PRINTING & ASSEMBLING MANUAL

PLANE PRINT

PLANE PRINT LEARJET 35

Twin-engine RC business jet

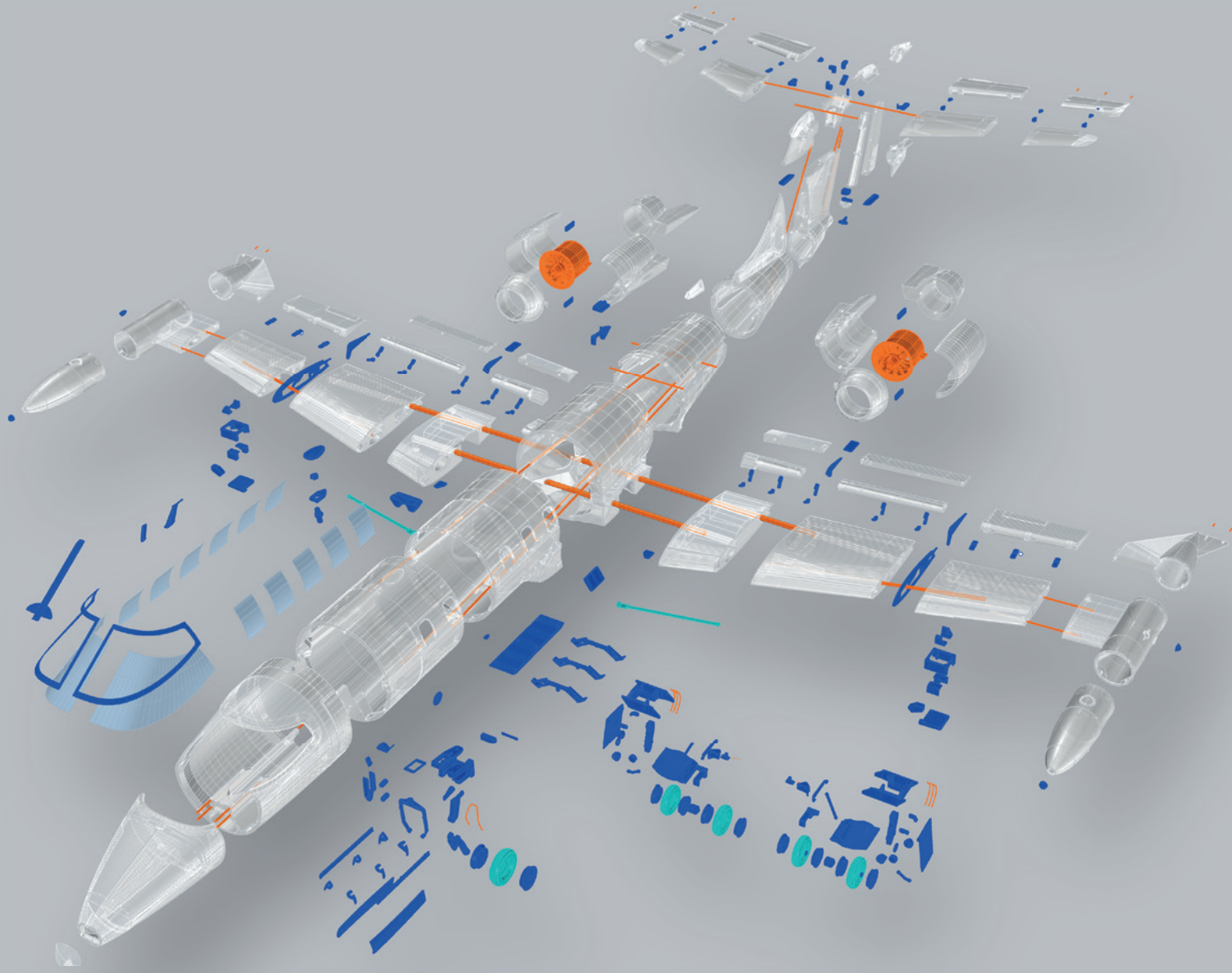
NOTE:
Slicing works best with CURA!

FAIR DATA USE

www.planeprint.com

the **ONLY** place where you can get original Planeprint STL files **legally!**

PLANEPRINT LEARJET 35



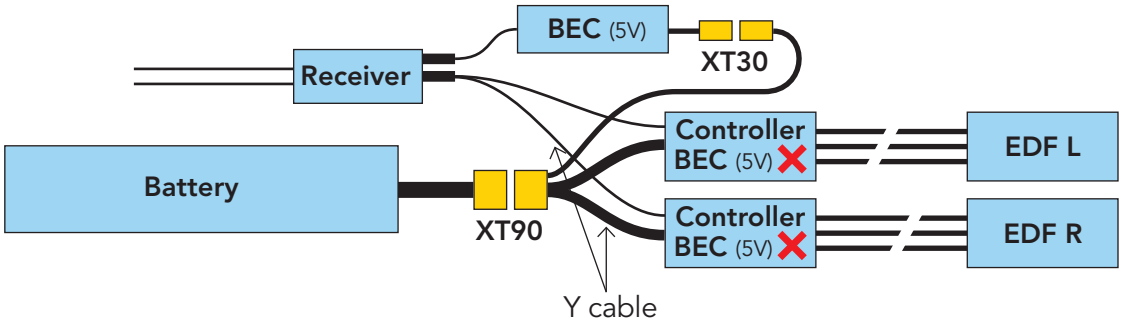
LW-PLA PLA TPU OTHER

RC Components

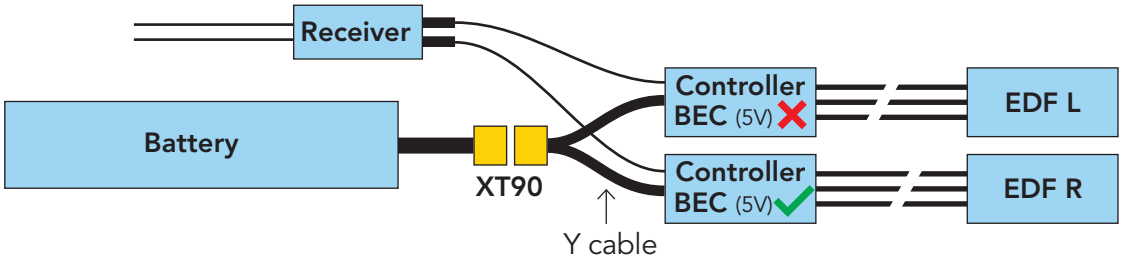
ENGINE **2 pieces EDF 70 MM 3060-KV1900** (FMS) or equivalent

CONTROLLERS **80A ESC X 2 with 8A BEC EC5 For 70mm A-10 V2** (FMS) or equivalent

OPTION 1: you can **either** use two controllers **without BEC** and an **external supply for the servos**.



OPTION 2: **two BEC controllers** and **deactivate** the BEC on **one** of them (Pull the red + cable out of the plug)

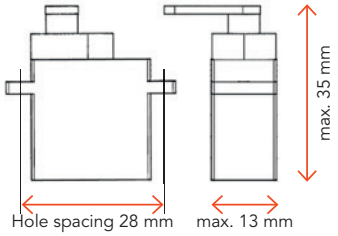


RECEIVER **12 Channel** (or at least 10 channels if you do without the gear doors)

BATTERY **6S LiPo-Battery**, 5000 - 6000 mAh (Ideal weight 690g)

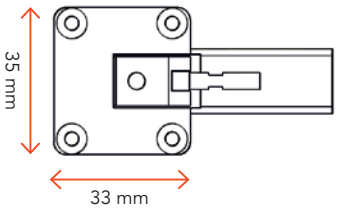
SERVOS **5 pieces Quality servos (plus one if you want to control the elevator with two servos)**
like **KST A12-610 V8.0 SG digital** or equivalent (for important functions such as AIL, Flaps, ELE)
Metal gears should be preferred for the important functions such as elevator, ailerons, flaps!
We advise against very cheap servos, safety first!

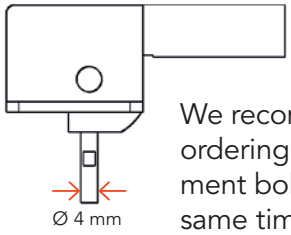
3 pieces like **Corona 929MG, Hitec HS55, Savöx SH-0254** or equivalent



SERVO CABLE EXTENSIONS
800 mm 1 piece – Elevator
500 mm 2 pieces – Nose gear steering/door
300 mm 4 pieces – Aileron and Flaps Fuselage
200 mm 2 pieces – Aileron Wings
Distribution cable one to three 1 piece – Retract

SERVOLESS RETRACTS **Two normal and one steerable Nose Wheel**
(we used: 40g Landing Gear, AliExpress – for 3.500g Models)





We recommend ordering replacement bolts at the same time.

Required accessoires – basic equipment

Links to recommended accessories can be found on
www.planeprint.com/learjet (scroll down)

- **LW-PLA** foaming! **(cannot be replaced by PLA!)**, ~1600 grams
- **Tough PLA**, ~300 grams
- **TPU A95 and LW-TPU Colorfabb VarioShore**, ~100 grams

Materials

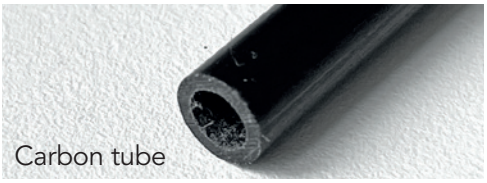
- CA super glue (liquid and liquid medium)
- CA activator
- Sortiment of Tapping screws Ø2mm
- Sortiment of Metal Screws Ø3mm
- Metal screw with countersunk head Ø4*50mm, 2 pieces
- Metal screw with countersunk head Ø4*30mm, 1 piece
- Carbon tube Ø10mm*1000mm (inside 8mm), 2 pieces
  Cut the tubes to the following lengths (mm):
  1 tube = 900
  1 tube = 560
- Carbon tube Ø6mm*1000mm (inside 4mm), 2 pieces
  Cut the tubes to the following lengths (mm):
  1 tube = 2x377
  1 tube = 2x500
- Carbon rod Ø3*1000mm, 7 pieces
  Cut 4 of the rods to the following lengths (mm):
  2x100,2x260,185,326,126,197,158,142,372,2x150,2x250
- Steel wire Ø1*1000mm, 4 pieces (do not use thinner ones!)
- Rod connection (hole for Ø1mm steel wire), 2 pieces
- Rod connection (hole for Ø2mm steel wire), 1 piece
- Ball bearings 4x9x4mm, 10 pieces
- Self-adhesive Velcro tape
- Threaded inserts M3 (optional, see description gear)
- Overhead foils or binding covers of scripts
  (~0,2mm, office trade) in DIN A4 format. (optional)
- Tinted film for rear car lights (optional)

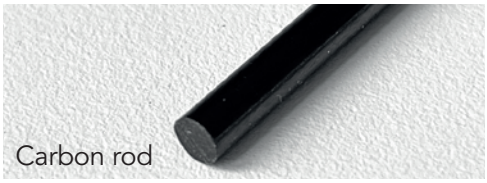
Tools

Cutter knife, small Philips screwdriver, Sandpaper grain ~150,
Metal saw, Needle nose pliers


Tapping screws Ø2mm

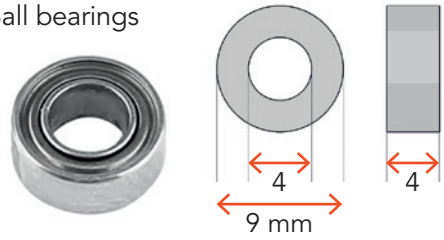
Metal screws Ø3mm


Carbon tube


Carbon rod


Rod connection hole Ø 1 to 2mm

Ball bearings




Threaded insert

The development of a complex, airworthy RC flight model to express on any standard 3D printer is a very extensive process. **Therefore, we appeal to your fairness not to forward the STL data you have acquired to third parties.**

Thank you for your understanding and have fun with your PLANEPRINT MODEL!

Printing the parts – Printing profiles

This manual is constantly being improved and supplemented, we recommend downloading the **latest version** from our website **before building**.

To print all **PLANEPRINT** models **you need to set some basic profiles in Cura** (If you use another slicer, please set the same parameters).

You can find the description at www.planeprint.com/print

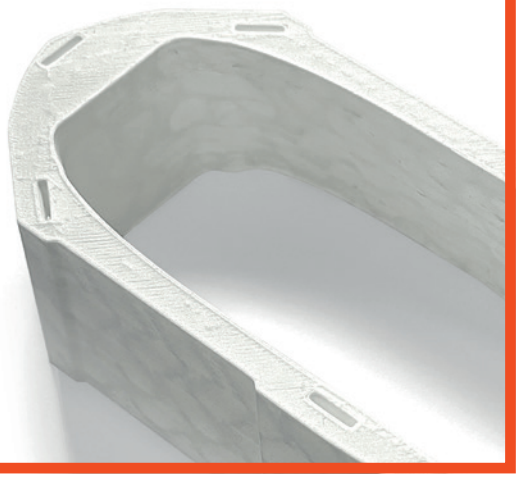
For this model you need the following profiles:

P1 **P2** **P4** **P5**

NOTE When printing the PLANEPRINT LEARJET you should pay particular attention to a light weight of **each** individual part.

PROFILE P5_Gyroid

It is **essential for the necessary stability** of the **LW parts printed with PROFILE_5 are as stable as possible**. Please use a test part to check the strength by fracture tests. It must not break along the layer lines under any circumstances! Also note that the printing temperature for LW-PLA is as low as possible to obtain a wall thickness of 0.4 to 0.6 mm at a flow of 55 to 65 % (depending on brand and printer).
Caution: at too high temperatures, LW-PLA becomes brittle and breaks more easily.



PROFILE P1_Fullbody Tough PLA or PLA

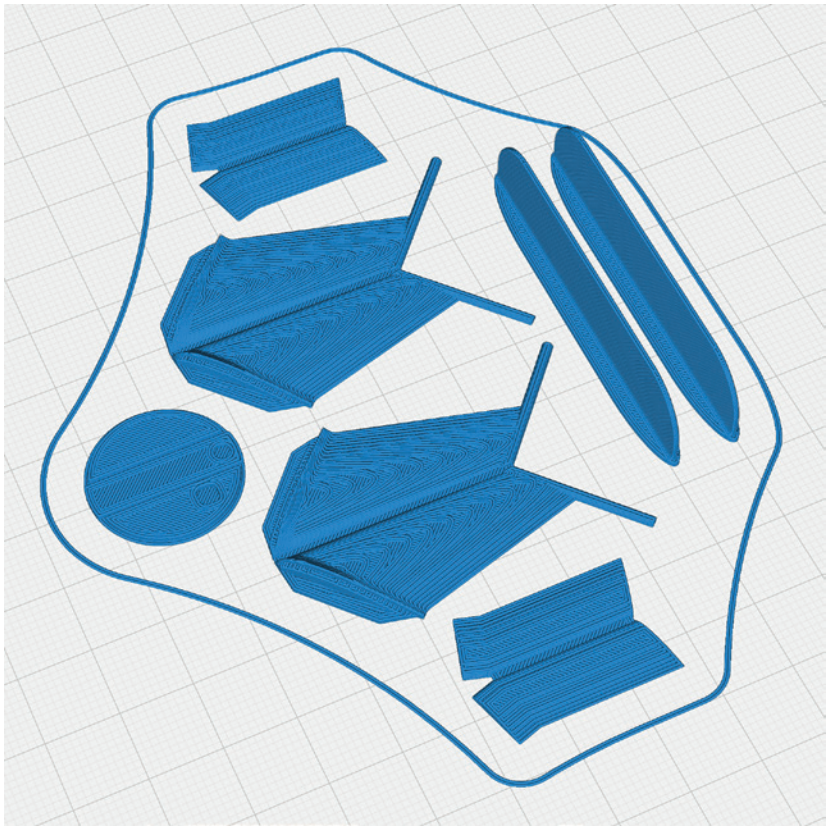
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Antennas_lj.stl

MATERIAL PLA, Weight: ~ 6 g

ADDITIONAL SETTINGS

None required

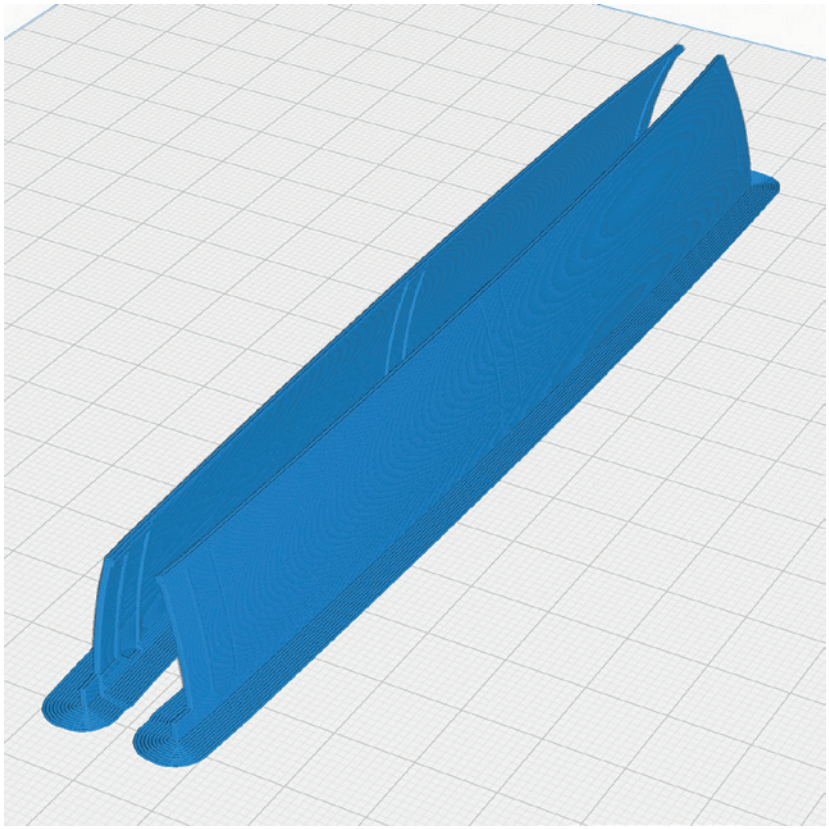


P1_Doors front gear_lj.stl

MATERIAL PLA, Weight: ~ 8 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody Tough PLA or PLA

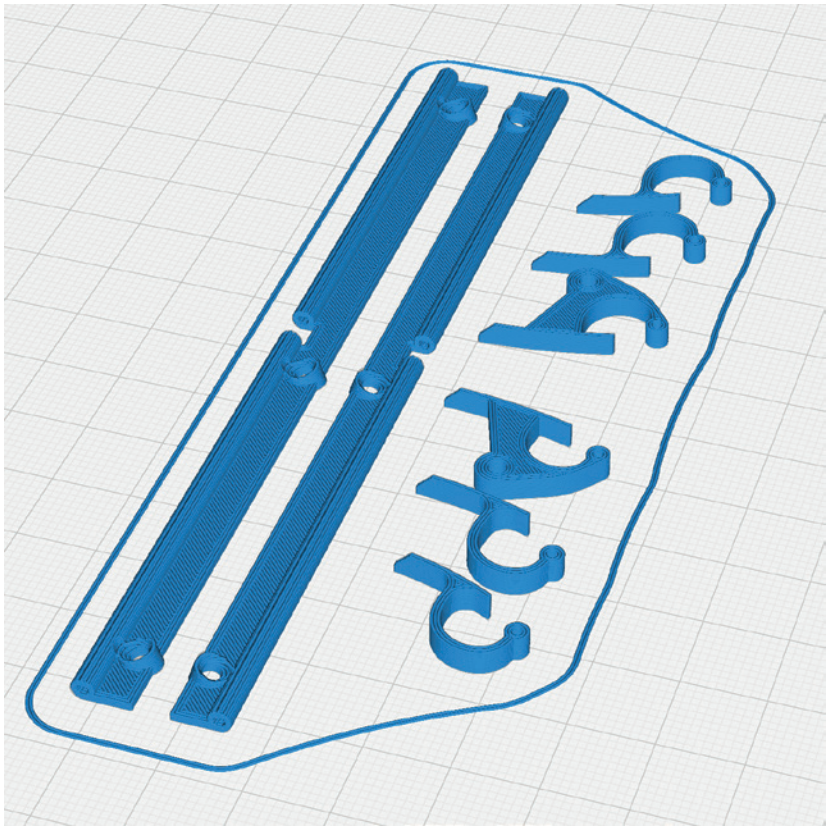
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Doors front mount_lj.stl

MATERIAL PLA, Weight: ~ 5 g

ADDITIONAL SETTINGS

None required



P1_Doors front Servo mount_lj.stl

MATERIAL PLA, Weight: ~ 5 g

ADDITIONAL SETTINGS

None required

PROFILE P1_Fullbody Tough PLA or PLA

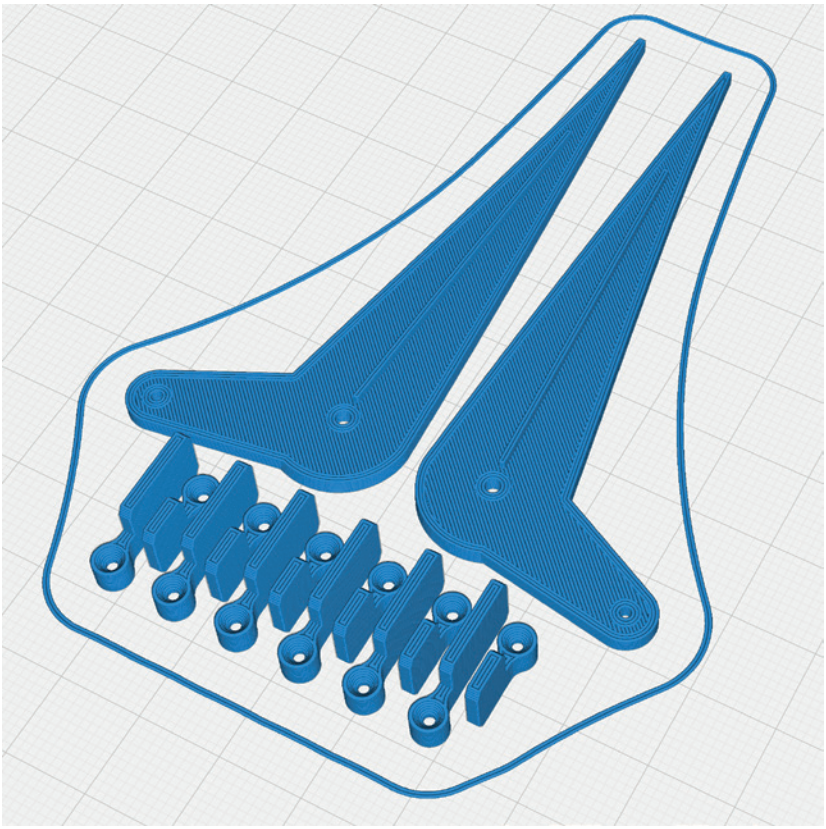
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Hinges AIL_lj.stl

MATERIAL PLA, Weight: ~ 7 g

ADDITIONAL SETTINGS

None required

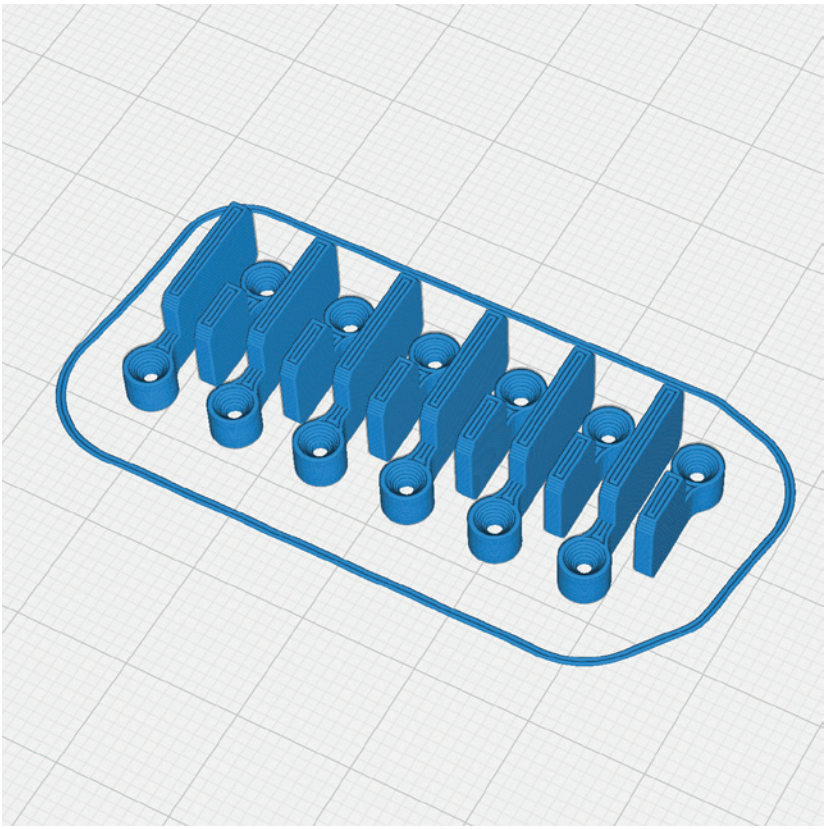


P1_Hinges ELE_lj.stl

MATERIAL PLA, Weight: ~ 2 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody Tough PLA or PLA

P1

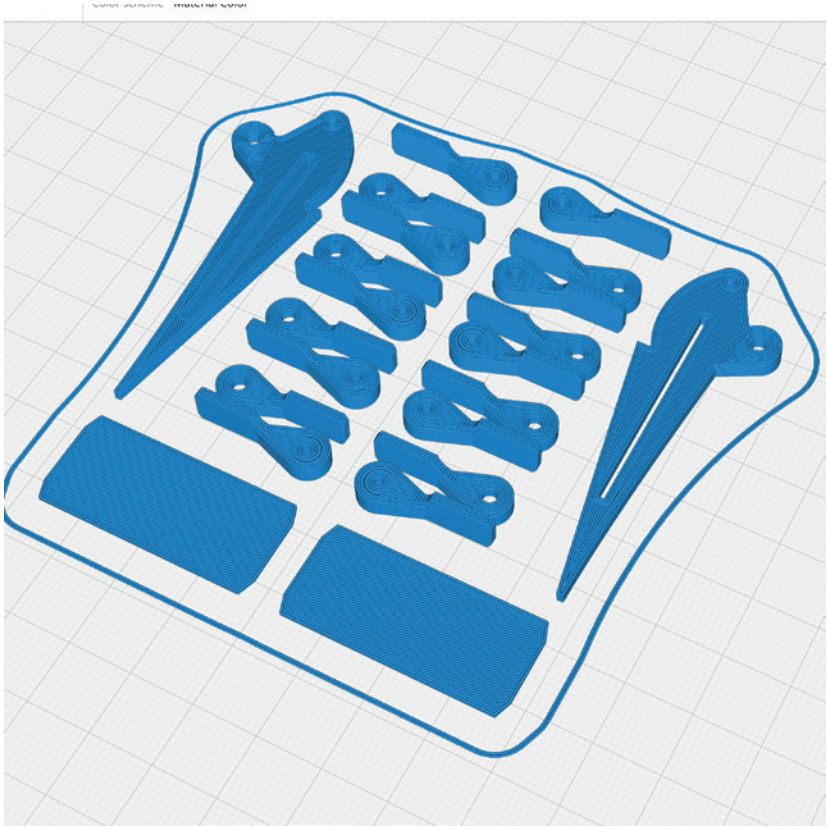
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Hinges Flap_lj.stl

MATERIAL PLA, Weight: ~ 10 g

ADDITIONAL SETTINGS

None required

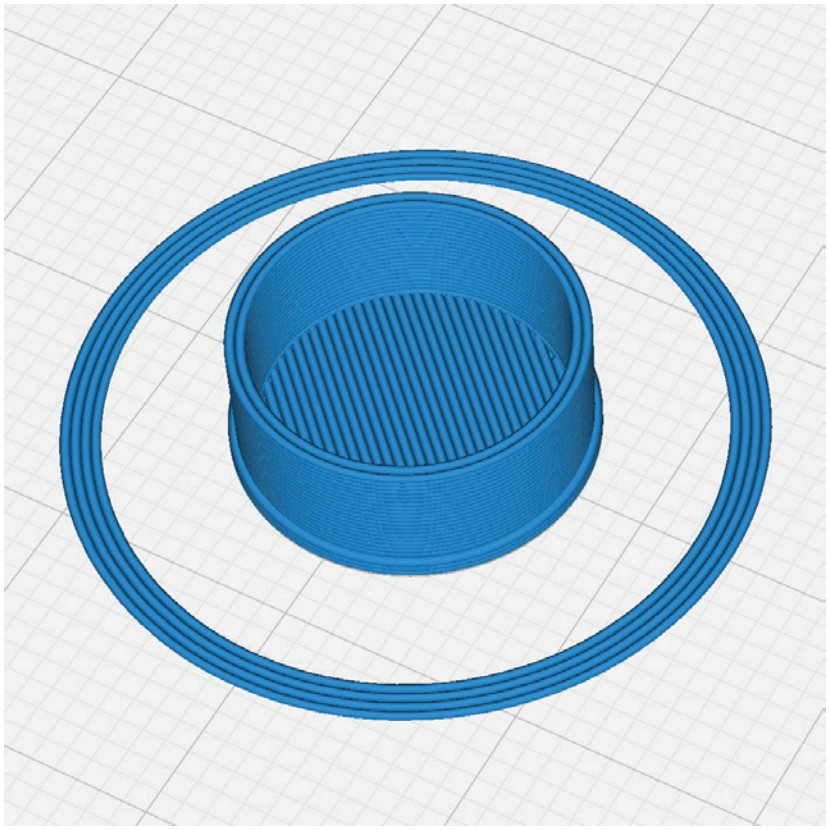


P1_Landing Light glass_lj.stl

MATERIAL PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

None required



TIP Use transparent filament

For optimum printing, transparent filaments should always be dried.

PROFILE P1_Fullbody Tough PLA or PLA

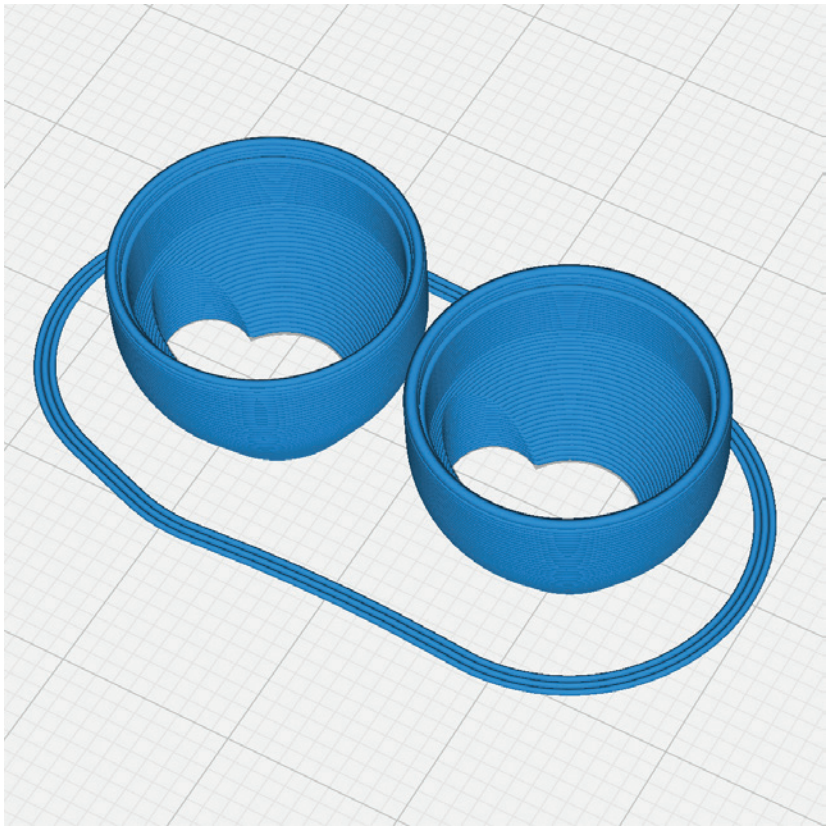
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Landing light_lj.stl

MATERIAL PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

None required



P1_Light_lj.stl

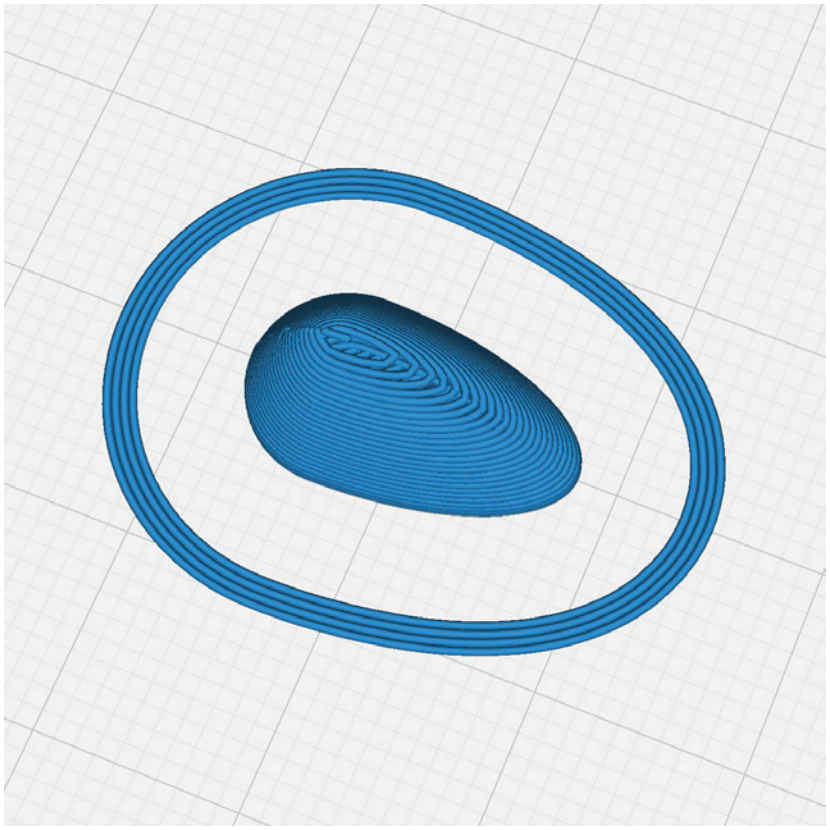
MATERIAL PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

- print it four times

TIP Use transparent filament

For optimum printing, transparent filaments should always be dried.



PROFILE P1_Fullbody Tough PLA or PLA

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Rear Light_lj.stl

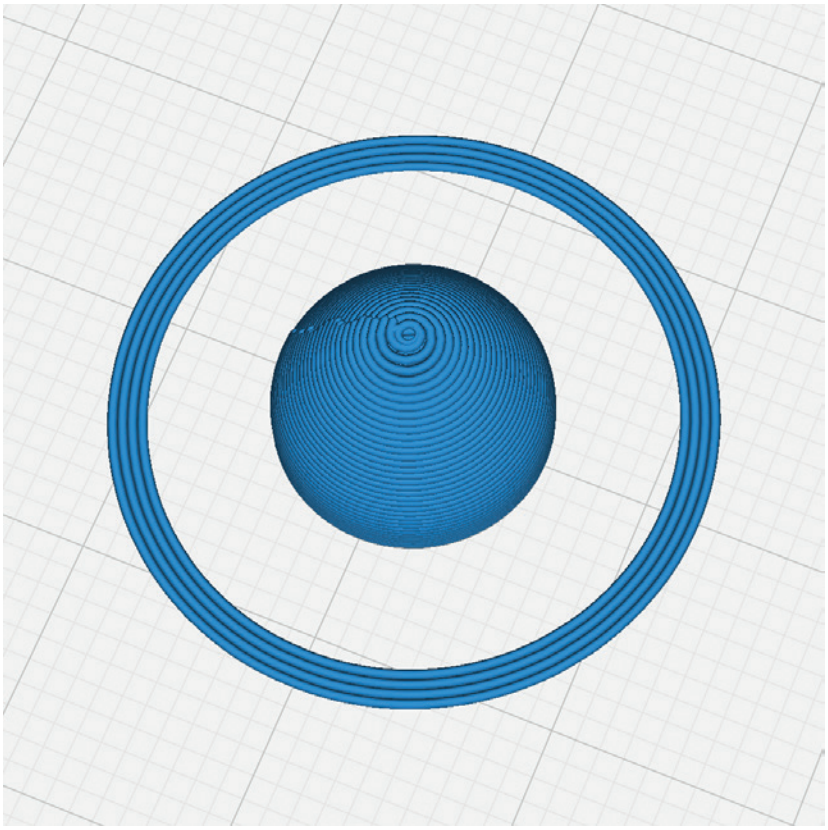
MATERIAL PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

- Print 3 times

TIP Use transparent filament

For optimum printing, transparent filaments should always be dried.

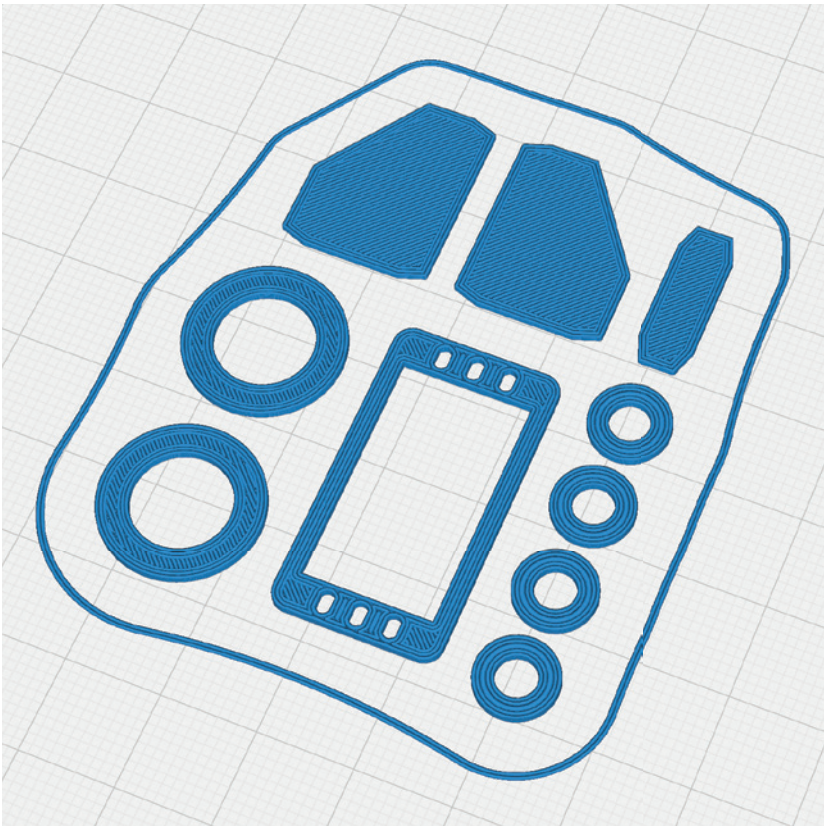


P1_Parts_lj.stl

MATERIAL PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody Tough PLA or PLA

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Servo mount RUD ELE_lj.stl

MATERIAL PLA, Weight: ~ 8 g

ADDITIONAL SETTINGS

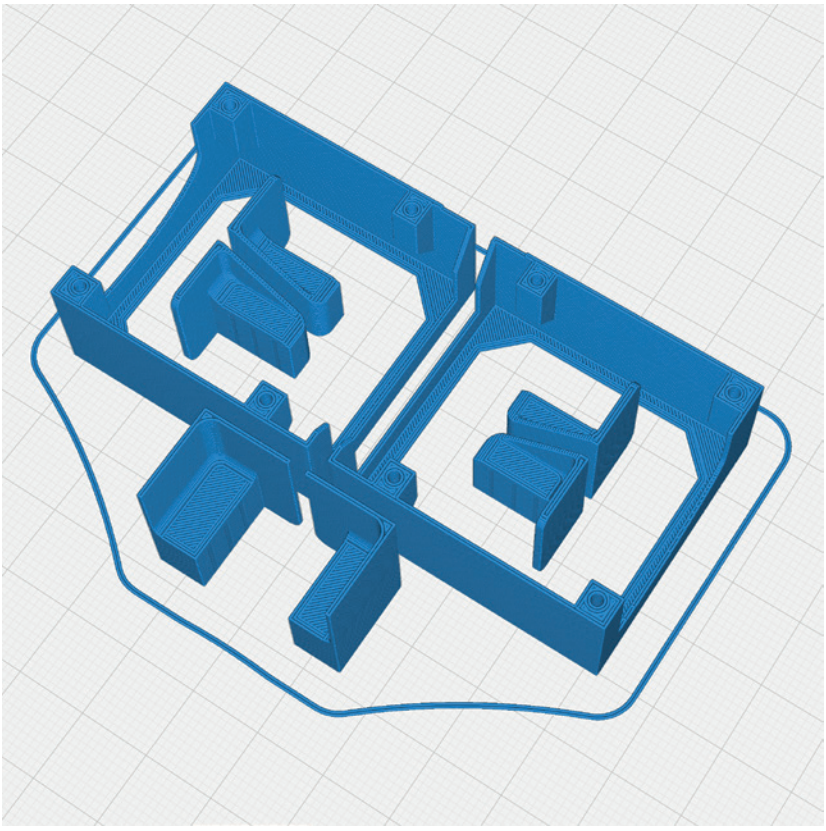
None required

P1_Servo mount wing_lj.stl

MATERIAL PLA, Weight: ~ 14 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody Tough PLA or PLA

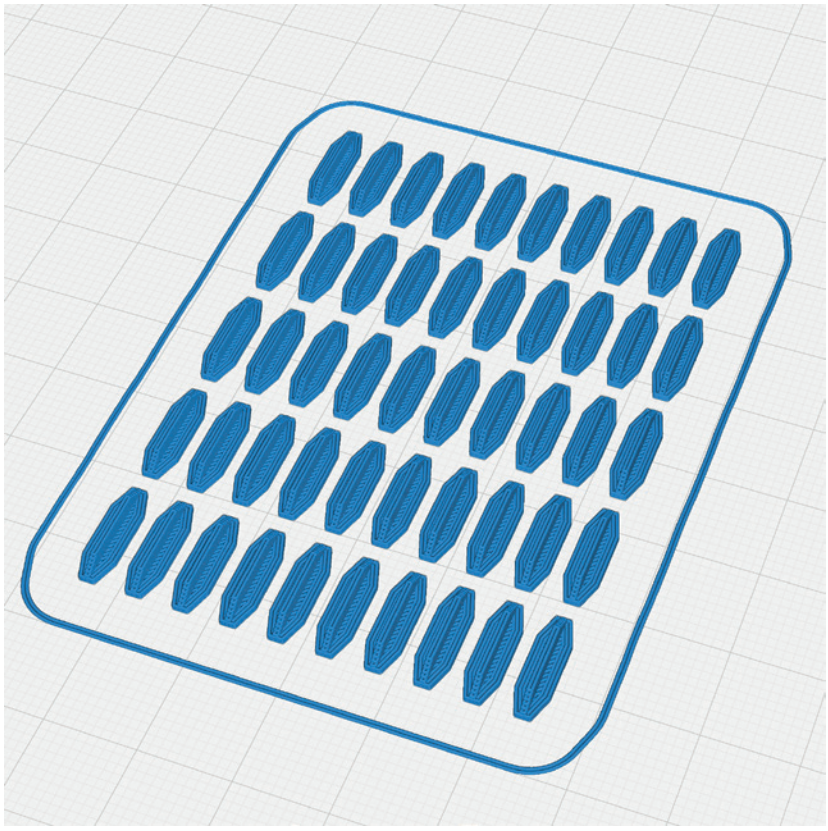
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_T-Connects small_lj.stl

MATERIAL PLA, Weight: ~ 3 g

ADDITIONAL SETTINGS

None required

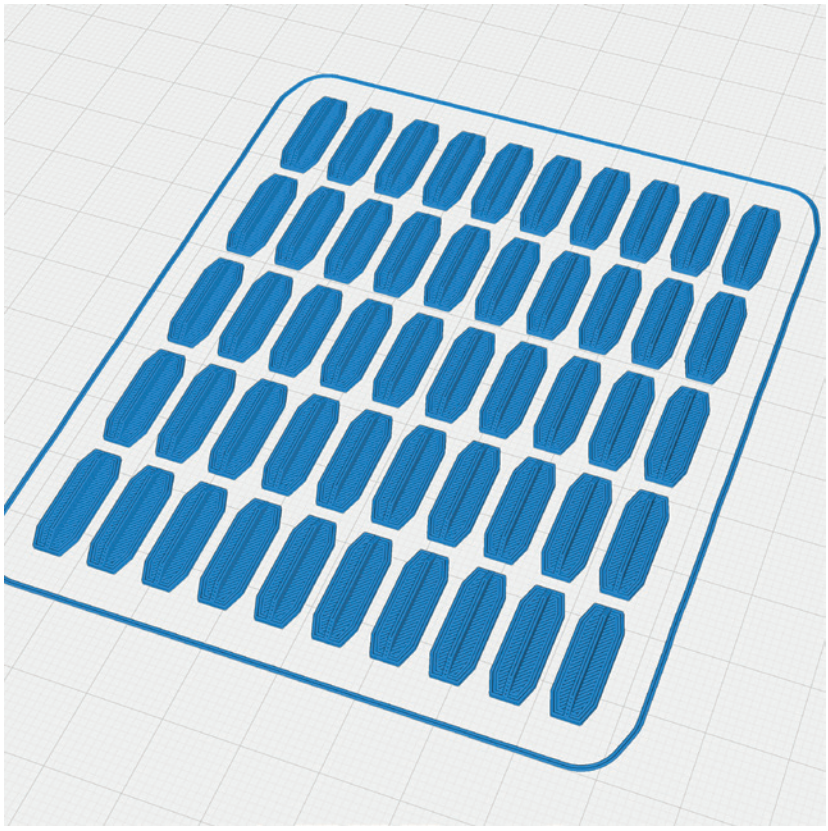


P1_T-Connects_lj.stl

MATERIAL PLA, Weight: ~ 5 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody Tough PLA or PLA

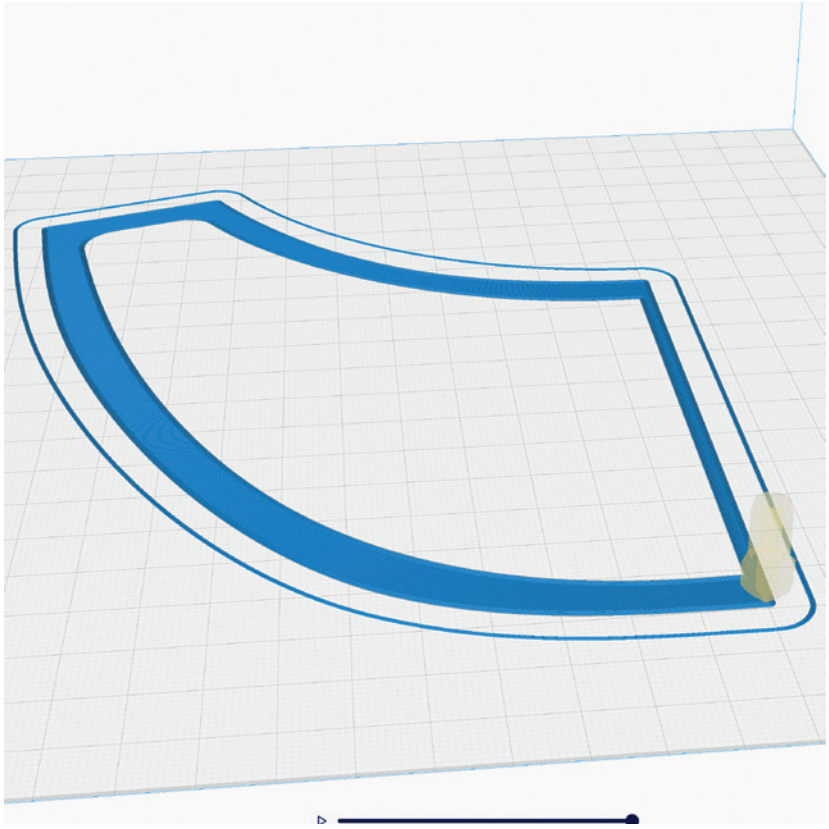
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Windshield L_lj.stl and P1_Windshield R_lj

MATERIAL PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

None required

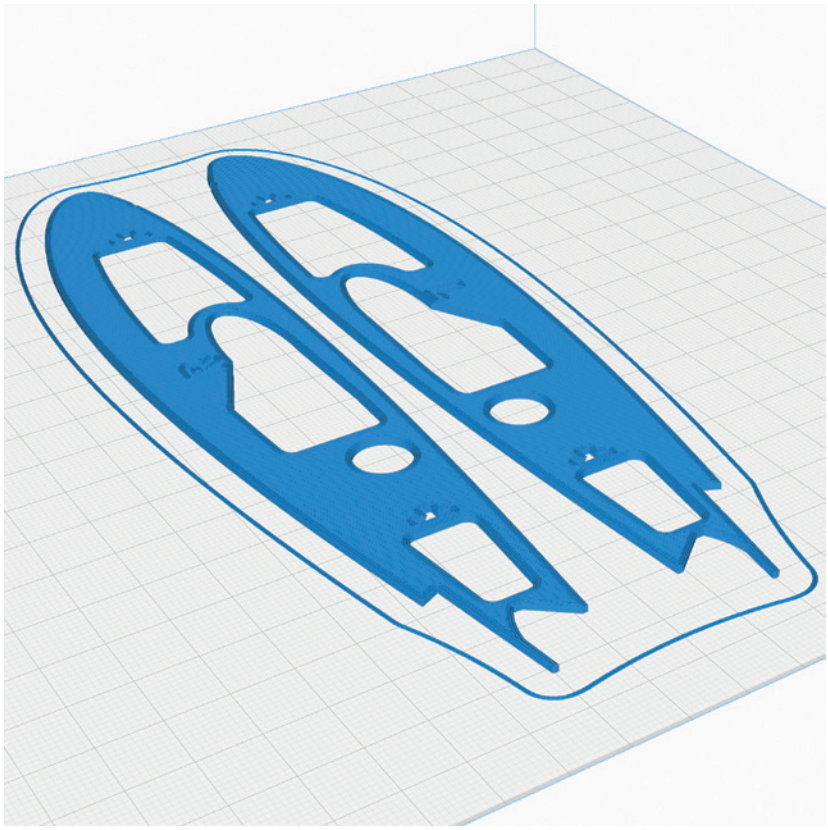


P1_Wing Fence_lj.stl

MATERIAL PLA, Weight: ~ 10 g

ADDITIONAL SETTINGS

None required



PROFILE P2_Hollowbody Tough PLA or PLA

P2

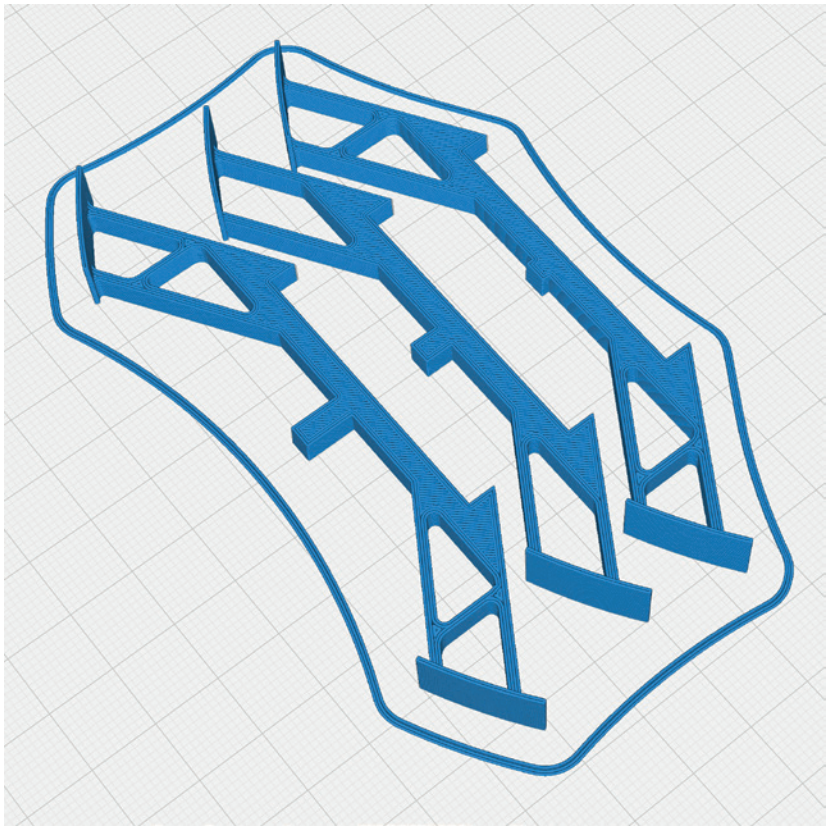
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Battery mount_lj.stl

MATERIAL PLA, Weight: ~ 7 g

ADDITIONAL SETTINGS

None required

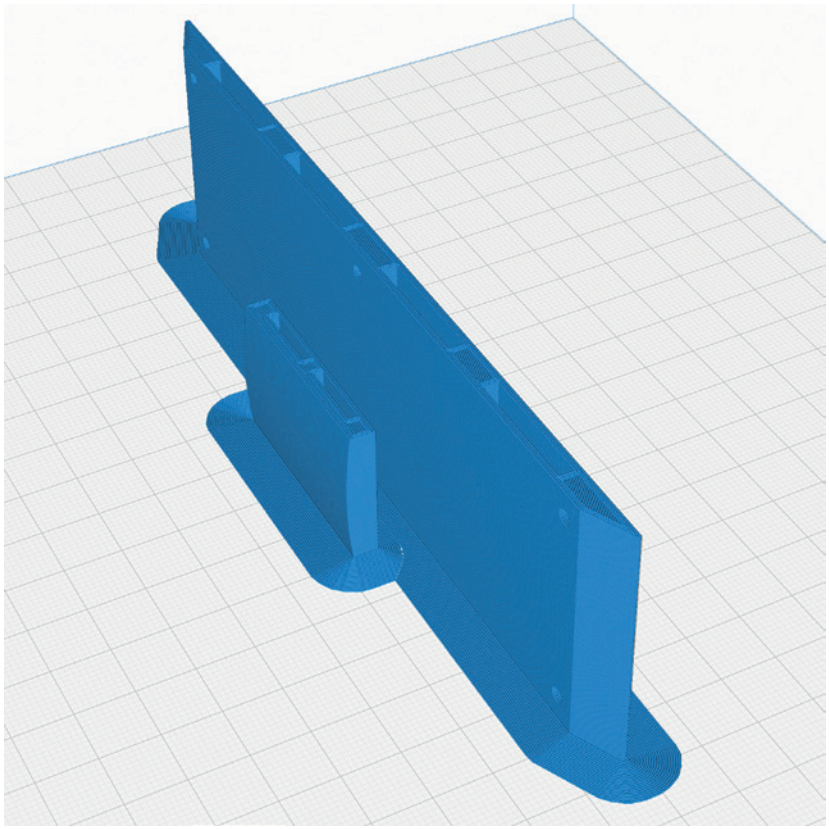


P2_Battery plate_lj.stl

MATERIAL PLA, Weight: ~ 25 g

ADDITIONAL SETTINGS

- use brim



PROFILE P2_Hollowbody Tough PLA or PLA

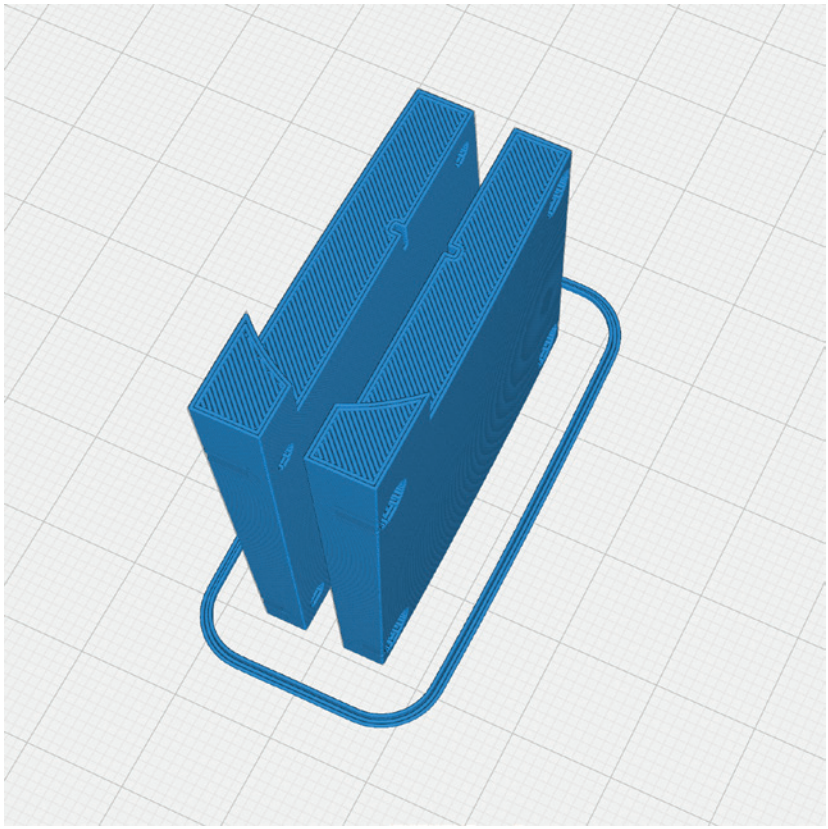
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_AIL covers_lj.stl

MATERIAL PLA, Weight: ~ 5 g

ADDITIONAL SETTINGS

- Wall Line Count/Perimeters: 1
- Infill: 8 %



P2_Cover lock_lj.stl

MATERIAL PLA, Weight: ~ 4 g

ADDITIONAL SETTINGS

None required

PROFILE P2_Hollowbody Tough PLA or PLA

P2

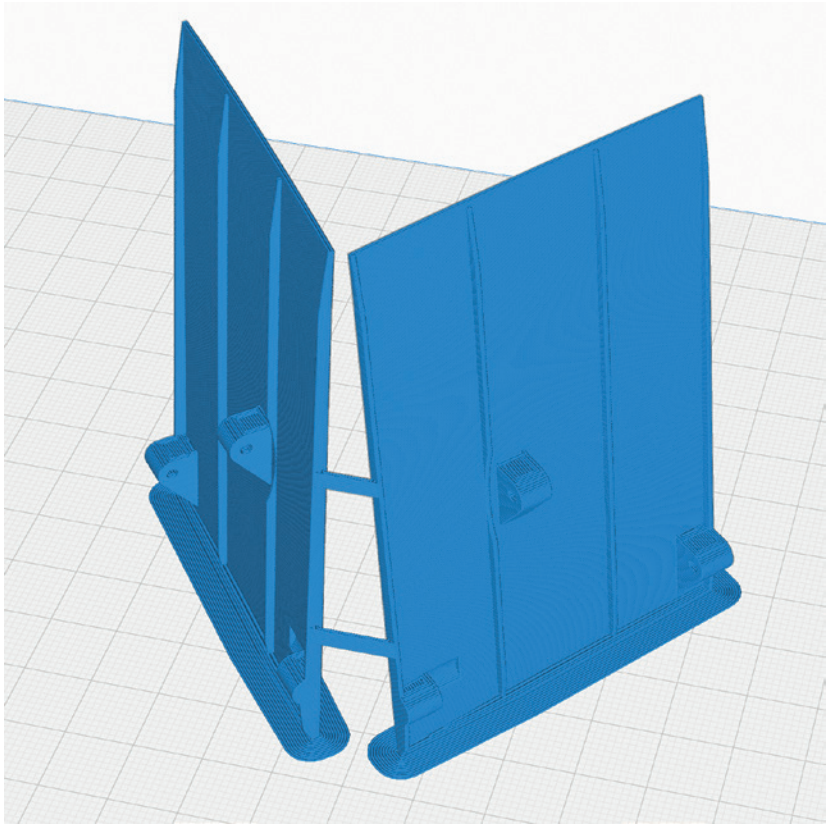
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Doors1 main gear_lj.stl

MATERIAL PLA, Weight: ~ 11 g

ADDITIONAL SETTINGS

- use brim

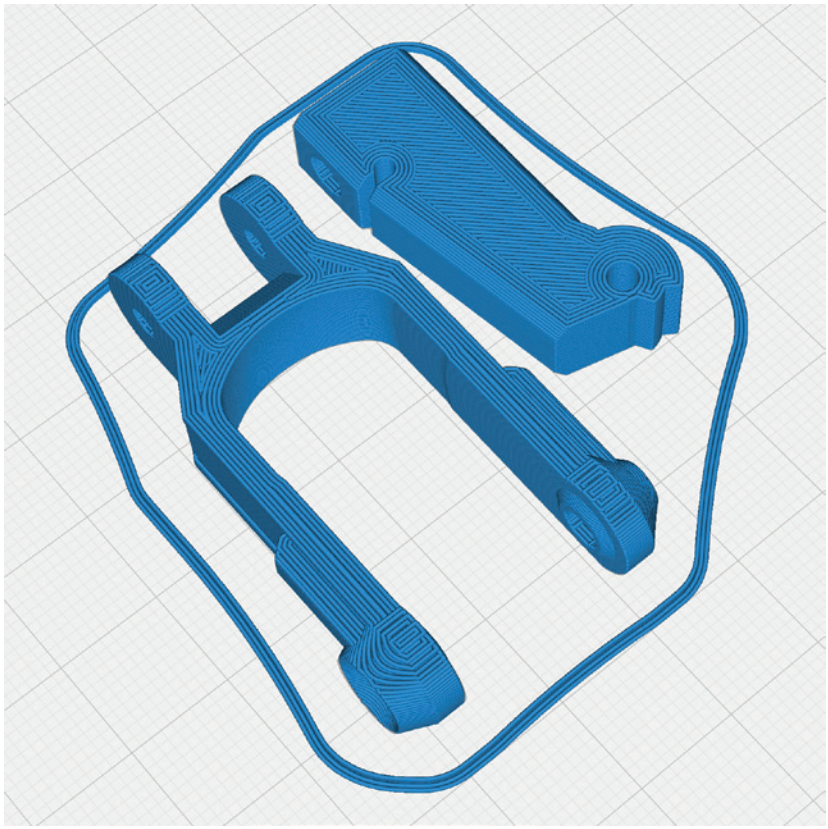


P2_Gear leg nose_lj.stl* or P2_Gear leg nose M3_lj.stl**

MATERIAL **Tough** PLA, Weight: ~ 7 g

ADDITIONAL SETTINGS

- Wall Line Count/Perimeters: 4
- Top Layers: 4
- Bottom Layers: 4



* With holes for threaded inserts (**better solution**)
** With holes for Screws Ø3mm

PROFILE P2_Hollowbody Tough PLA or PLA

P2

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

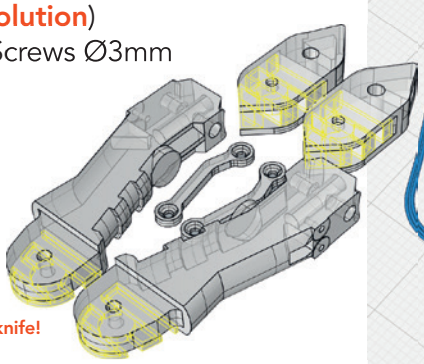
P2_Gear legs main_lj.stl* or P2_Gear legs main M3_lj.stl**

MATERIAL **Tough** PLA, Weight: ~ 21 g

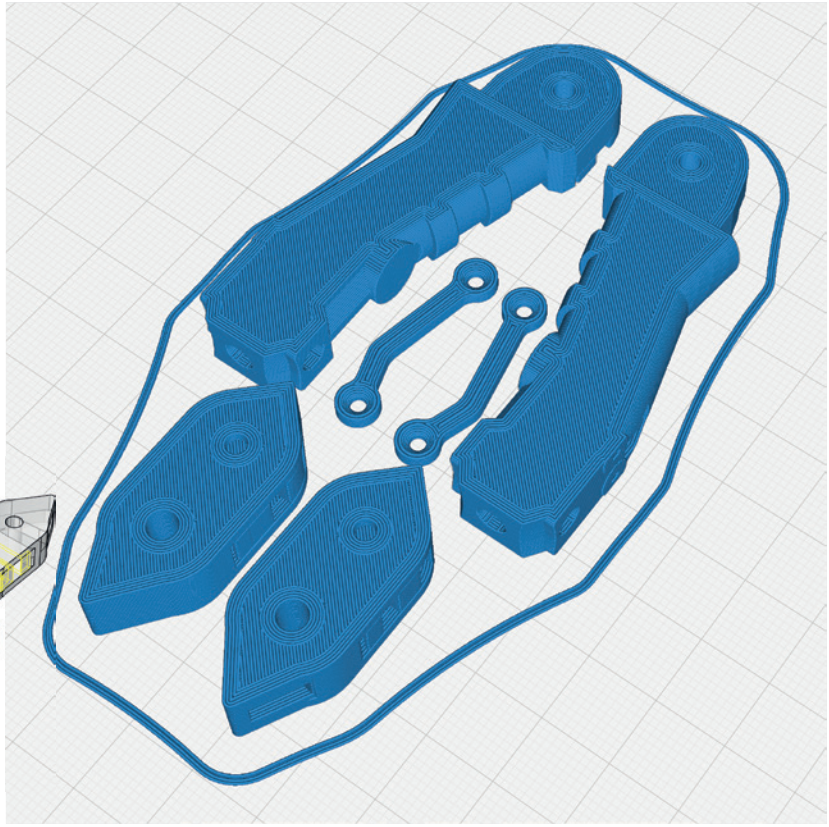
ADDITIONAL SETTINGS

- Wall Line Count/Perimeters: 4
- Top Layers: 4
- Bottom Layers: 4

* With holes for threaded inserts (**better solution**)
** With holes for Screws Ø3mm



Remove support.
Please be careful with the knife!

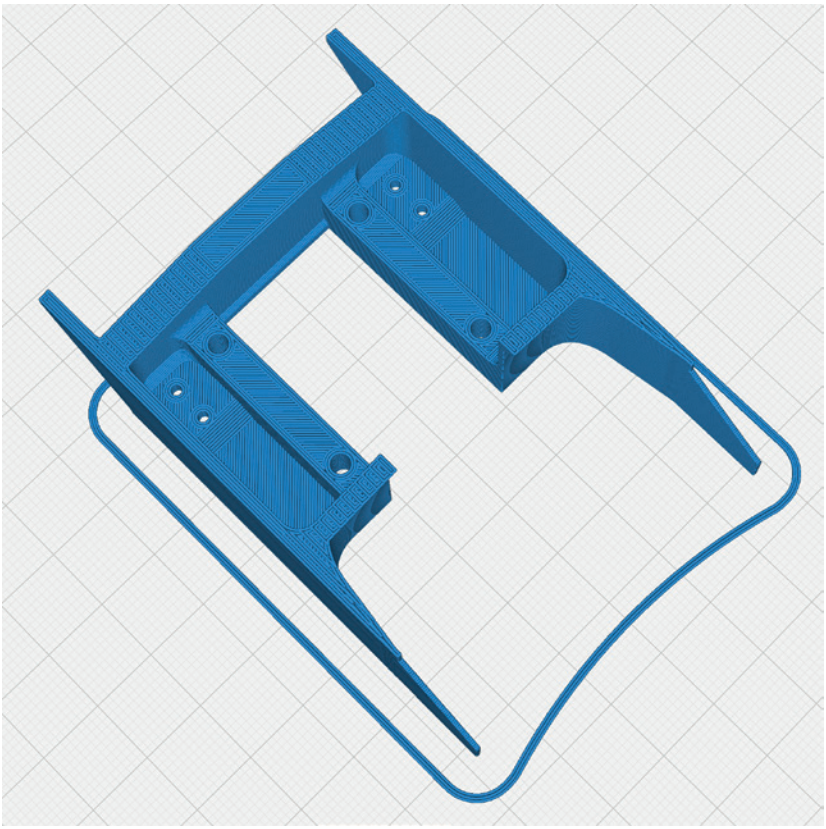


P2_Gear mount main_lj.stl

MATERIAL **Tough** PLA, Weight: ~ 13 g

ADDITIONAL SETTINGS

- print twice



PROFILE P2_Hollowbody Tough PLA or PLA

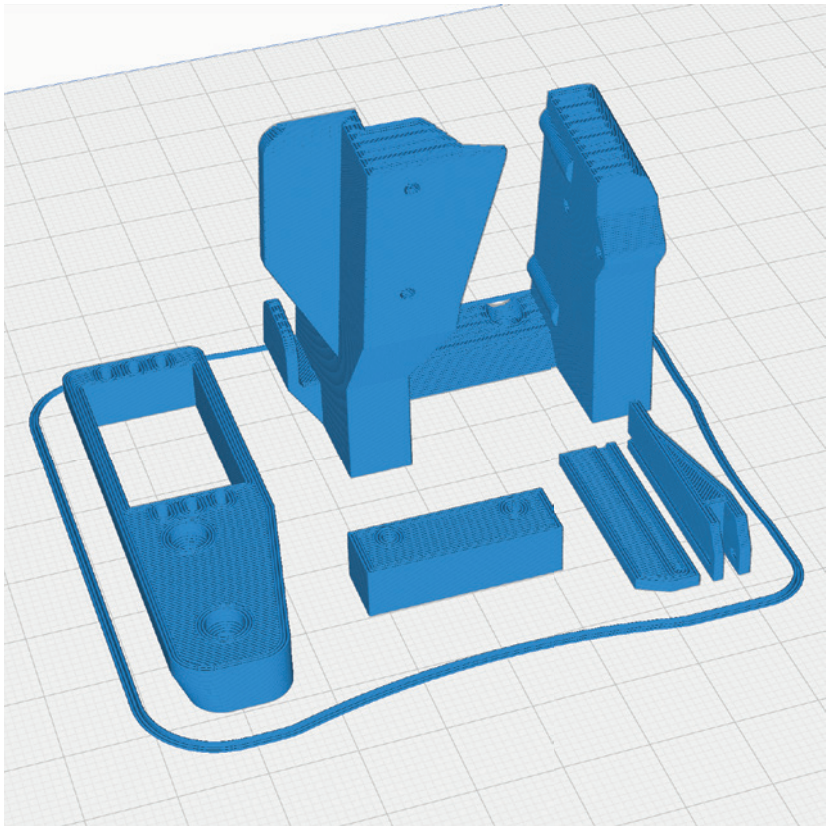
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Gear mount nose_lj.stl

MATERIAL **Tough** PLA, Weight: ~ 15 g

ADDITIONAL SETTINGS

None required

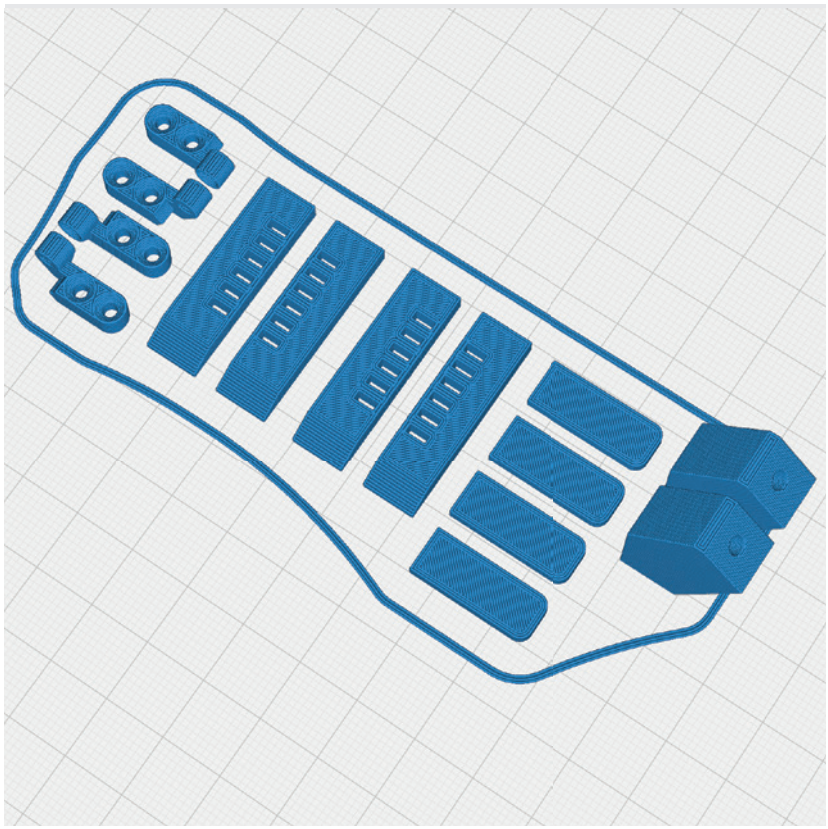


P2_Parts_lj.stl

MATERIAL PLA, Weight: ~ 8 g

ADDITIONAL SETTINGS

None required



PROFILE P2_Hollowbody Tough PLA or PLA

P2

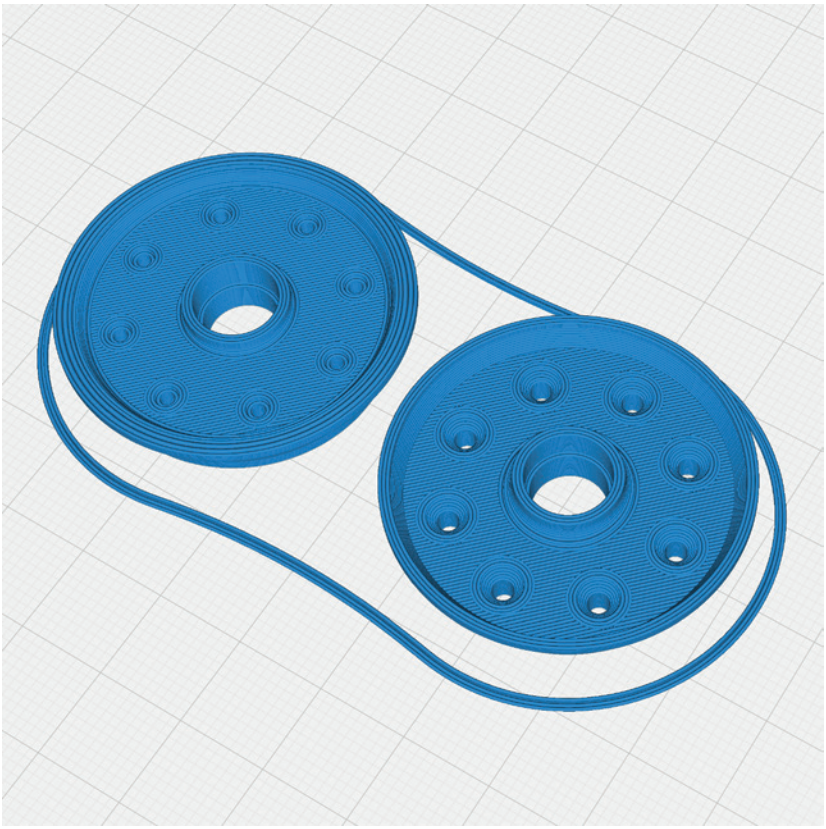
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Rim main_lj.stl

MATERIAL PLA, Weight: ~ 7 g

ADDITIONAL SETTINGS

- Print it four times

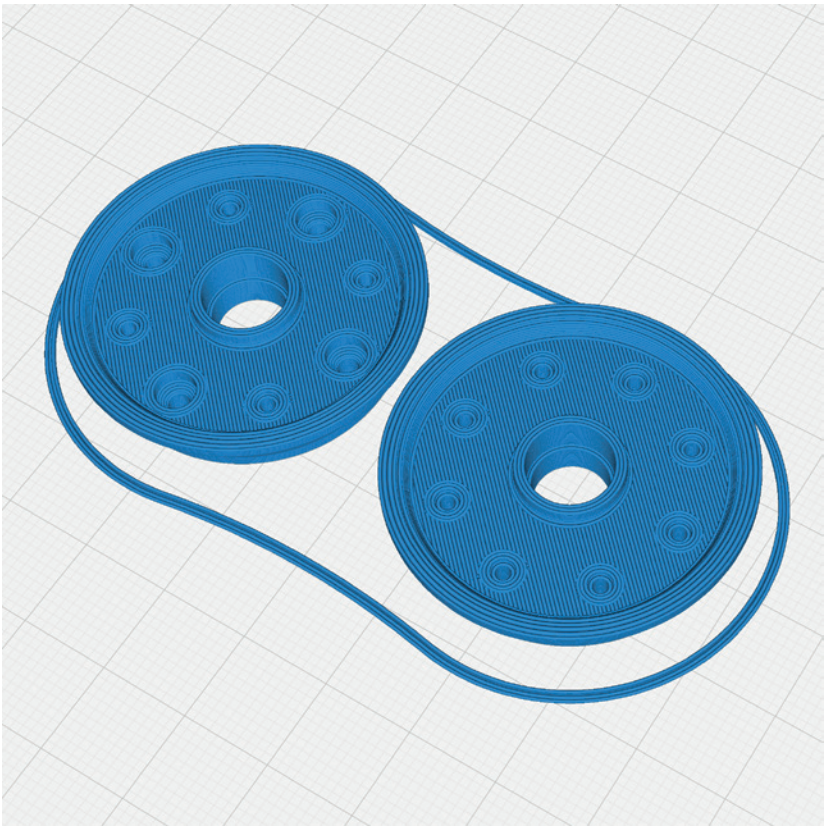


P2_Rim nose_lj.stl

MATERIAL PLA, Weight: ~ 7 g

ADDITIONAL SETTINGS

None required



PROFILE P2_Hollowbody Tough PLA or PLA

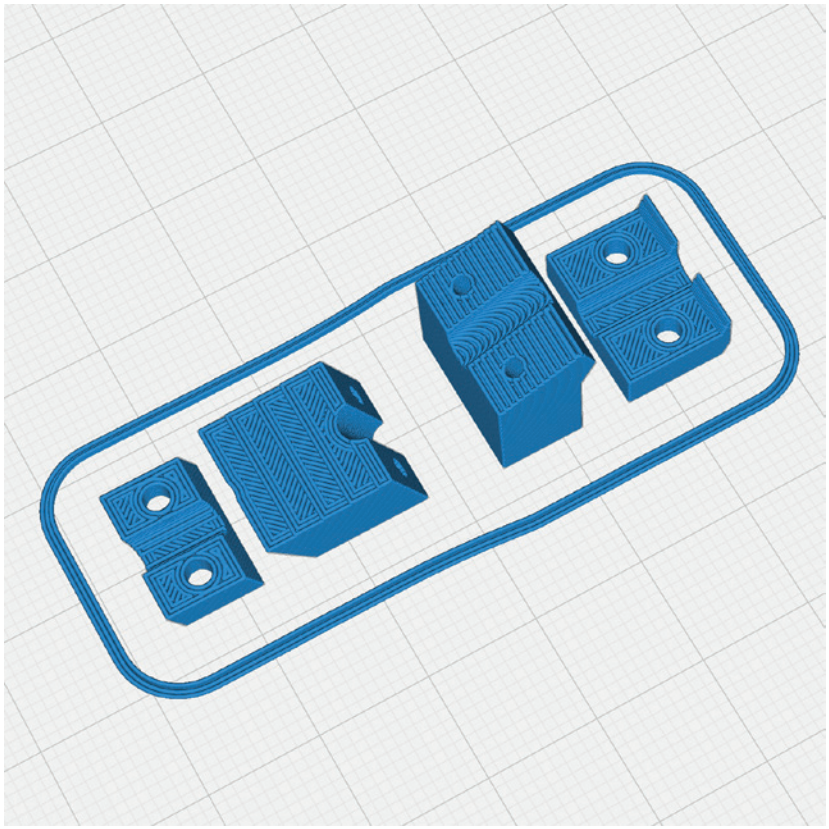
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Rudder mount_lj.stl

MATERIAL PLA, Weight: ~ 2 g

ADDITIONAL SETTINGS

None required

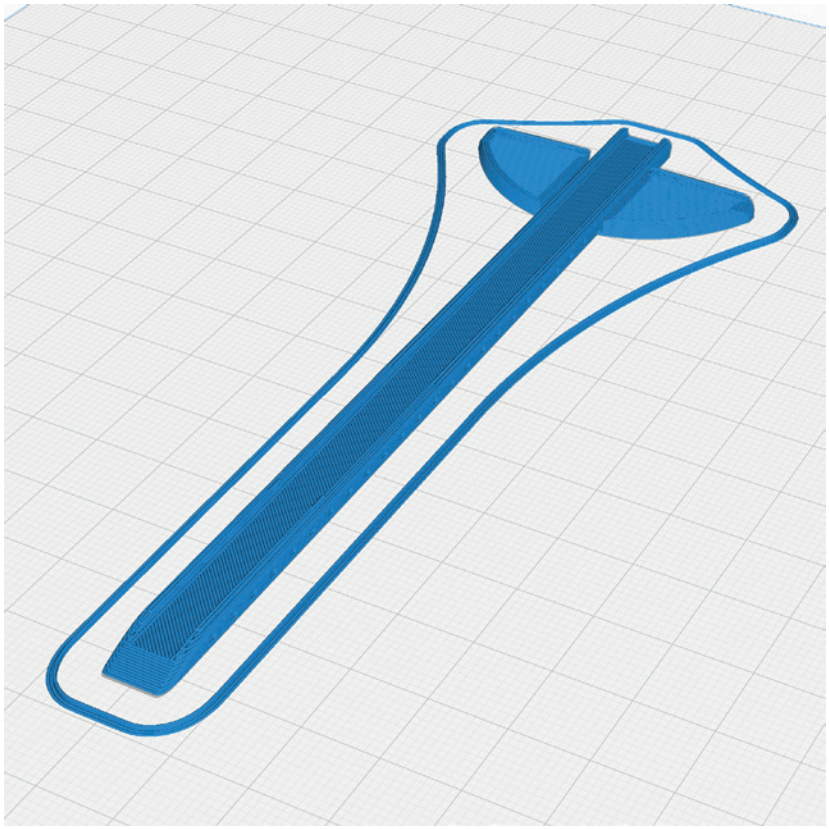


P2_Window strut_lj.stl

MATERIAL PLA, Weight: ~ 3 g

ADDITIONAL SETTINGS

None required



PROFILE P2_Hollowbody Tough PLA or PLA

P2

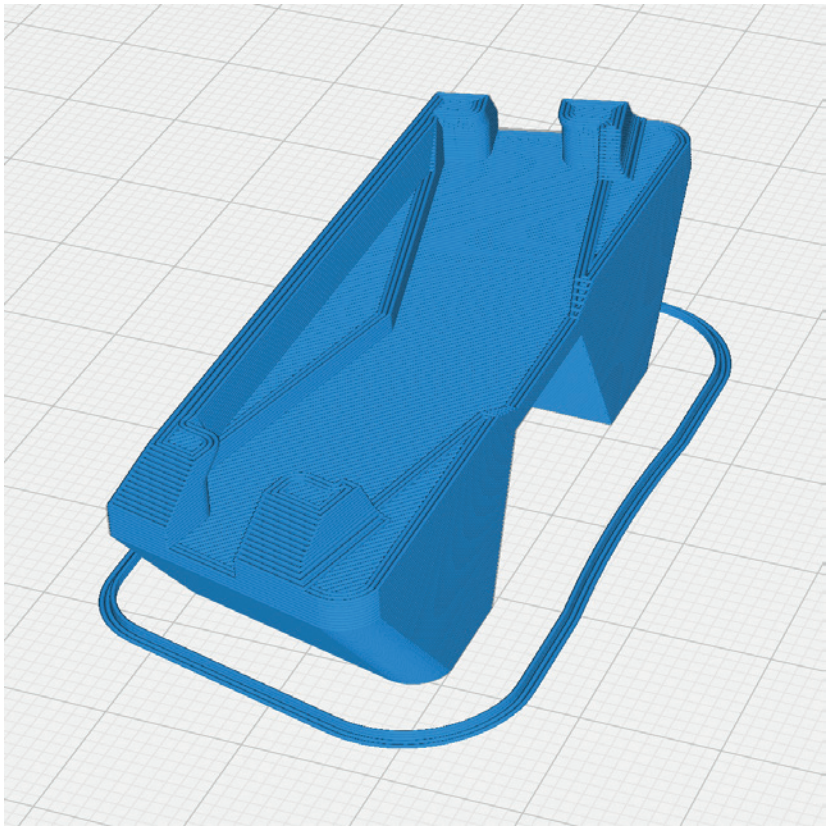
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Wing mount_lj.stl

MATERIAL PLA, Weight: ~ 5 g

ADDITIONAL SETTINGS

None required

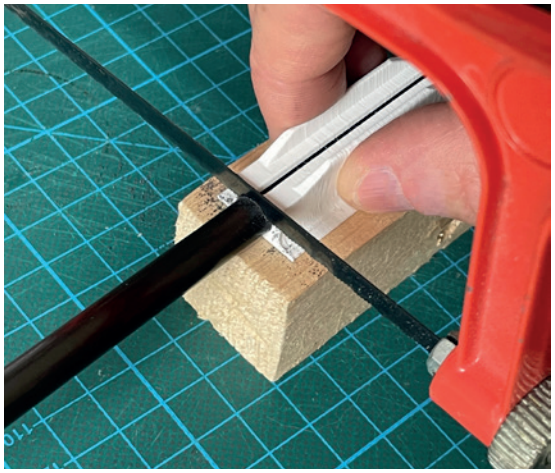


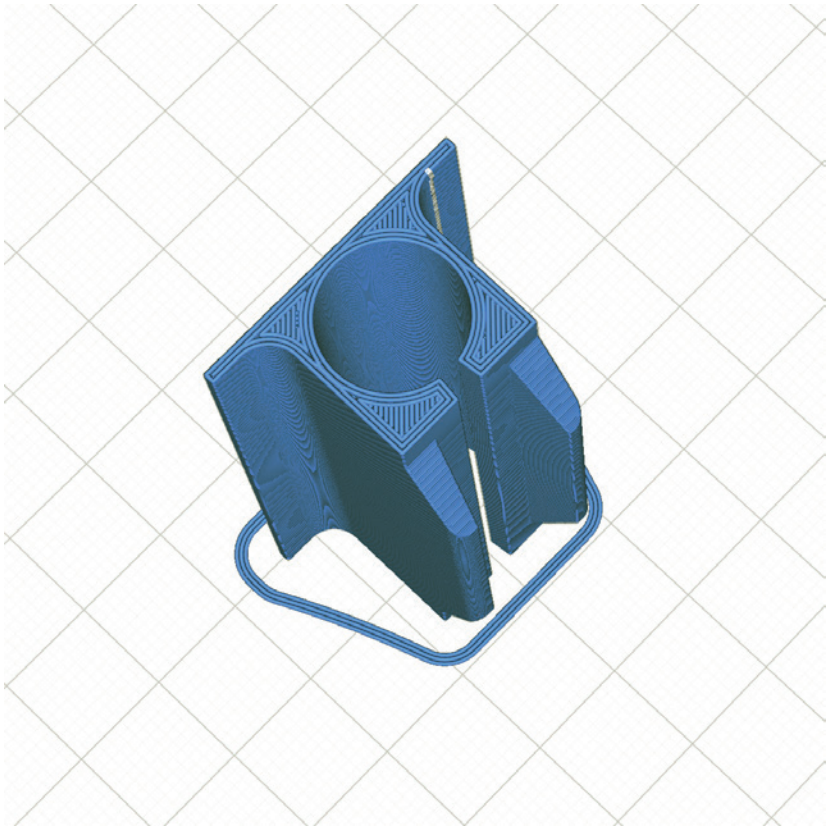
P2_Carbon tool 10mm.stl and P2_Carbon tool 6mm.stl

MATERIAL PLA

ADDITIONAL SETTINGS

None required





PROFILE P4_Flex LW TPU (A95/VarioShore)

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P4_Wheel main_lj.stl

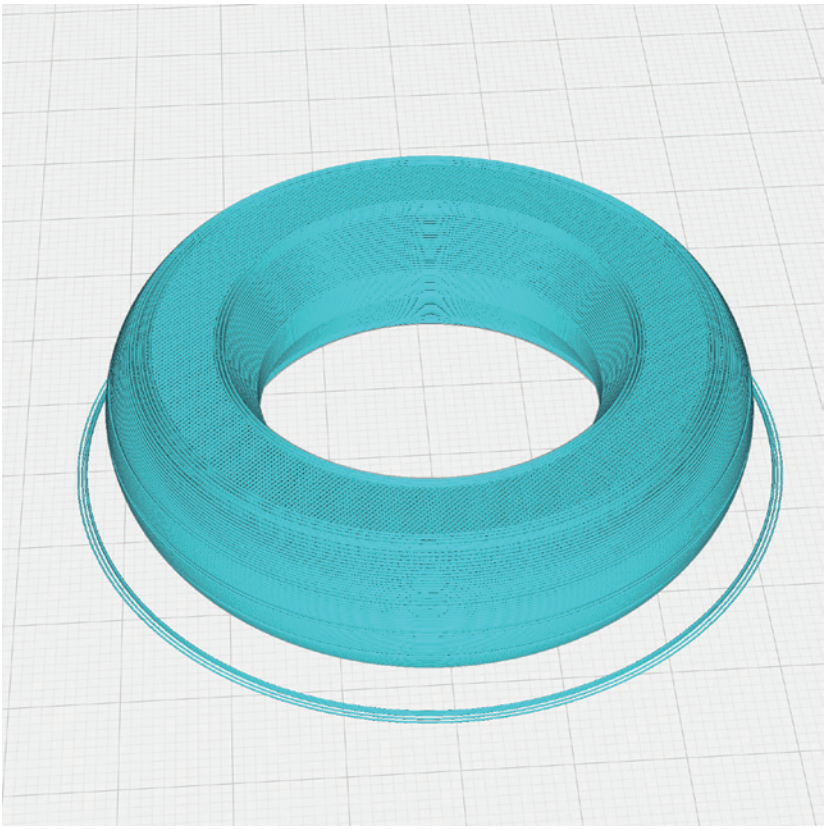
MATERIAL VarioShore or TPU A95

ADDITIONAL SETTINGS

VarioShore with Flow 70 %:
- Wall Line Count: 5
- Top Layers: 5
- Bottom Layers: 5
- Infill Density: 10 %
- Infill Pattern: Gyroid

TPU A95:
- Wall Line Count: 3
- Top Layers: 3
- Infill Density: 6 %
- Infill Pattern: Gyroid

- Print it four times



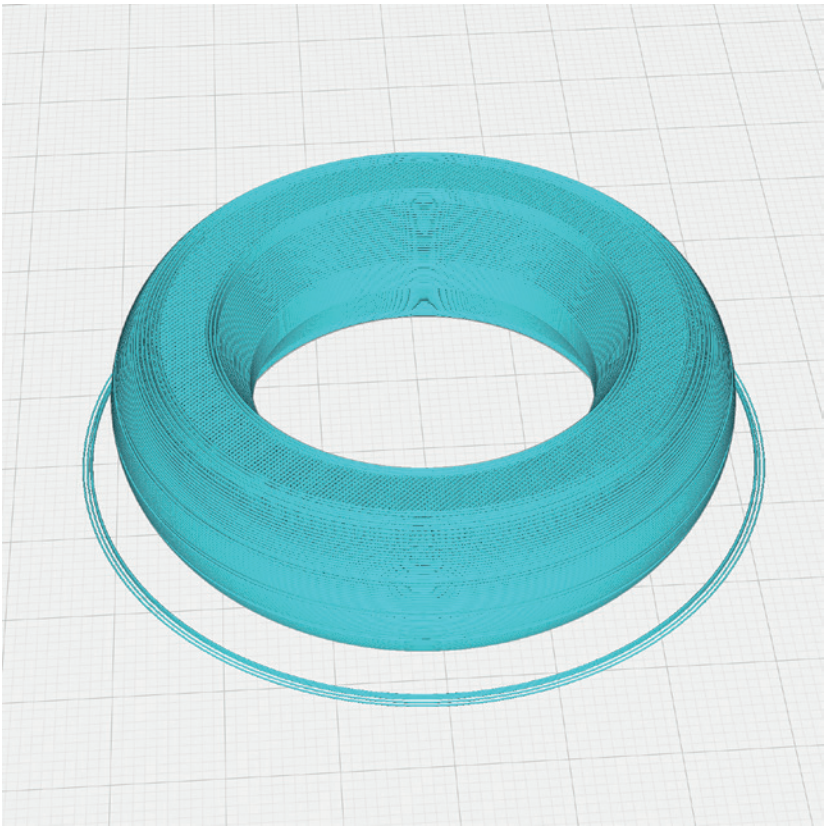
P4_Wheel nose_lj.stl

MATERIAL VarioShore or TPU A95

ADDITIONAL SETTINGS

VarioShore with Flow 70 %:
- Wall Line Count: 5
- Top Layers: 5
- Bottom Layers: 5
- Infill Density: 10 %
- Infill Pattern: Gyroid

TPU A95:
- Wall Line Count: 3
- Top Layers: 3
- Infill Density: 6 %
- Infill Pattern: Gyroid



PROFILE P4_Flex LW TPU (A95/VarioShore)

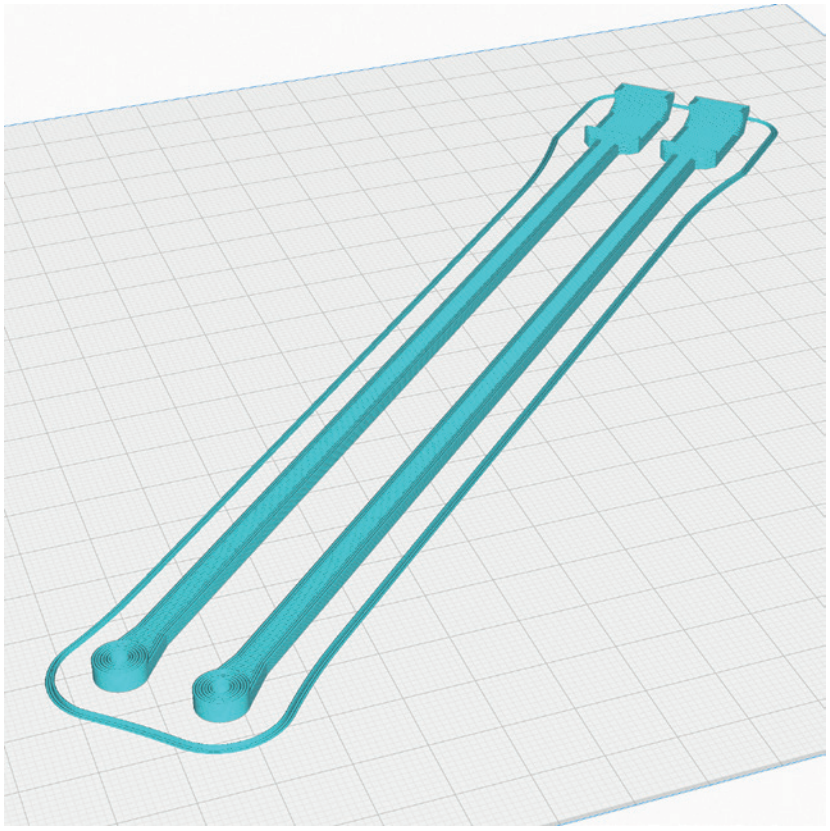
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P4_Tension belt_lj.stl

MATERIAL TPU, Weight: ~ 4 g

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

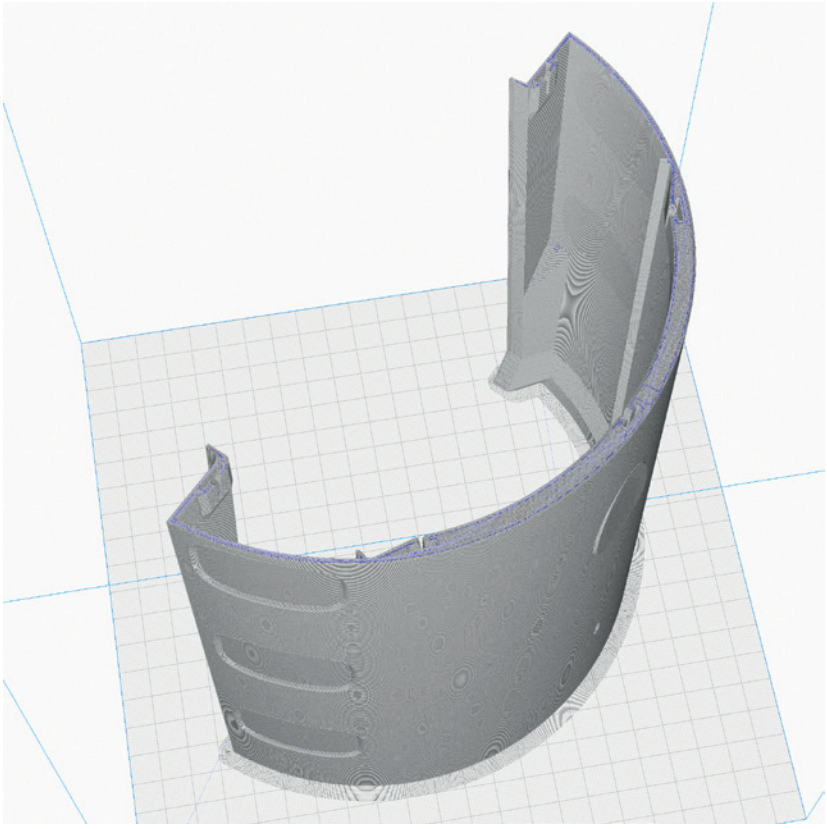
P5_Cover 1_lj.stl

MATERIAL LW PLA, Weight: ~ 45 g

TIME ~ 9 hours

ADDITIONAL SETTINGS

None required



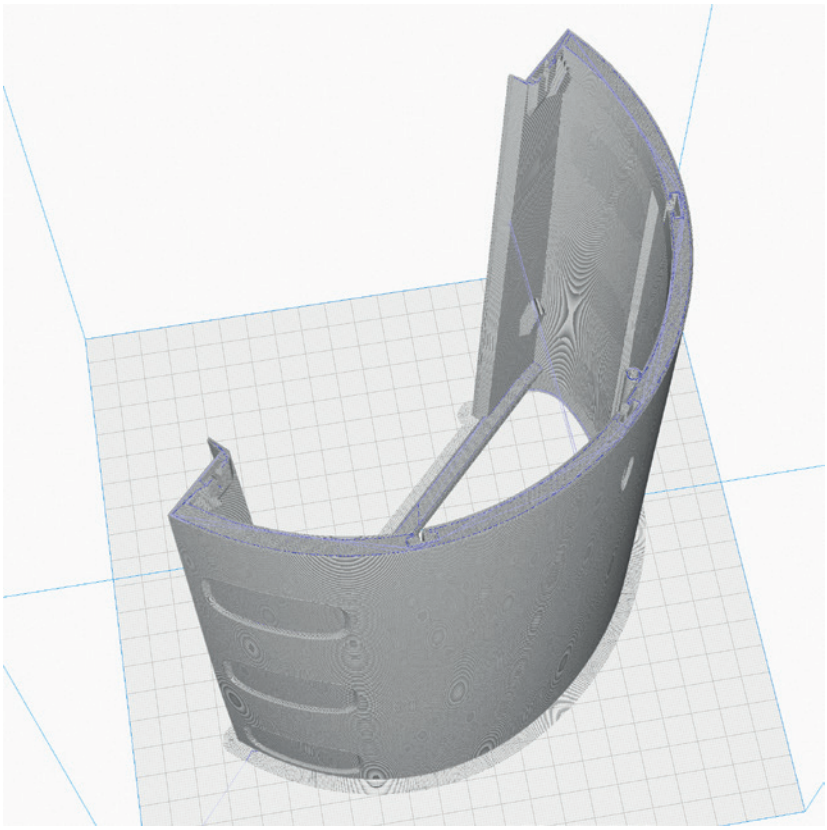
P5_Cover 2_lj.stl

MATERIAL LW PLA, Weight: ~ 49 g

TIME ~ 10 hours

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

P5

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

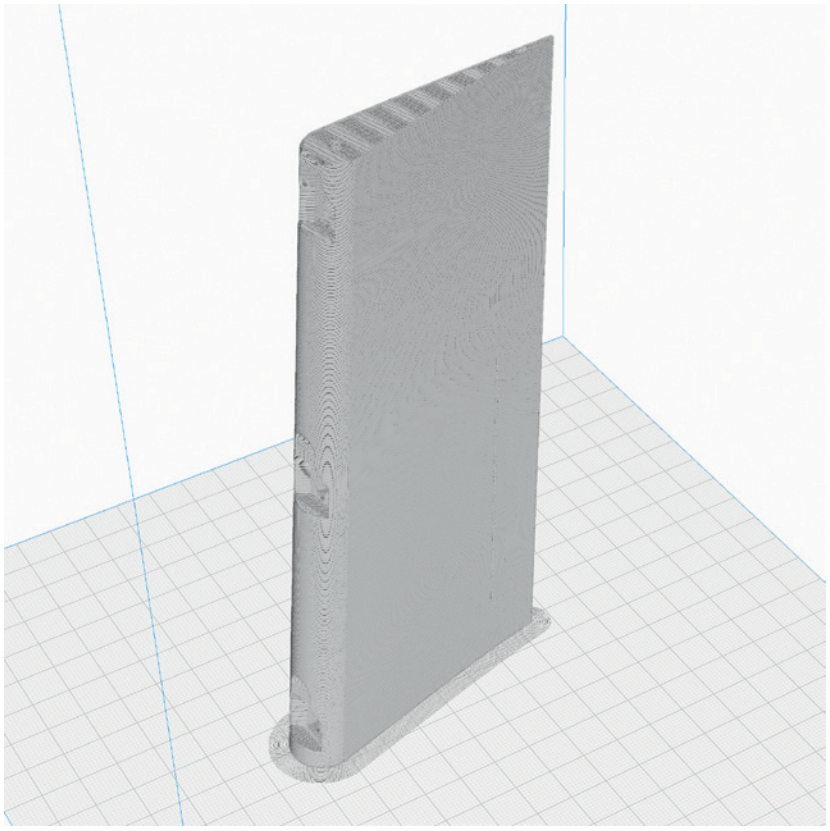
P5_AIL L_lj.stl and P5_AIL R_lj.stl

MATERIAL LW PLA, Weight: ~ 14 g

TIME ~ 2 hours 10 minutes

ADDITIONAL SETTINGS

- use brim



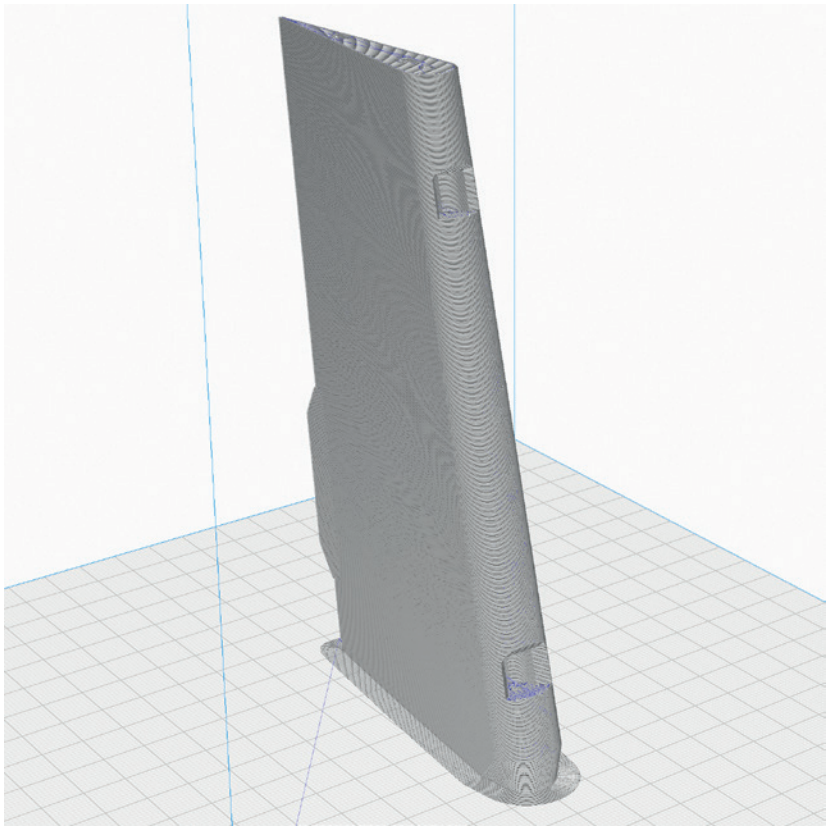
P5_Elevator L1_lj.stl and P5_Elevator R1_lj.stl

MATERIAL LW PLA, Weight: ~ 12 g

TIME ~ 2 hours

ADDITIONAL SETTINGS

- use brim



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

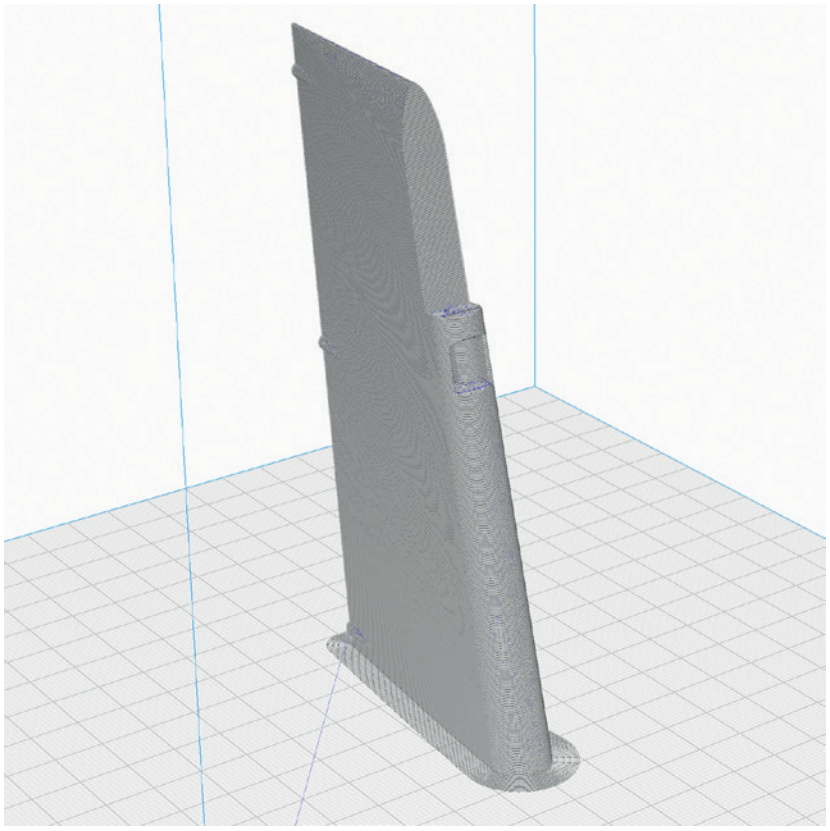
P5_Elevator L2_lj.stl and P5_Elevator R2_lj.stl

MATERIAL LW PLA, Weight: ~ 7 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required



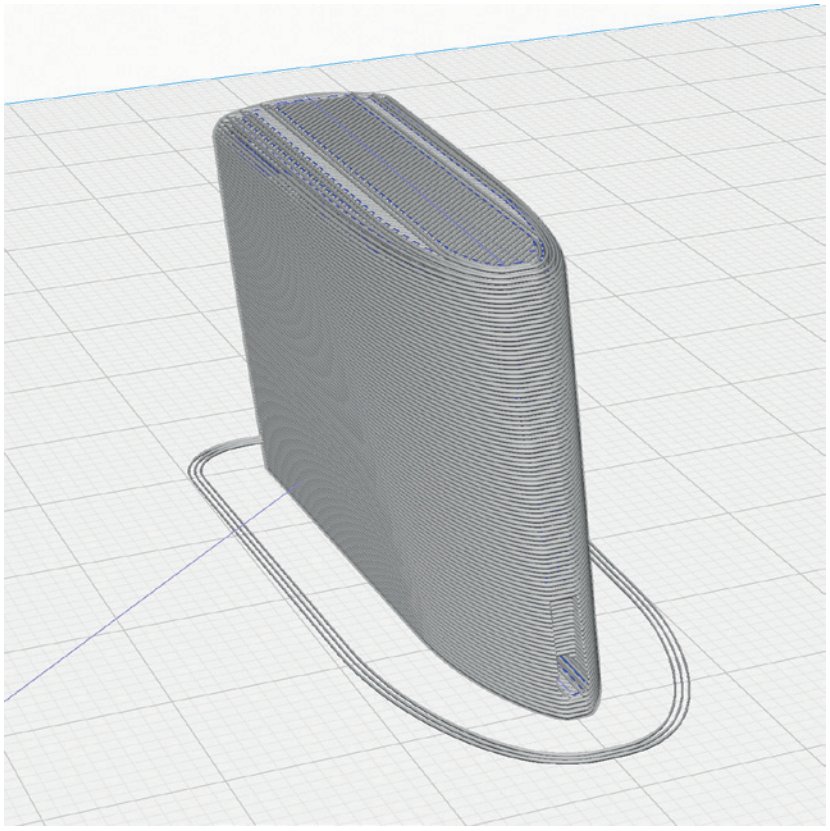
P5_Elevator L+R3_lj.stl

MATERIAL LW PLA, Weight: ~ 1 g

TIME ~ 15 minutes

ADDITIONAL SETTINGS

- Print twice



PROFILE P5_Gyroid LW-PLA (foaming)!

P5

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

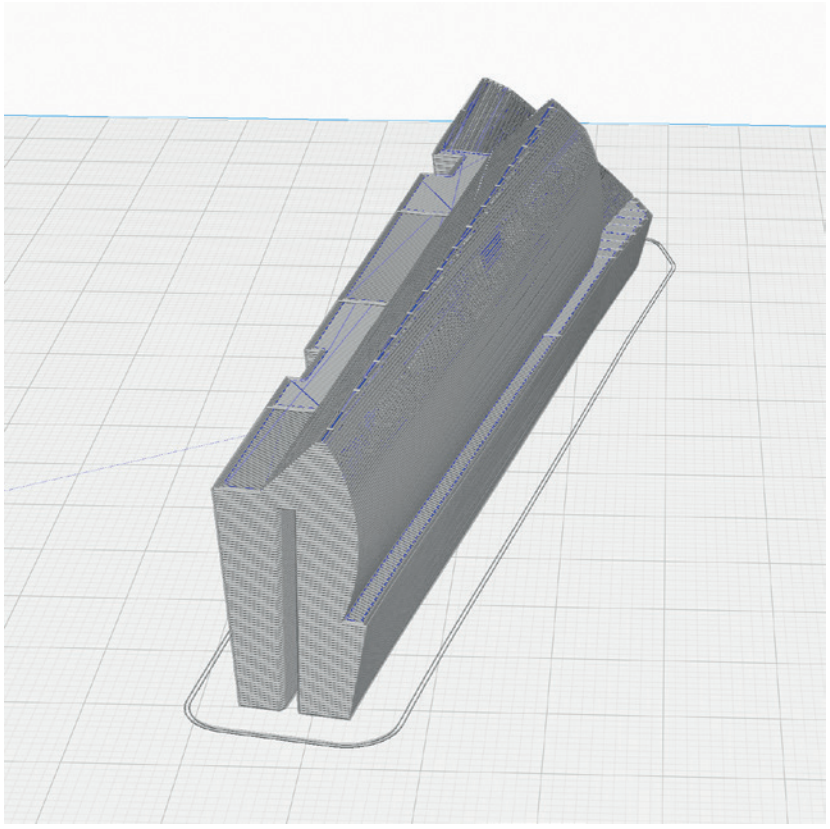
P5_Flap L1_lj.stl and P5_Flap R1_lj.stl

MATERIAL LW PLA, Weight: ~ 5 g

TIME ~ 50 minutes

ADDITIONAL SETTINGS

None required



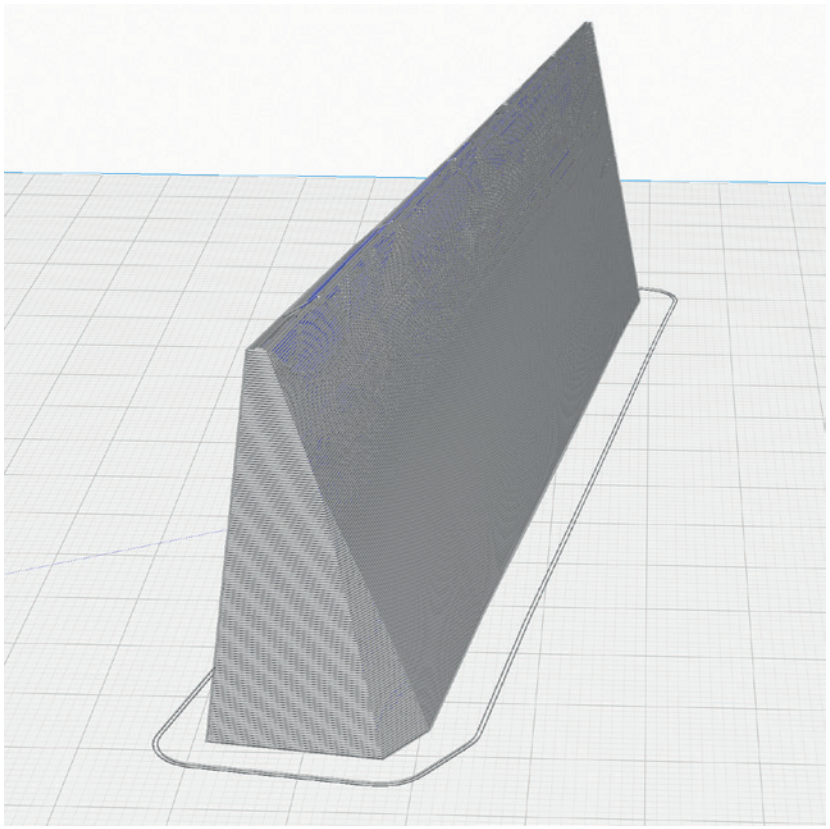
P5_Flap L2_lj.stl and P5_Flap R2_lj.stl

MATERIAL LW PLA, Weight: ~ 5 g

TIME ~ 40 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

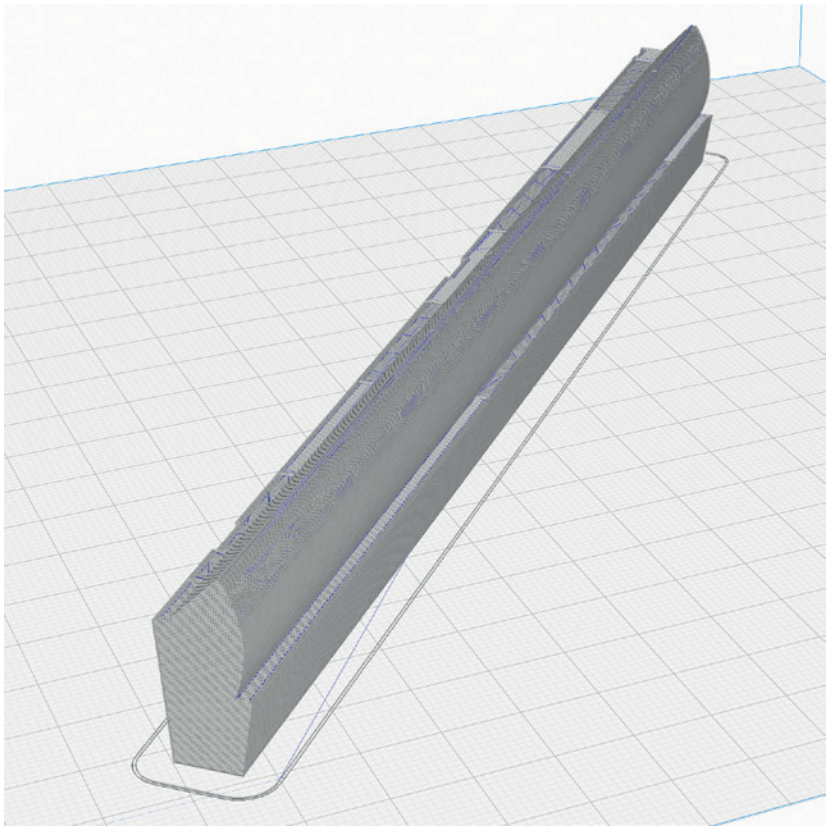
P5_Flap L3_lj.stl and P5_Flap R3_lj.stl

MATERIAL LW PLA, Weight: ~ 7 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required



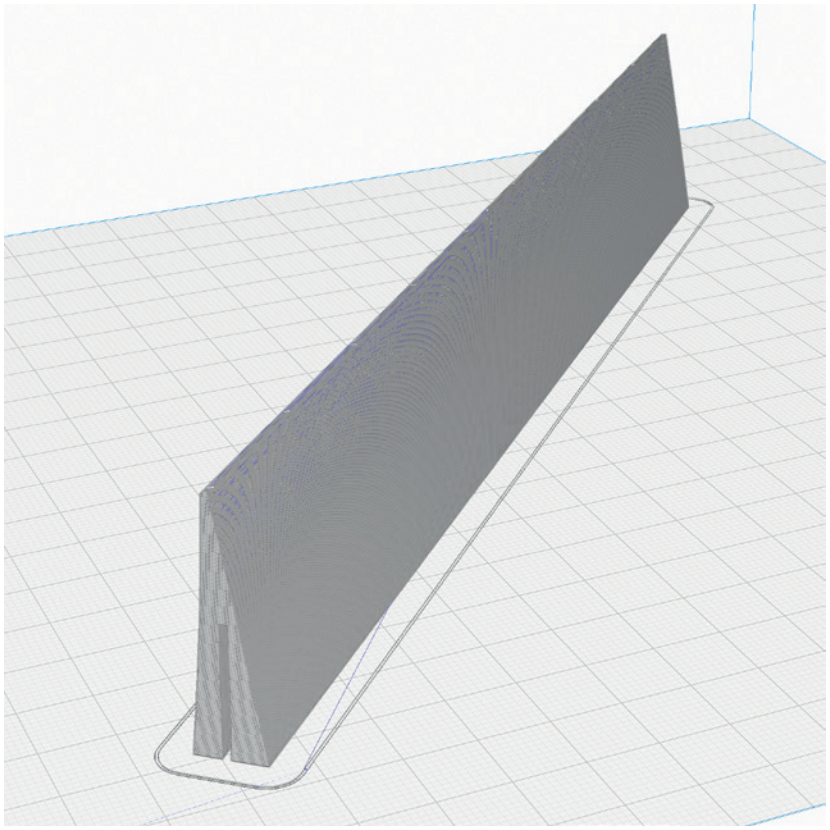
P5_Flap L4_lj.stl and P5_Flap R4_lj.stl

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

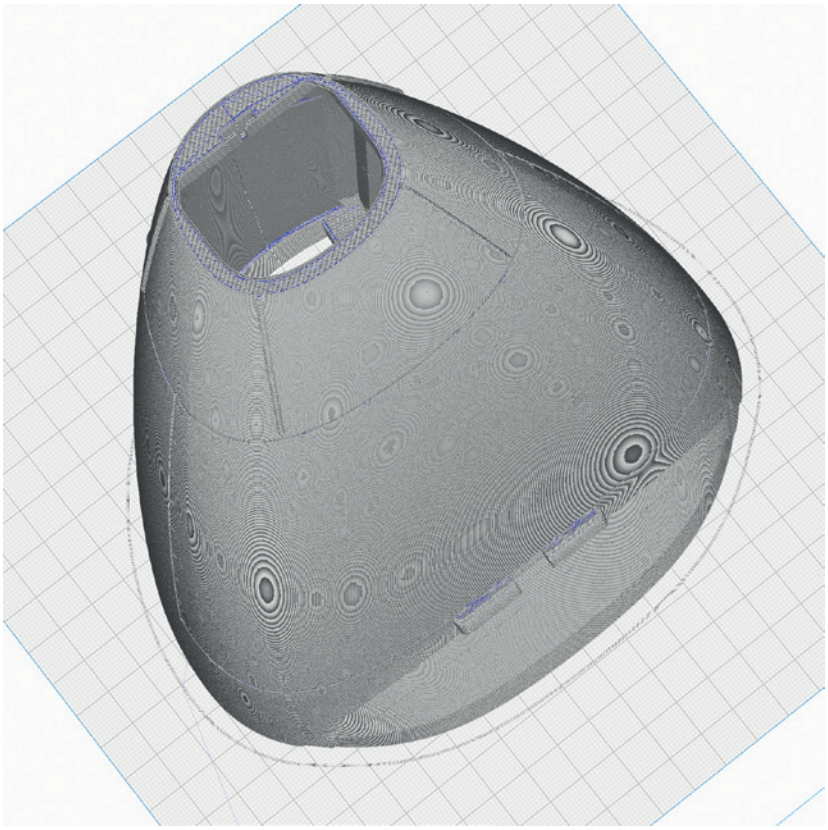
P5_FUS 1_lj.stl

MATERIAL LW PLA, Weight: ~ 41 g

TIME ~ 8 hours

ADDITIONAL SETTINGS

None required



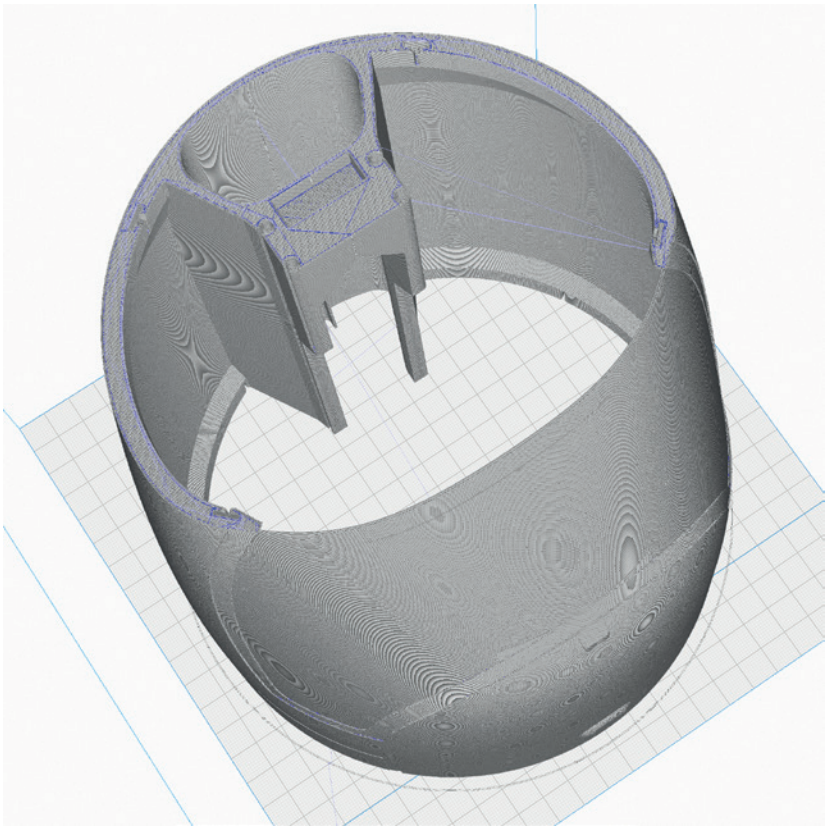
P5_FUS 2_lj.stl

MATERIAL LW PLA, Weight: ~ 80 g

TIME ~ 17 hours

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

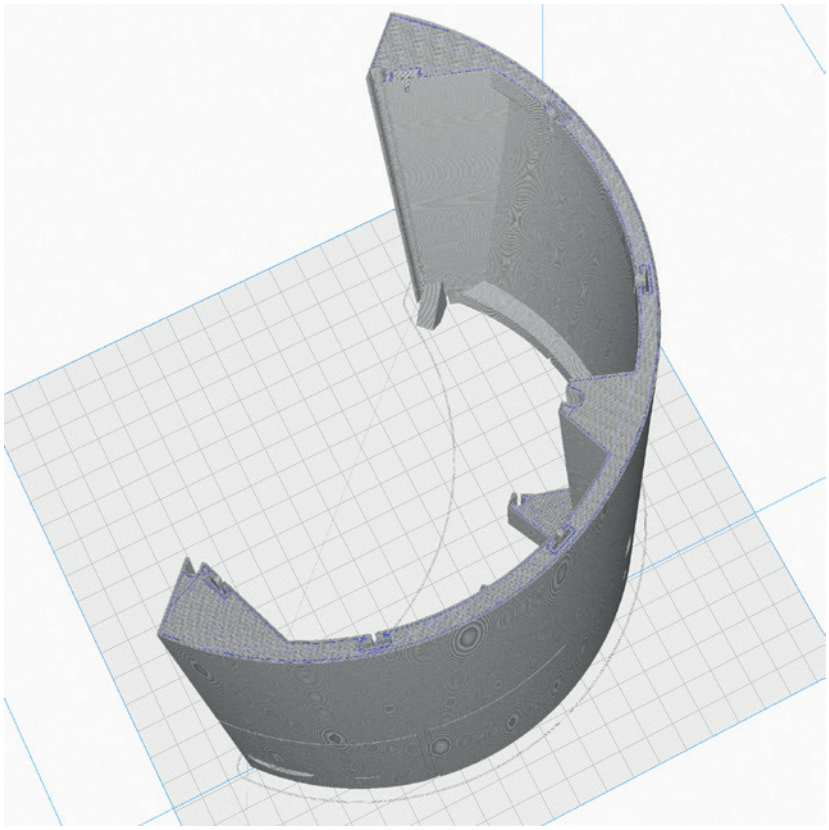
P5_FUS 3_lj.stl

MATERIAL LW PLA, Weight: ~ 50 g

TIME ~ 10 hours

ADDITIONAL SETTINGS

None required



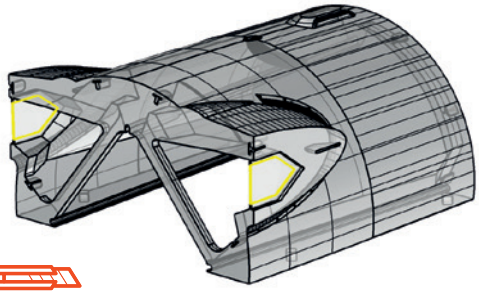
P5_FUS 4_lj.stl

MATERIAL LW PLA, Weight: ~ 66 g

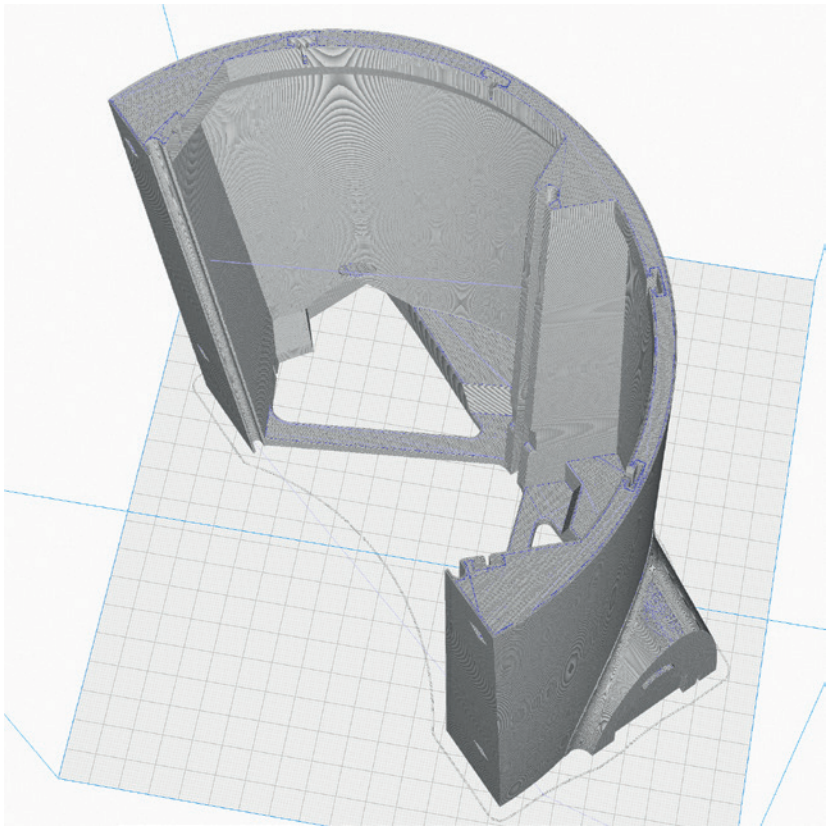
TIME ~ 13 hours

ADDITIONAL SETTINGS

None required



Remove support.
Please be careful with the knife!



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

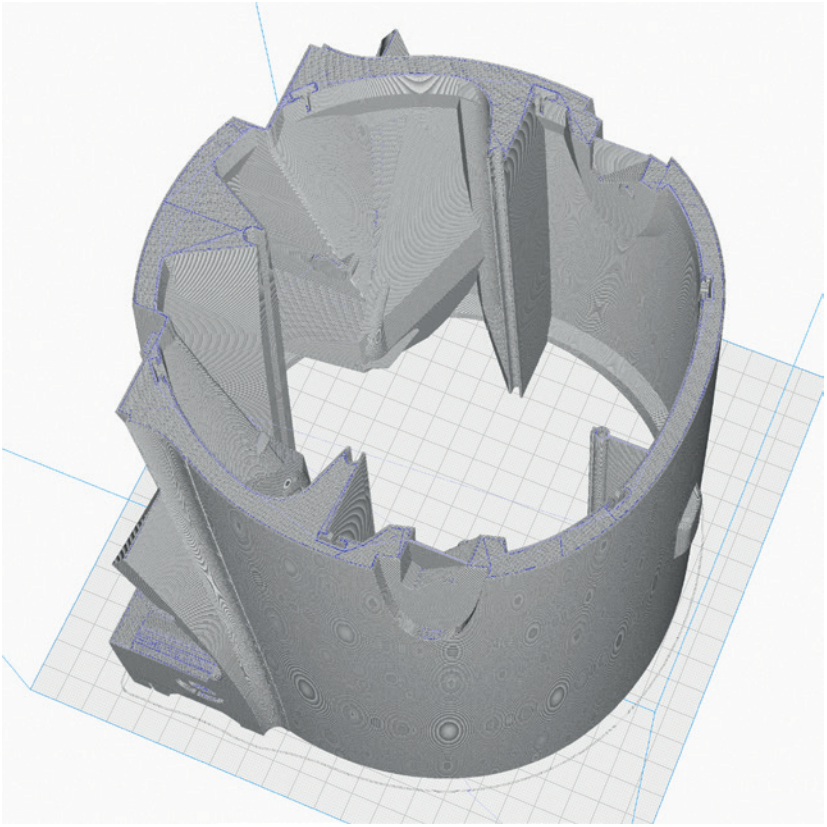
P5_FUS 5a_lj.stl

MATERIAL LW PLA, Weight: ~ 115 g

TIME ~ 19 hours

ADDITIONAL SETTINGS

None required



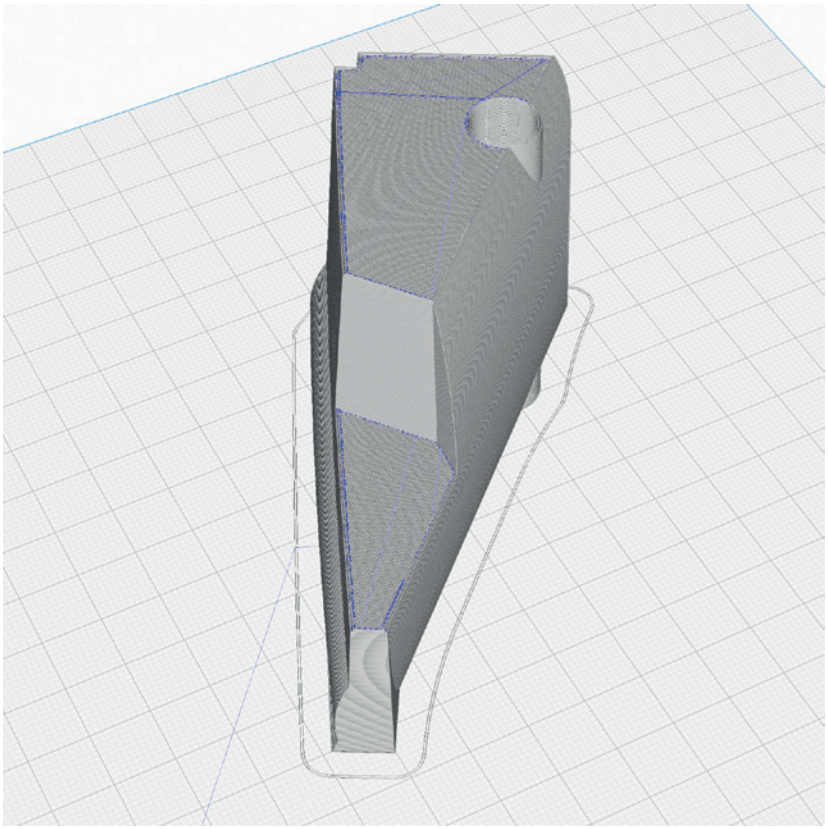
P5_FUS 5b L_lj.stl and P5_FUS 5b R_lj.stl

MATERIAL LW PLA, Weight: ~ 10 g

TIME ~ 1 hour 10 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

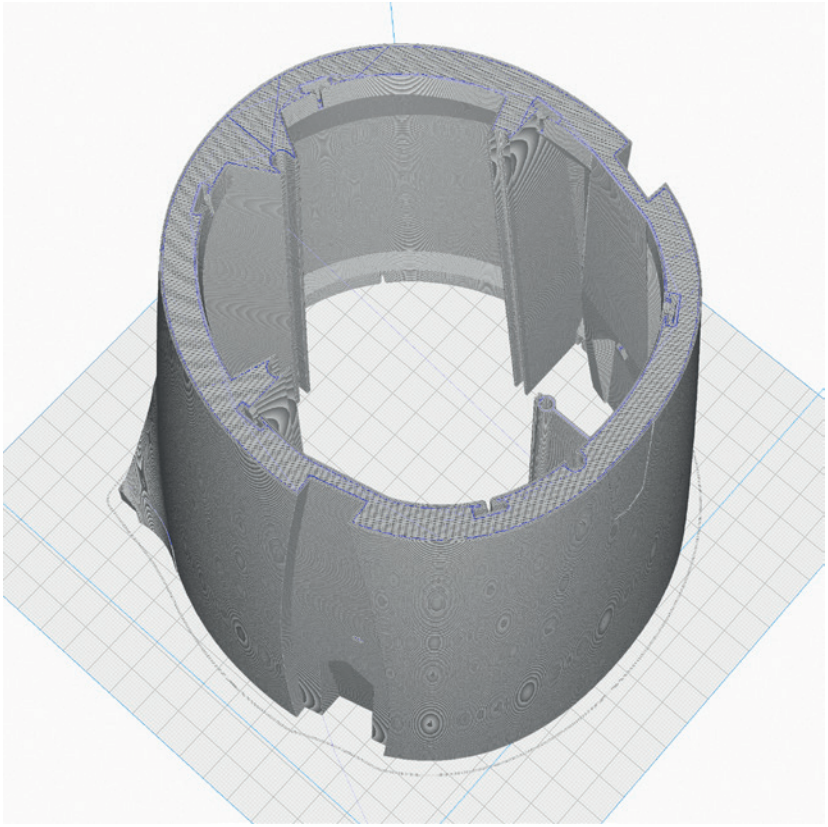
P5_FUS 6a_lj.stl

MATERIAL LW PLA, Weight: ~ 78 g

TIME ~ 18 hours

ADDITIONAL SETTINGS

None required



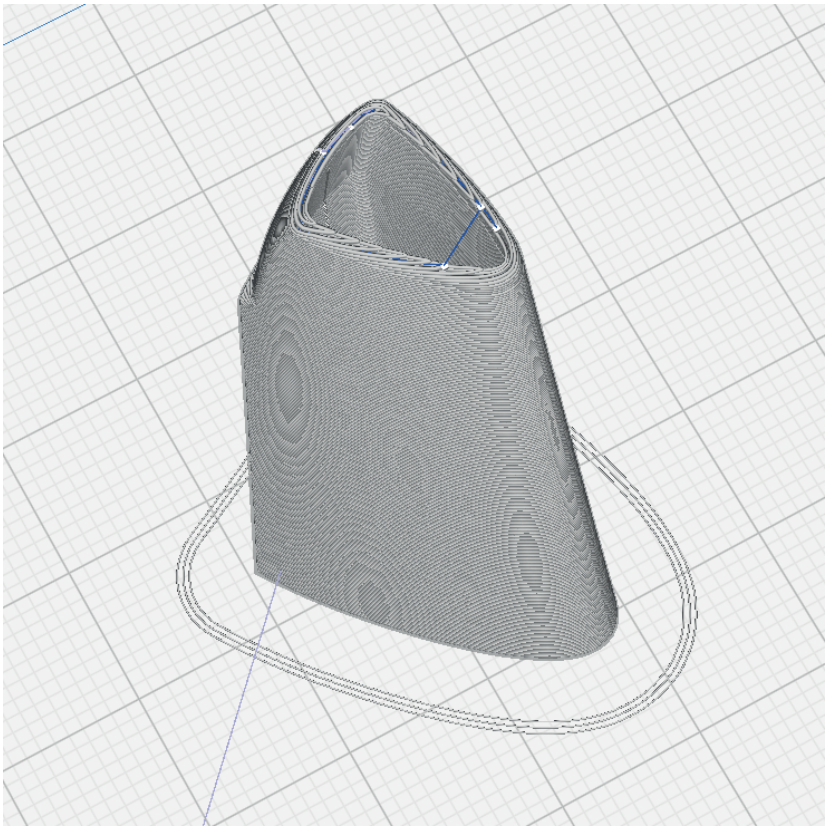
P5_FUS 6b_lj.stl

MATERIAL LW PLA, Weight: ~ 2 g

TIME ~ 15 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

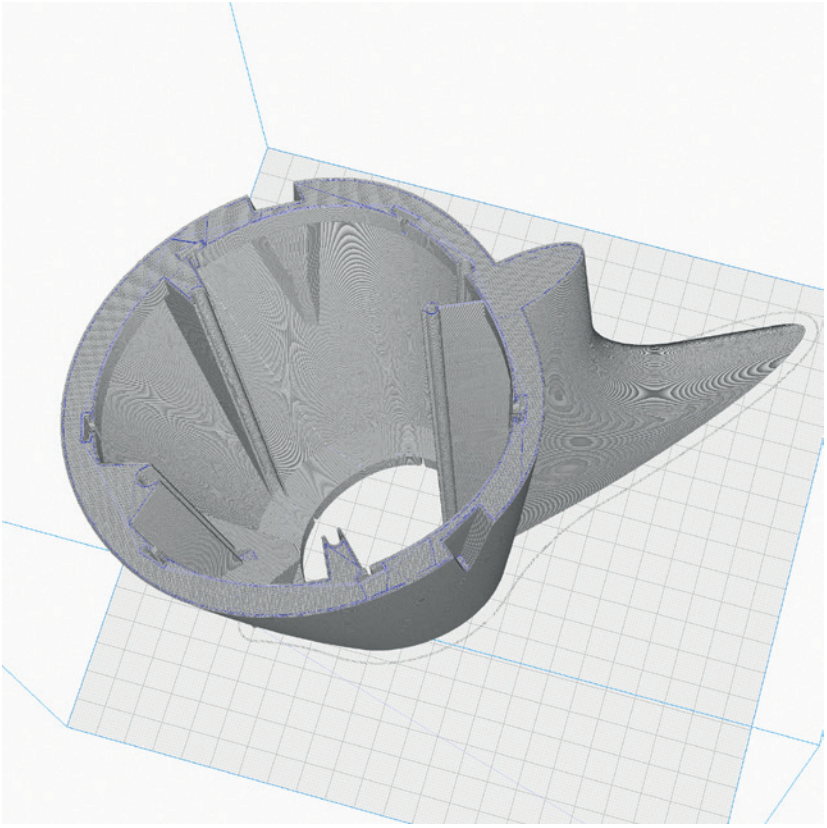
P5_FUS 7_lj.stl

MATERIAL LW PLA, Weight: ~ 63 g

TIME ~ 13 hours

ADDITIONAL SETTINGS

- set Z-Seam back left



P5_FUS 8a_lj.stl

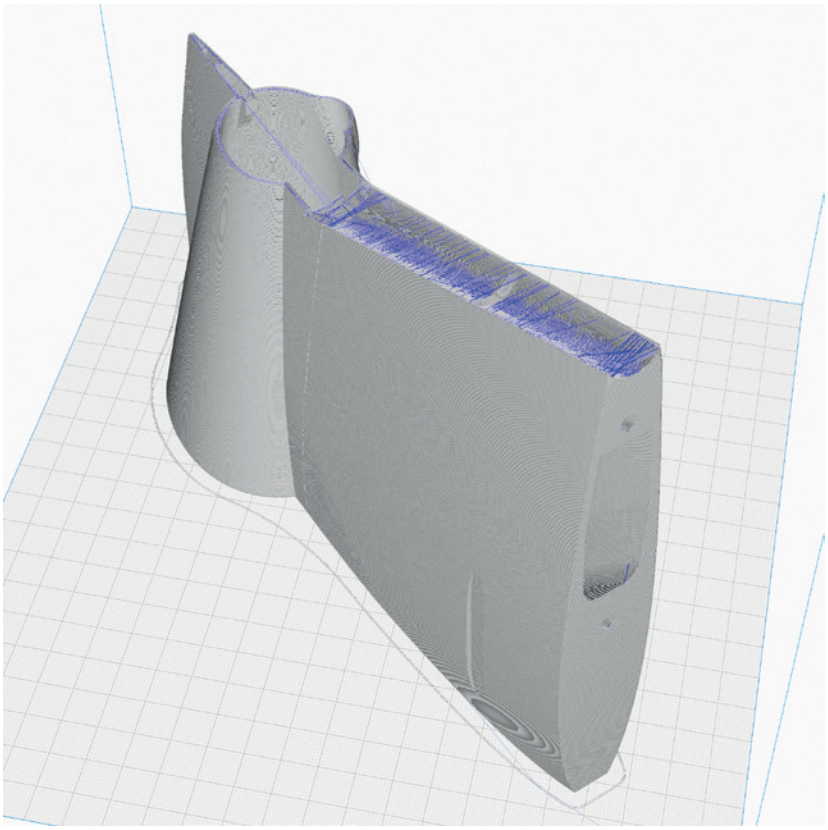
MATERIAL LW PLA, Weight: ~ 47 g

TIME ~ 9 hours

ADDITIONAL SETTINGS

None required

Unfortunately, stringing is unavoidable with this part and it has to be reworked a little with a knife and sandpaper.



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

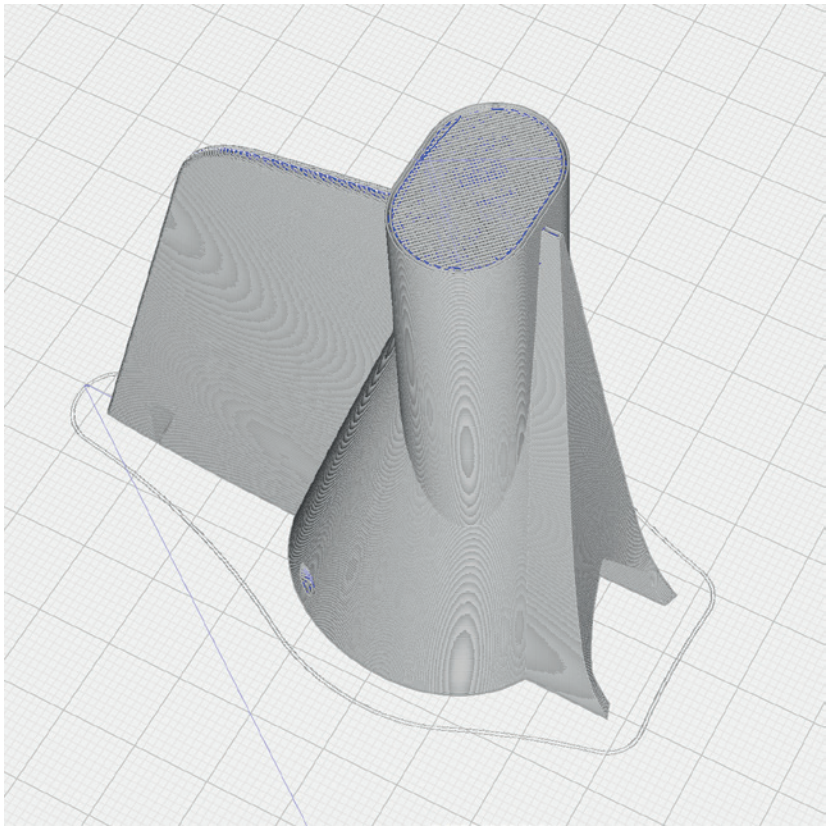
P5_FUS 8b_lj.stl

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required



P5_FUS 8c_lj.stl

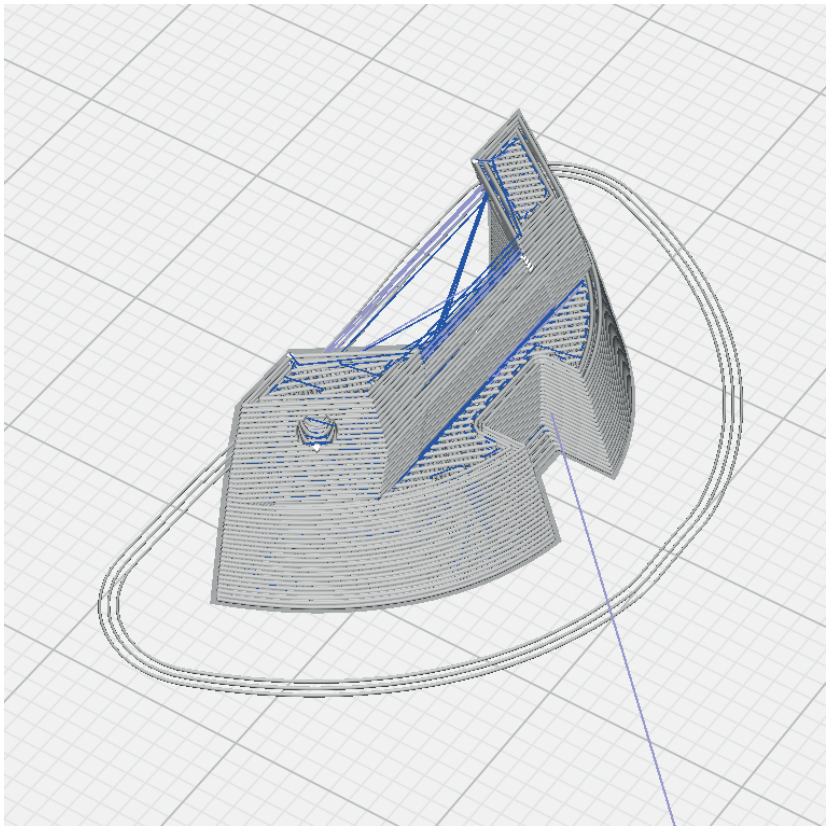
MATERIAL LW PLA, Weight: ~ 1 g

TIME ~ 4 minutes

ADDITIONAL SETTINGS

None required

Unfortunately, stringing is unavoidable with this part and it has to be reworked a little with a knife and sandpaper.



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

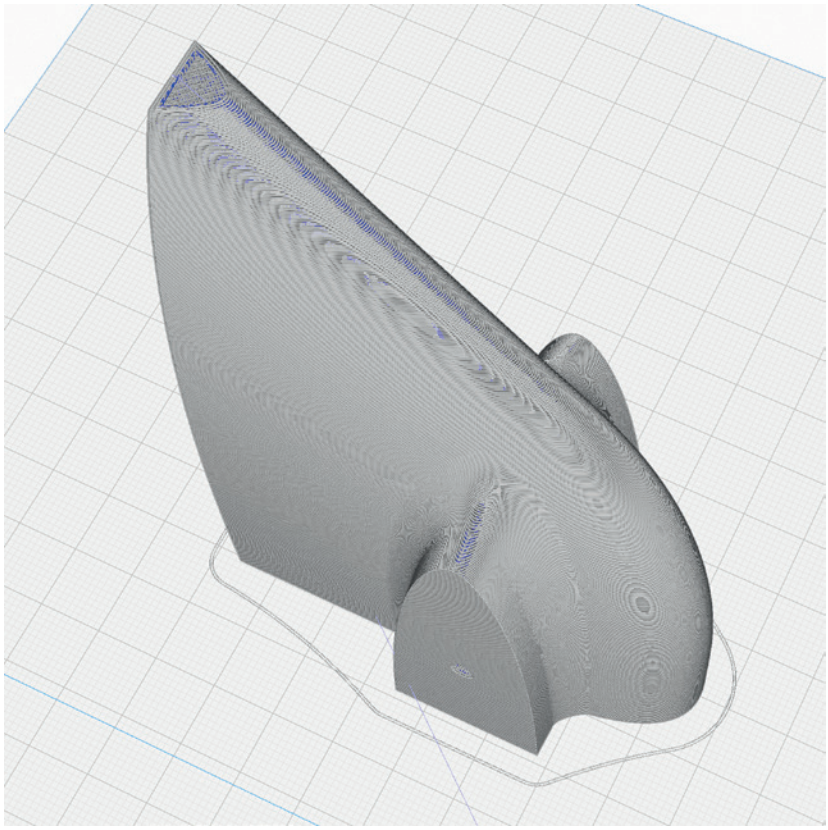
P5_FUS 9a_lj.stl

MATERIAL LW PLA, Weight: ~ 10 g

TIME ~ 2 hours

ADDITIONAL SETTINGS

None required



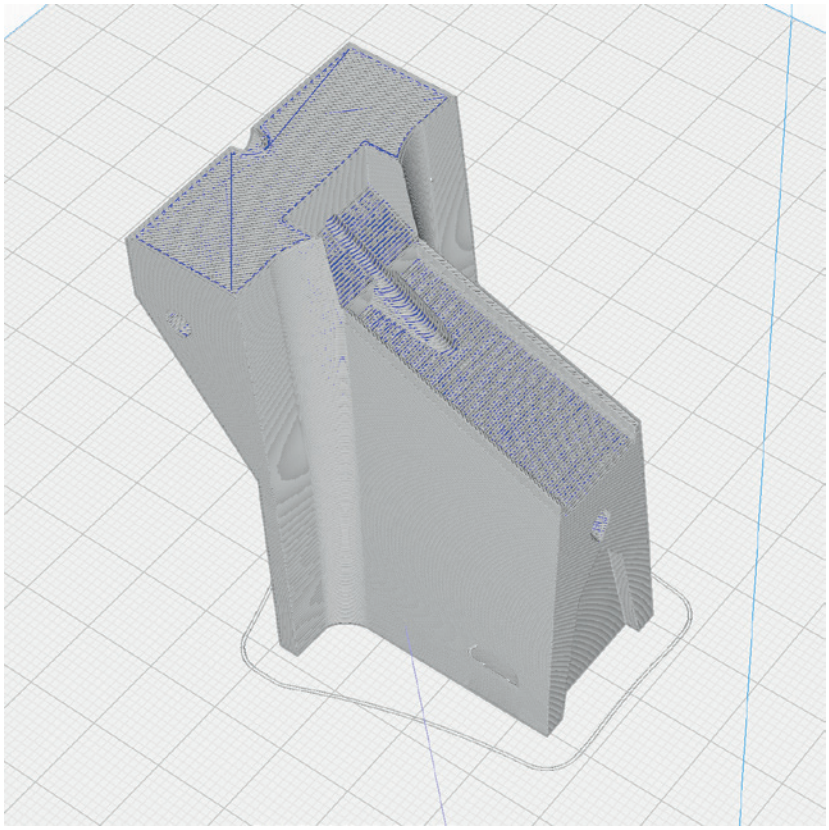
P5_FUS 9b_lj.stl

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

P5

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

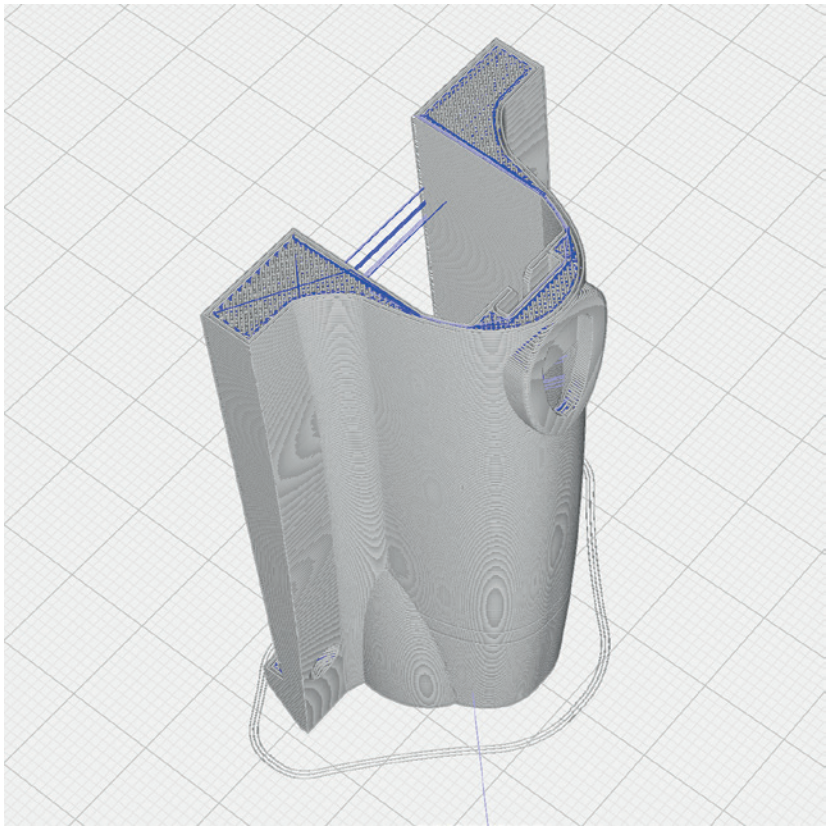
P5_FUS 9c_lj.stl

MATERIAL LW PLA, Weight: ~ 3 g

TIME ~ 40 minutes

ADDITIONAL SETTINGS

None required



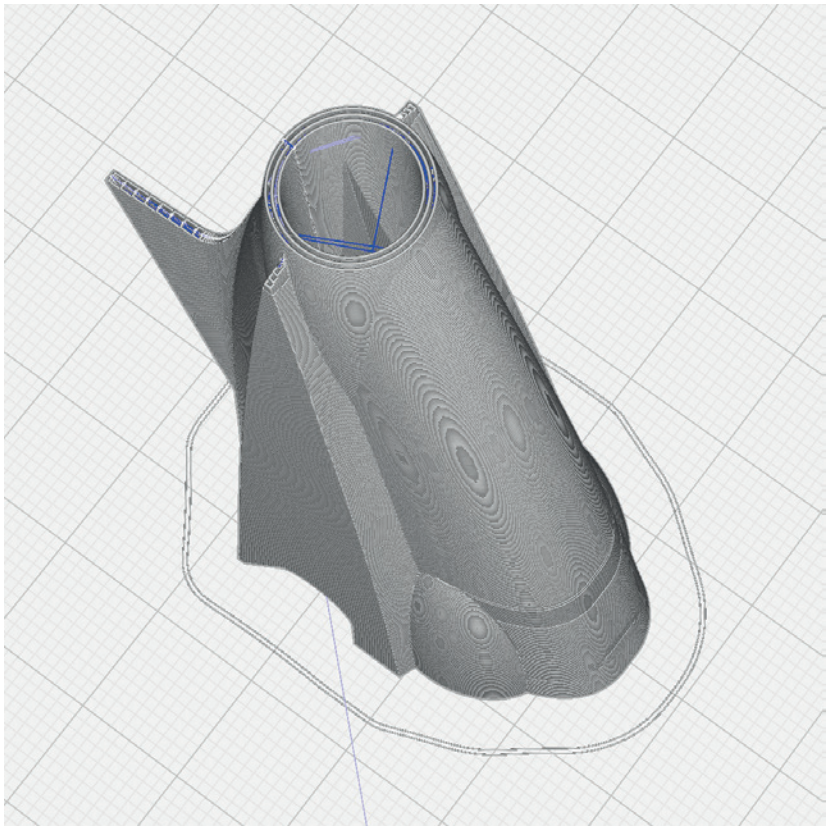
P5_FUS 9d_lj.stl

MATERIAL LW PLA, Weight: ~ 4 g

TIME ~ 48 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

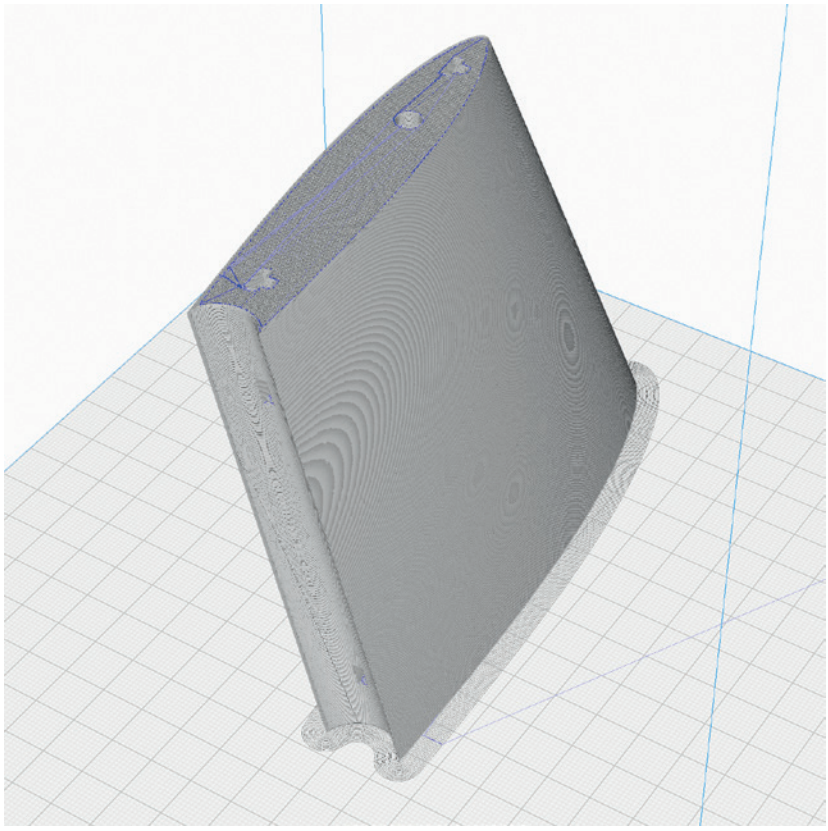
P5_HS L1_lj.stl and P5_HS R1_lj.stl

MATERIAL LW PLA, Weight: ~ 24 g

TIME ~ 4 hours

ADDITIONAL SETTINGS

None required



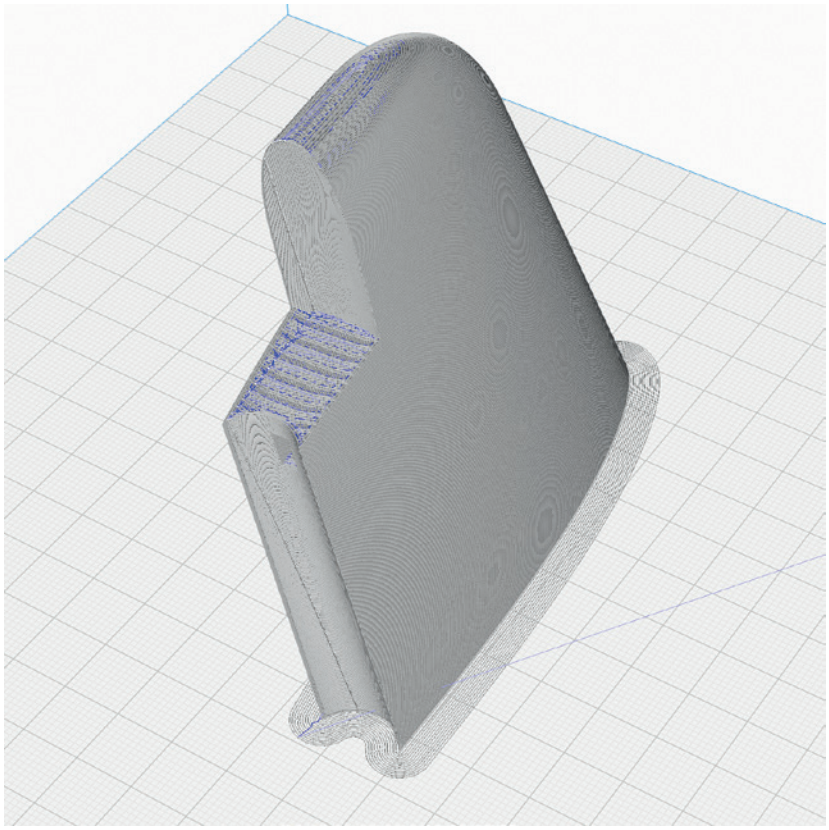
P5_HS L2_lj.stl and P5_HS R2_lj.stl

MATERIAL LW PLA, Weight: ~ 11 g

TIME ~ 1 hour 30 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

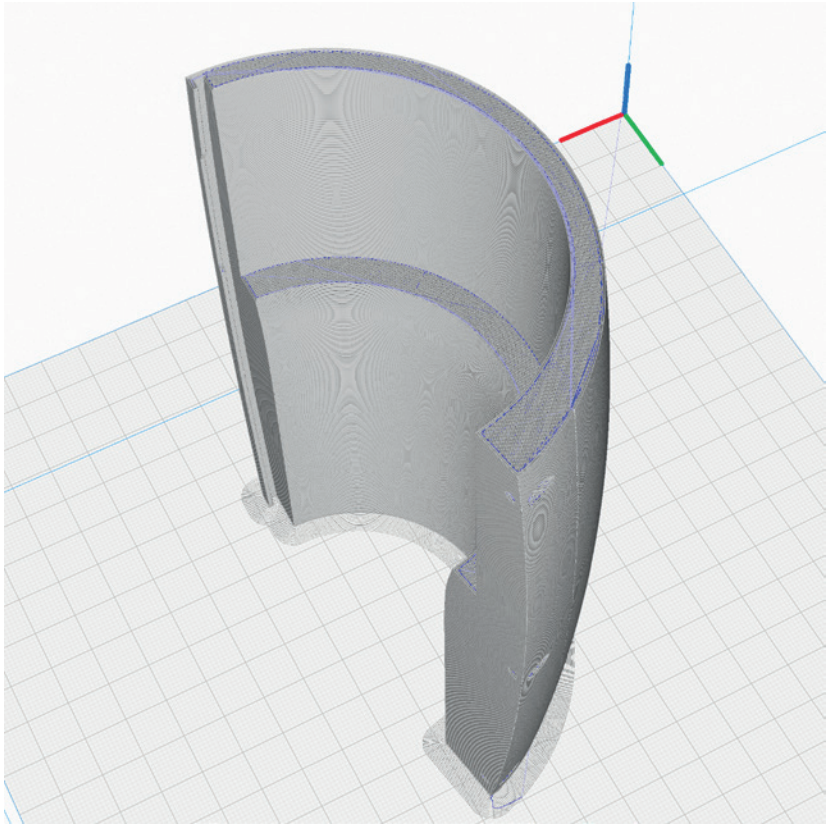
P5_Nacelle Cover L_lj.stl and P5_Nacelle Cover R_lj.stl

MATERIAL LW PLA, Weight: ~ 23 g

TIME ~ 4 hours

ADDITIONAL SETTINGS

None required



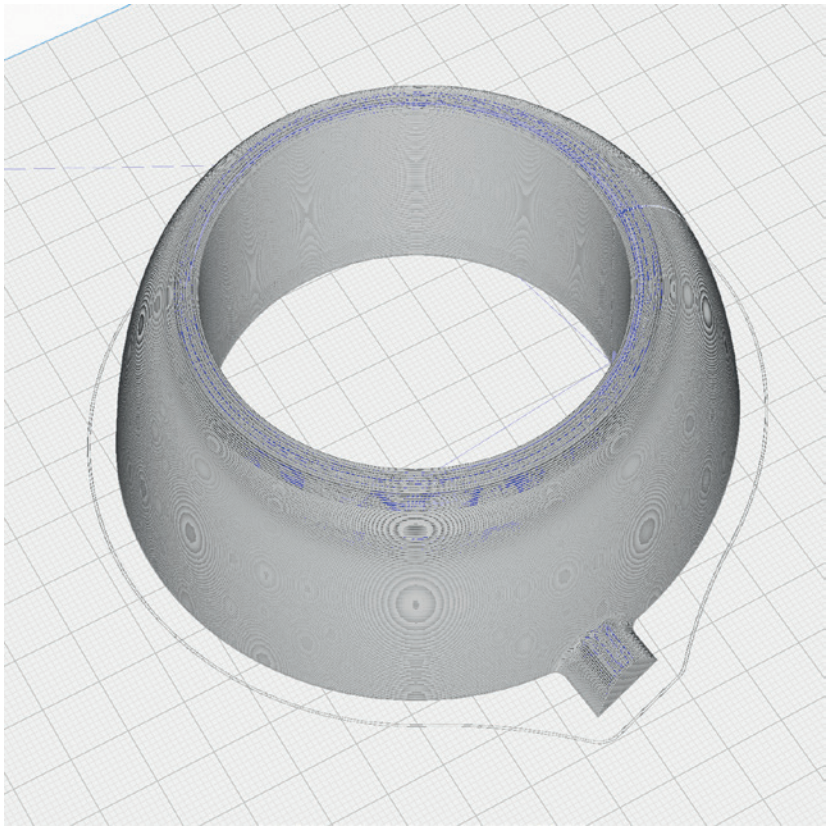
P5_Nacelle L1_lj.stl and P5_Nacelle R1_lj.stl

MATERIAL LW PLA, Weight: ~ 14 g

TIME ~ 2 hours

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

P5

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

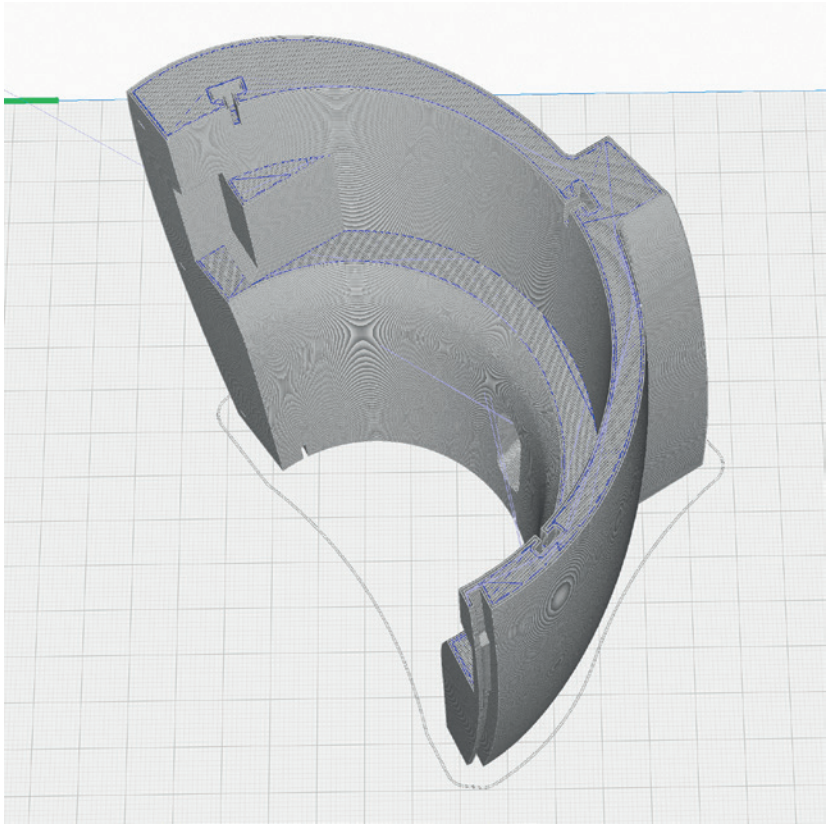
P5_Nacelle L2_lj.stl and P5_Nacelle R2_lj.stl

MATERIAL LW PLA, Weight: ~ 30 g

TIME ~ 5 hours

ADDITIONAL SETTINGS

None required



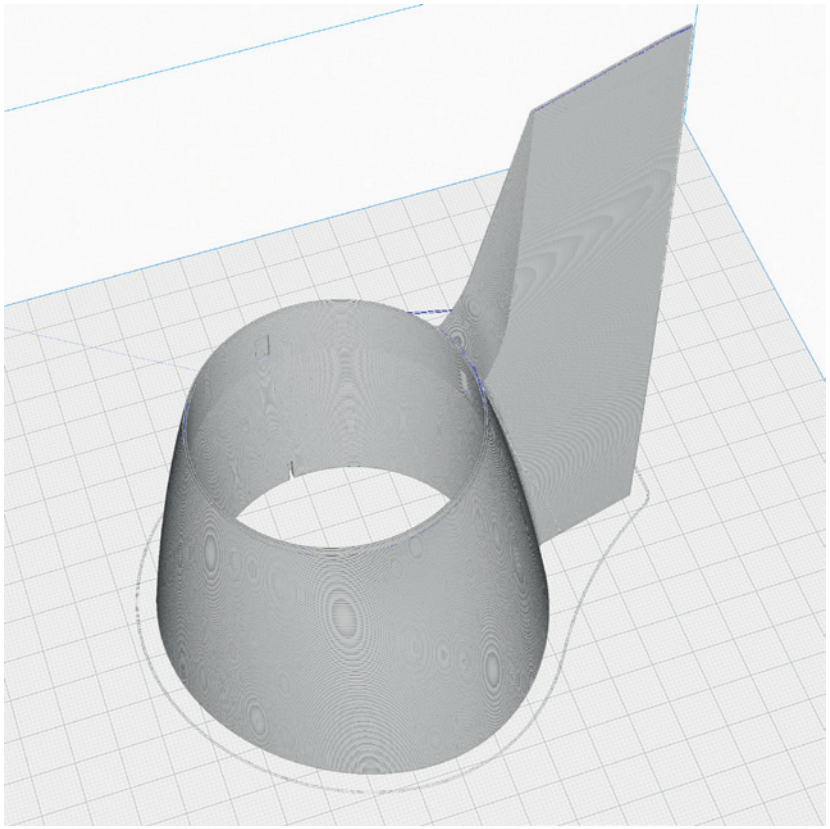
P5_Nacelle L3_lj.stl and P5_Nacelle R3_lj.stl

MATERIAL LW PLA, Weight: ~ 20 g

TIME ~ 3 hours

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

P5_Rudder1_lj.stl

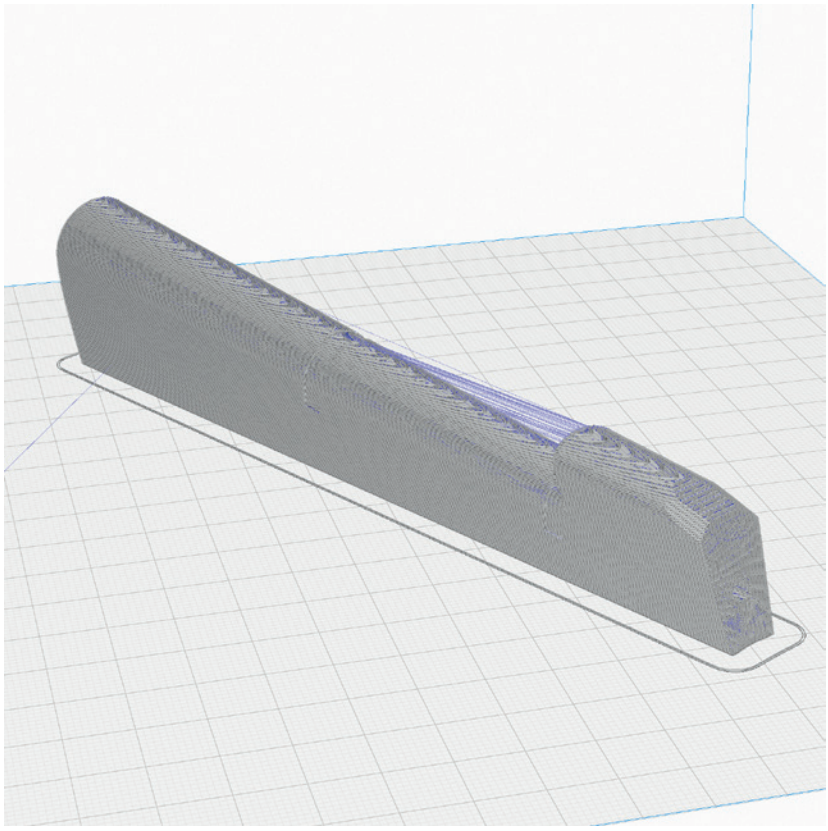
MATERIAL LW PLA, Weight: ~ 7 g

TIME ~ 1 hour 10 minutes

ADDITIONAL SETTINGS

None required

Unfortunately, stringing is unavoidable with this part and it has to be reworked a little with a knife and sandpaper.



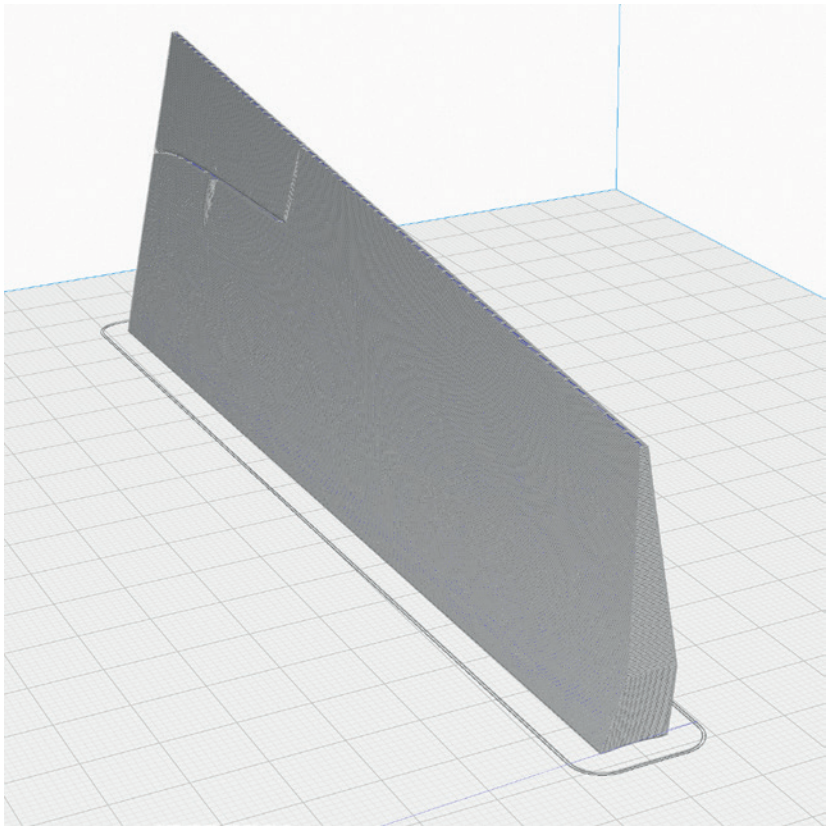
P5_Rudder2_lj.stl

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

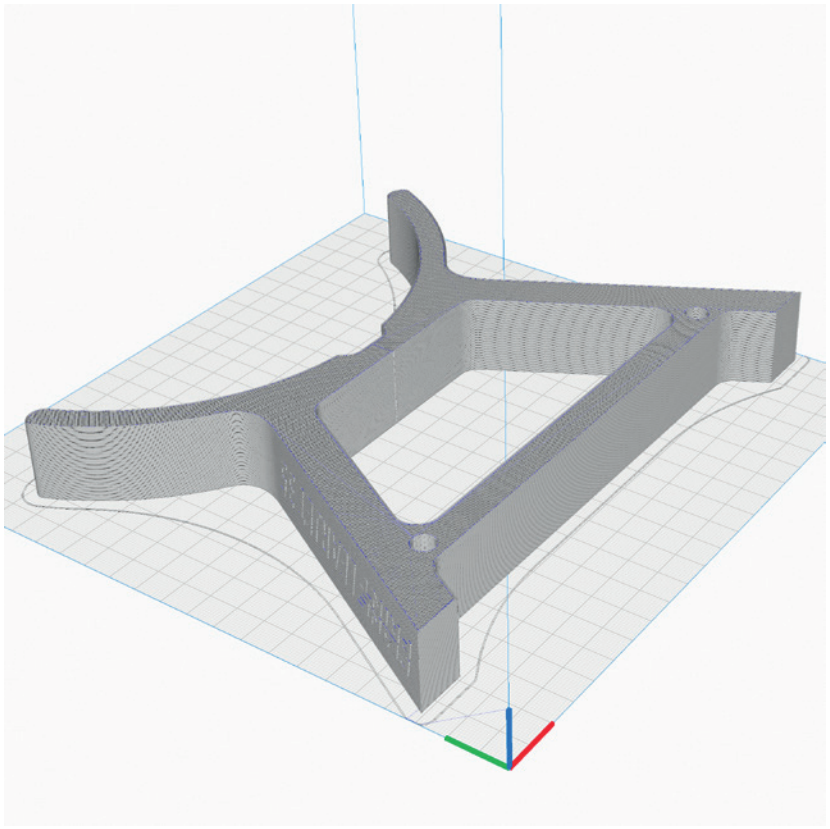
P5_Stand1_lj.stl

MATERIAL LW PLA, Weight: ~ 22 g

TIME ~ 3 hours 20 minutes

ADDITIONAL SETTINGS

None required



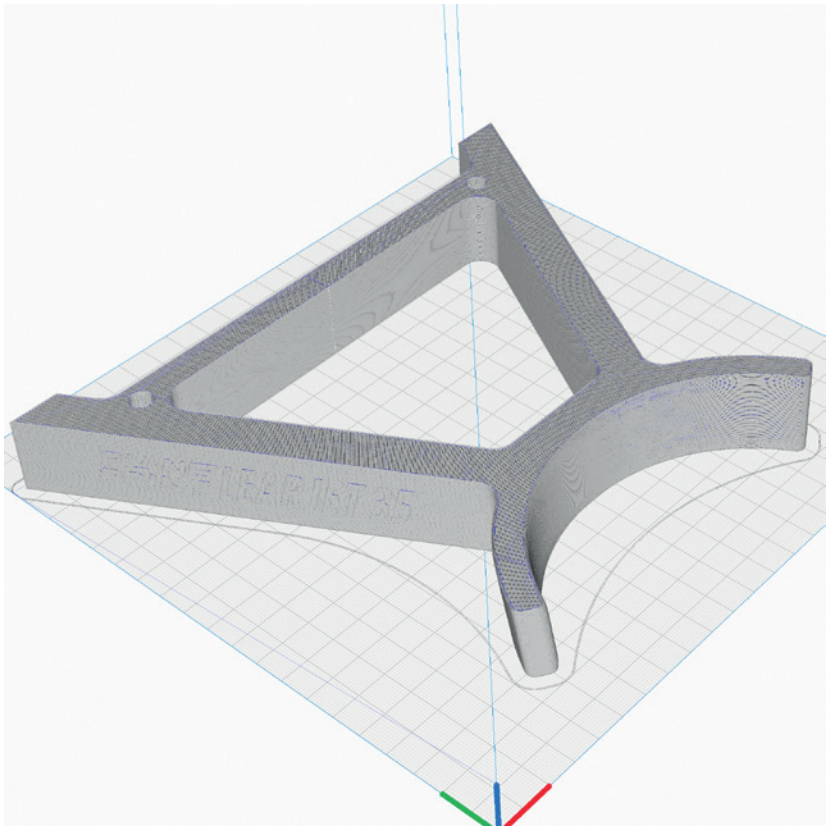
P5_Stand2_lj.stl

MATERIAL LW PLA, Weight: ~ 22 g

TIME ~ 3 hours 20 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

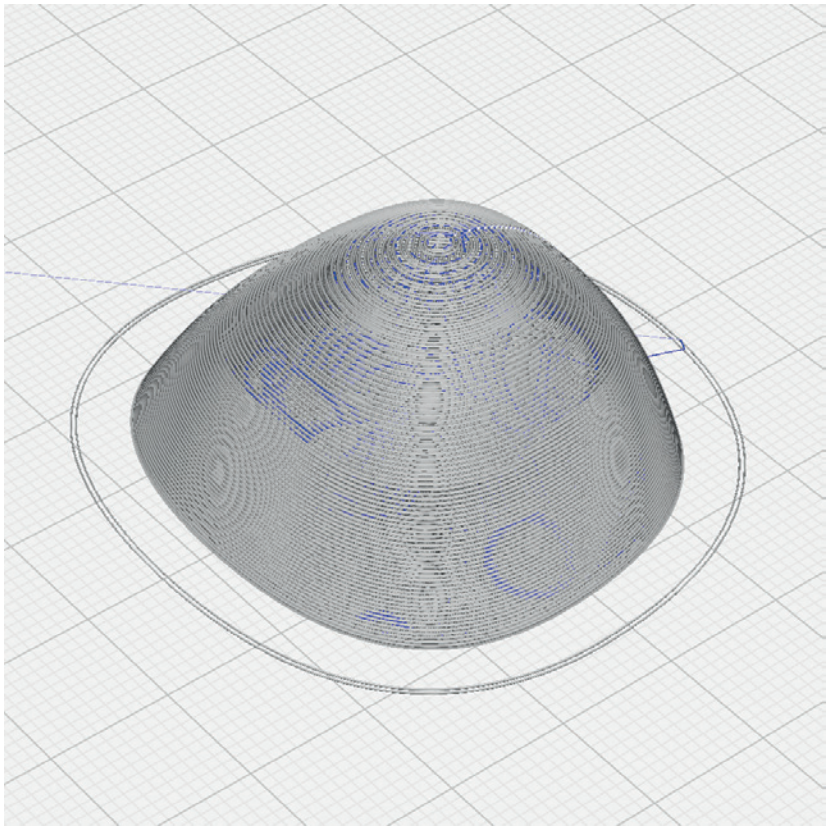
P5_Nose_lj.stl

MATERIAL LW PLA, Weight: ~ 3 g

TIME ~ 15 minutes

ADDITIONAL SETTINGS

- Wall Line Count/Perimeters: 2



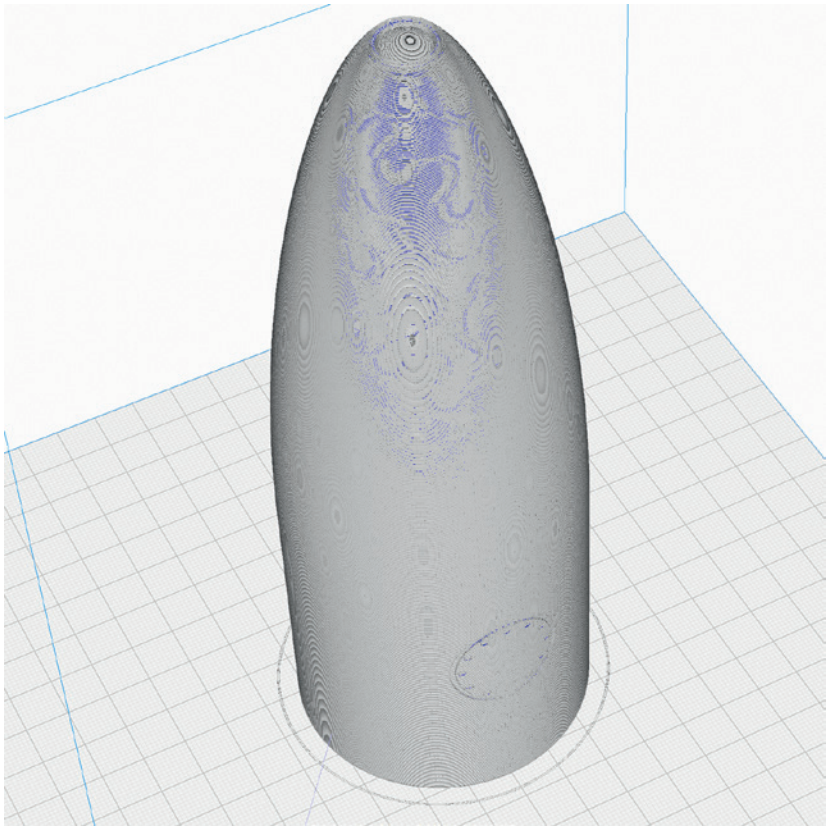
P5_Tank L1_lj.stl and P5_Tank R1_lj.stl

MATERIAL LW PLA, Weight: ~ 20 g

TIME ~ 4 hours

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

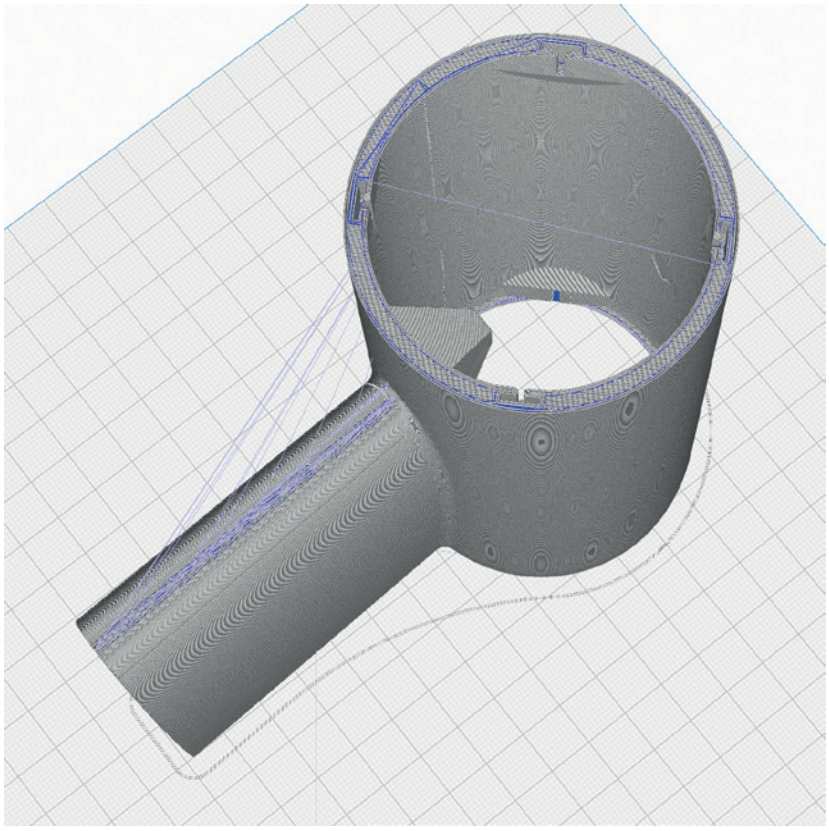
P5_Tank L2_lj.stl and P5_Tank R2_lj.stl

MATERIAL LW PLA, Weight: ~ 35 g

TIME ~ 7 hours

ADDITIONAL SETTINGS

None required



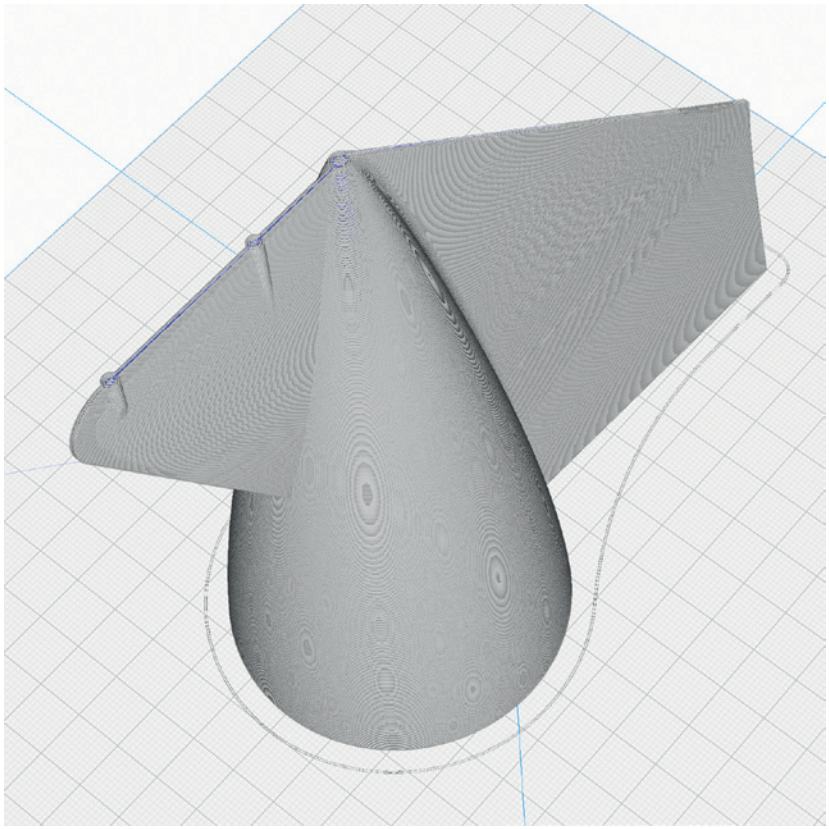
P5_Tank L3_lj.stl and P5_Tank R3_lj.stl

MATERIAL LW PLA, Weight: ~ 18 g

TIME ~ 3 hours 20 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

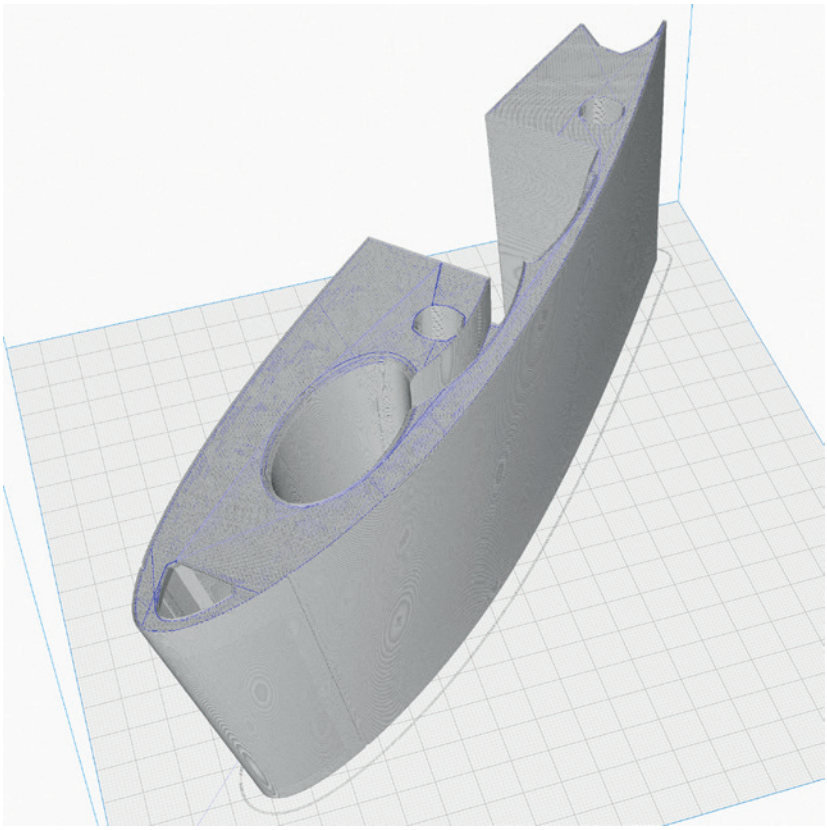
P5_Wing L1_lj.stl and P5_Wing R1_lj

MATERIAL LW PLA, Weight: ~ 45 g

TIME ~ 7 hours 30 minutes

ADDITIONAL SETTINGS

None required



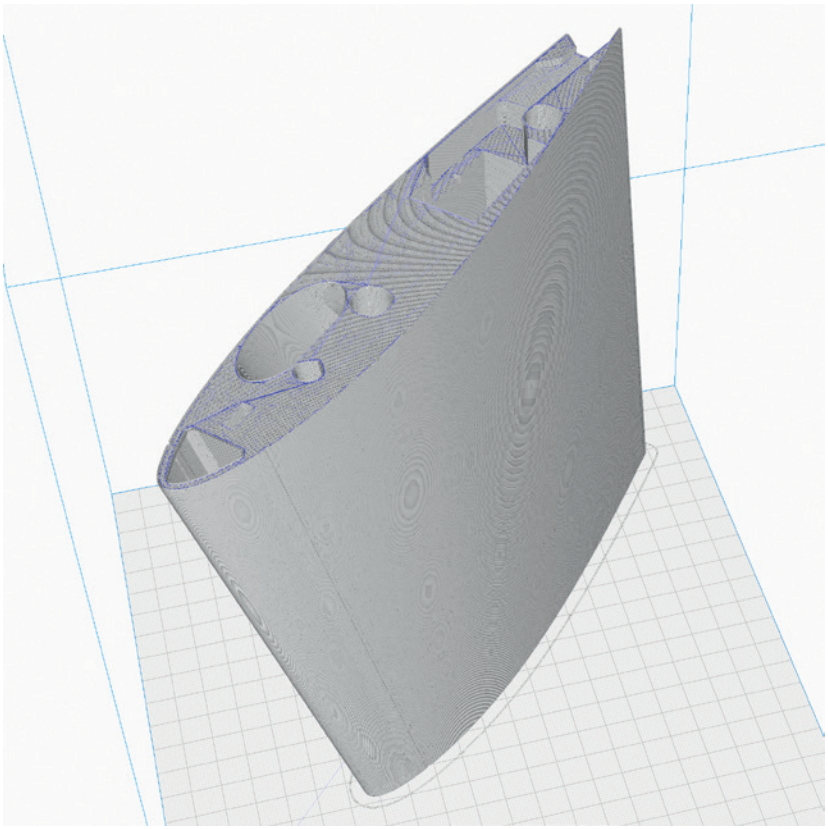
P5_Wing L2_lj.stl and P5_Wing R2_lj

MATERIAL LW PLA, Weight: ~ 75 g

TIME ~ 12 hours

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!
It is essential to print these parts with foaming LW-PLA (pre-foamed is heavier)!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment! Print only one STL at a time!

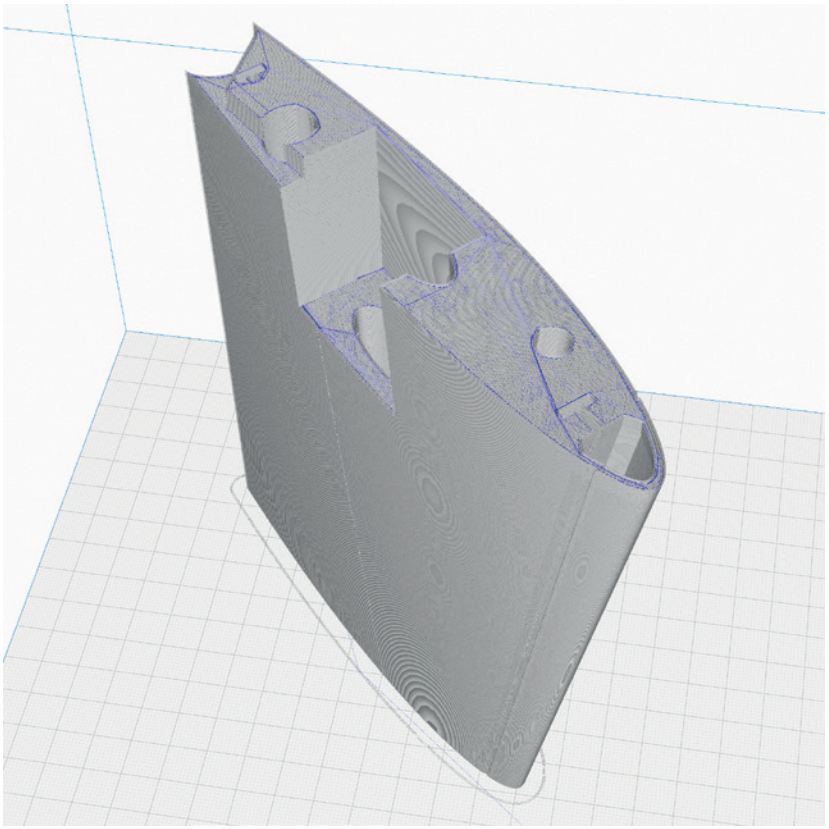
P5_Wing L3_lj.stl and P5_Wing R3_lj

MATERIAL LW PLA, Weight: ~ 40 g

TIME ~ 7 hours

ADDITIONAL SETTINGS

None required



P5

Gluing the parts printed with PROFILE P5

STEP 1 As a first step, it is important to **roughen and smooth the adhesive surfaces** with sandpaper.

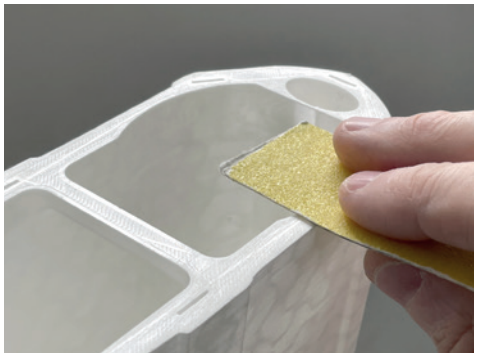
STEP 2 Insert the **interconnects into the slots** provided on one side.

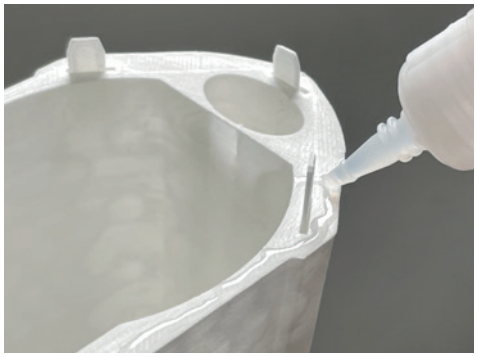
STEP 3 Apply **a lot of glue** to the side with the interconnects. It is important that there is glue everywhere, especially on the outside and inside of the wall surfaces, in order to achieve a perfect connection. The interconnects only serve to align the parts to each other. It is better **not** to apply glue here, otherwise it can happen that the glue suddenly hardens while the parts are being put together and stops the process.

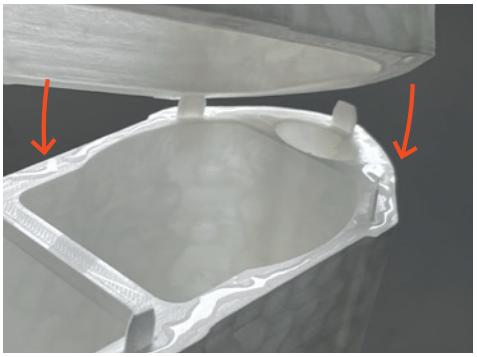
Use medium viscosity CA glue, thinner glue would run down the parts too easily.

After assembly, **align the two parts exactly** and wipe off the excess CA glue from the surface with a cloth. Now spray with activator spray along the gluing surface and carefully press the parts together.

STEP 4 Clean the glued areas slightly with a **sharp-bladed** cutter.





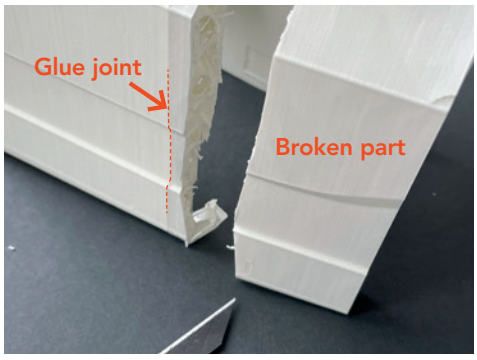


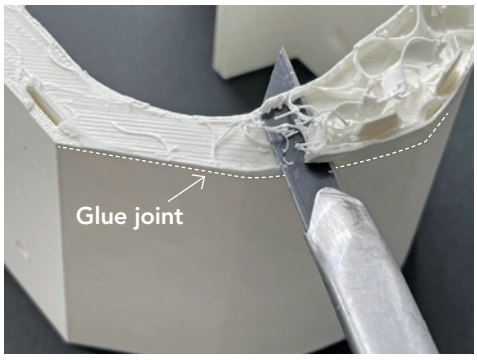
PROFILES 5 parts are easy to repair

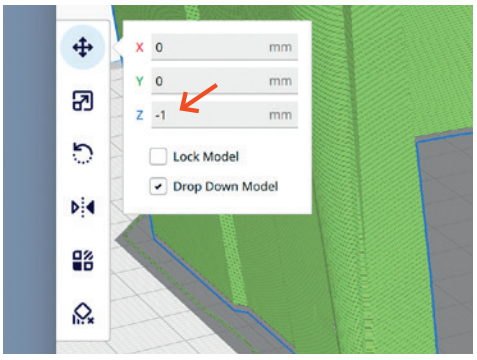
STEP 1 Using the knife, carefully remove the damaged part about 3 mm from the glue joint between two parts.

STEP 2 Cut wall and infill and clean the surface with sandpaper. **The top surface of the damaged part remains!**

STEP 3 The remaining top surface is about 1 mm thick. To compensate for this, you can move the new part to be printed down the Z axis in Cura by 1 mm.







Fuselage assembly

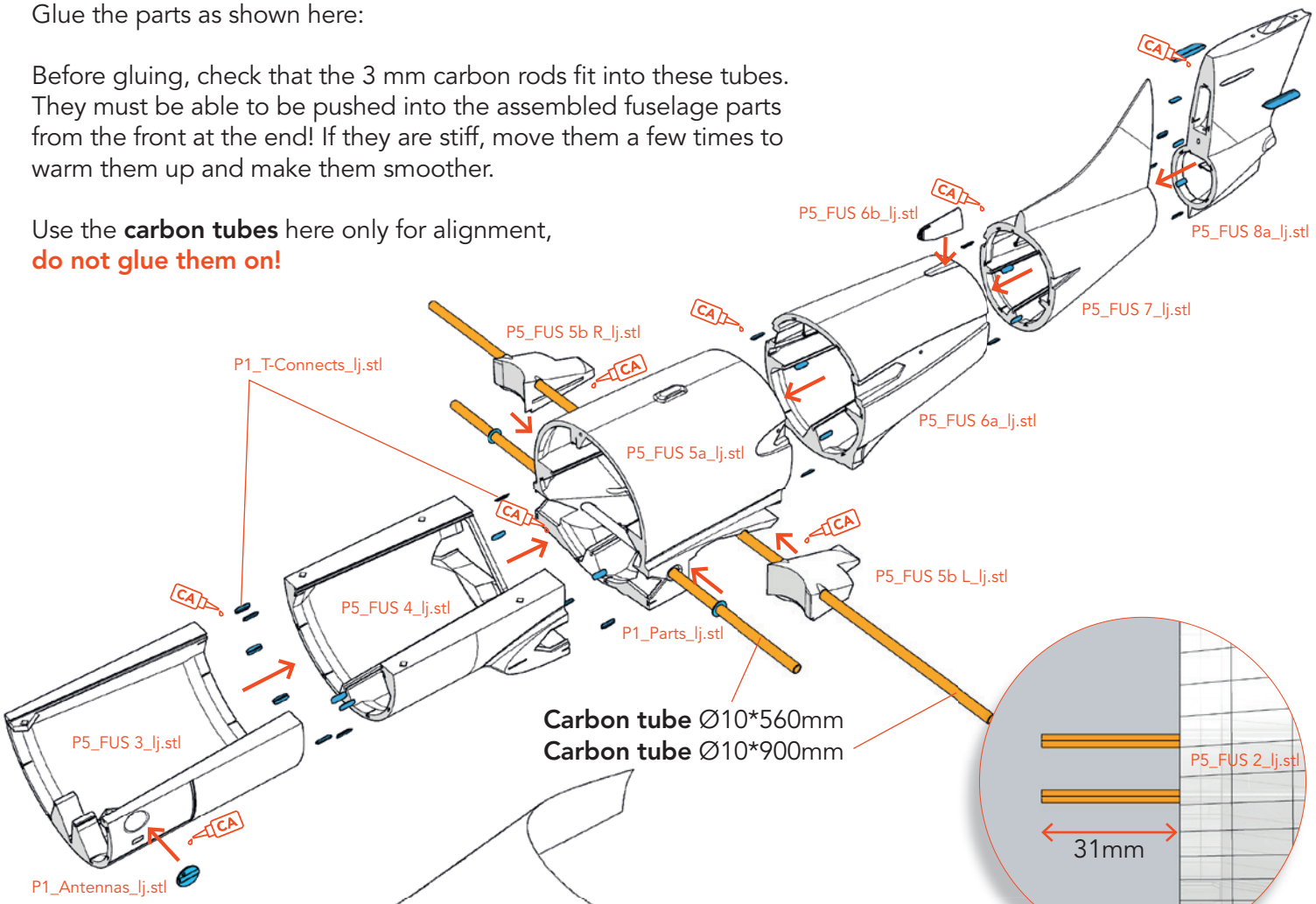
CA medium liquid

TIP **Always put all parts together BEFORE gluing and check that everything runs smoothly and fits exactly.**

Glue the parts as shown here:

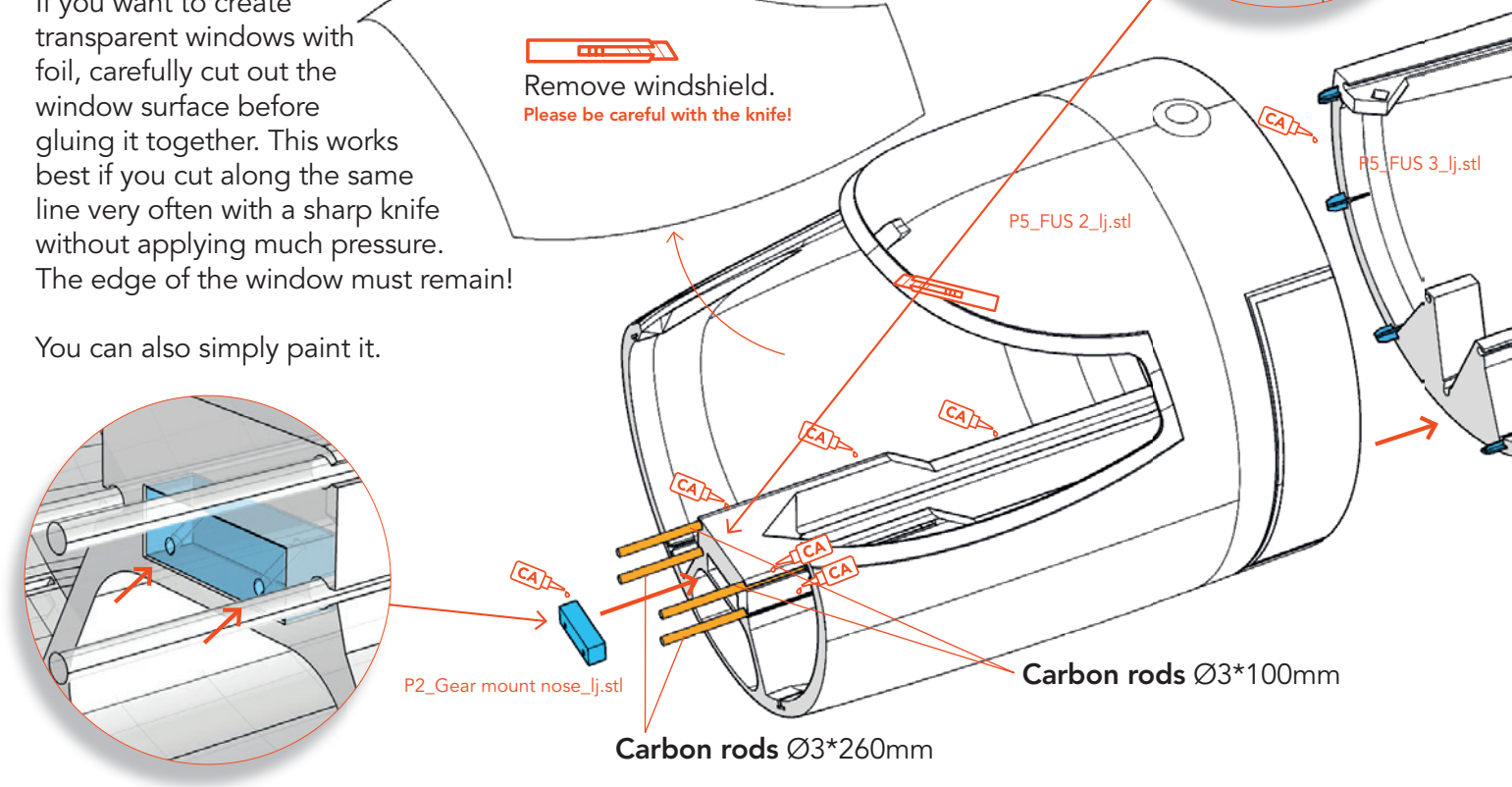
Before gluing, check that the 3 mm carbon rods fit into these tubes. They must be able to be pushed into the assembled fuselage parts from the front at the end! If they are stiff, move them a few times to warm them up and make them smoother.

Use the **carbon tubes** here only for alignment, **do not glue them on!**

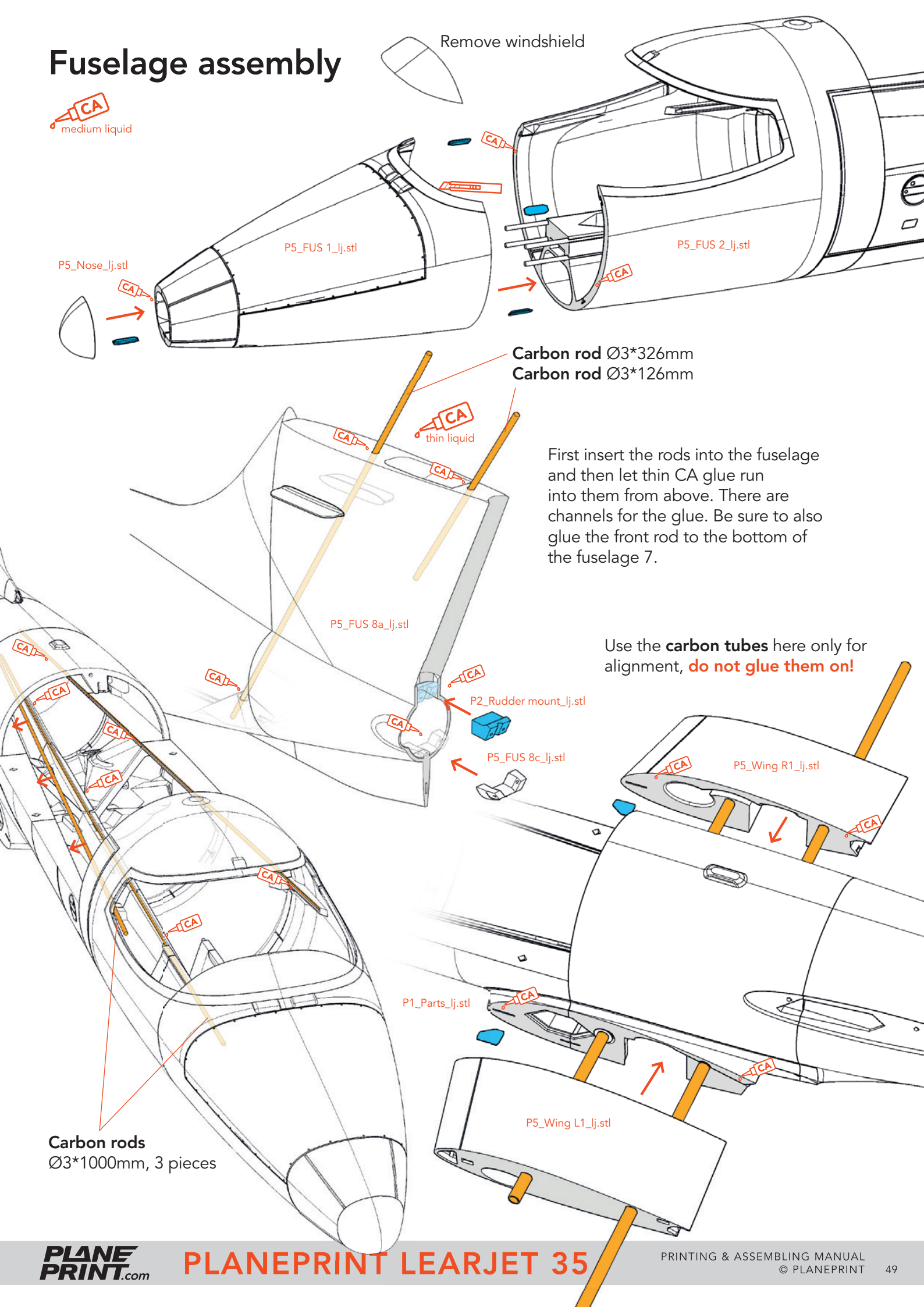


If you want to create transparent windows with foil, carefully cut out the window surface before gluing it together. This works best if you cut along the same line very often with a sharp knife without applying much pressure. The edge of the window must remain!

You can also simply paint it.



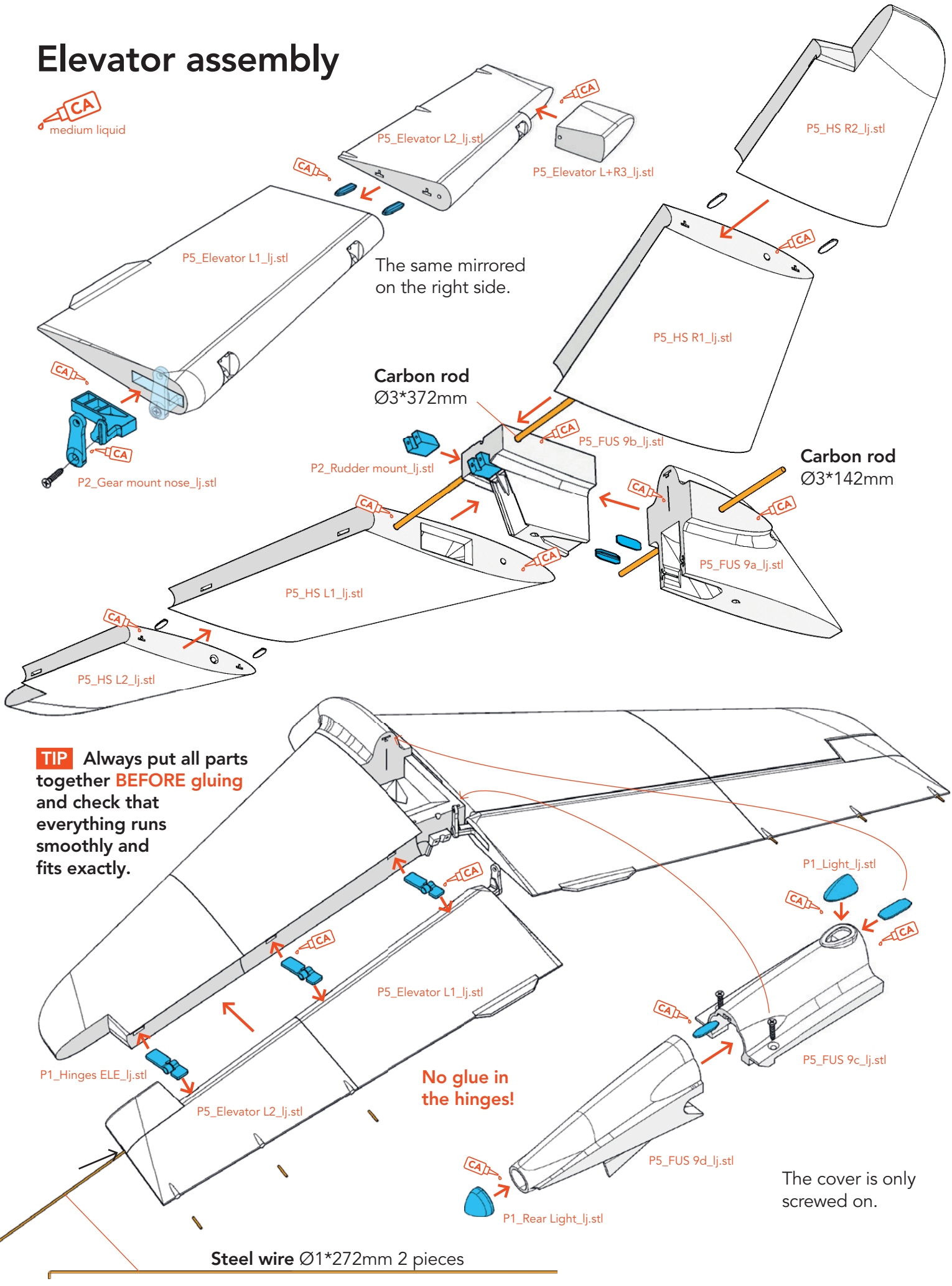
Fuselage assembly



First insert the rods into the fuselage and then let thin CA glue run into them from above. There are channels for the glue. Be sure to also glue the front rod to the bottom of the fuselage 7.

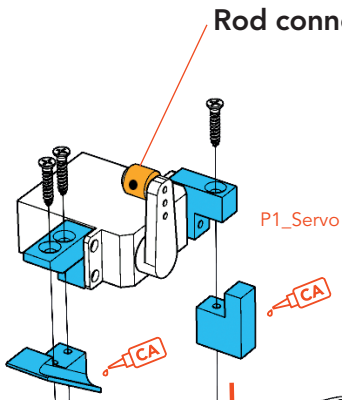
Use the **carbon tubes** here only for alignment, **do not glue them on!**

Elevator assembly



Elevator Servo

NOTE **It is very important that the elevator linkage has NO play, otherwise rudder flutter can occur, which can destroy the entire tail!** Too much play can be caused by too thin wire in the hinge or too large holes in the horns or cheap servos.



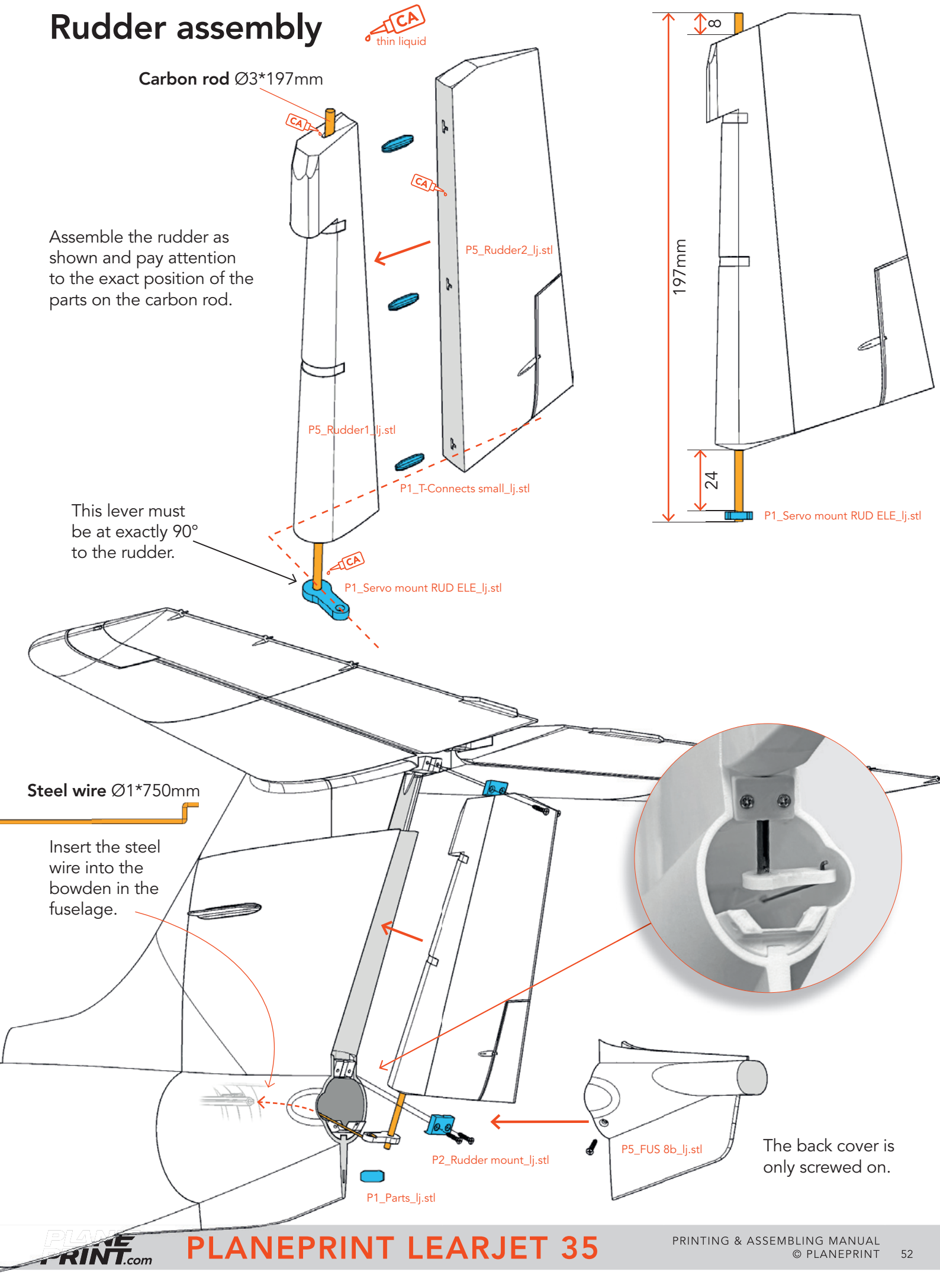
If you prefer to operate the elevator with two separate servos (safer against flutter and redundant in the event of servo failure), you will find the STL for this in the FREE TUNING PARTS on our website.

Mount the servo mount parts on the servo exactly as shown in the picture and glue it firmly in place with the lower brackets.

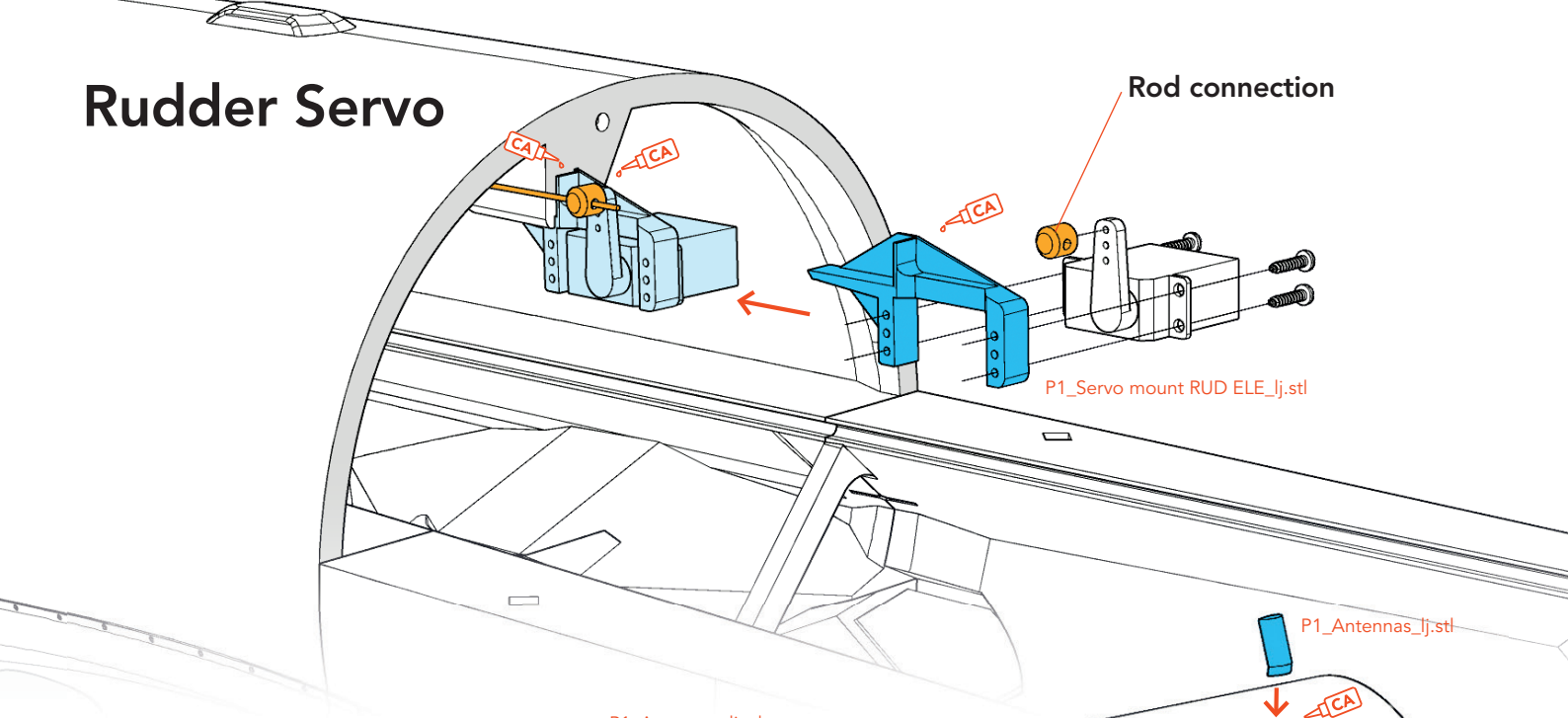
Make sure that the hole of the rod connection is exactly in the center!

Position the two elevators exactly the same and fix the two linkages with the rod connection.

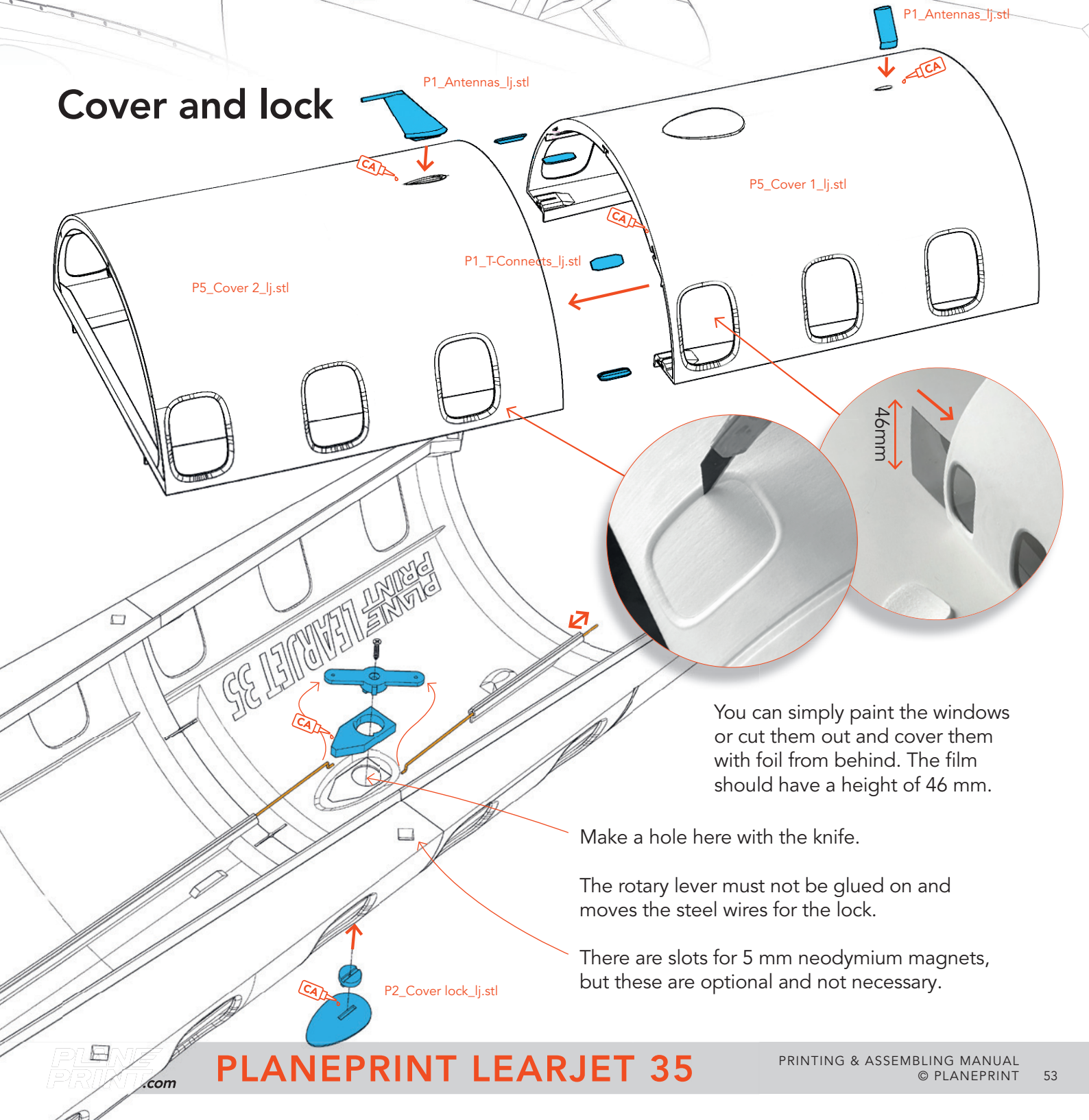
Rudder assembly



Rudder Servo



Cover and lock



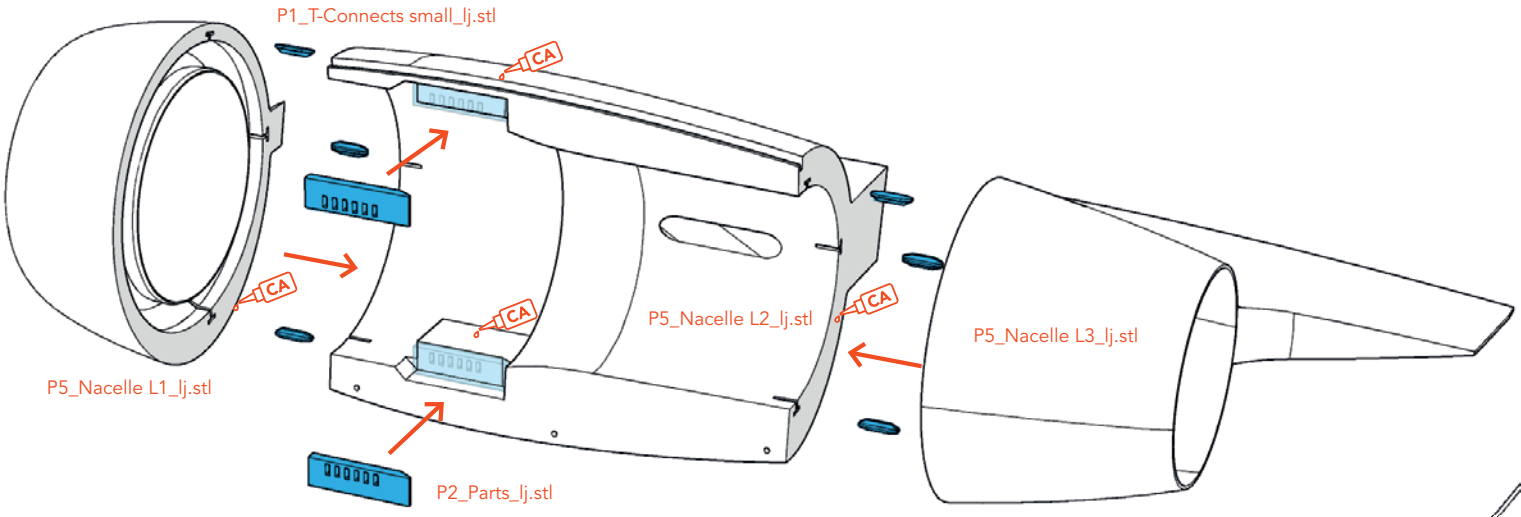
You can simply paint the windows or cut them out and cover them with foil from behind. The film should have a height of 46 mm.

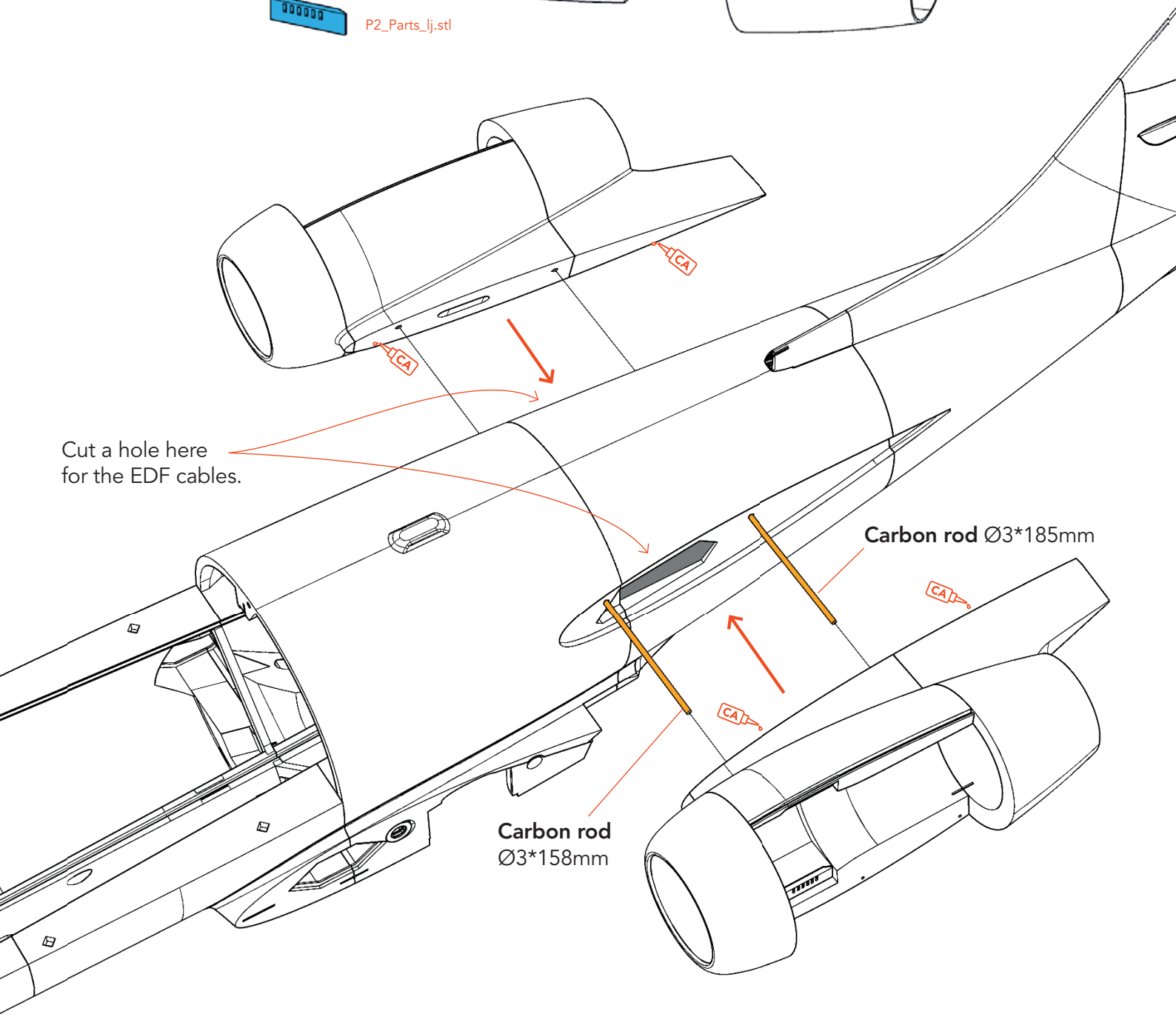
Make a hole here with the knife.

The rotary lever must not be glued on and moves the steel wires for the lock.

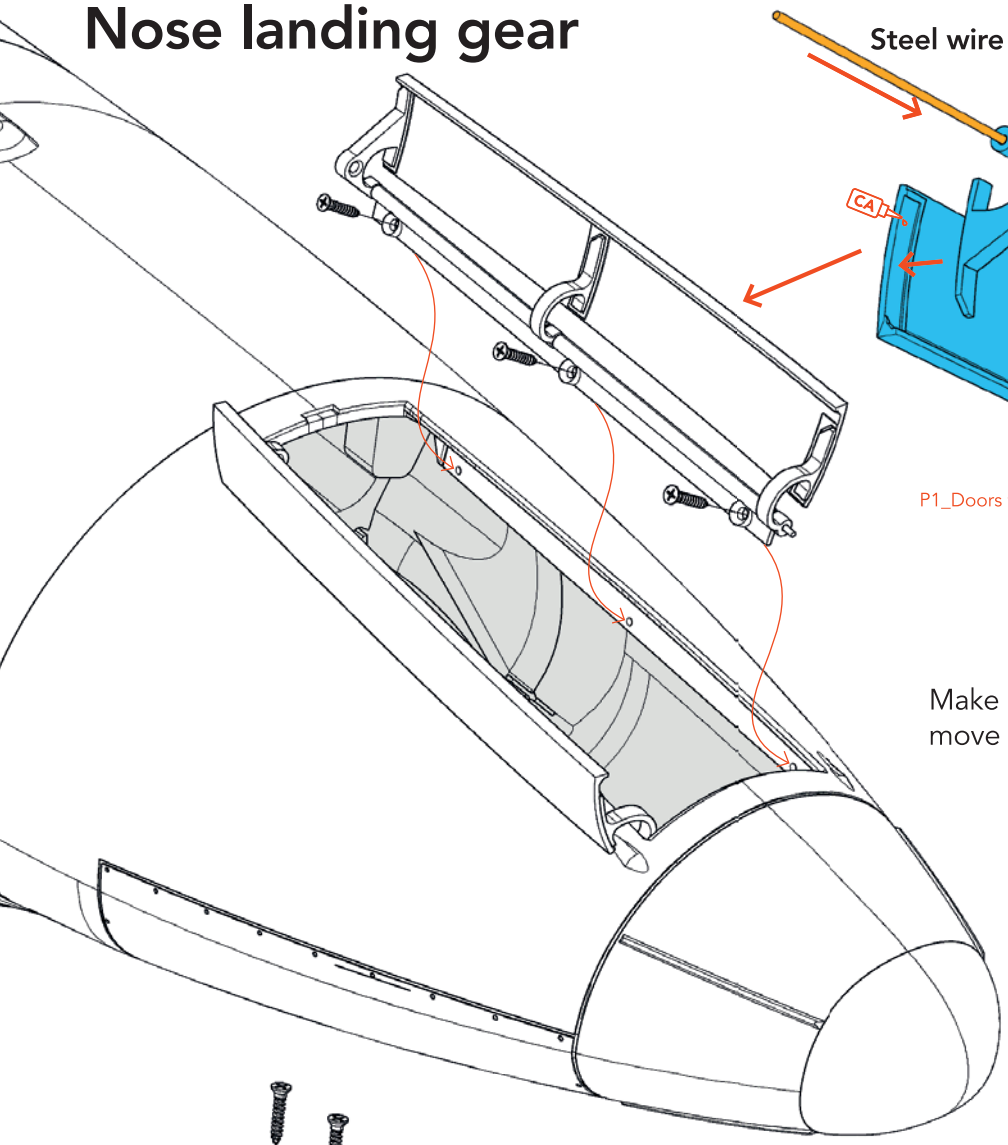
There are slots for 5 mm neodymium magnets, but these are optional and not necessary.

EDF Nacelle


P1_T-Connects small_lj.stl
CA
CA
CA
CA
P5_Nacelle L1_lj.stl
P5_Nacelle L2_lj.stl
P5_Nacelle L3_lj.stl
P2_Parts_lj.stl

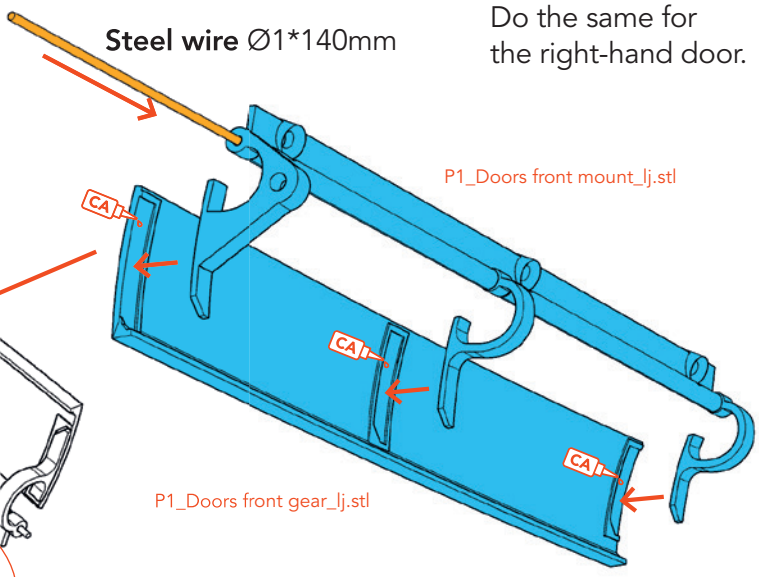

CA
CA
Cut a hole here
for the EDF cables.
Carbon rod Ø3*185mm
CA
CA
Carbon rod
Ø3*158mm

Nose landing gear



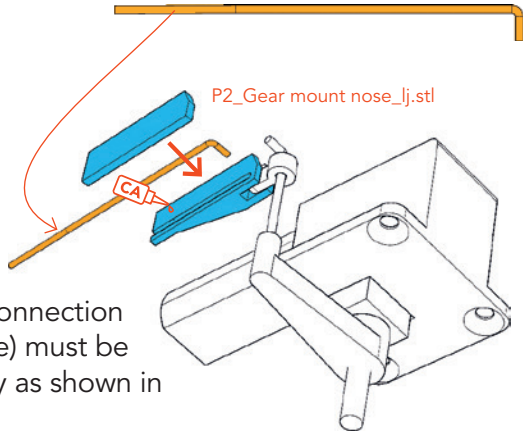
Steel wire Ø1*140mm

Do the same for the right-hand door.



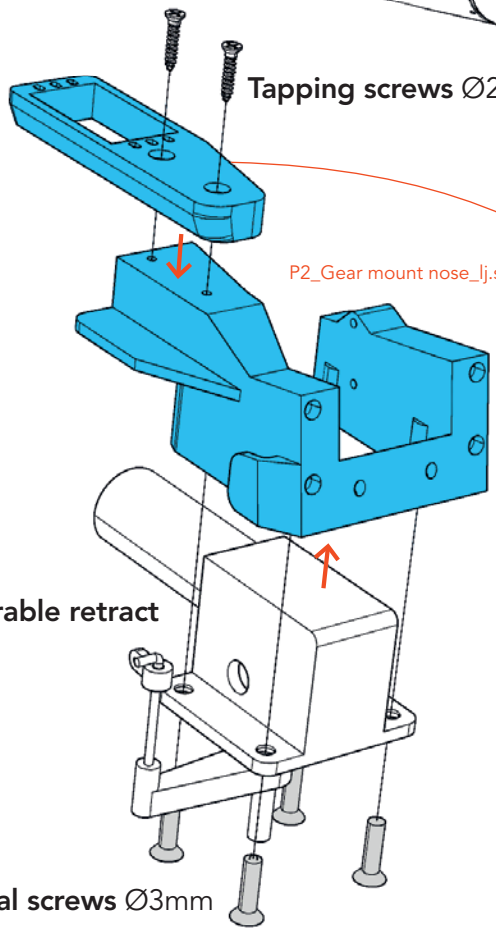
Make sure that the doors move absolutely smoothly.

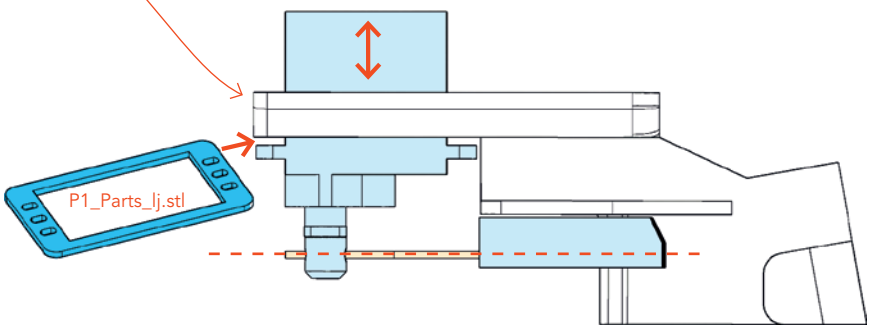
Steel wire Ø1*54mm



The linkage connection (shown in blue) must be turned exactly as shown in the picture!

Steerable retract

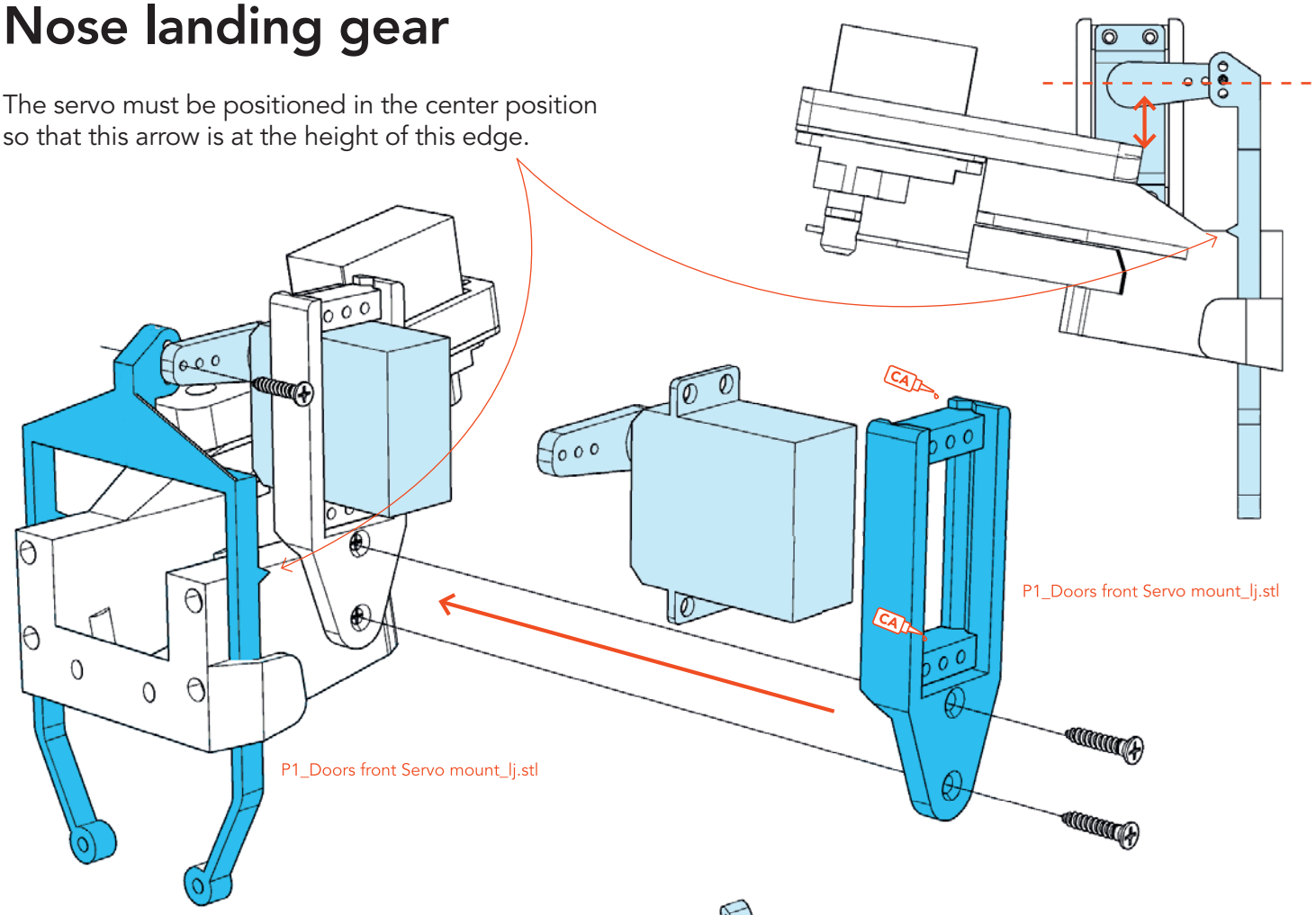




Position the **servo for steering** exactly at the height that the linkage runs horizontally as shown in the picture. Use this part as a spacer if your servo has different dimensions.

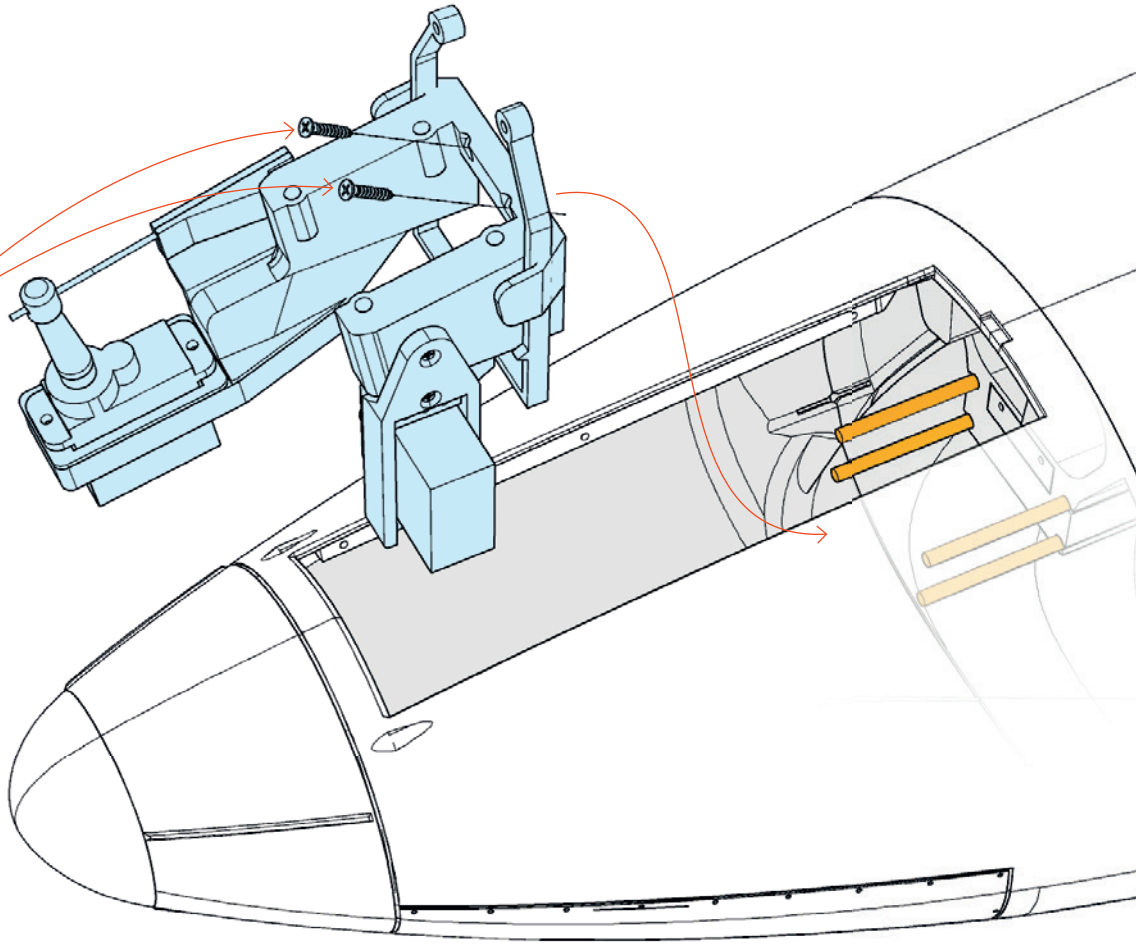
Nose landing gear

The servo must be positioned in the center position so that this arrow is at the height of this edge.



The entire assembly is then placed on the four carbon rods in fuselage position 2 and secured with the **two tapping screws** only (**NOT glued**).

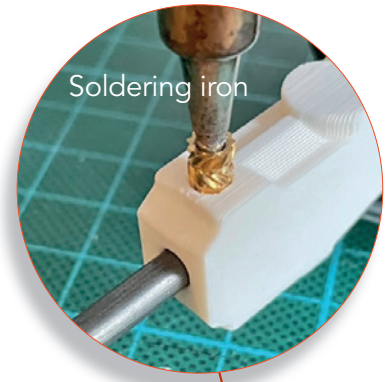
The steering servo must be loosened again slightly and the retract removed.



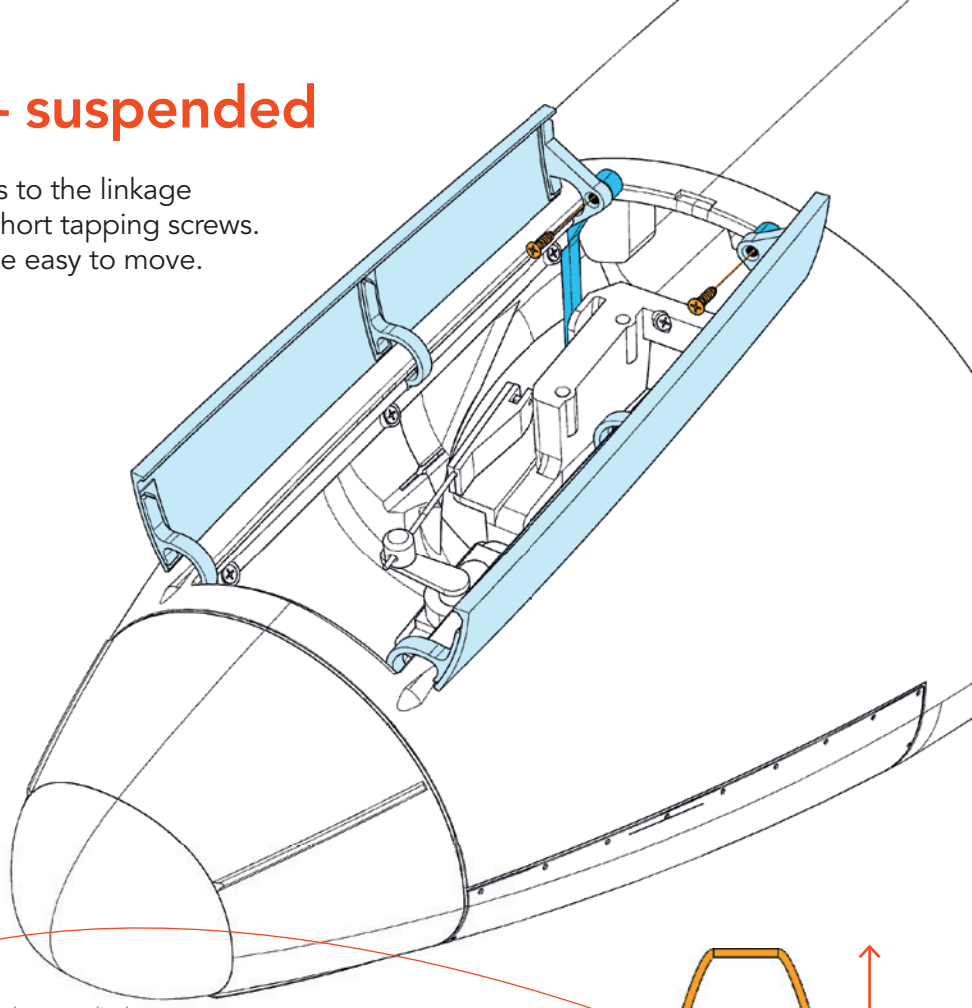
Nose landing gear – suspended

PLANEPRINT Innovation

Connect the doors to the linkage bracket with two short tapping screws. Everything must be easy to move.



Threaded inserts

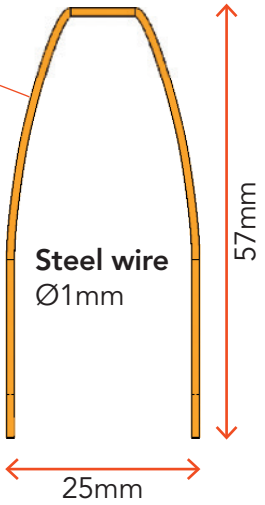


Tapping screw Ø2mm

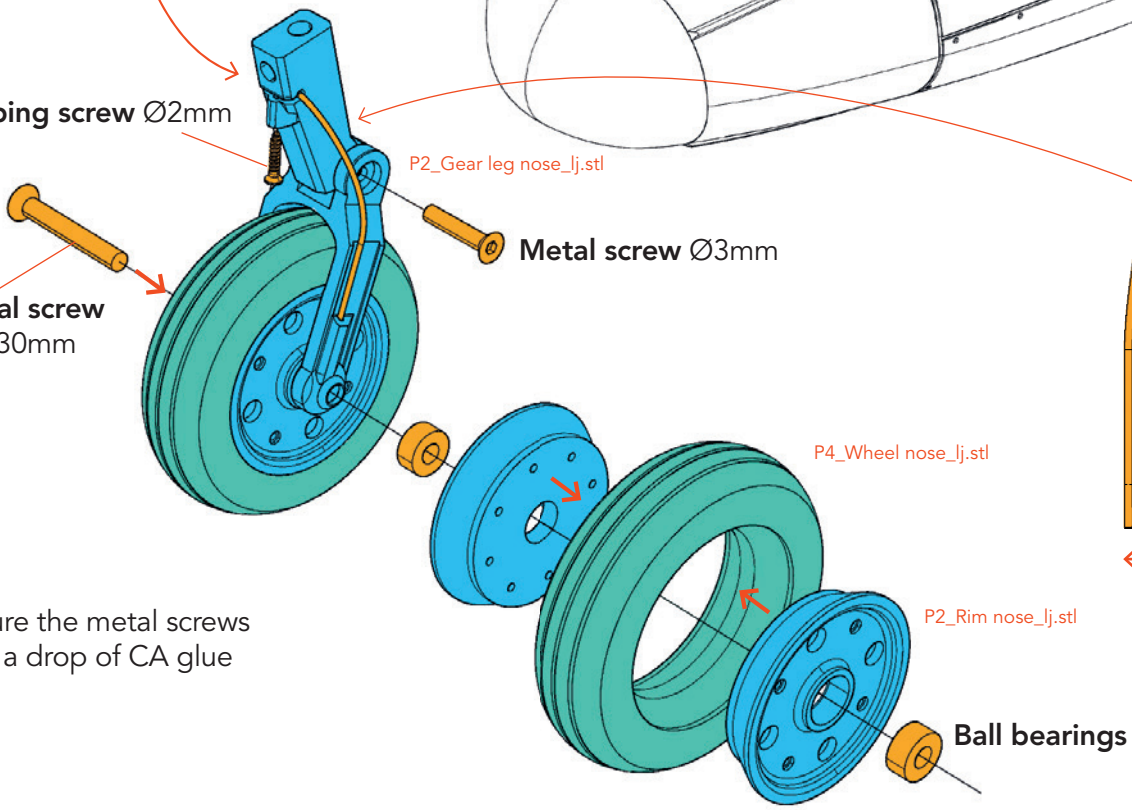
P2_Gear leg nose_lj.stl

Metal screw Ø3mm

Metal screw Ø4*30mm



Steel wire Ø1mm



P4_Wheel nose_lj.stl

P2_Rim nose_lj.stl

Ball bearings

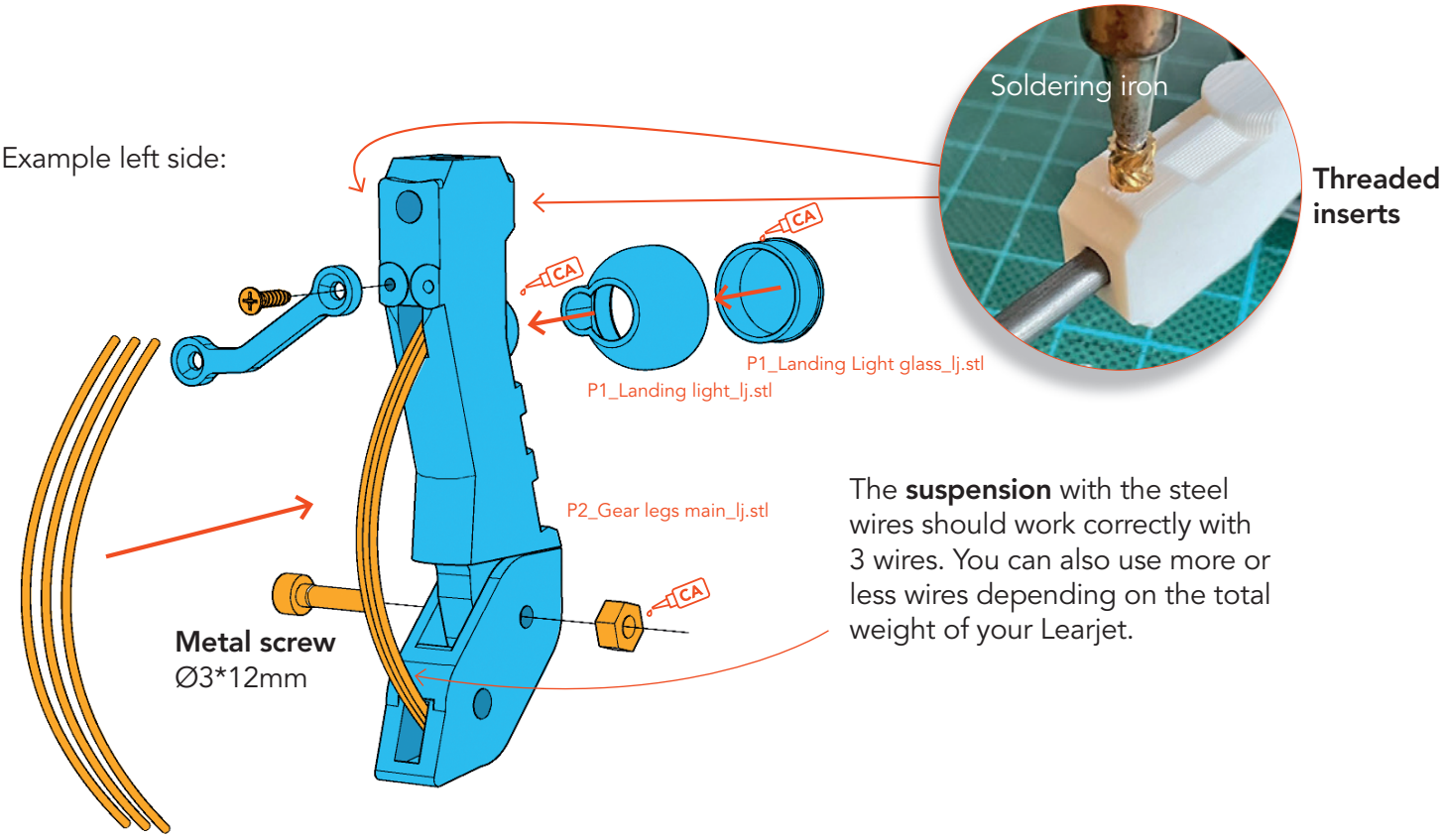
Secure the metal screws with a drop of CA glue

The doors must be programmed so that they open before the retract and only close when the retract is retracted. To do this, you must program a sequence on your remote control.

You can also omit the doors if this is too complicated for you or if you have too few channels available on the receiver.

Main landing gear – suspended

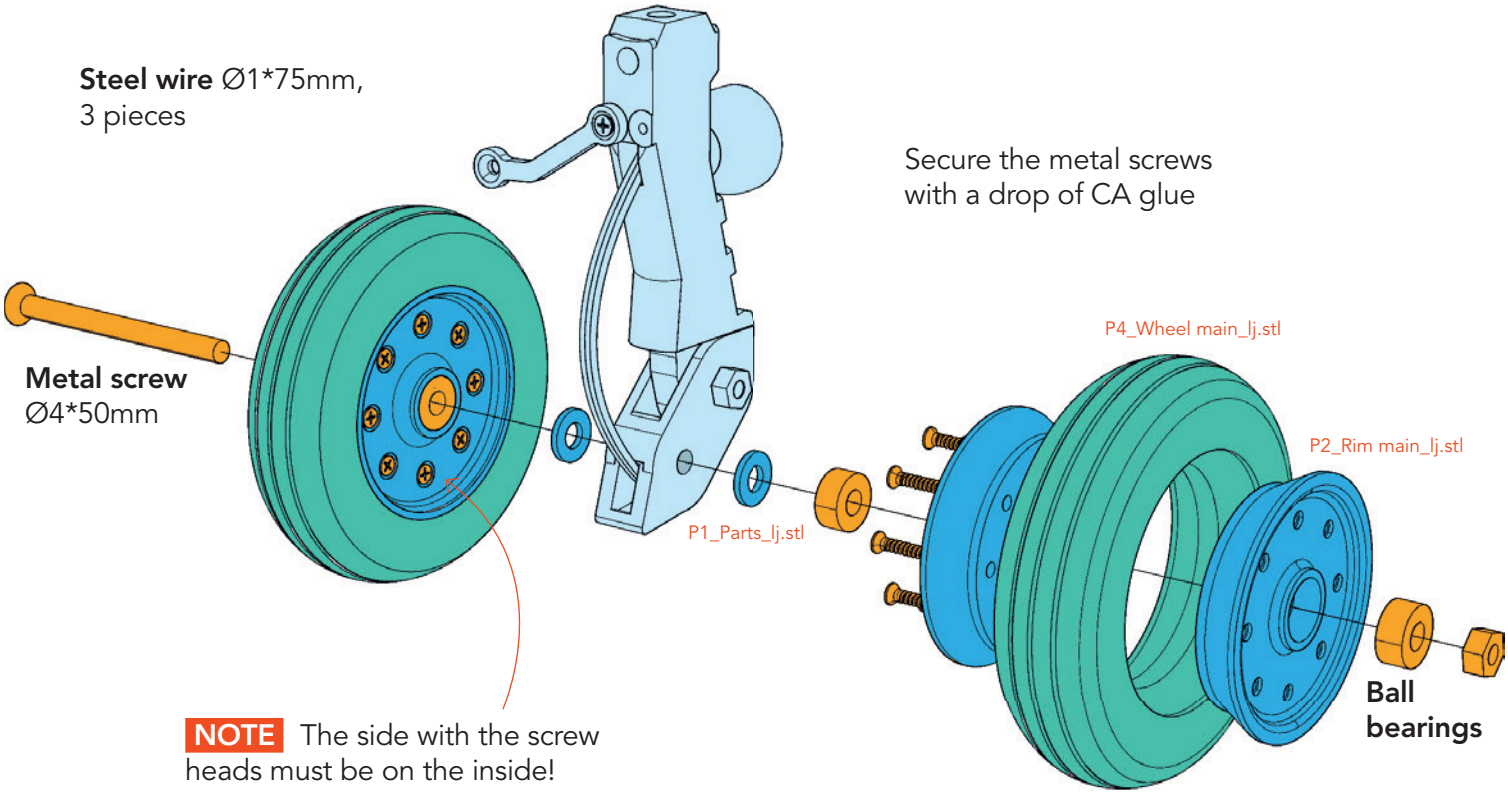
Example left side:



The **suspension** with the steel wires should work correctly with 3 wires. You can also use more or less wires depending on the total weight of your Learjet.

Steel wire Ø1*75mm,
3 pieces

Secure the metal screws with a drop of CA glue



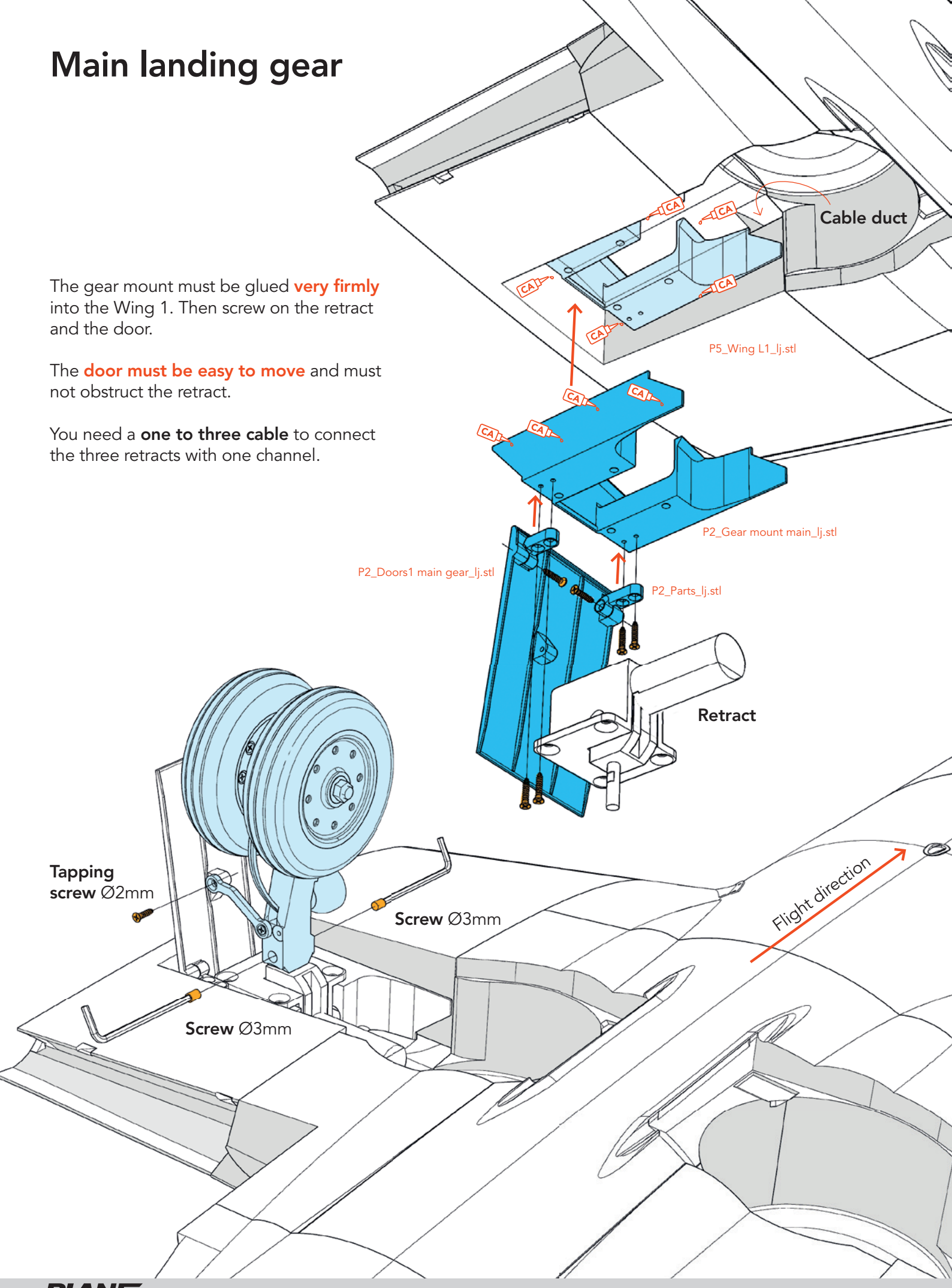
NOTE The side with the screw heads must be on the inside!

Main landing gear

The gear mount must be glued **very firmly** into the Wing 1. Then screw on the retract and the door.

The **door must be easy to move** and must not obstruct the retract.

You need a **one to three cable** to connect the three retracts with one channel.

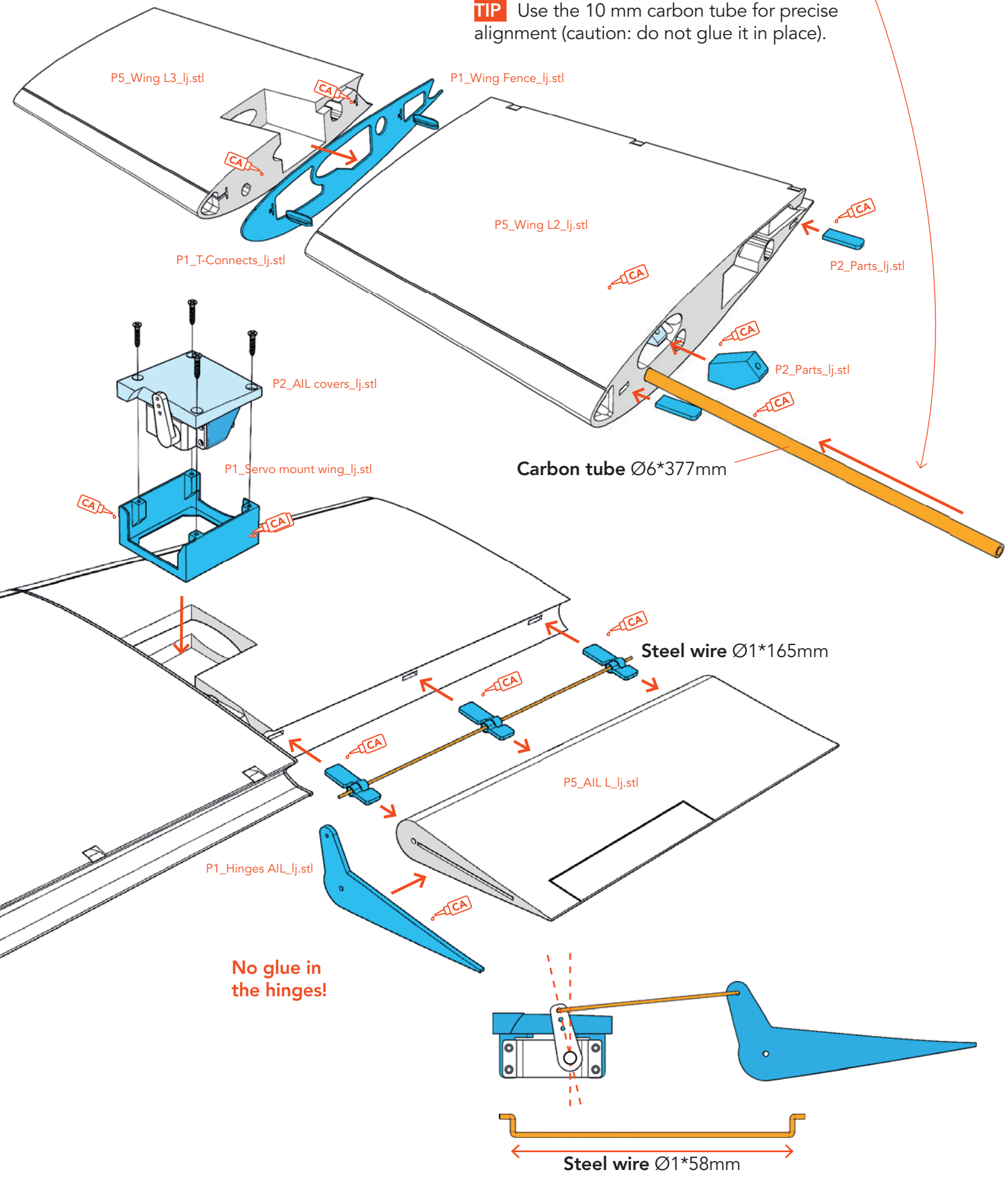


Wing assembly

CA medium liquid

Finally, the carbon tube is inserted into the wing **without** glue. Then let **thin CA glue** run into the gap to connect the tube to the wing along its entire length. Place a rag underneath and wait until the CA glue runs out the other side.

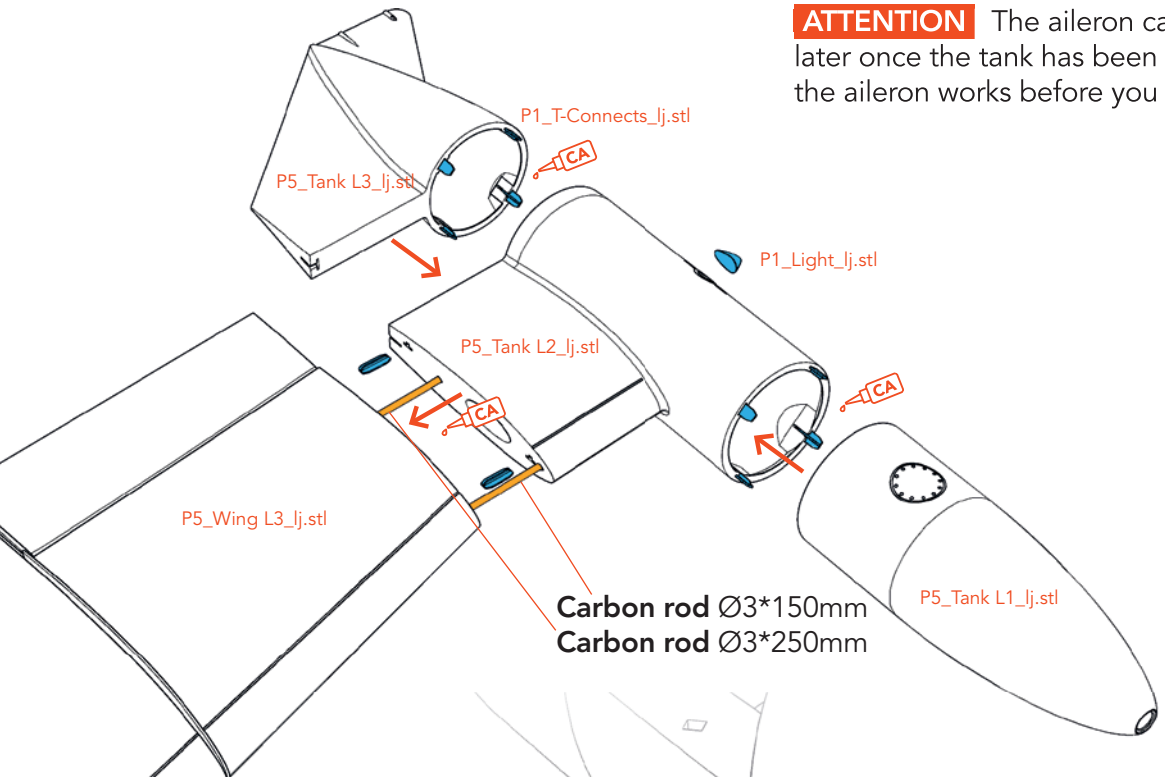
TIP Use the 10 mm carbon tube for precise alignment (caution: do not glue it in place).



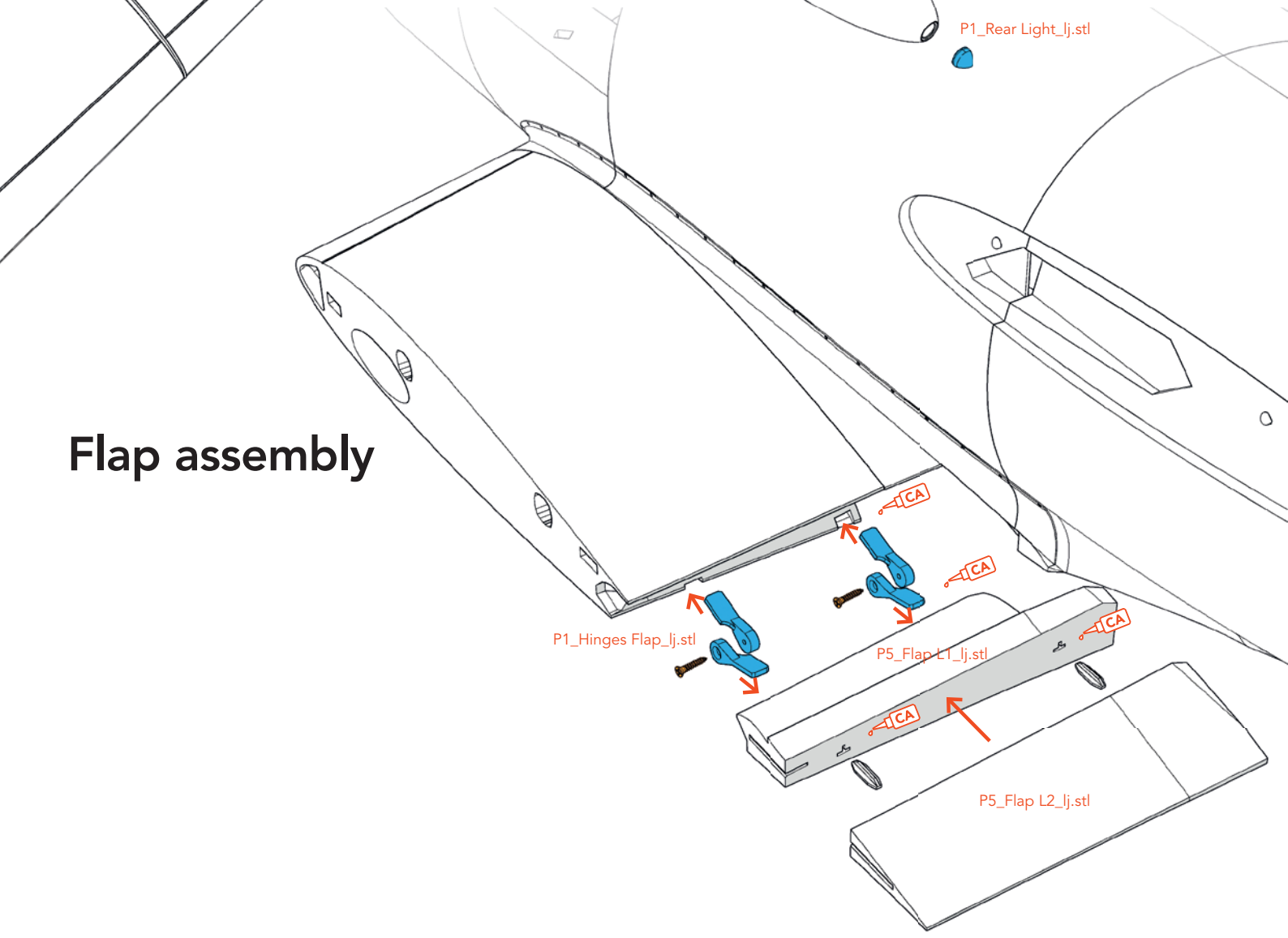
Wing assembly

CA medium liquid

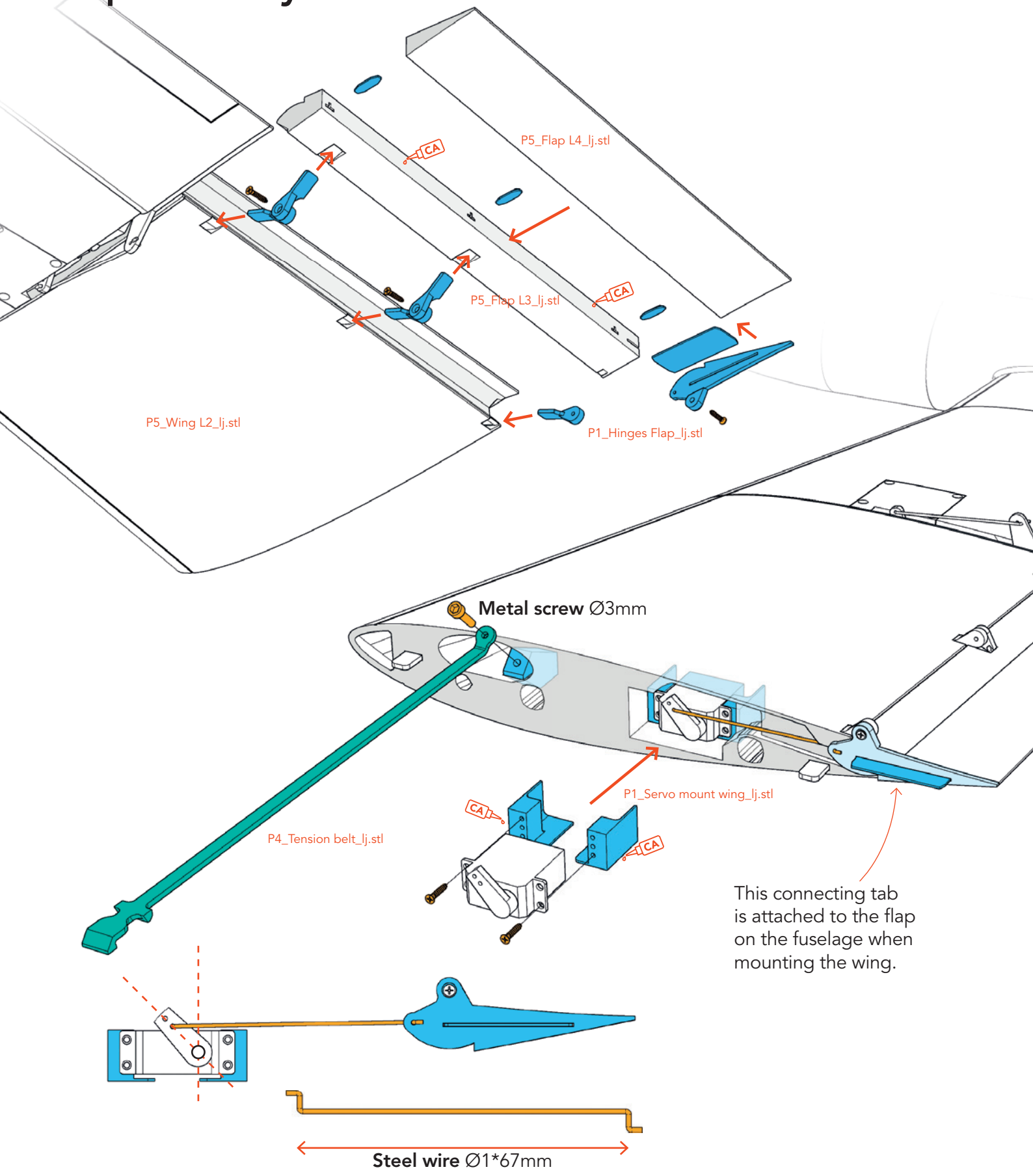
ATTENTION The aileron cannot be removed later once the tank has been fitted. Make sure that the aileron works before you glue the tank on.



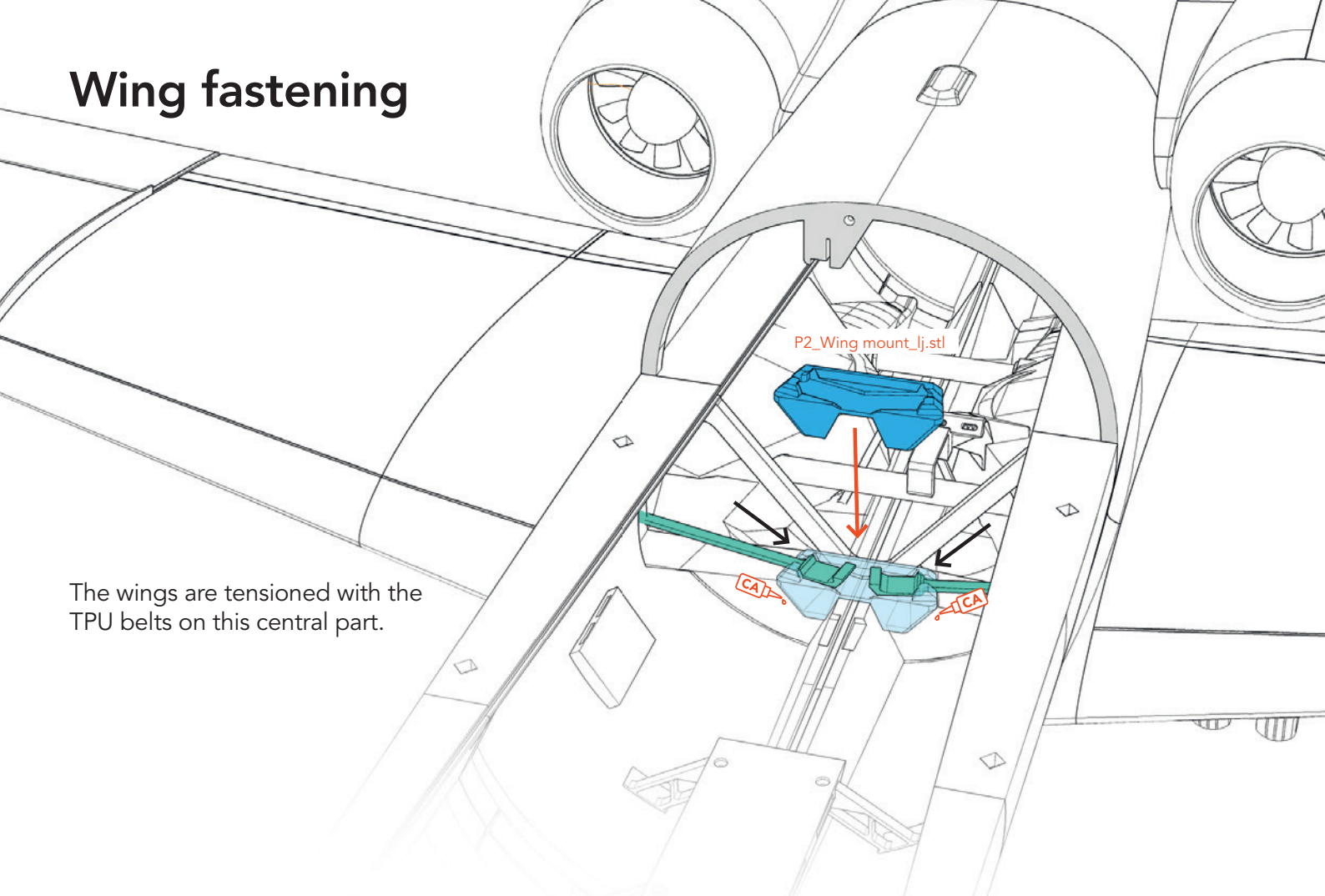
Flap assembly



Flap assembly

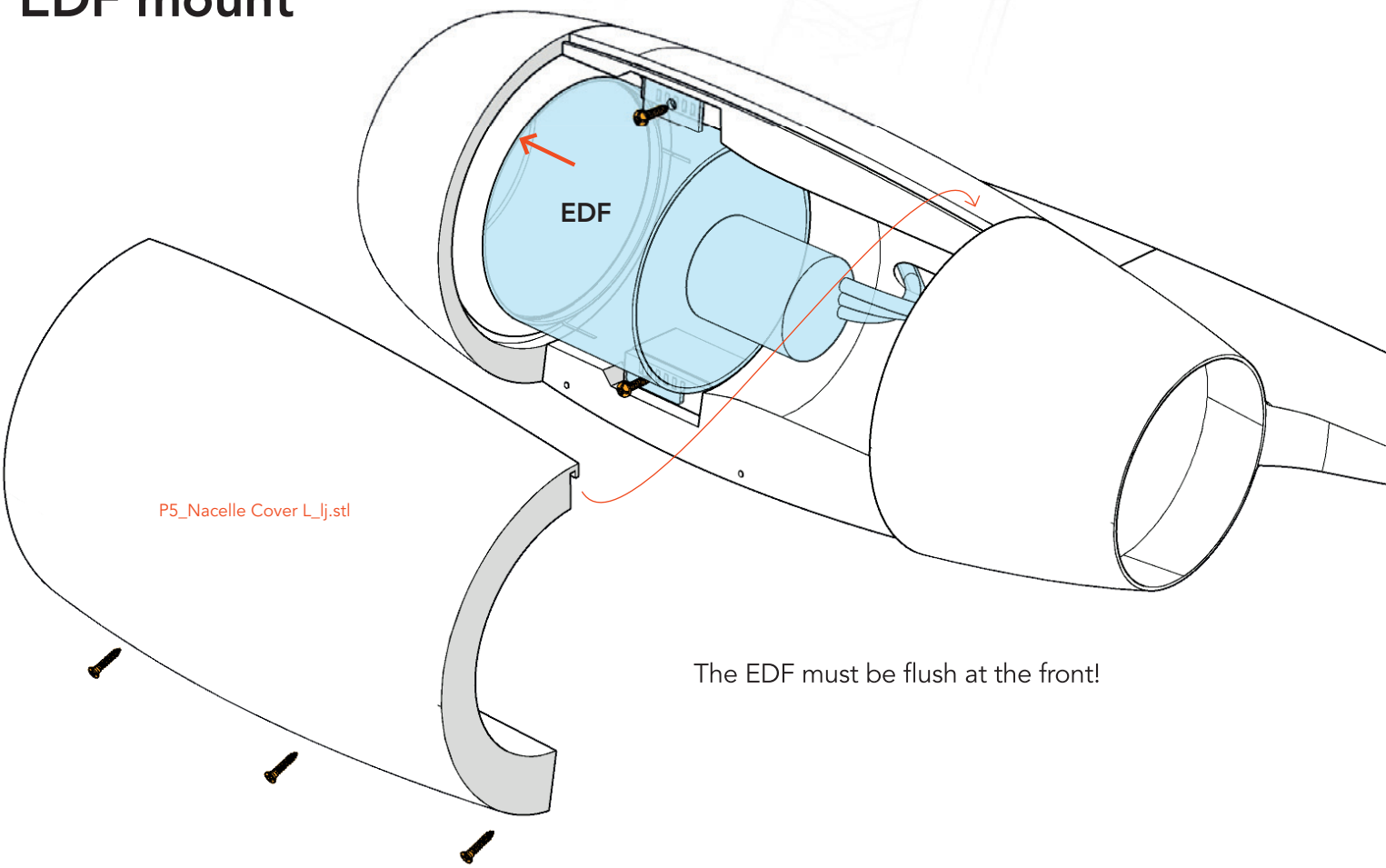


Wing fastening



The wings are tensioned with the TPU belts on this central part.

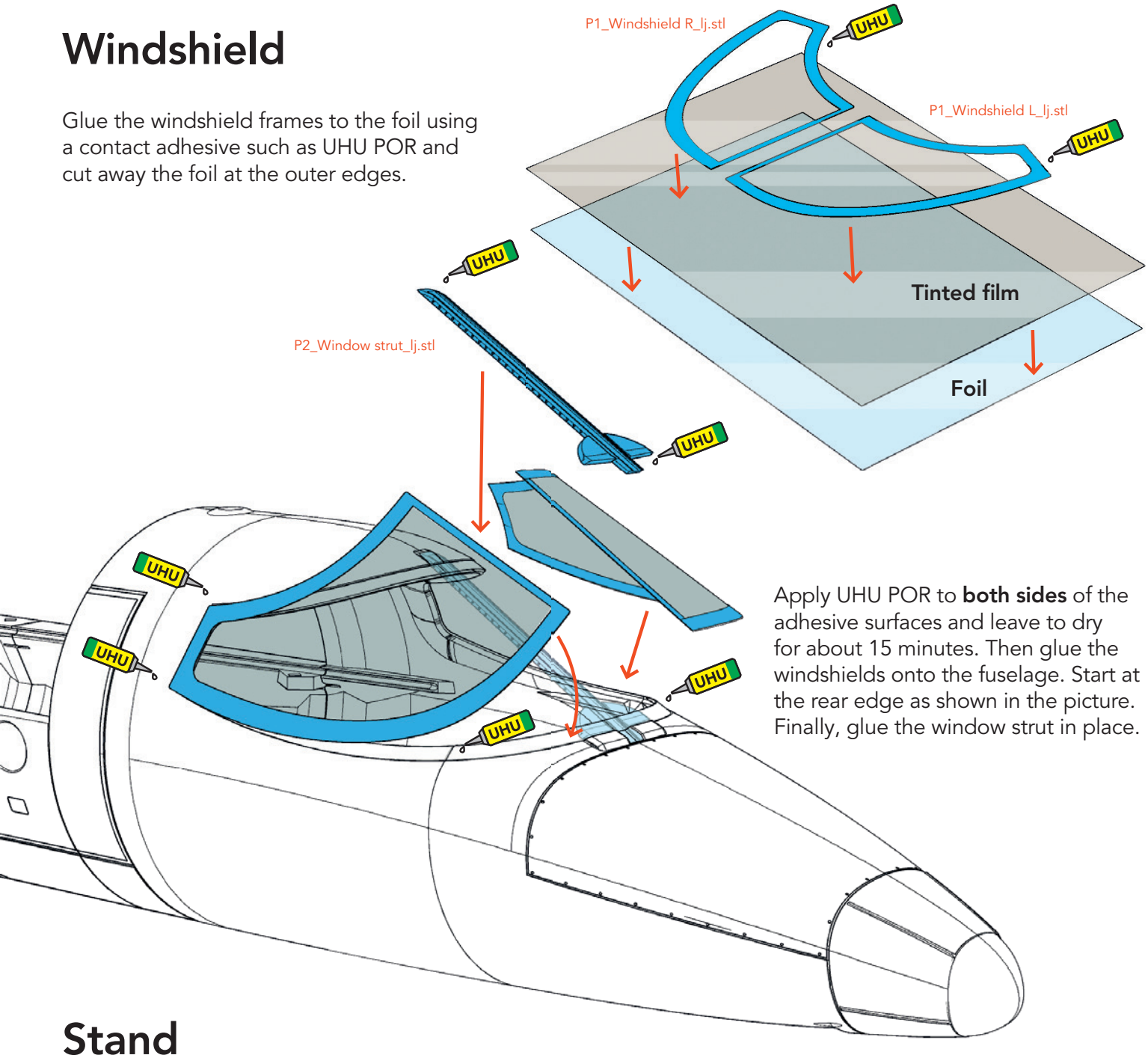
EDF mount



The EDF must be flush at the front!

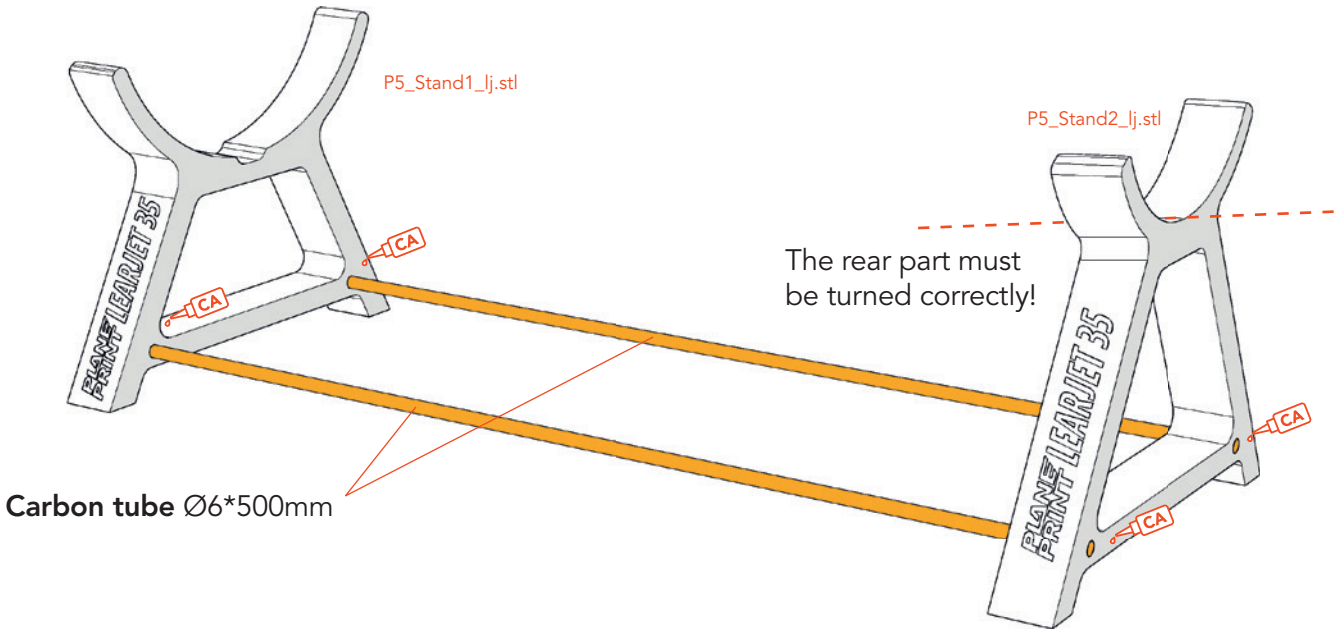
Windshield

Glue the windshield frames to the foil using a contact adhesive such as UHU POR and cut away the foil at the outer edges.

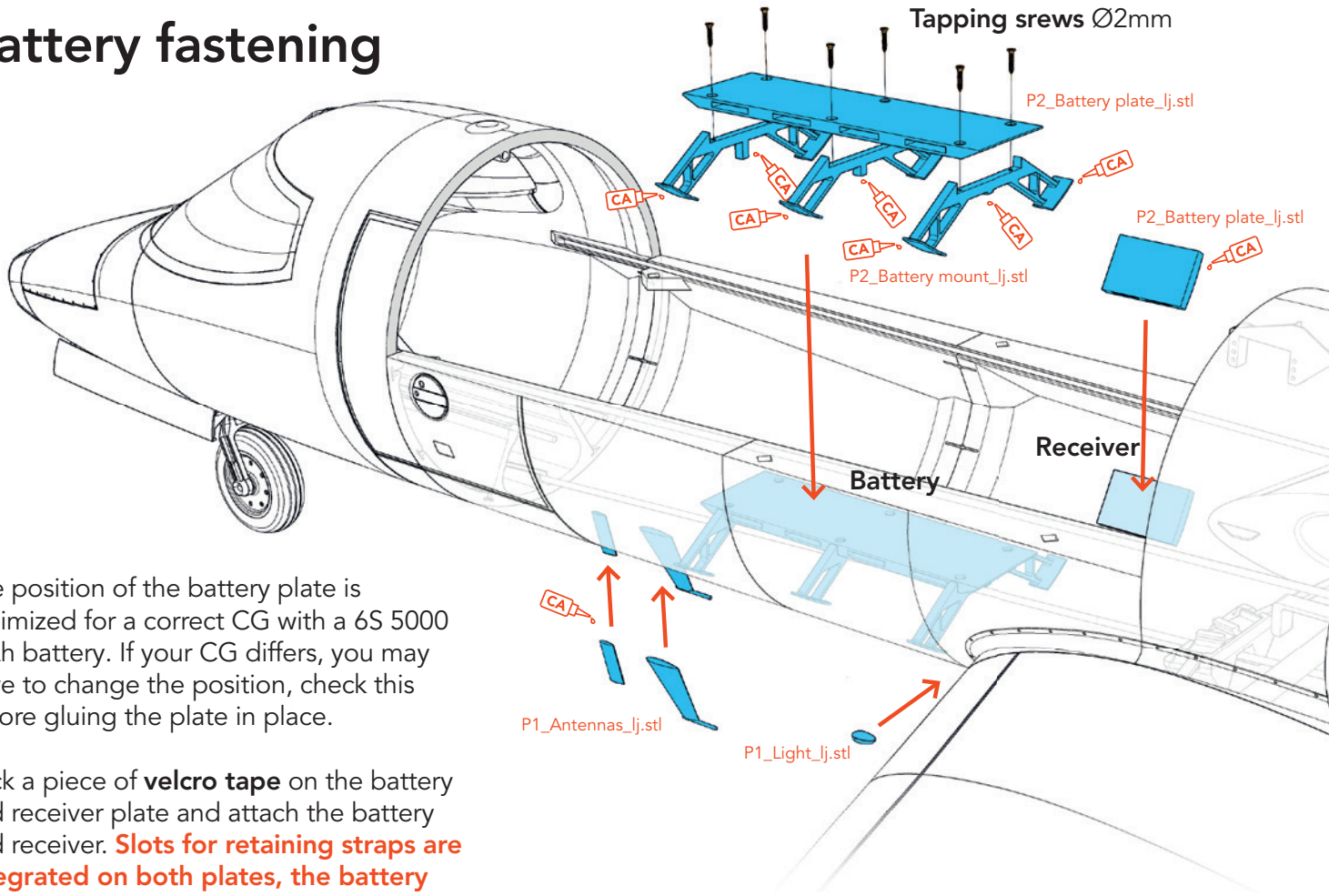


Apply UHU POR to **both sides** of the adhesive surfaces and leave to dry for about 15 minutes. Then glue the windshields onto the fuselage. Start at the rear edge as shown in the picture. Finally, glue the window strut in place.

Stand



Battery fastening



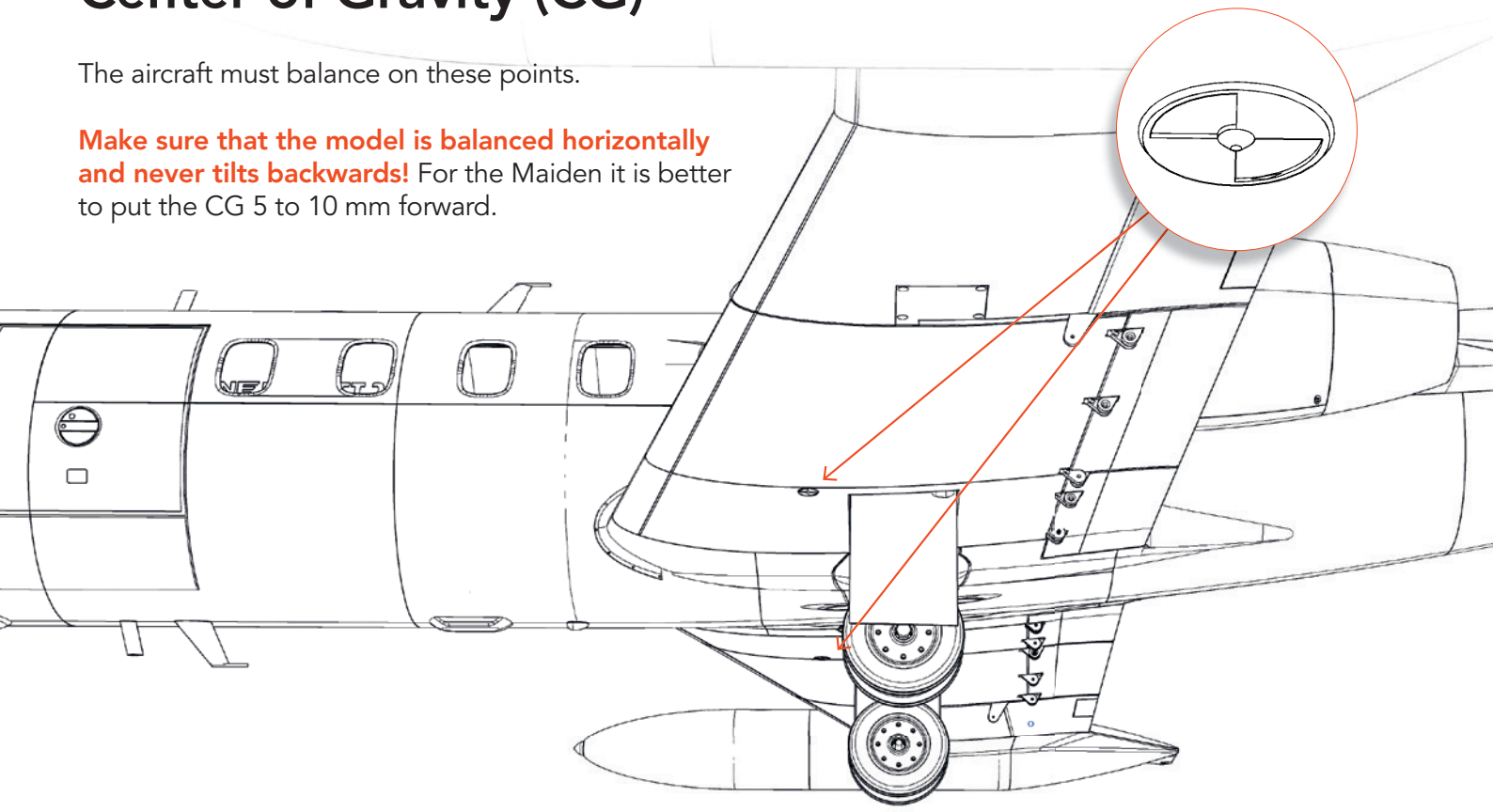
The position of the battery plate is optimized for a correct CG with a 6S 5000 mAh battery. If your CG differs, you may have to change the position, check this before gluing the plate in place.

Stick a piece of **velcro tape** on the battery and receiver plate and attach the battery and receiver. **Slots for retaining straps are integrated on both plates, the battery must also be fixed with these!**

Center of Gravity (CG)

The aircraft must balance on these points.

Make sure that the model is balanced horizontally and never tilts backwards! For the Maiden it is better to put the CG 5 to 10 mm forward.



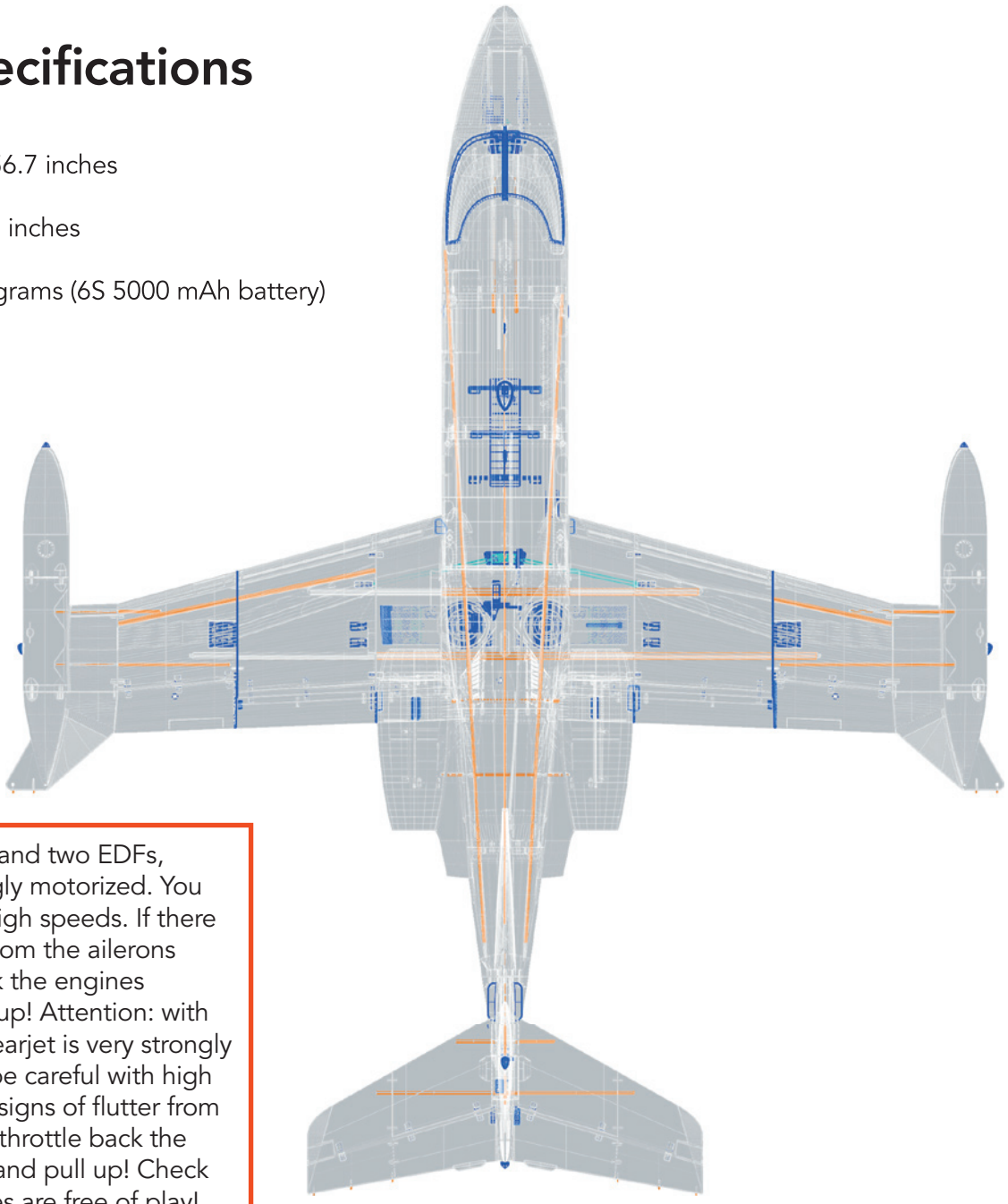
Technical specifications

WINGSPAN 1440 mm/56.7 inches

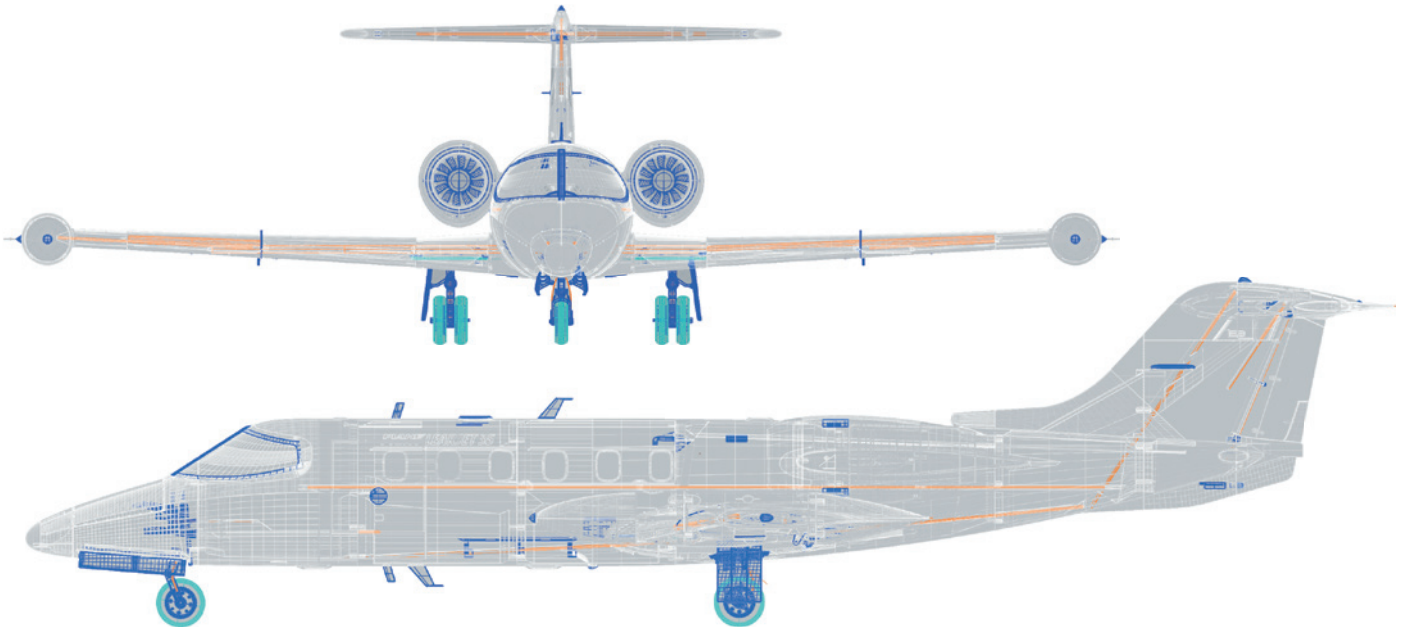
LENGTH 1716 mm/67.5 inches

FLIGHT WEIGHT 3900 grams (6S 5000 mAh battery)

WING LOAD 81 g/dm^2



SAFETY FIRST: with 6S and two EDFs, the Learjet is very strongly motorized. You should be careful with high speeds. If there are any signs of flutter from the ailerons or elevator, throttle back the engines IMMEDIATELY and pull up! Attention: with 6S and two EDFs, the Learjet is very strongly motorized. You should be careful with high speeds. If there are any signs of flutter from the ailerons or elevator, throttle back the engines IMMEDIATELY and pull up! Check carefully that the linkages are free of play!

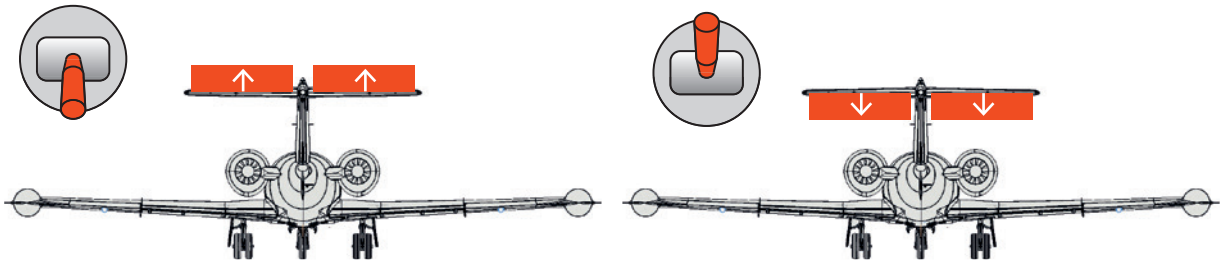


Control Direction Test

Look at the aircraft from behind

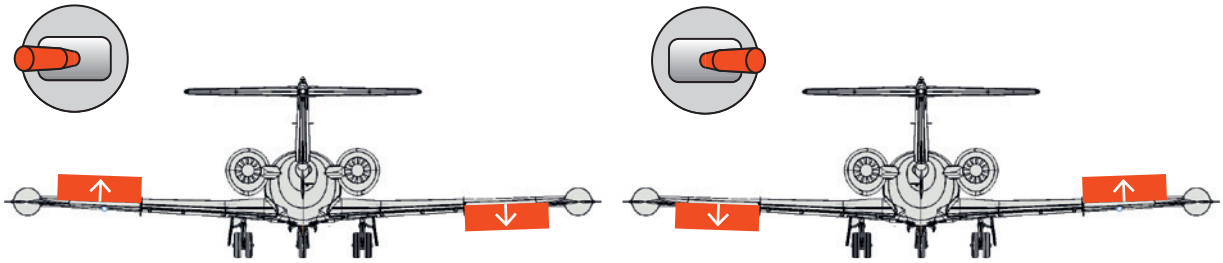
ELEVATOR

30 mm up
30 mm down



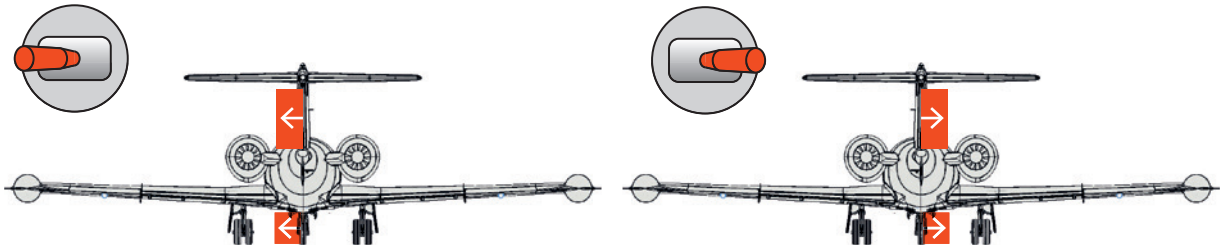
AILERON

19 mm up
19 mm down



RUDDER

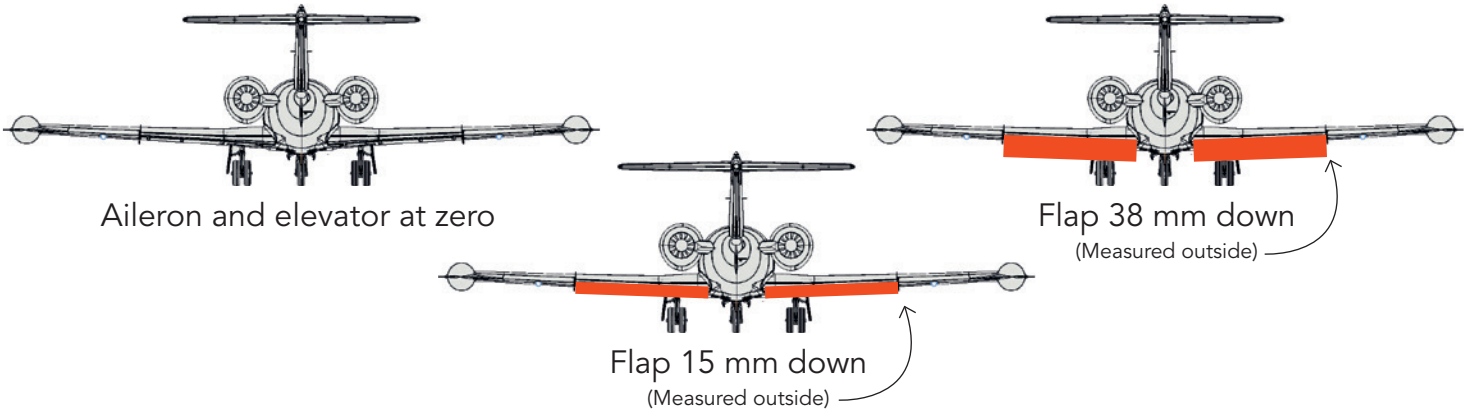
30 mm left
30 mm right



FLAPS **Normal**

Start, slow flight

Landing



No or only minimal admixture of the elevator down is necessary.

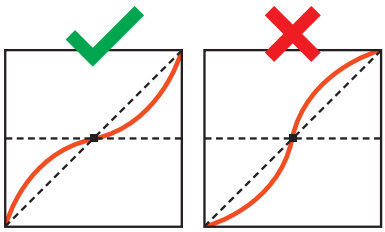
NOTE The flaps must be aligned exactly the same in every position, otherwise the aircraft will not fly straight!

EXPO

ELEVATOR 30 %

AILERON 30 %

RUDDER 30 %



(for some remote controls a minus has to be in front of the number)

AGE RECOMMENDATION 14+

NOT FOR CHILDREN UNDER 14 YEARS.
THIS IS NOT A TOY!

The STL data (or data processed from it, such as G codes) must never be passed on to third parties!

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By using the download data, an RC model airplane, called „model" for short, can be manufactured using a 3D printer. As a user of this model, only you are responsible for safe operation that does not endanger you or others, or that does not damage the model or property of others.

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When operating, always keep a safe distance from your model in all directions to avoid collisions and injuries.

This model is controlled by a radio signal. Radio signals can be disturbed from outside without being able to influence it. Interference can lead to a temporary loss of control.

Always operate your model on open terrains, far from cars, traffic and people.

Always follow the instructions and warnings for this product and any optional accessories (servos, receivers, motors, propellers, chargers, rechargeable batteries, etc.) carefully.

Keep all chemicals, small parts and electrical components out of the reach of children.

Avoid water contact with all components that are not specially designed and protected. Moisture damages the electronics.

Never take an item of the model or accessory in your mouth as this can lead to severe injuries or even death.

Never operate your model with low batteries in the transmitter or model.

Always keep the model in view and under control.
Use only fully charged batteries.

Always keep the transmitter switched on when the model is switched on.

Always remove the battery before disassembling the model.

Keep moving parts clean and dry at all times.

Always allow the parts to cool before touching them.

Always remove the battery after use.

Make sure that the Failsafe is properly set before the flight.

Never operate the model with damaged wiring.

Never touch moving parts.

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