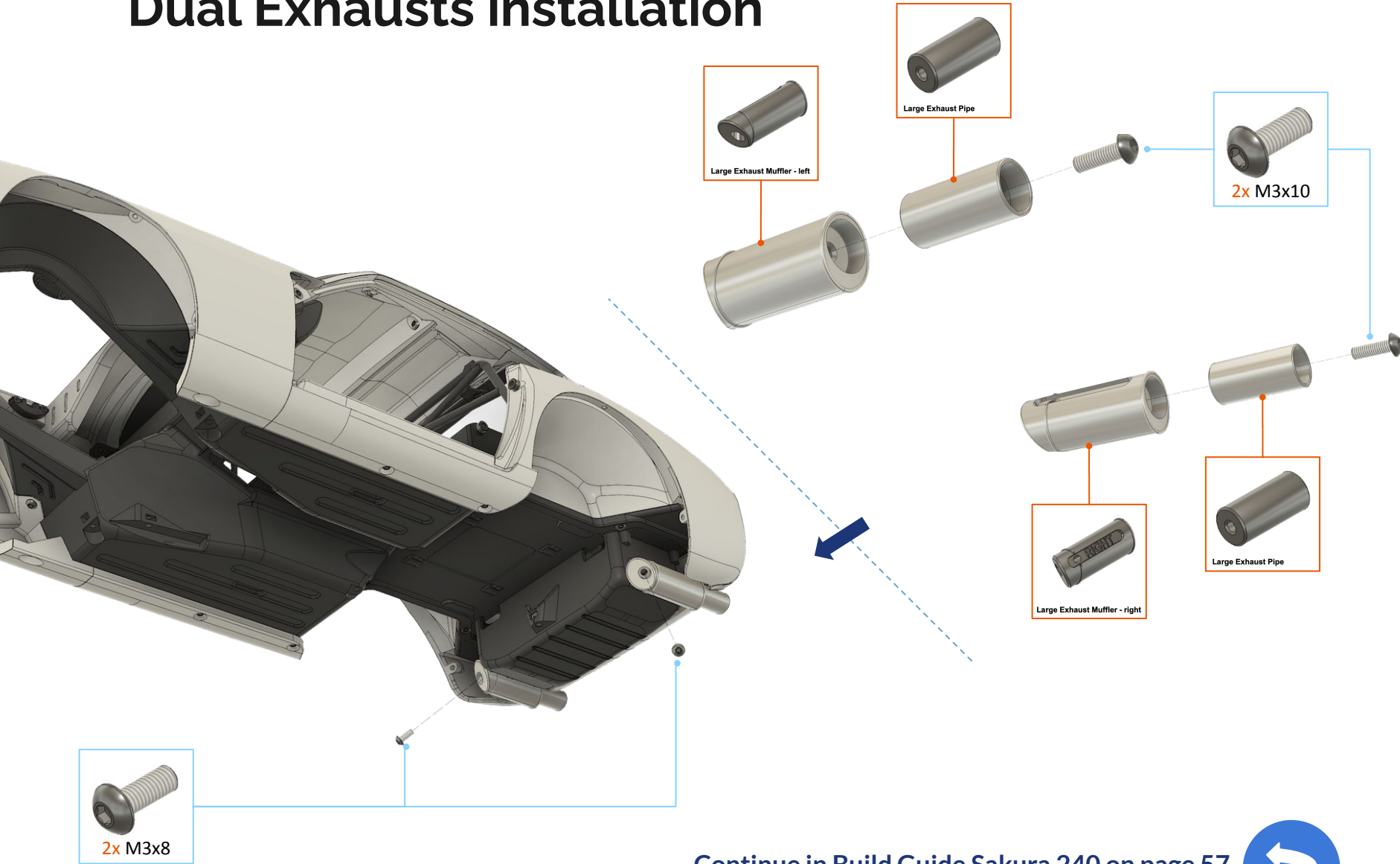
Body - step 2/7



[Continue in Build Guide Sakura 240 on page 17](#)



Dual Exhausts installation



[Continue in Build Guide Sakura 240 on page 57](#)



Sport Pack – Sport Tailgate

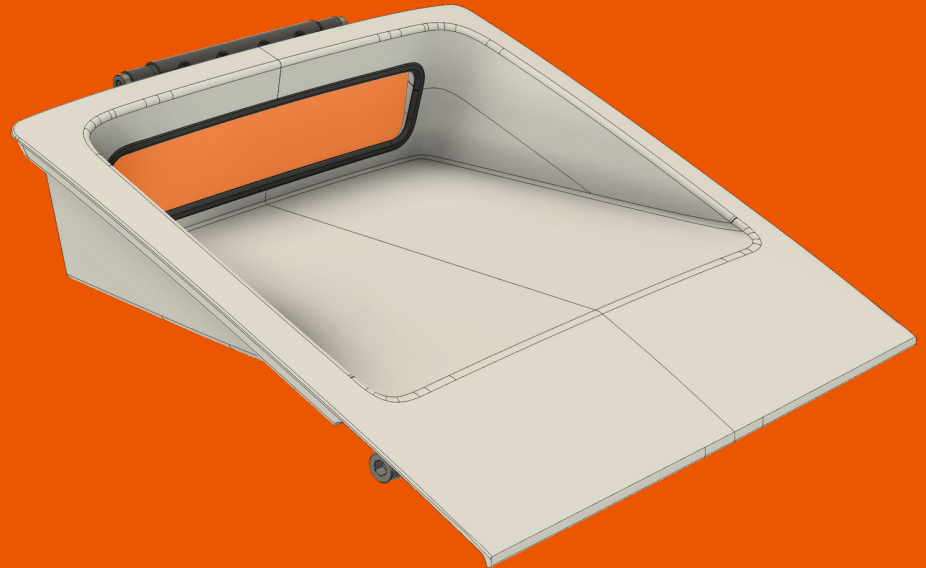
In this procedure you will assemble the Sport Tailgate.

Required print plates Sport Pack:

- "Sport Tailgate"
- "Sport Tailgate Hinges and Frame"
- "Spoiler Rear Large"
- "Wing Rear Narrow"

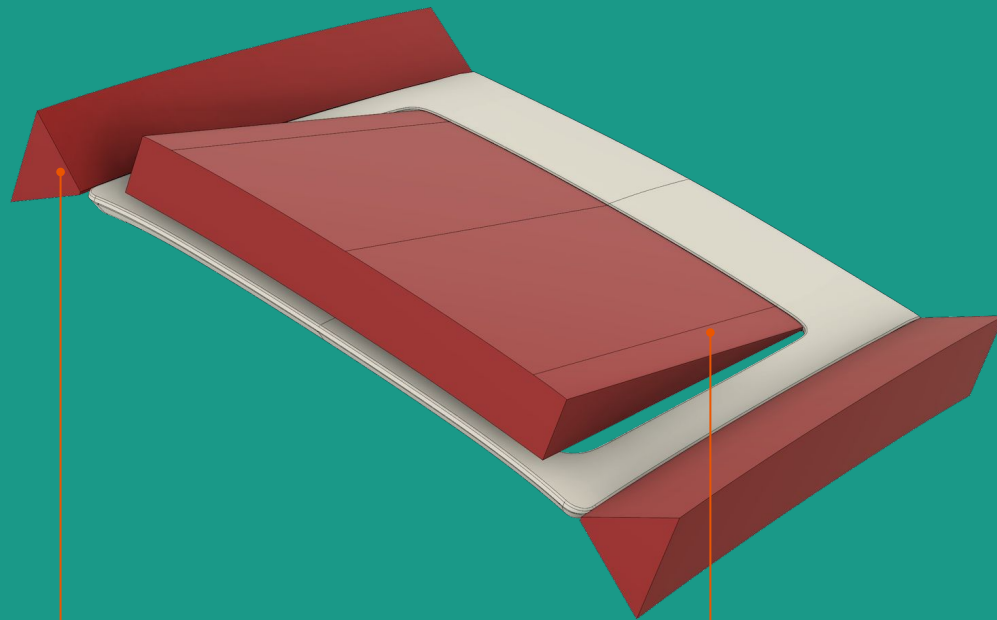
Non-printed parts:

- Screw M2x6: 8 pcs.
- Screw M2x8: 4 pcs.
- Screw M2x10: 2 pcs.
- Screw M3x6 Socket Head: 2 pcs.



Postprocessing – removing supports

Before you start building, carefully remove printing supports (marked red) integrated to specific parts rendered below. You can use pliers and sharp knife to make the procedure easier. Be very careful as you can harm yourself!

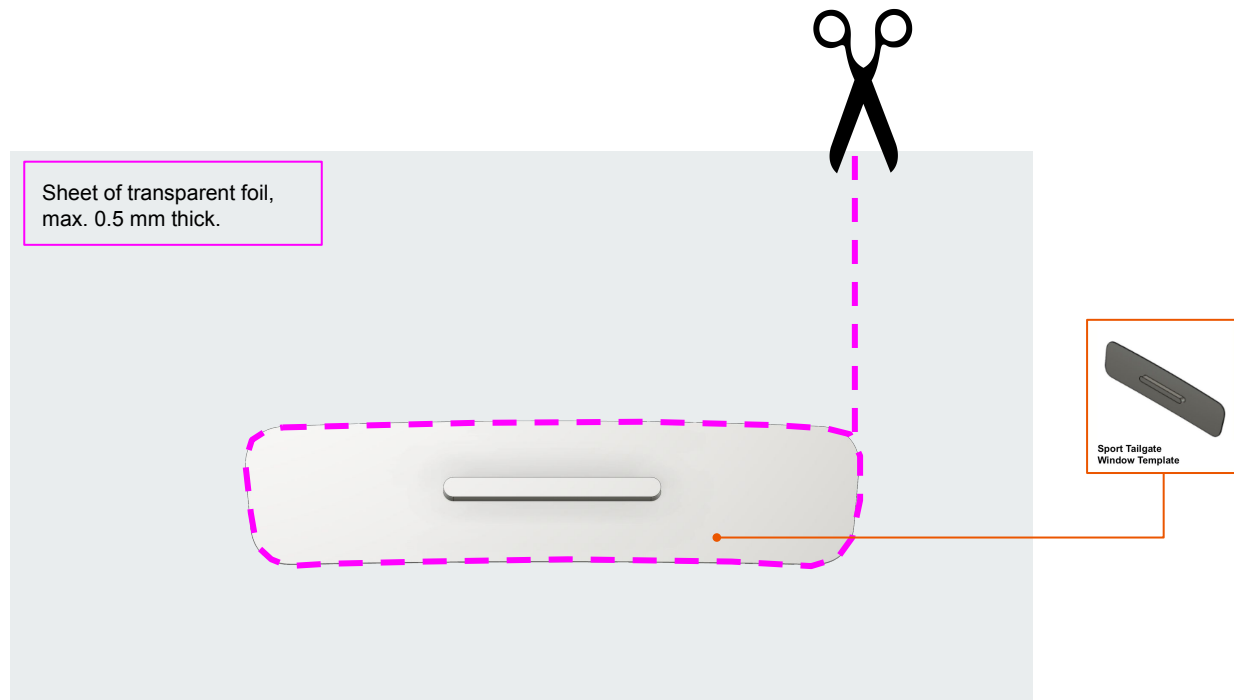


All supports marked in red has to be removed.

Sport Tailgate

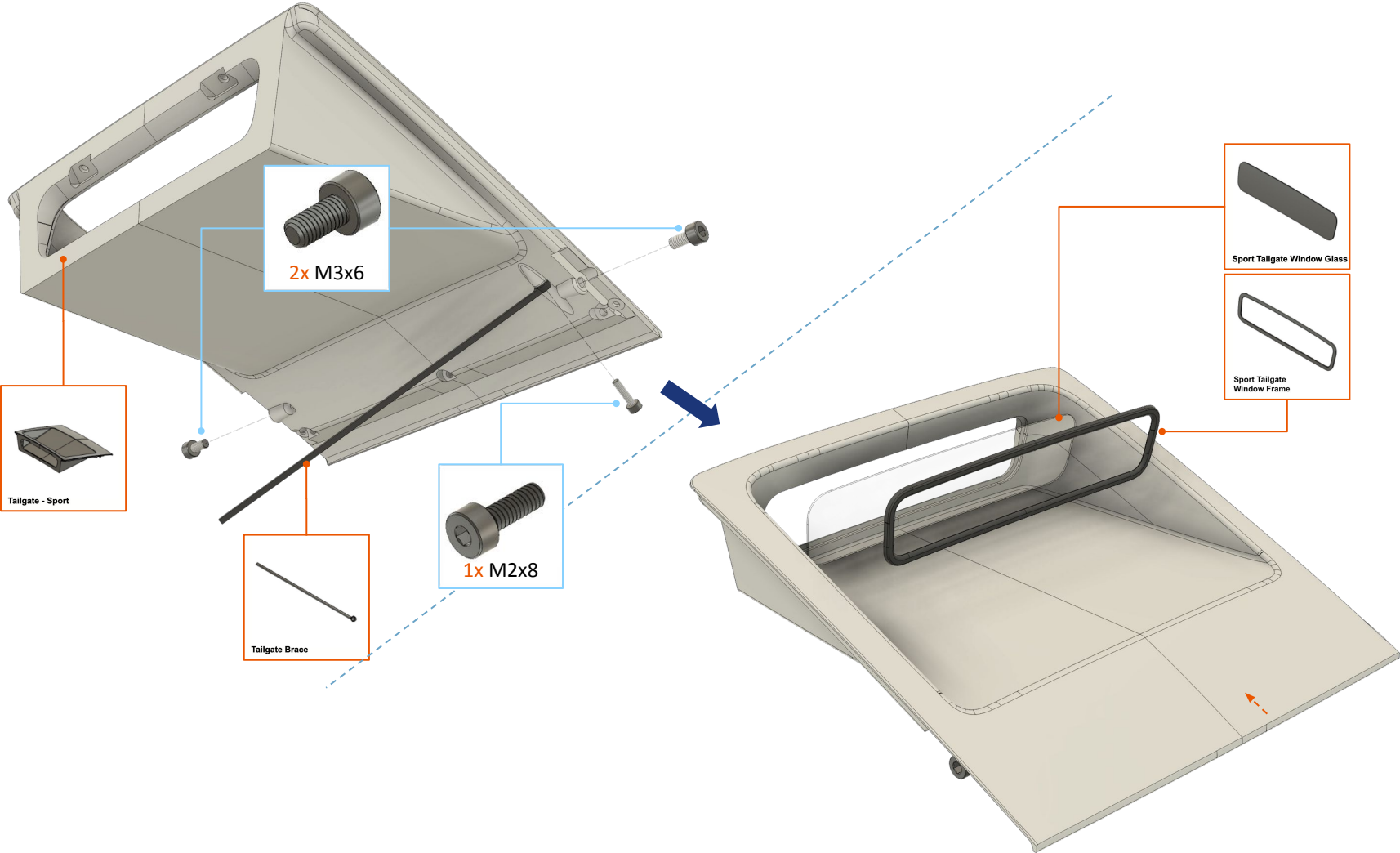
At first, you will make a “sport tailgate window glass” from any transparent foil up to 0.4 mm thick. Thicker material is more durable than thinner, but we found that “Clear Binding Covers” are OK.

Place the Sport Tailgate Window Template on the foil, sketch the Sport TailGate Glass to foil and then cut the Sport Tailgate Windows by scissors or sharp knife.



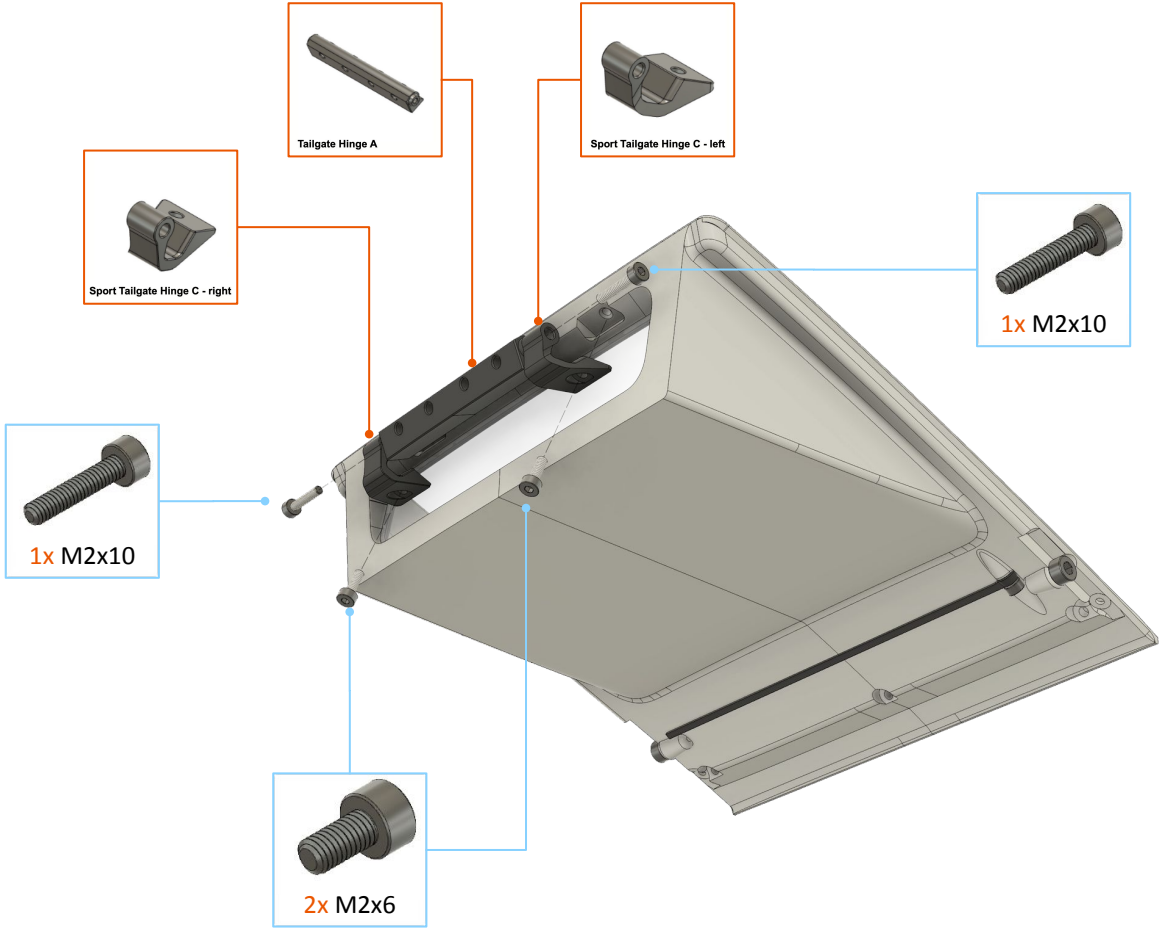


Sport Tailgate - step 1/4





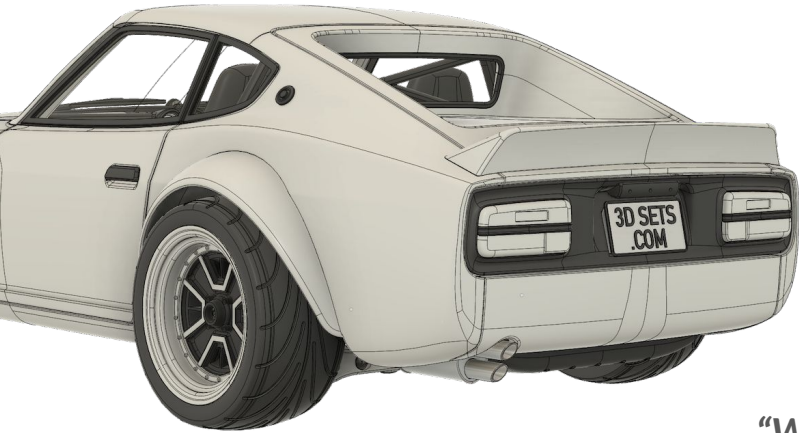
Sport Tailgate - step 2/4



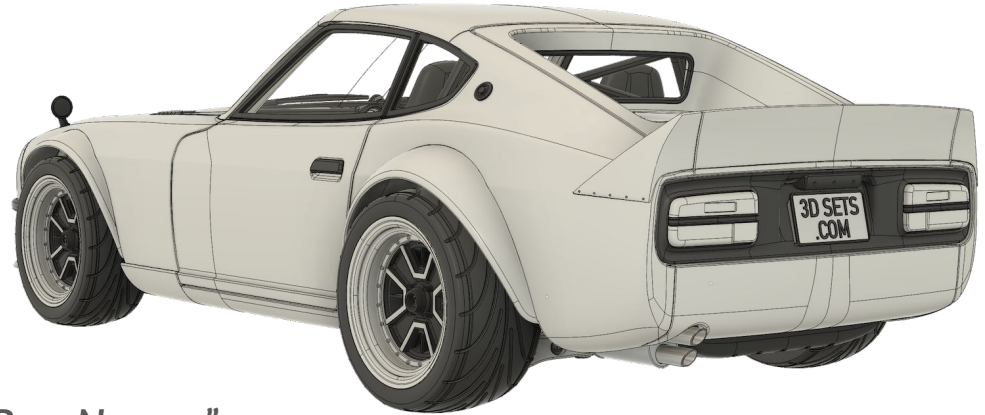


Rear Spoilers and Wing

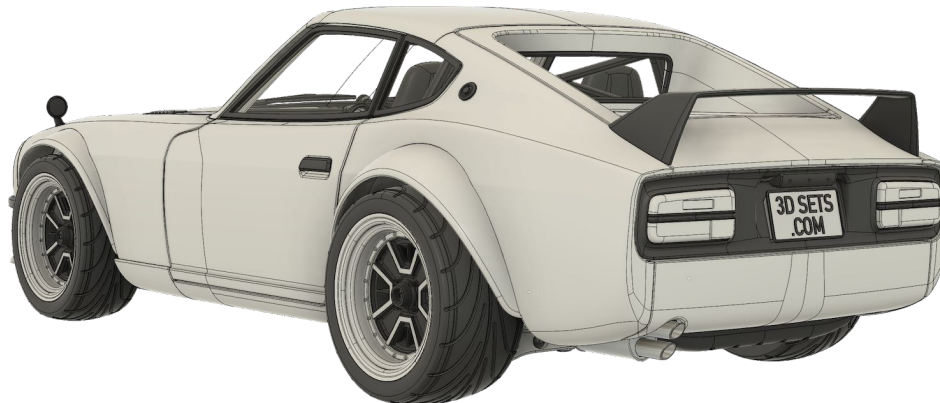
“Spoiler Rear” (standard Sakura 240)



“Spoiler Rear Large”

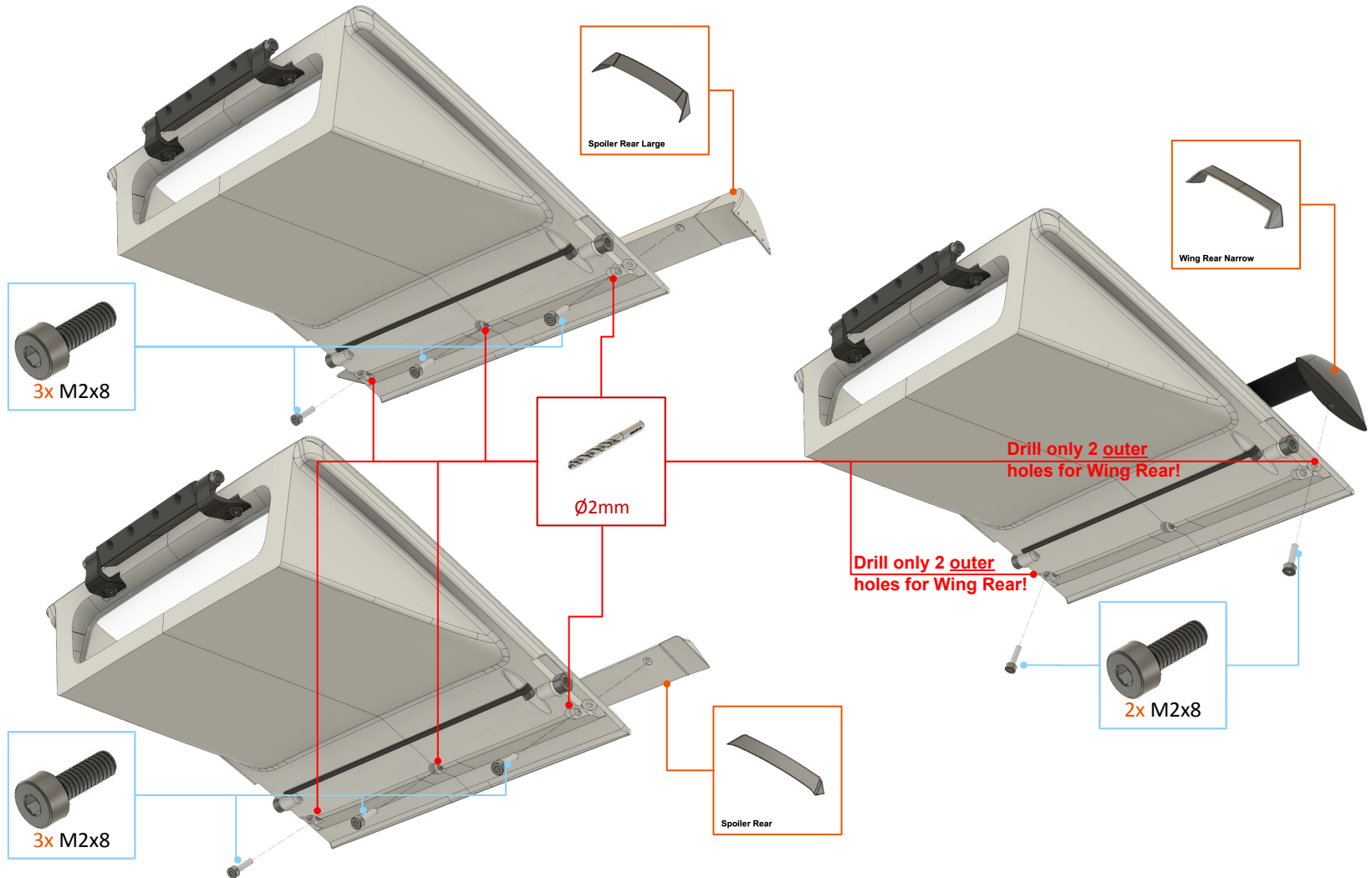


“Wing Rear Narrow”



Rear Spoilers and Wing installation

Rear Spoilers and Wing can be installed also on standard Sakura 240 Tailgate.



Tailgate - step 3/4



[Continue in Build Guide Sakura 240 on page 33](#)



Sport Pack – G-Nose front

In this procedure you will assemble the longer “G-Nose” front body of the car.

Required print plates Sport Pack:

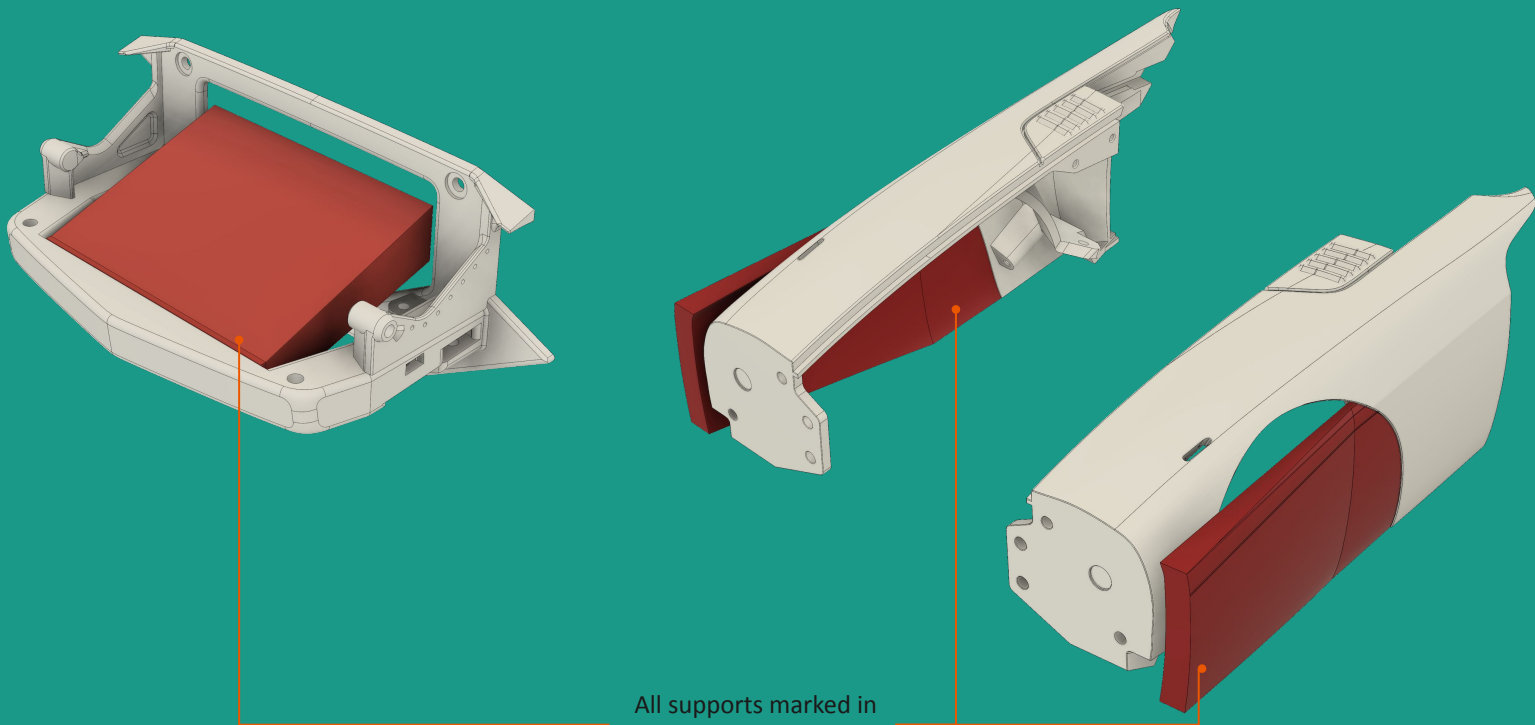
- "G-Nose Bow Corners and Spoiler"
- "G-Nose Bumper and End"
- "G-Nose Spoiler Grille"
- “G-Nose Turnsignals”

Non-printed parts:

- Nut M3: 4 pcs.
- Screw M2x6: 4 pcs.
- Screw M3x6 Socket Head: 2 pcs.
- Screw M3x6: 4 pcs.
- Screw M3x8: 18 pcs.

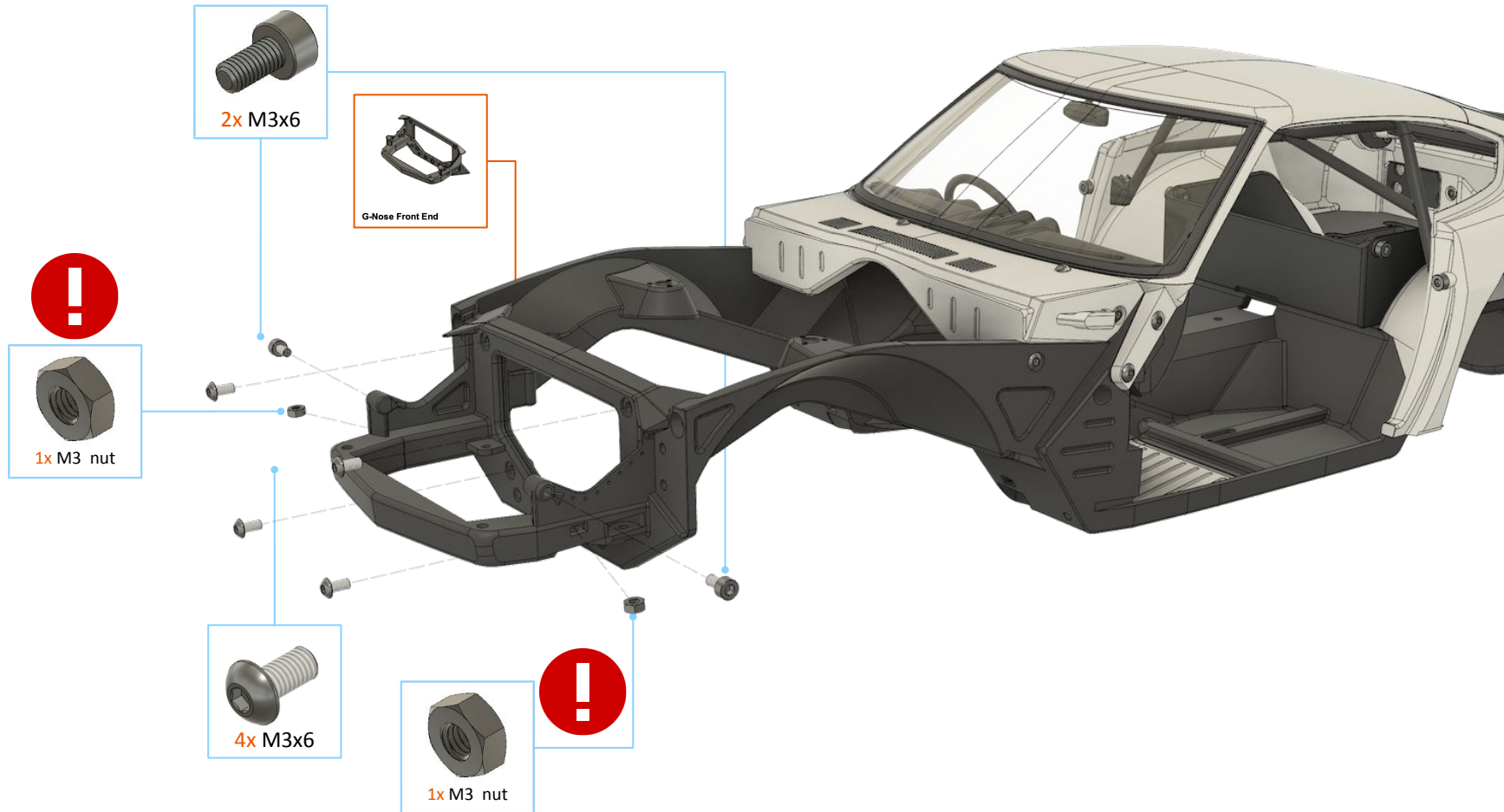
Postprocessing – removing supports

Before you start building, carefully remove printing supports (marked red) integrated to specific parts rendered below. You can use pliers and sharp knife to make the procedure easier. Be very careful as you can harm yourself!



All supports marked in red has to be removed.

Front Bodywork - step 2/4

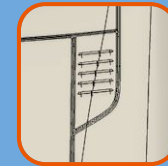


Sport Pack – Mirrors

If you have purchased Sport Pack accessories, you can choose the position of the rear-view mirrors.



Accessories - Sport Pack

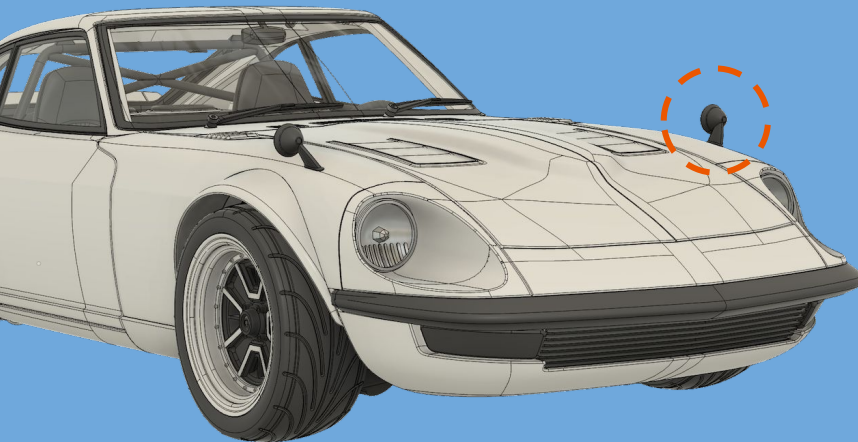


Mirrors on Fender

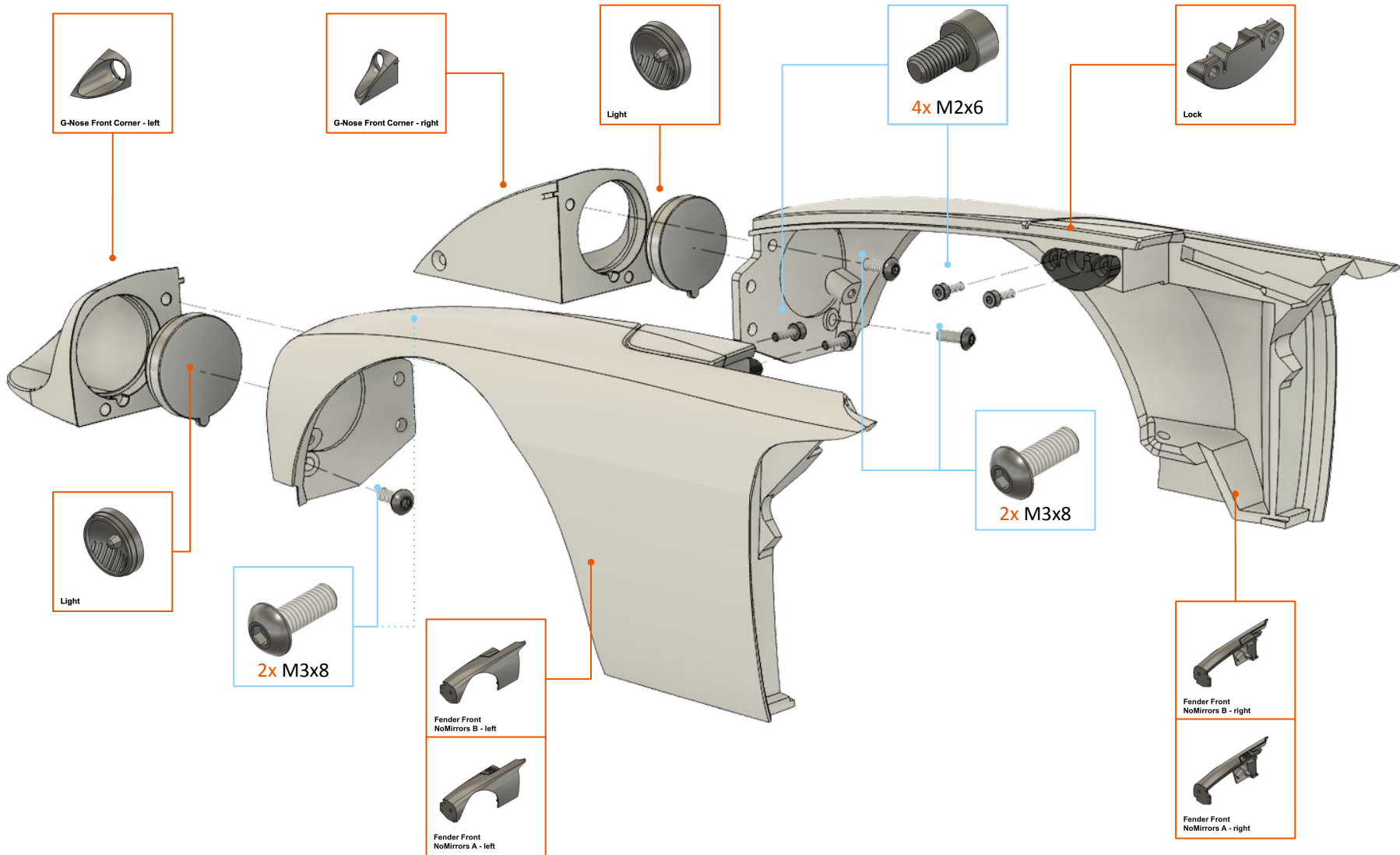
Mirrors on Doors

Fender NoMirror A

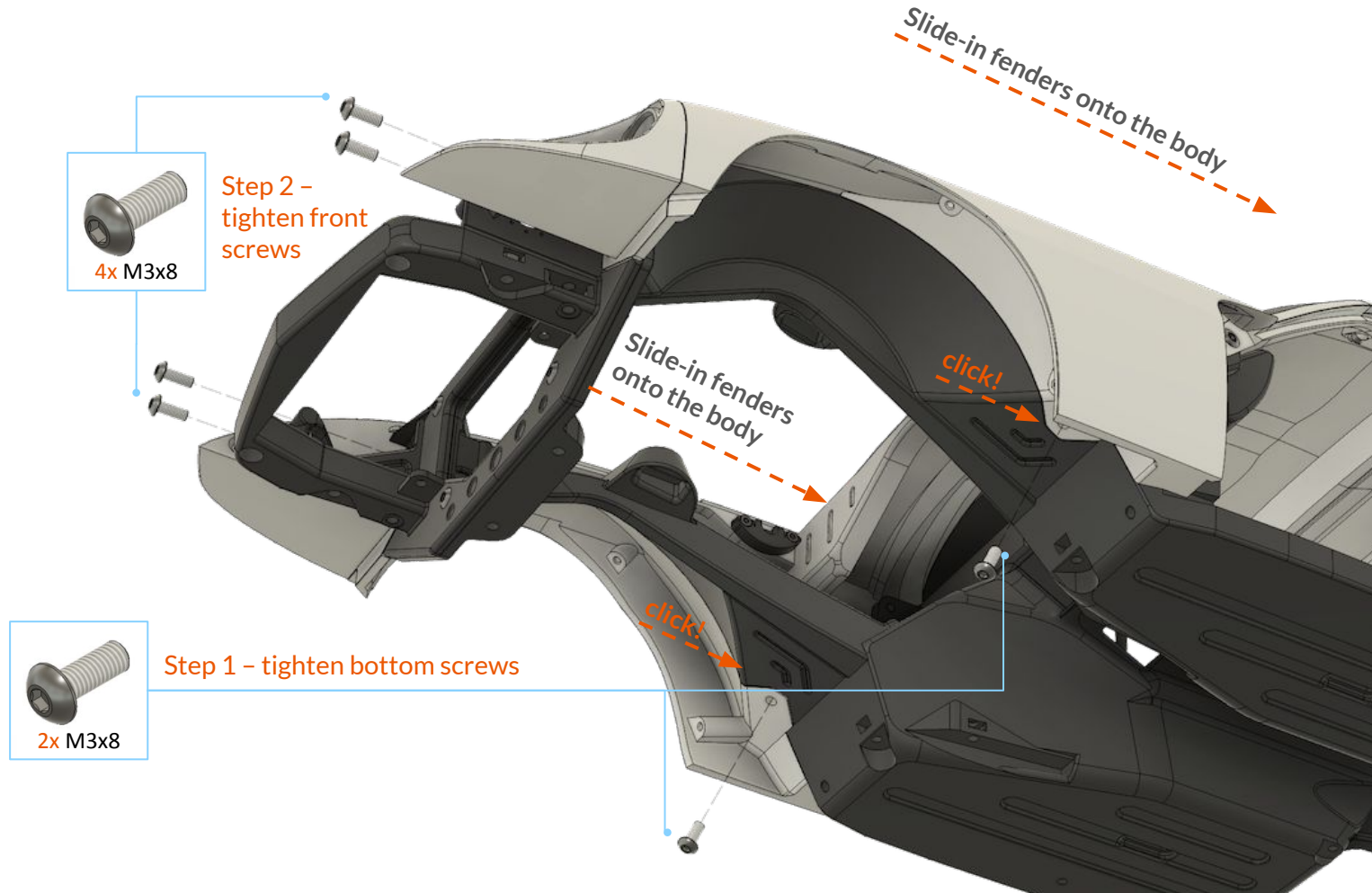
Fender NoMirror B



Front Bodywork - step 3/4



Front Bodywork - step 4/4



Sport Pack G-Nose – Radiators, Bumper, Front Spoiler

In this procedure you will assemble the details on the body.

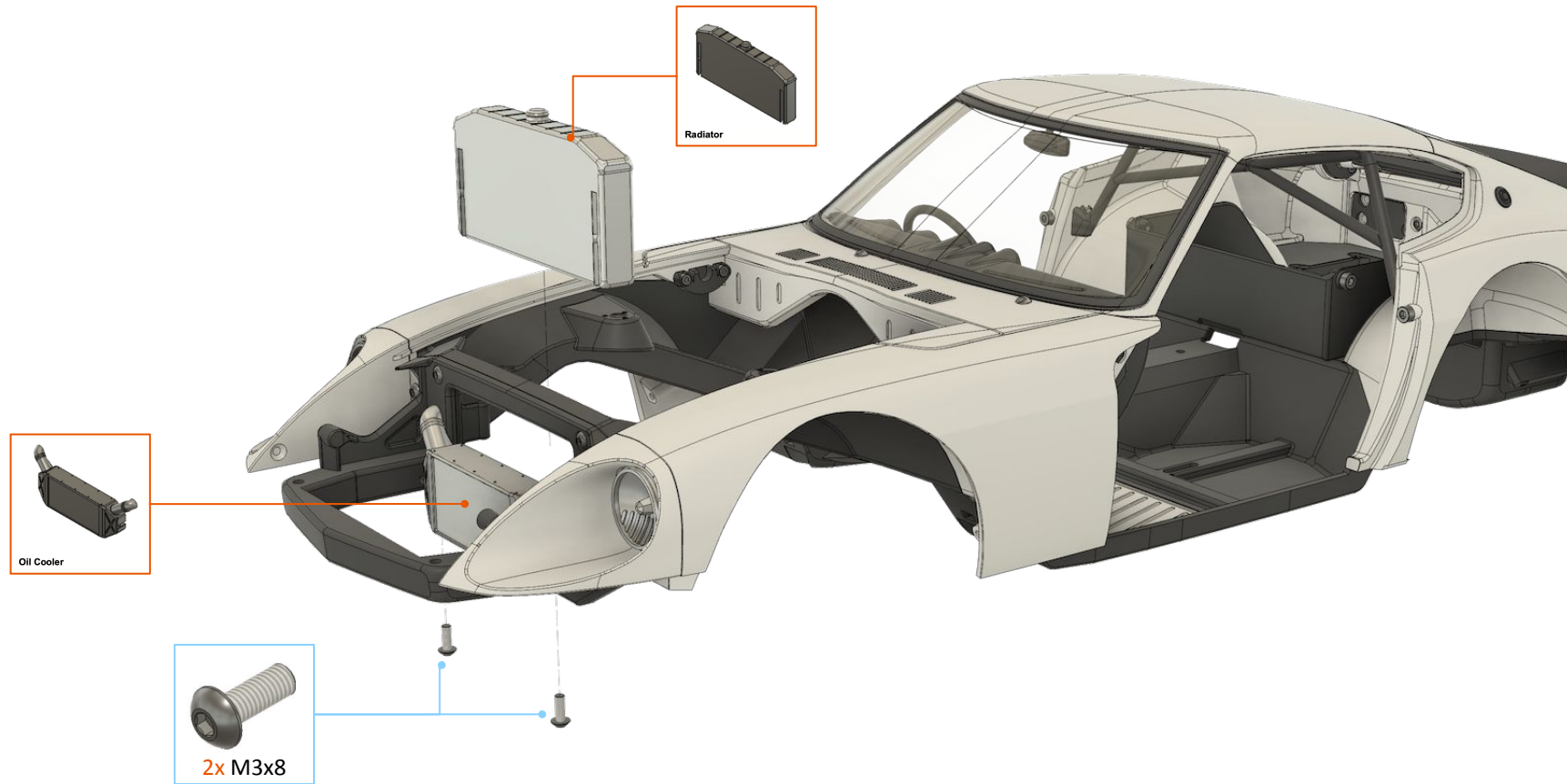
Required print plates Sakura 240:

- "Print 25 - Front Light + Radiators + Exhaust"
- "Print 27 - Door Sills"
- "Print 28 - Turnsignals"
- "Print 29 - Front Bumper + Mirrors"
- "Print 30 - Grille + Hood Hinges"

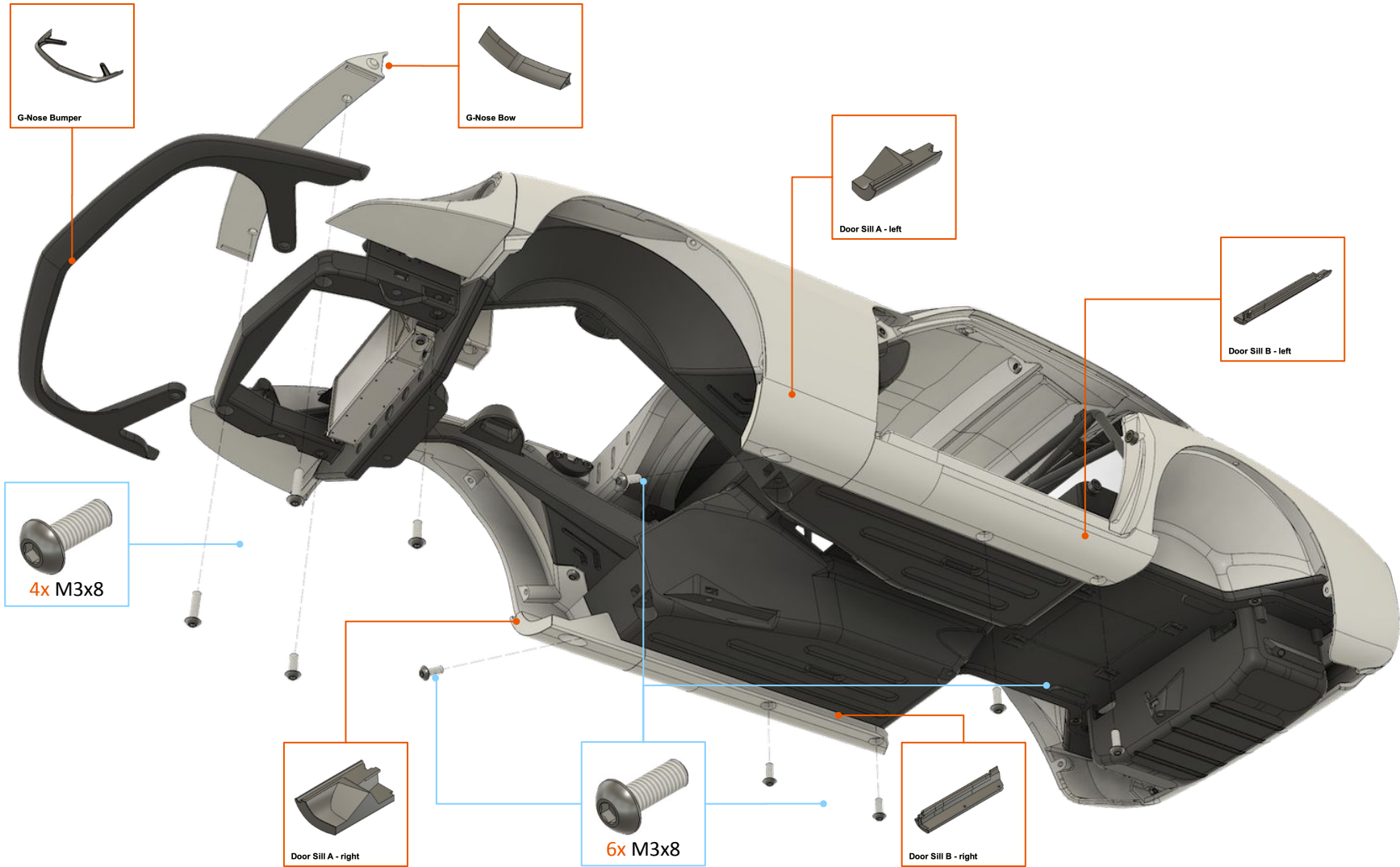
Non-printed parts:

- Screw M2x6: 2 pcs.
- Screw M3x8: 14 pcs.

Radiators installation

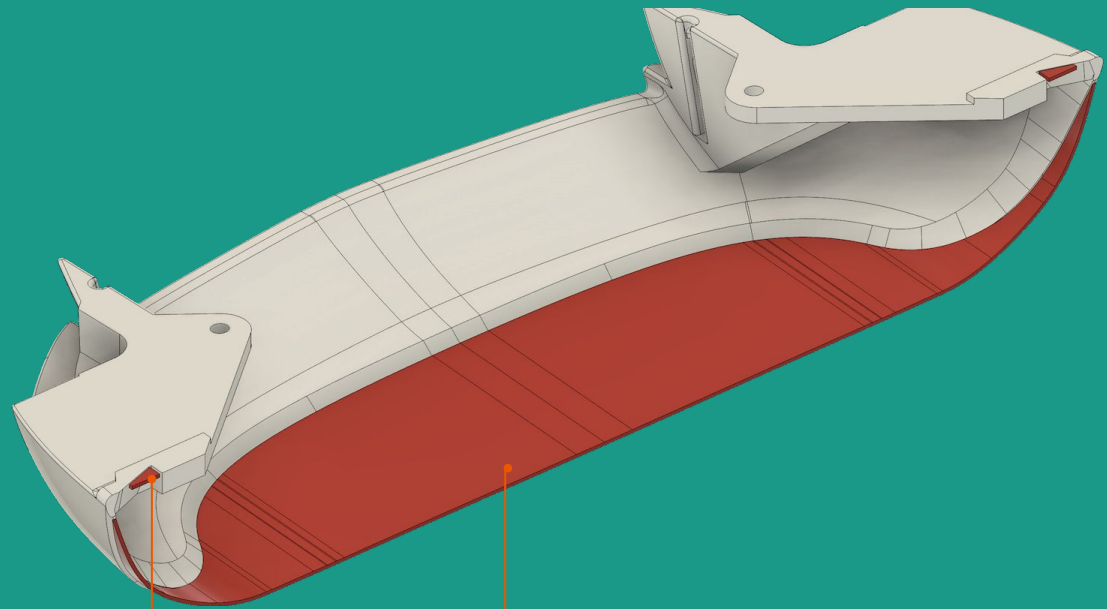


Bumper, Grille & Door Sills installation



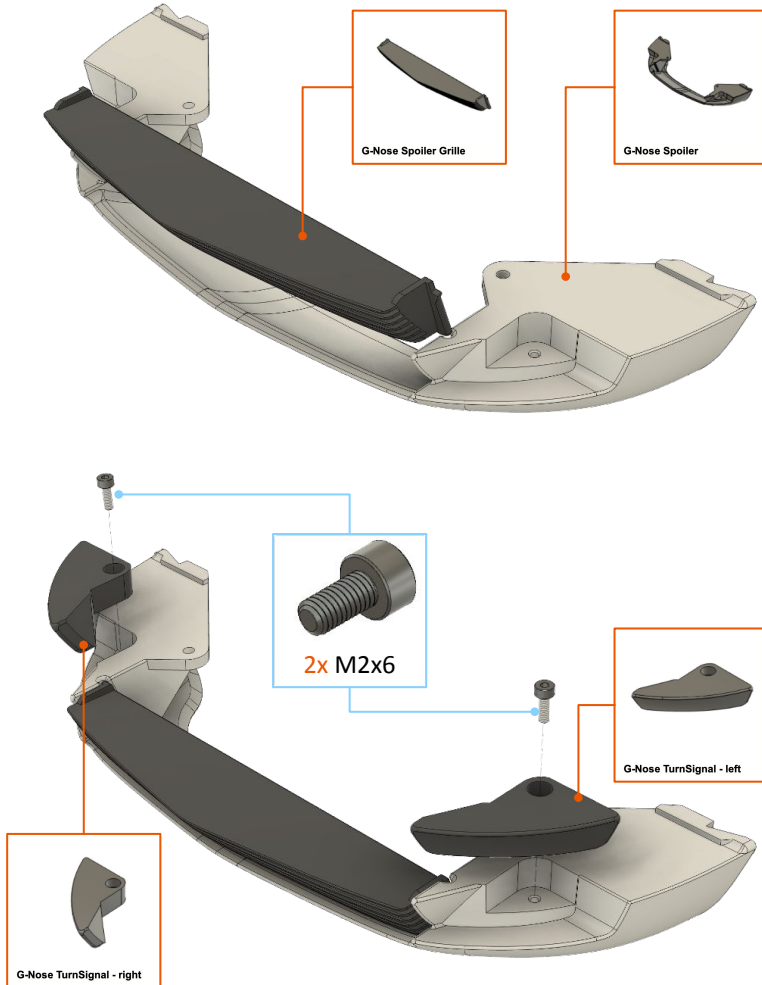
Postprocessing – removing supports

Before you start building, carefully remove printing supports (marked red) integrated to specific parts rendered below. You can use pliers and sharp knife to make the procedure easier. Be very careful as you can harm yourself!

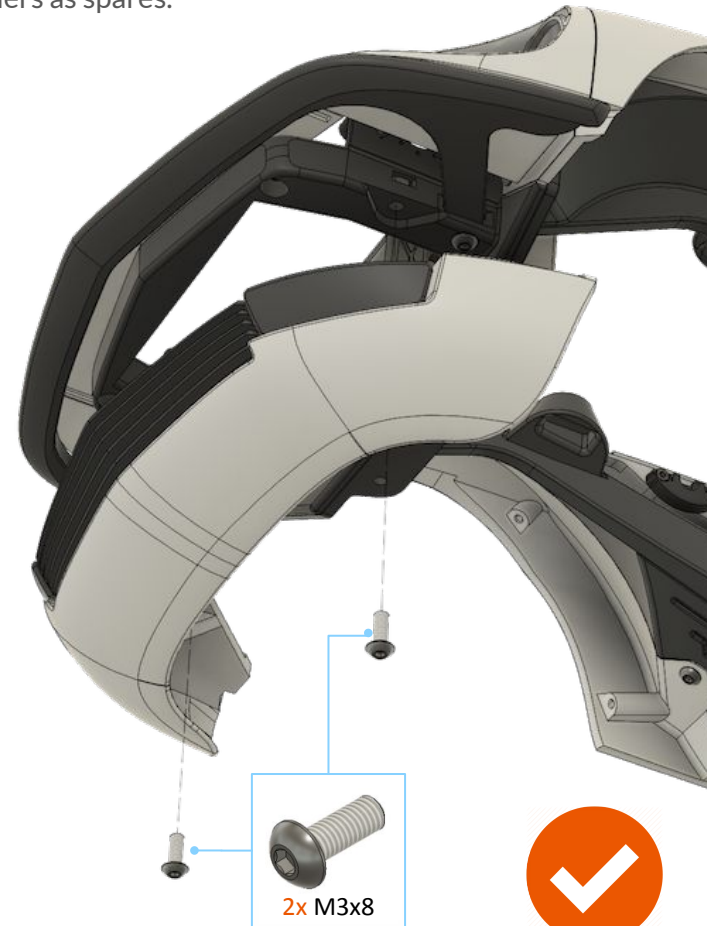


All supports marked in red has to be removed.

G-Nose Front Spoiler



Tip: the Front Spoiler is mounted on 2 screws only & inserted M3 Nuts – so if you break the Spoiler, it is **very easy to replace it**. You can 3D print multiple spoilers as spares.



[Continue in Build Guide Sakura 240 on page 54](#)



Sport Pack – Fender Flare

If you have purchased Sport Pack accessories, you can choose the style of Fender Flares.

Fender Flares (standard Sakura 240)



Accessories - Sport Pack

Plain Fender Flares



Sport Pack – Plain Fender Flares

In this procedure you will install Fender Flares.

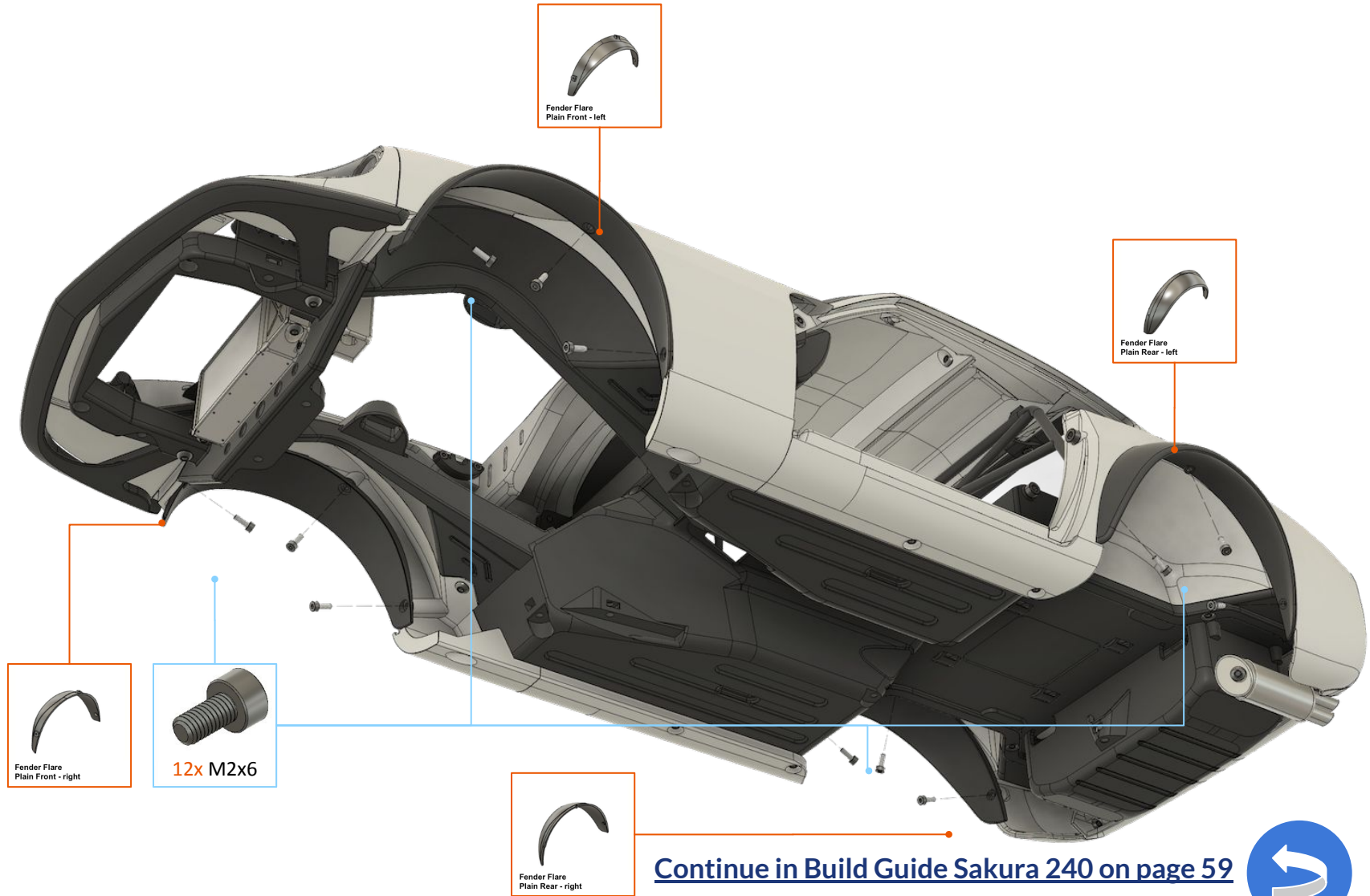
Required print plates Sport Pack:

- "Fender Flare Plain"

Non-printed parts:

- Screw M2x6: 14 pcs.

Plain Fender Flares installation



[Continue in Build Guide Sakura 240 on page 59](#)



Sport Pack – Detailed Seats

In this procedure you will assemble the Seats.

Required print plates:

- "Sport Seat HeadRest Mesh"
- "Sport Seat Holes Inserts"
- "Sport Seat Padding"
- "Sport Seats Top-Bottom"

Non-printed parts:

- Screw M3x10: 4 pcs.

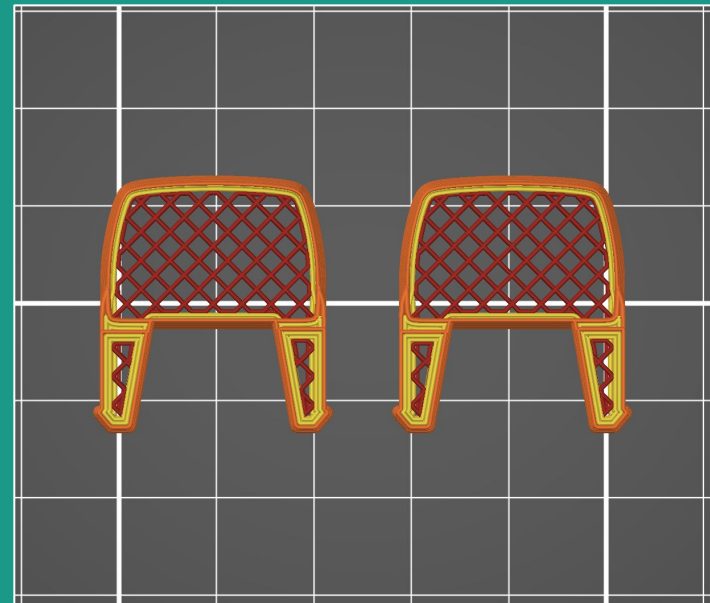


Sport Seat HeadRest Mesh

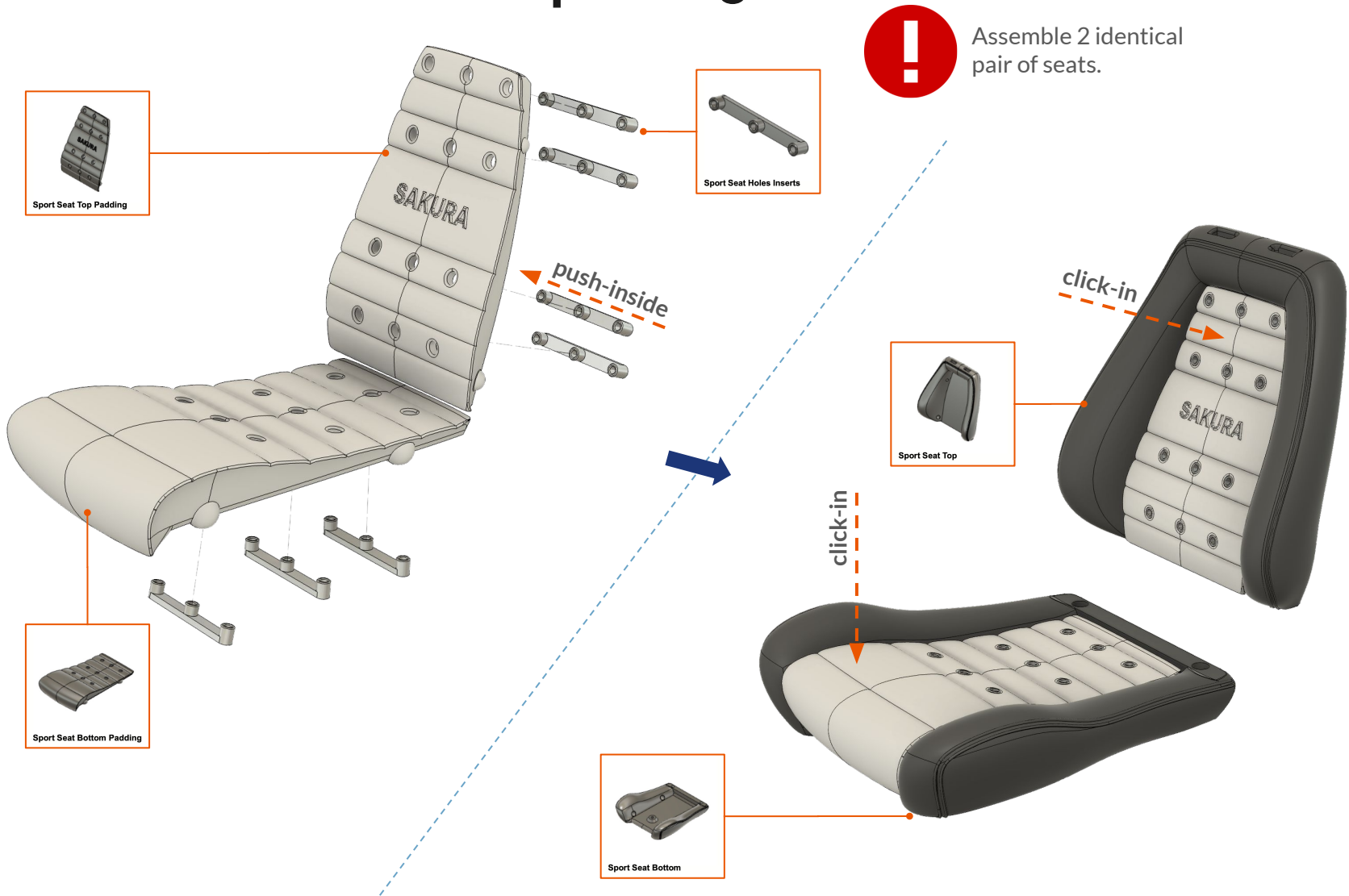
If you will print the part “Sport Seat HeadRest Mesh” from the .stl file instead of printing from provided gcode, please use following slicer setup:

Recommended settings:

- Infill: 40%
- Infill Pattern: Grid
- Perimeters: 3 perimeters
- Top Solid Layers: 0
- Bottom Solid Layers: 0



Detailed Seats - step 1-2/5



Detailed Seats - step 3-4/5



Assemble 2 identical pair of seats.



Detailed Seats - step 5/5



Assemble 2 identical pair of seats.



[Continue in Build Guide Sakura 240 on page 122](#)





Sport Pack – Hood

If you have purchased Sport Pack accessories, you can use Hood Vented with cooling vents.

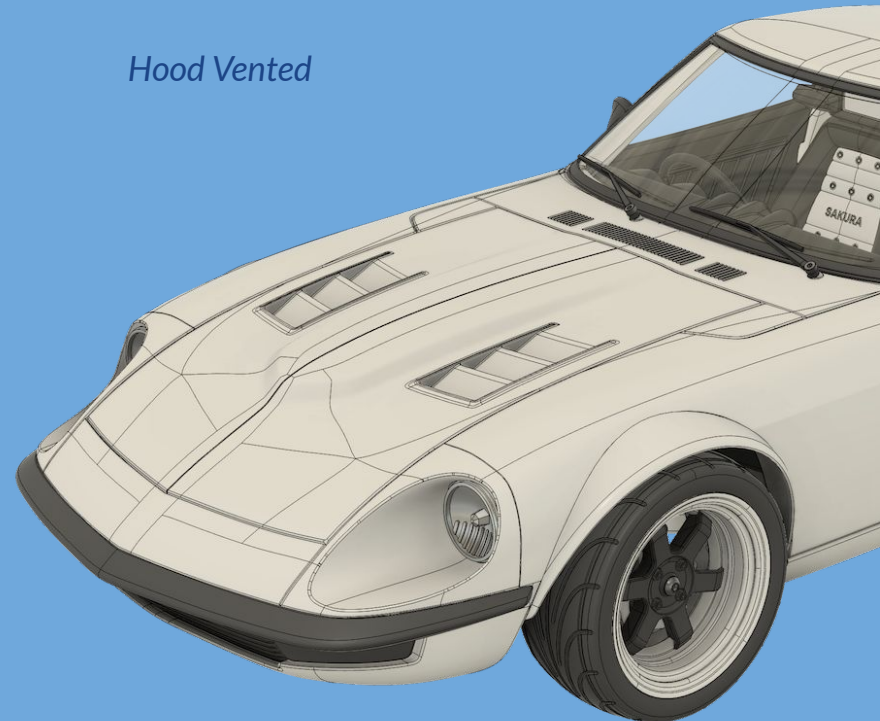


Classic Hood (standard Sakura)



Accessories - Sport Pack

Hood Vented



Sport Pack – Hood: Classic/Vented

In this procedure you will assemble the Hood.

Required print plates Sport Pack:

- "G-Nose Bumper and End" (contains G-Nose Hood Hinges)
- "Hood Vented"

or required print plates Sakura 240:

- "Print 43 - Hood"

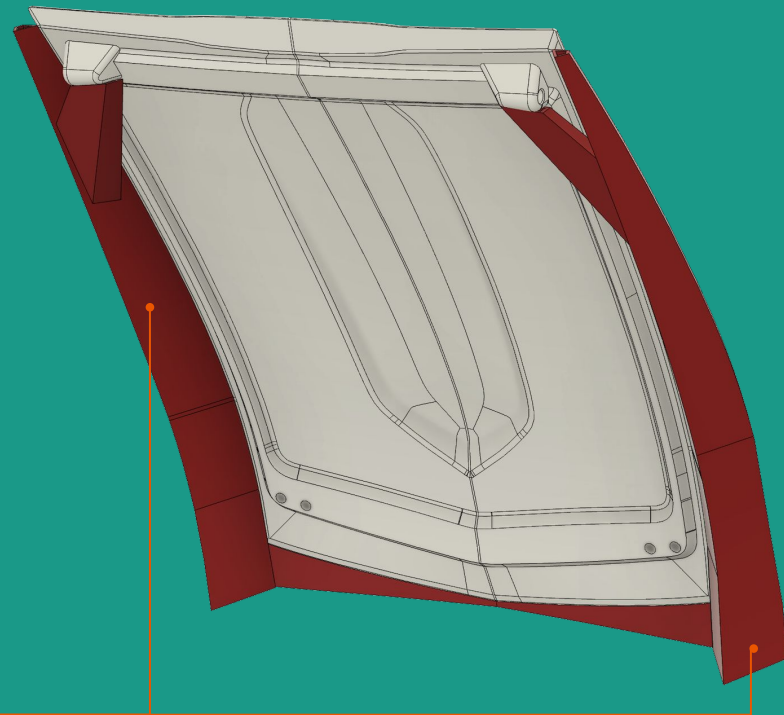
Non-printed parts:

- Screw M3x6 Socket Head: 2 pcs.
- Screw M3x6: 4 pcs.



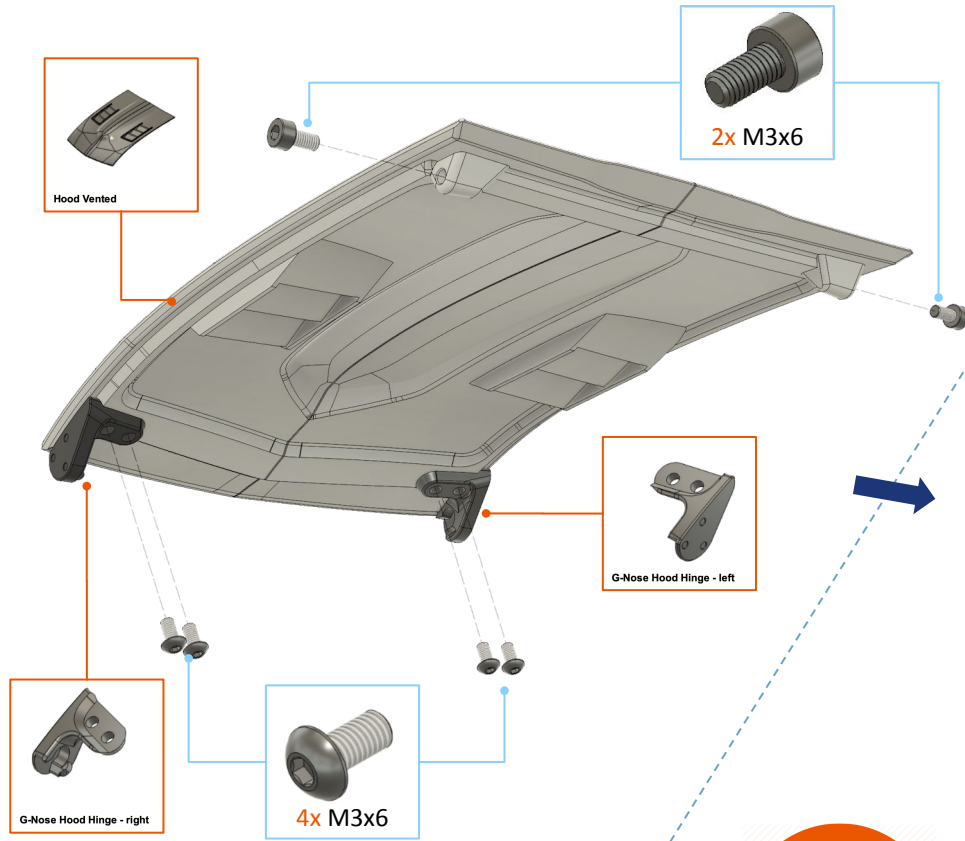
Postprocessing – removing supports

Before you start building, carefully remove printing supports (marked red) integrated to specific parts rendered below. You can use pliers and sharp knife to make the procedure easier. Be very careful as you can harm yourself!

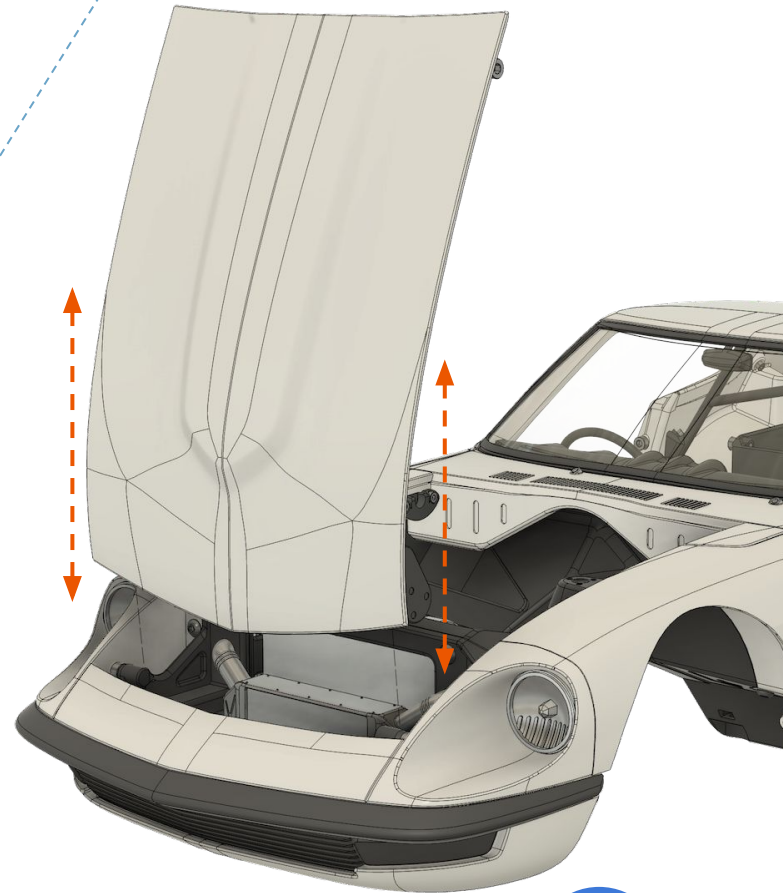


All supports marked in red has to be removed.

Hood



Tip: Hood **can be removed any time** by pulling Hood up in vertical position. Removed Hood provides better access to the Engine compartment.



Tip: You can use any Hood on any Sakura variant – just use proper hinges for specific bow (standard or G-Nose hinges).



[Continue in Build Guide Sakura 240 on page 127](#)



Sport Pack – Doors with Mirrors

In this procedure you will assemble the Doors.

Required print plates Sport Pack:

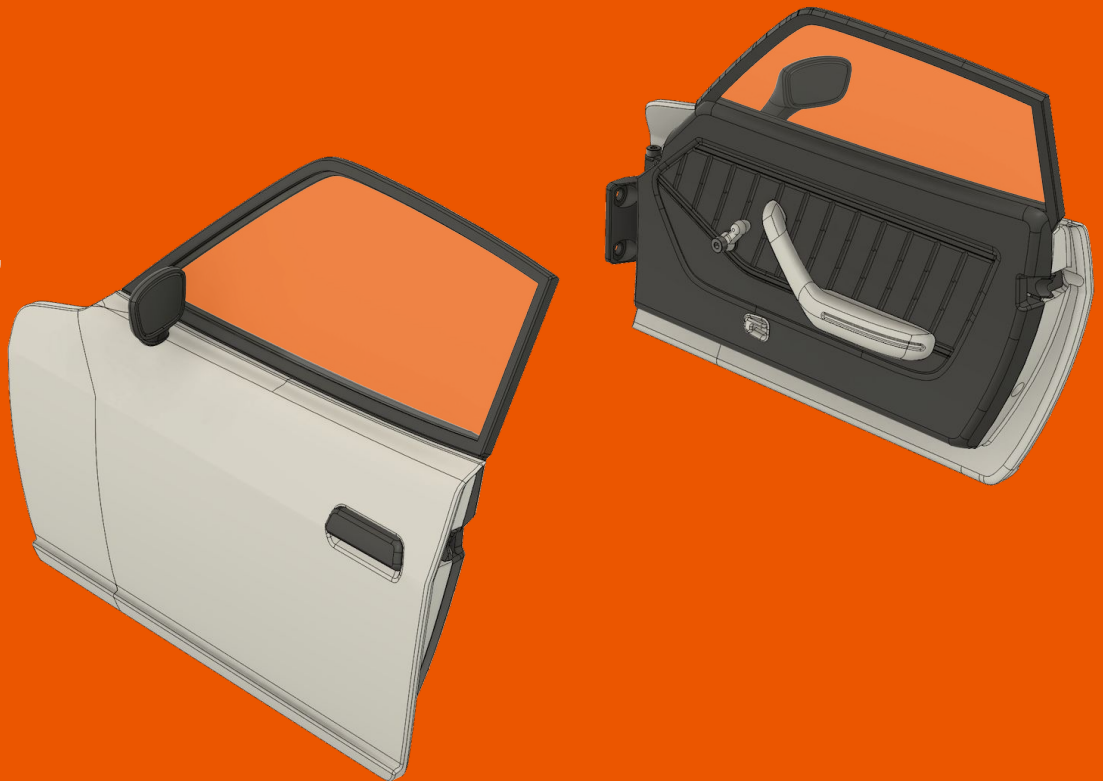
- "Doors"
- "Mirrors for Doors"

Required print plates Sakura 240:

- "Print 45 - Door Handles + Hinges"
- "Print 46 - Door Interior Handles"
- "Print 47 - Door Interior Panels"
- "Print 48 - Door Windows"
- "Print 50 - Doors Details"

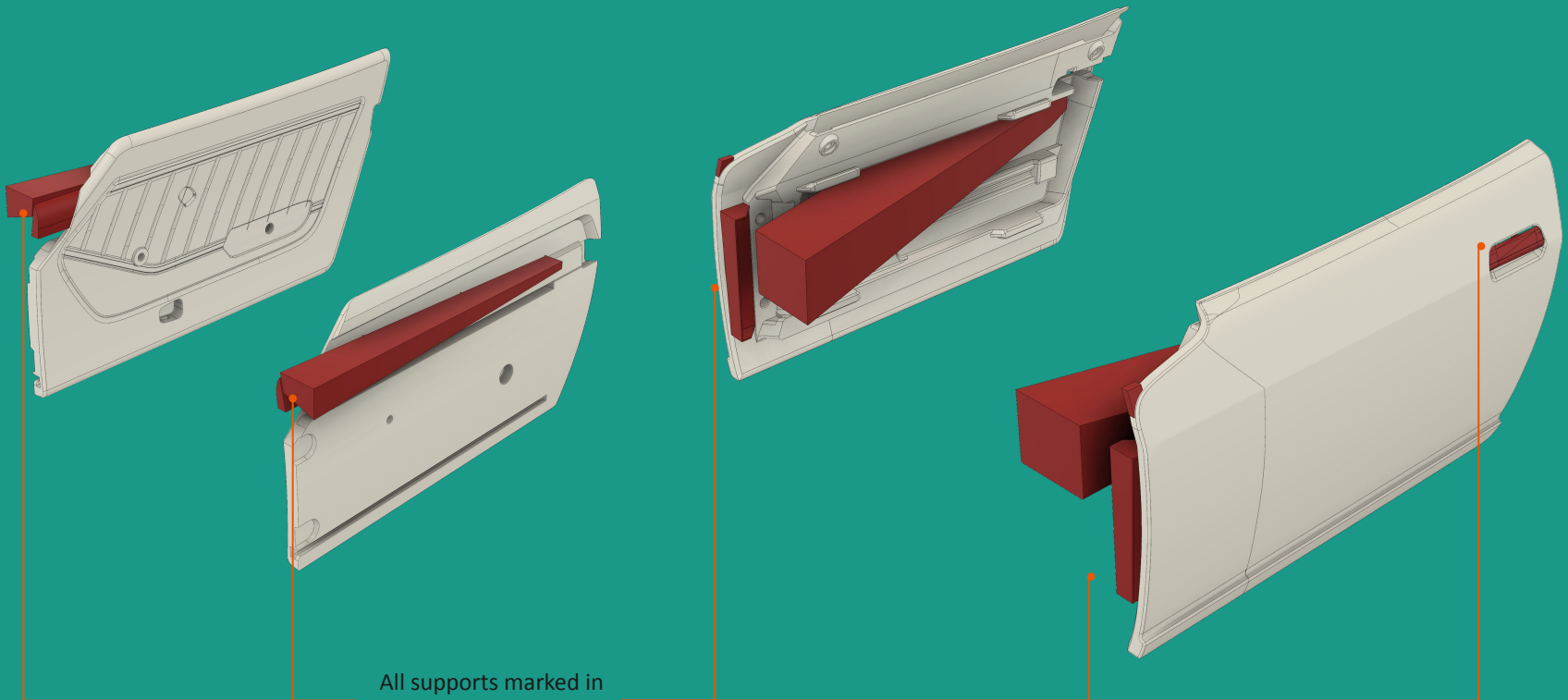
Non-printed parts:

- Screw M2x6: 4 pcs.
- Screw M2x8: 2 pcs.
- Screw M2x12: 8 pcs.
- Screw M3x6: 10 pcs.



Postprocessing – removing supports

Before you start building, carefully remove printing supports (marked red) integrated to specific parts rendered below. You can use pliers and sharp knife to make the procedure easier. Be very careful as you can harm yourself!

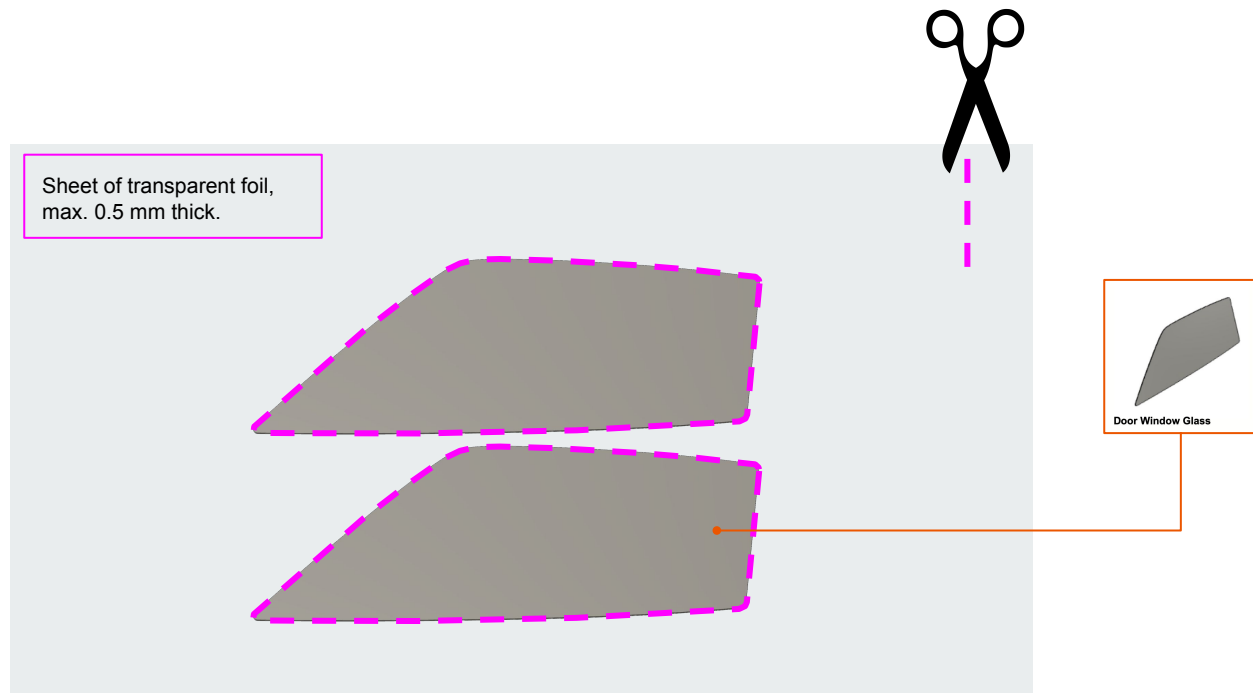


All supports marked in red has to be removed.

Door Window

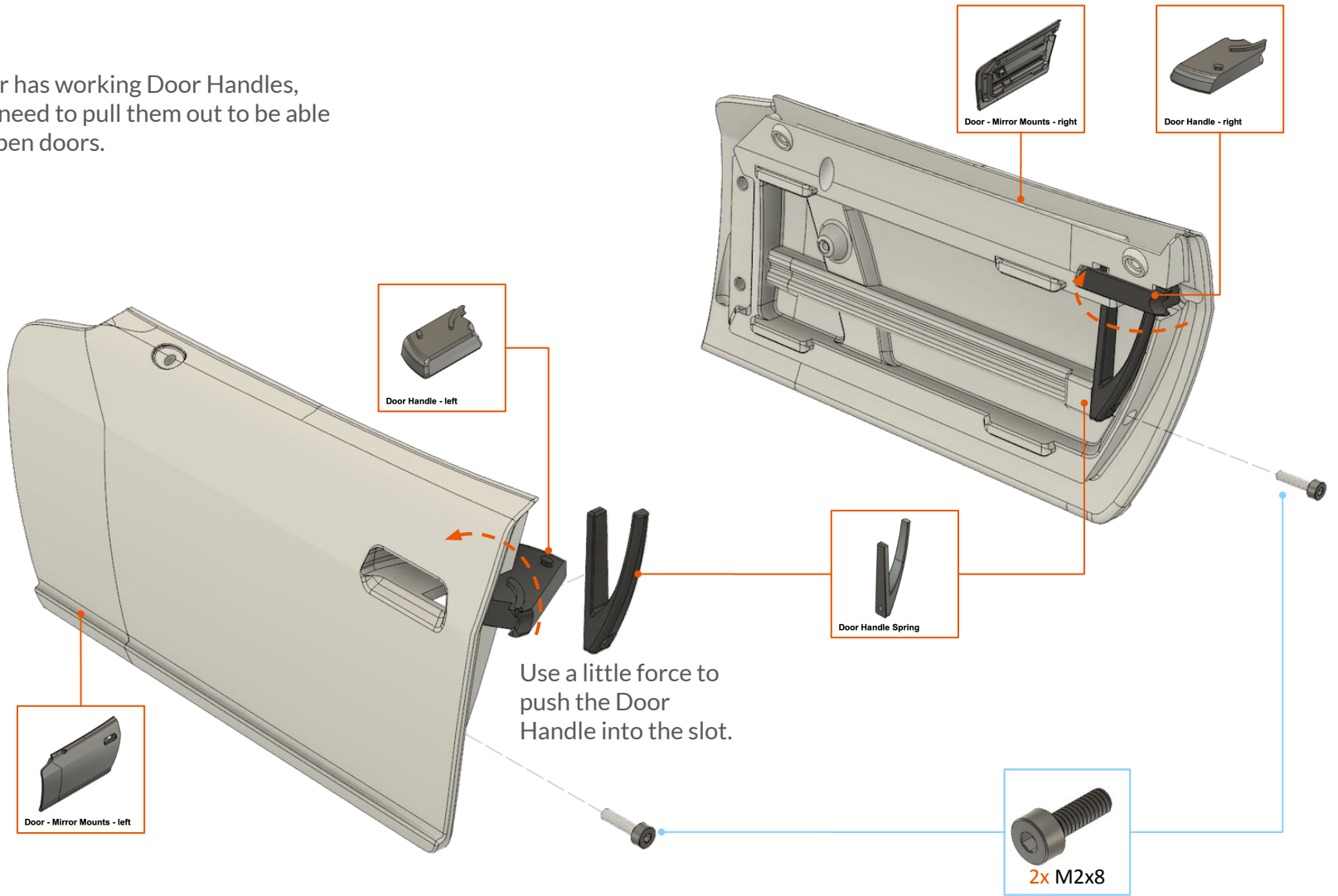
At first, you will make a “door window glass” from any transparent foil up to 0.4 mm thick. Thicker material is more durable than thinner, but we found that “Clear Binding Covers” are OK.

Place the Door Window Glass on the foil, sketch the Door Window Glass to foil and then cut the Door Window Glass by scissors or sharp knife.

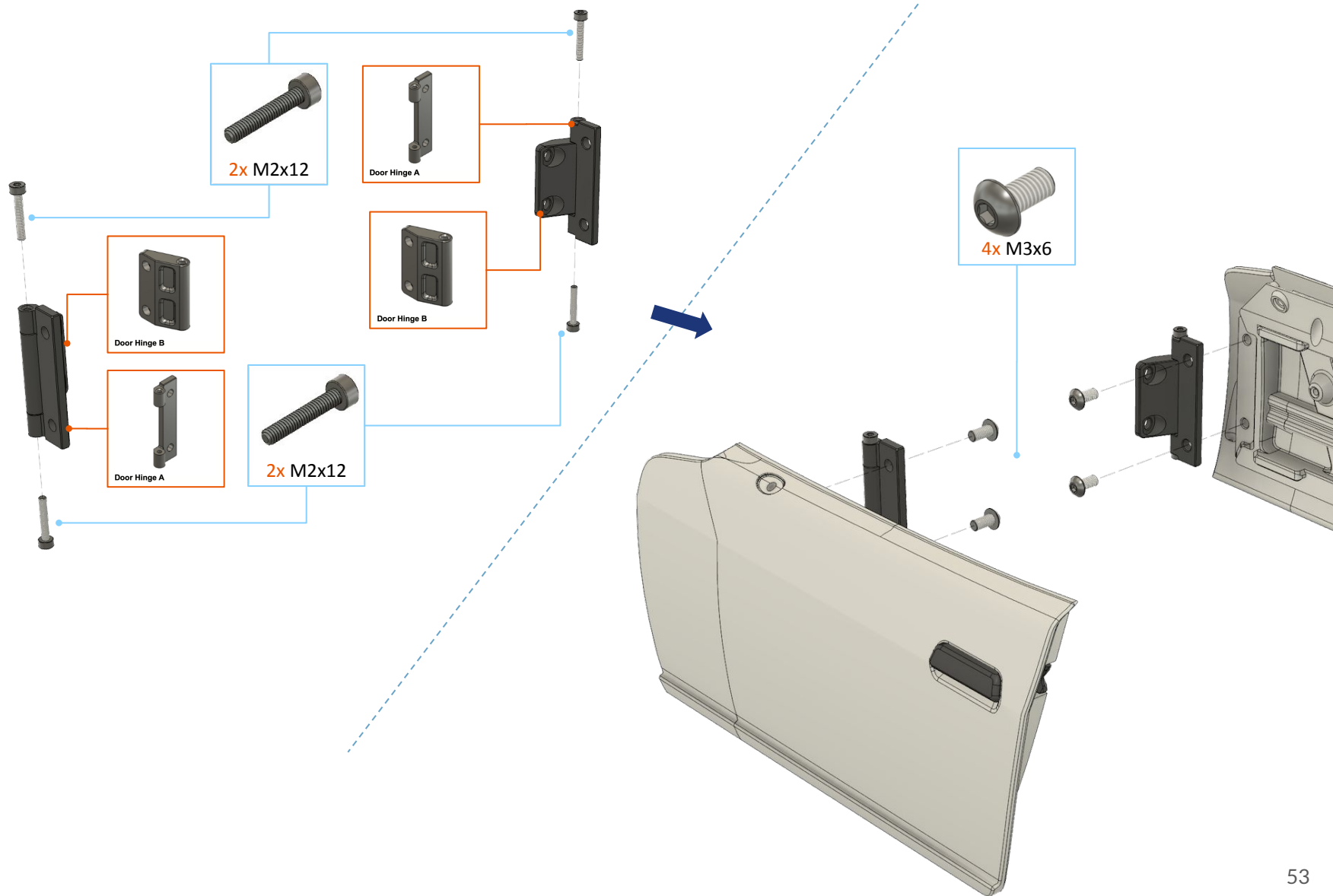


Doors - step 1/5

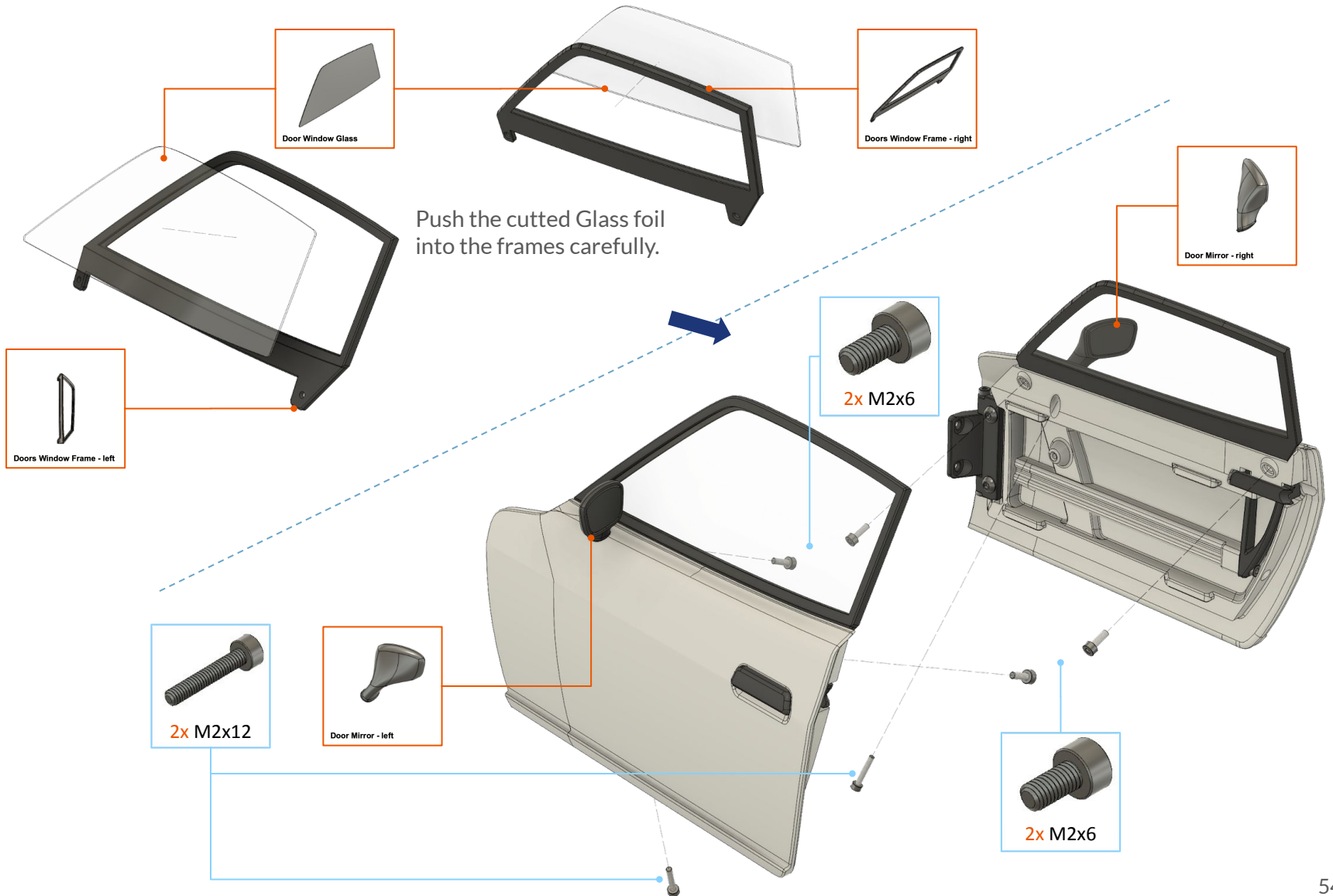
Door has working Door Handles, you need to pull them out to be able to open doors.



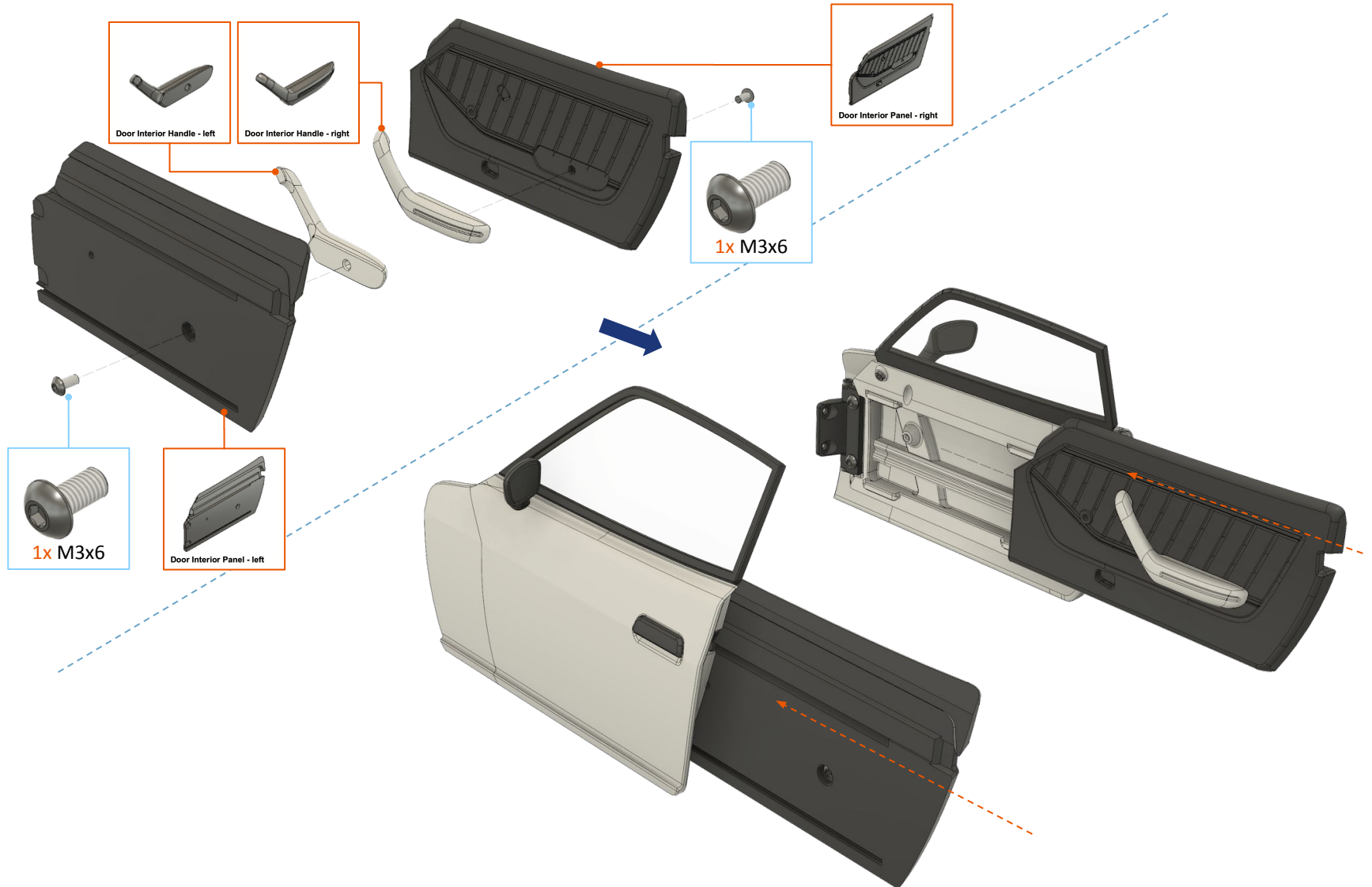
Doors - step 2/5



Doors - step 3/5



Doors - step 4/5



Doors - step 5/5



[Continue in Build Guide Sakura 240 on page 139](#)



Sport Pack – Wheels K

In this procedure you will assemble the Wheels design “I”.

Required print plates Sport Pack:

- "Wheel K Inner"
- "Wheel K Inserts"
- "Wheel K Outer"
- tip: for alternative wheel width use these from Spare Parts folder:
 - Wheel K Inner Front Narrow.stl
 - Wheel K Outer Rear Wide.stl

Non-printed parts:

- Screw M3x8: 16 pcs.
- Screw M3x16: 4 pcs.

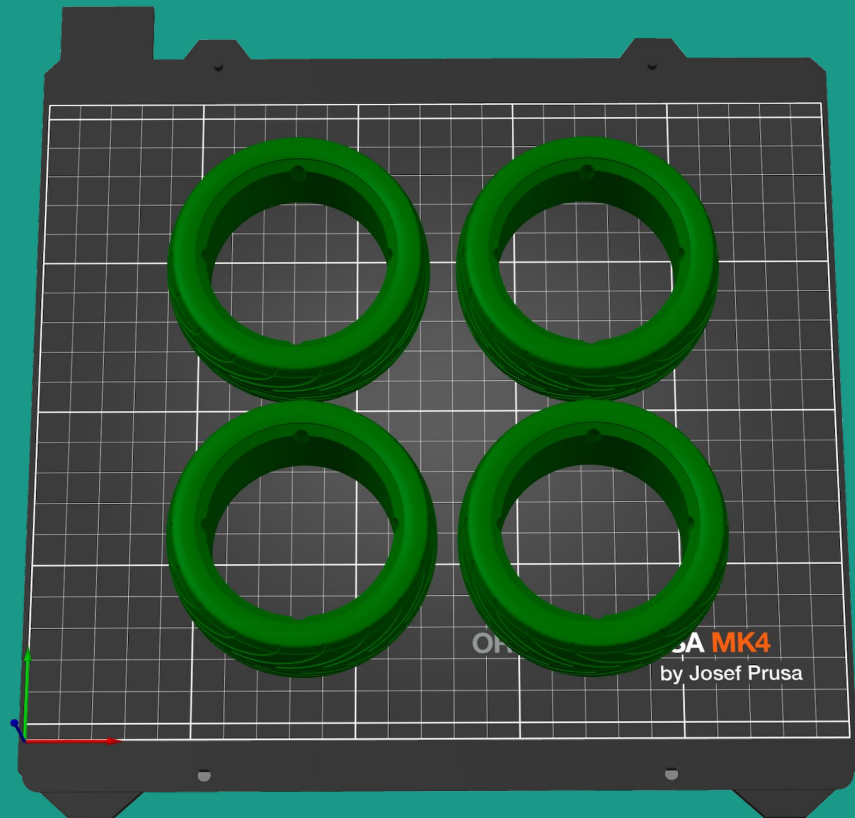


Tires

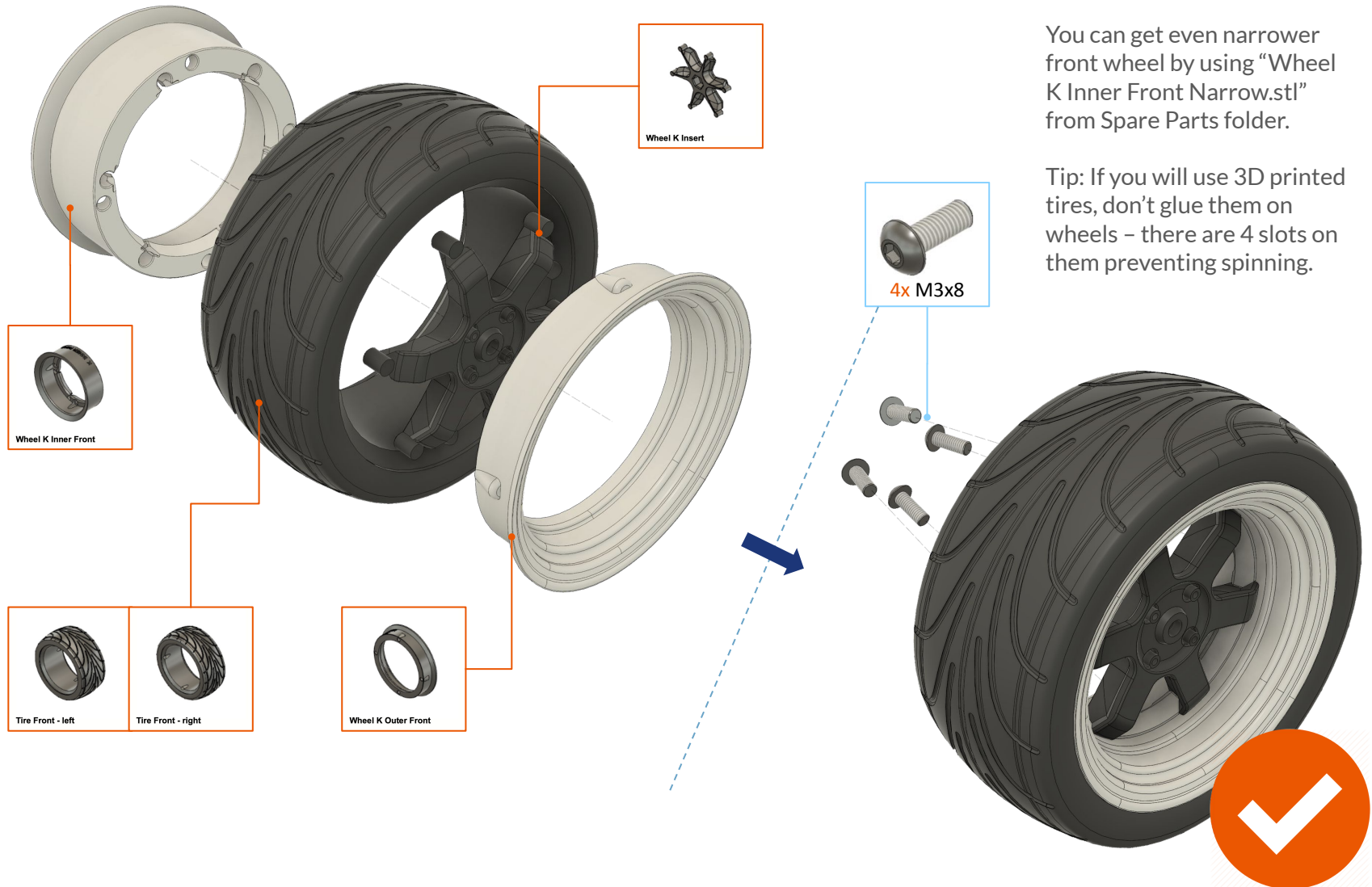
You can print your own tires from flexible filaments, for easy printing and nice matte finish we tested “Fiberlogy MattFlex 40D” filament. Use 0% infill for flexible filaments – the “Tires” file we provided is designed with ready-made internal supports, which don’t require any generated infill, resulting in relatively soft tires.

Recommended settings:

- Infill: 0%
- Perimeters: 2 perimeters
- Seam position: Random
- Top Layer: Archimedean Chord (optional, not required)



Wheels K – Front

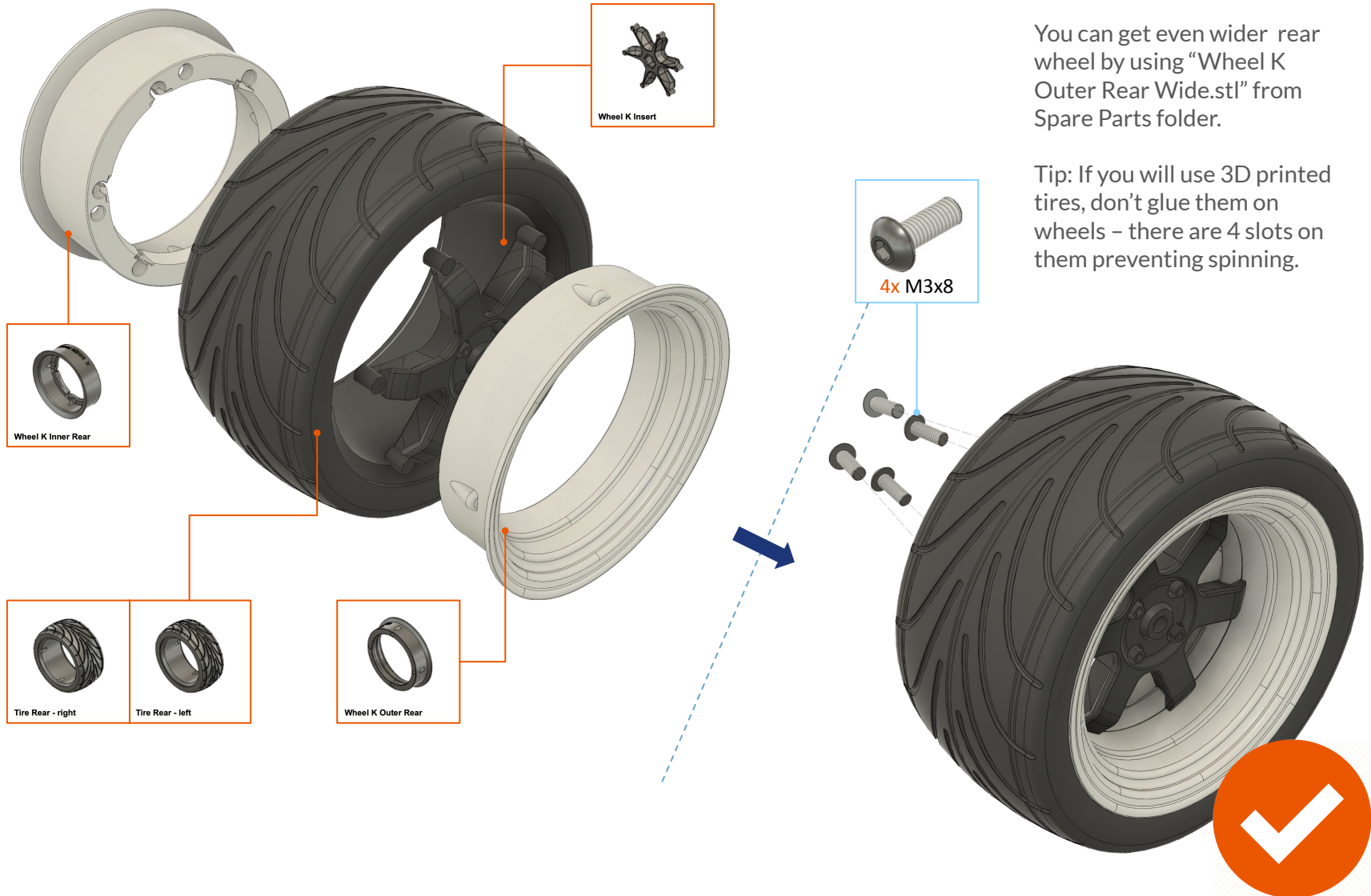


Please note that the Front Wheels are narrower than the Rear Wheels!

You can get even narrower front wheel by using “Wheel K Inner Front Narrow.stl” from Spare Parts folder.

Tip: If you will use 3D printed tires, don't glue them on wheels - there are 4 slots on them preventing spinning.

Wheels K – Rear



Please note that the Front Wheels are narrower than the Rear Wheels!

You can get even wider rear wheel by using “Wheel K Outer Rear Wide.stl” from Spare Parts folder.

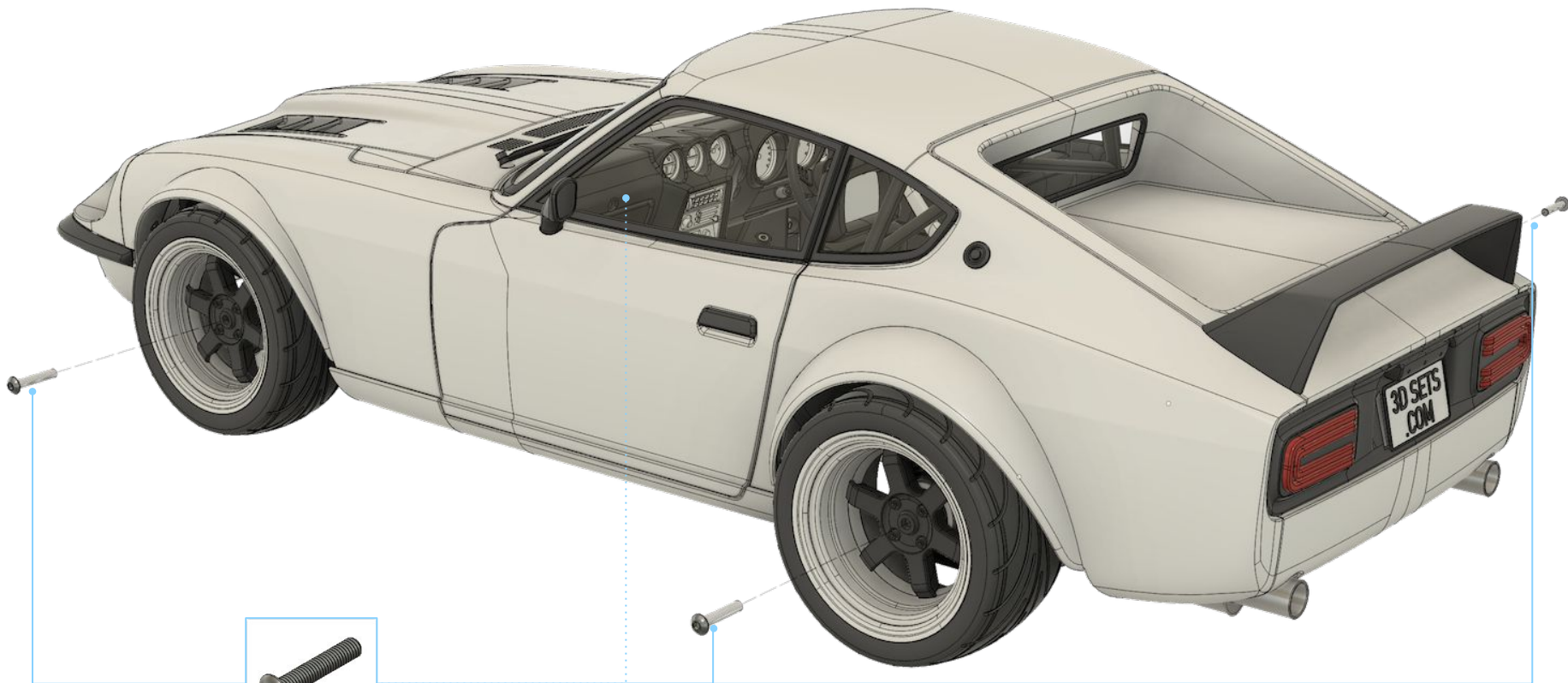
Tip: If you will use 3D printed tires, don't glue them on wheels – there are 4 slots on them preventing spinning.



Wheels installation



Please check if you have Axle Washers installed! They are mandatory to use, otherwise the wheels will touch non-moving parts!



4x M3x16



Sakura 240 Sport Pack – ready to drive race!





Sakura 240 Sport Pack – general tips

- Always use a proper battery charger. Bad charging of the Li-Pol battery may lead to a risk of fire!
- Disconnect the battery when the model is not used. The small switch on the ESC doesn't disconnect the battery and the ESC may draw a small amount of current even in OFF-state, which can damage your battery!