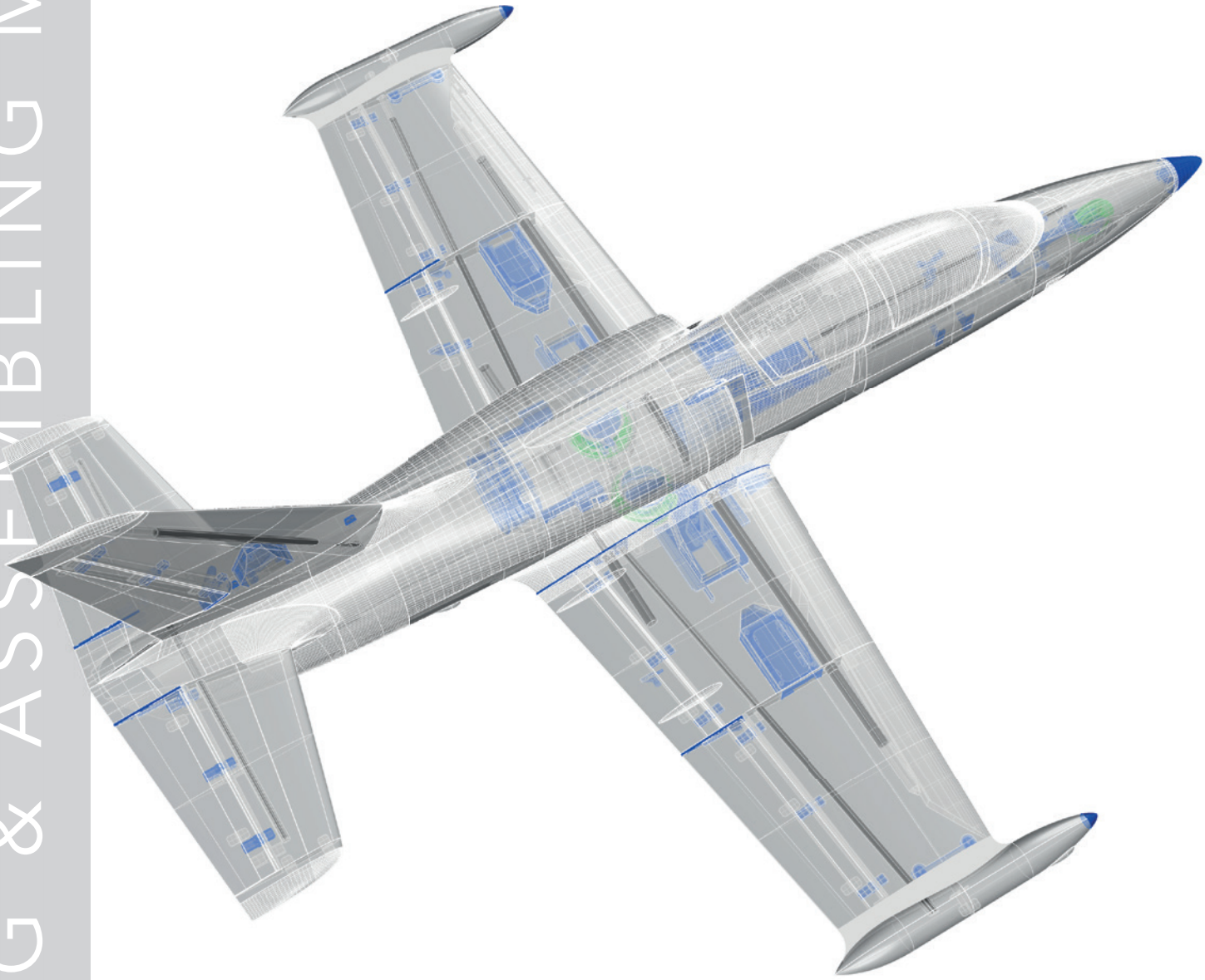
PRINTING & ASSEMBLING MANUAL

PLANE PRINT



PLANE PRINT L39 Albatros

EDF Jet with with landing flaps and retractable landing gear

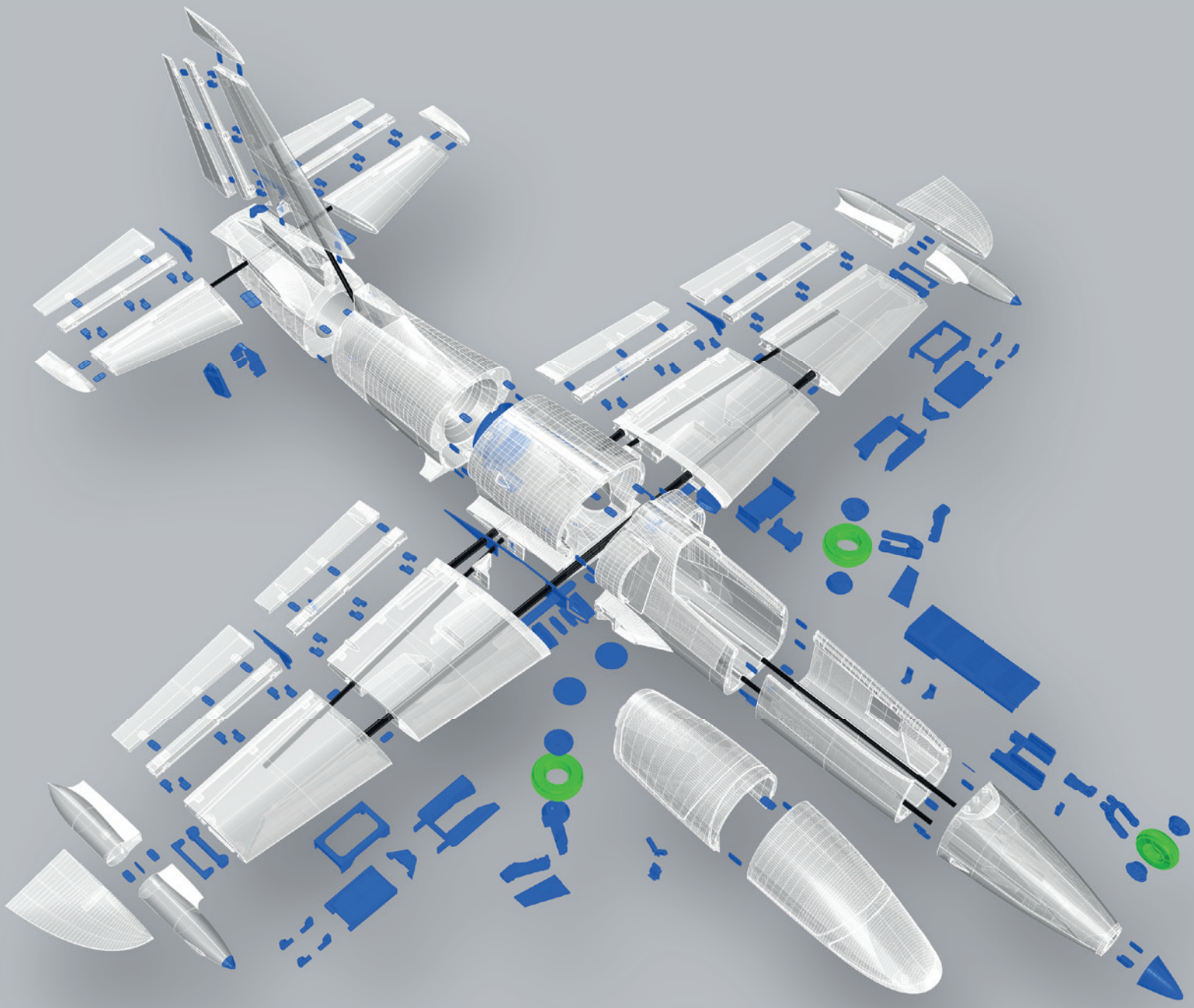
NOTE:
Slicing works best with CURA!

FAIR DATA USE

www.planeprint.com

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

PLANE PRINT L39 Albatros



LW-PLA PLA TPU CARBON

RC Components

ENGINE **6S EDF 70 MM** – FMS or Wemotec Mini Fan, Stream Fan (We use the FMS from Pichler)

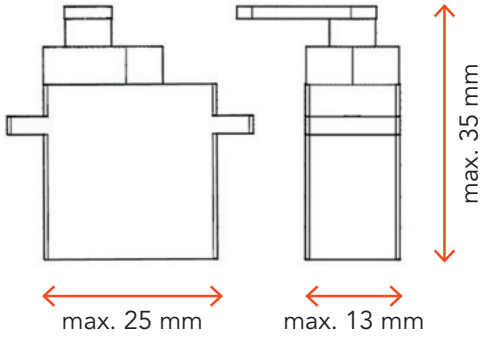
BEC-CONTROLLER suitable for your EDF **(Make sure to use sufficiently dimensioned plug connections!)**

RECEIVER 9 Channel

BATTERY 6S LiPo-Akku, 3000 - 3300 mAh (Ideal weight 500g, max. 550g)

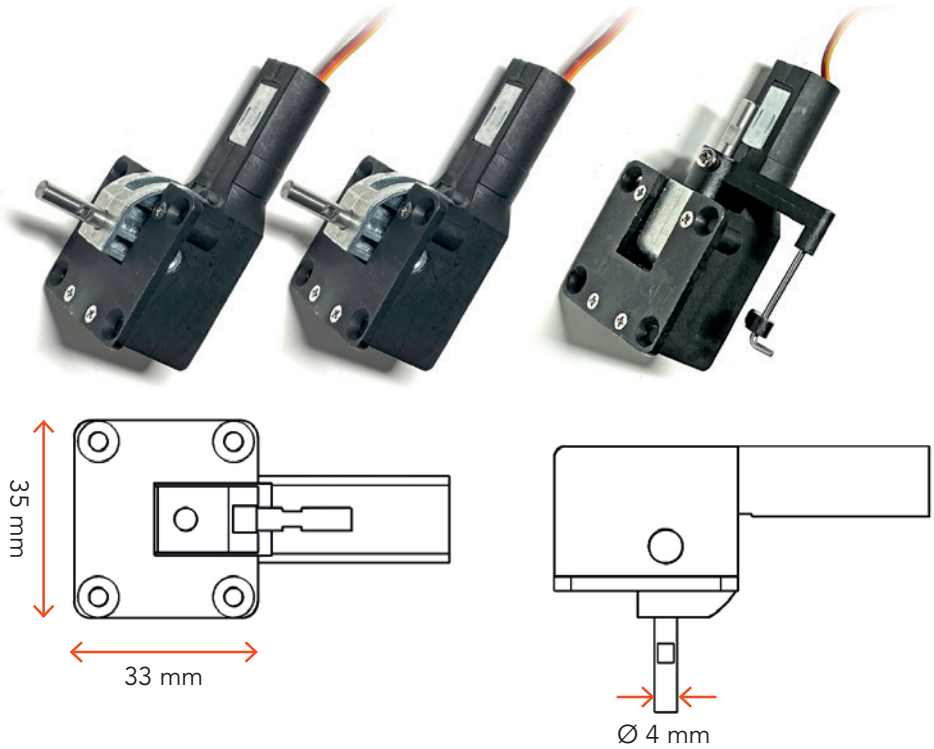
SERVOS **7 pieces** like **Corona 929MG, Hitec HS55, Savöx SH-0254** or equivalent
The lighter the better! Metal gears should be preferred for the important functions such as elevator and ailerons!

Maximum dimensions:



SERVO CABLE Approx. 2 m of servo cable are required.
We recommend soldering the cables instead of using plug-in extensions.

SERVOLESS RETRACTS Two normal and one steerable Nose Wheel



Required accessoires – basic equipment

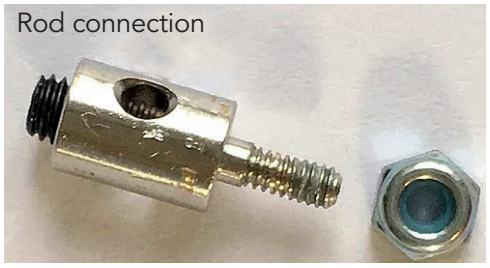
Links to recommended accessories can be found on
www.planeprint.com/l39 (scroll down)

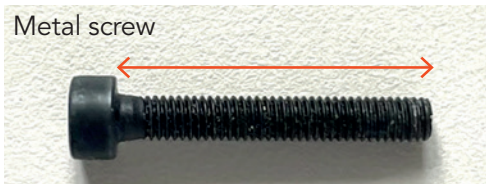
- **LW-PLA (cannot be replaced by PLA!)**, ~830 grams
- **PLA** oder better **Tough PLA**, ~220 grams
- **LW-TPU Colorfabb VarioShore** (A95 possible), ~30 grams

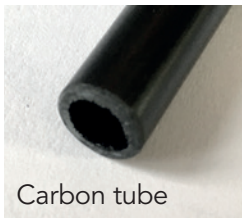
Tapping screws 2mm

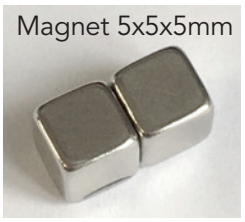
Materials

- some tapping screws
  (search for: M2 flat head tapping screw assortment)
- Metal screw 3*30mm, 1 piece
- Metal screw 3*35mm, 2 pieces
- Metal screw 3*20mm, 5 pieces
- Metal screw 3*6mm (or grub screw), 5 pieces
- CA super glue (liquid and liquid medium)
- CA activator
- Carbon tube Ø10mm*1000mm (inside 8mm), 1 piece
- Carbon tube Ø6*1000mm*, 2 pieces
- Steel wire Ø1*1000mm, 3 pieces
- Rod connection hole Ø1mm, 8 pieces**
- Rod connection hole Ø2mm, 1 piece**
- Neodym-Super-Magnet 5x5x5mm, 6 pieces
- Ball bearings 3x6x2,5mm, 6 pieces
- Soldering accessories
- MPX Connector, 2 pairs
- Self-adhesive Velcro tape
- Velcro strap
- small Cable ties

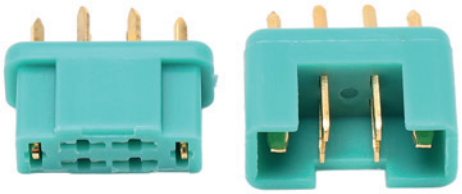

Rod connection


Metal screw

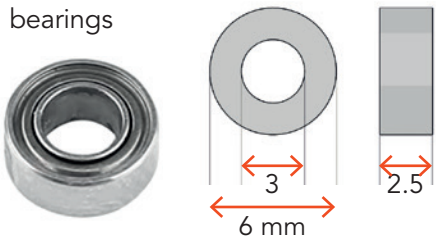

Carbon tube


Magnet 5x5x5mm

MPX Connector



Ball bearings



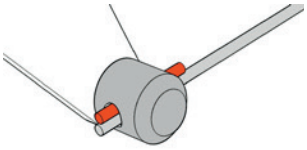
Tools

Cutter knife, small Philips screwdriver, Sandpaper, Metal saw,
Needle nose pliers, Soldering tool

***Cut the Carbon Tubes into the following parts** (mm):

Tube Ø10mm (Wing): 1x780, 1x220
Tube Ø6mm (Wings): 2x420, 1x160 (VS)
Tube Ø6mm (Fuselage 2): 2x305, 1x350 (HS)

** The one with the 2 mm hole is needed for the elevator linkage, but you can also buy all with 2mm hole, then you may have to mount a short piece of wire to it.



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:

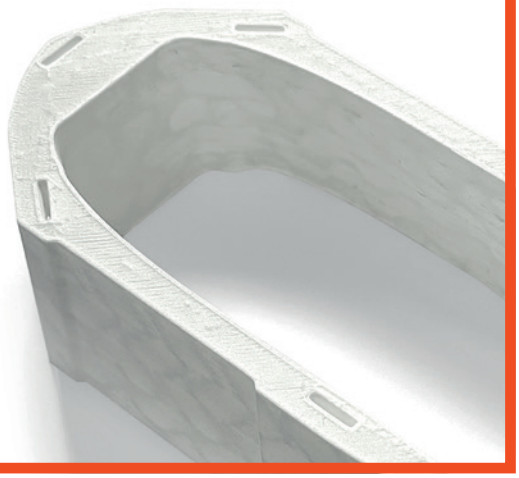
P1 **P2** **P4** **P5**

NOTE When printing the L39 Albatros you should pay particular attention to a light weight of **each** individual part, since the necessary installations are already very heavy in total (Gear, EDF, battery, many servos and cables ...).

The heavier the flying weight becomes, the more carefully you have to fly it!

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 60 to 70 % (depending on brand).
Caution: at too high temperatures, LW-PLA becomes brittle and breaks more easily.



PROFILE P1_Fullbody PLA or Tough PLA

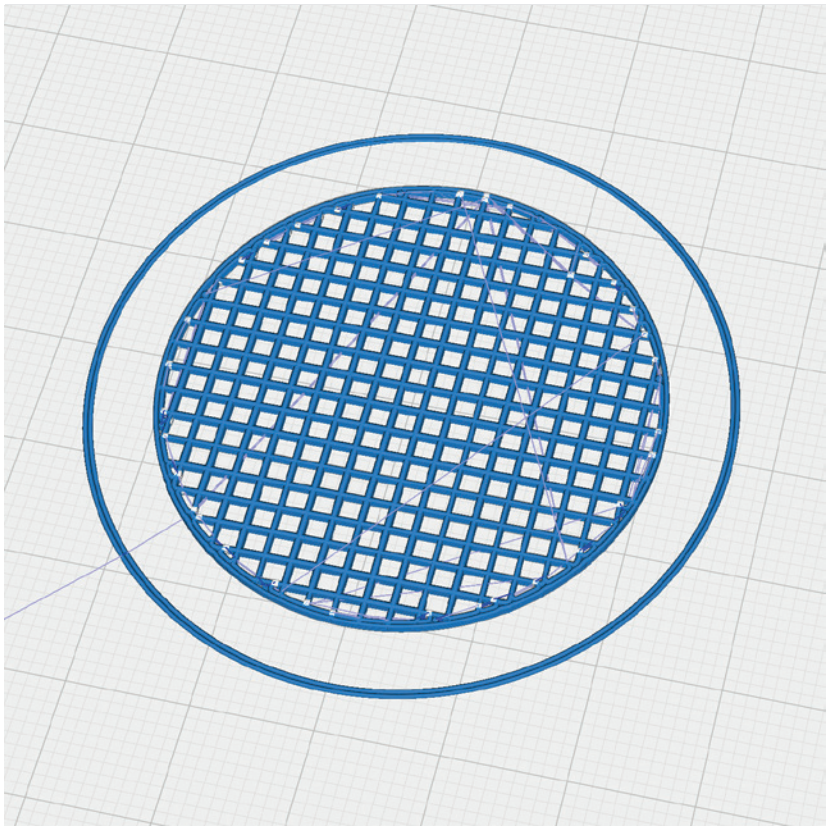
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_EDF grid_al.stl

MATERIAL PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

- print twice

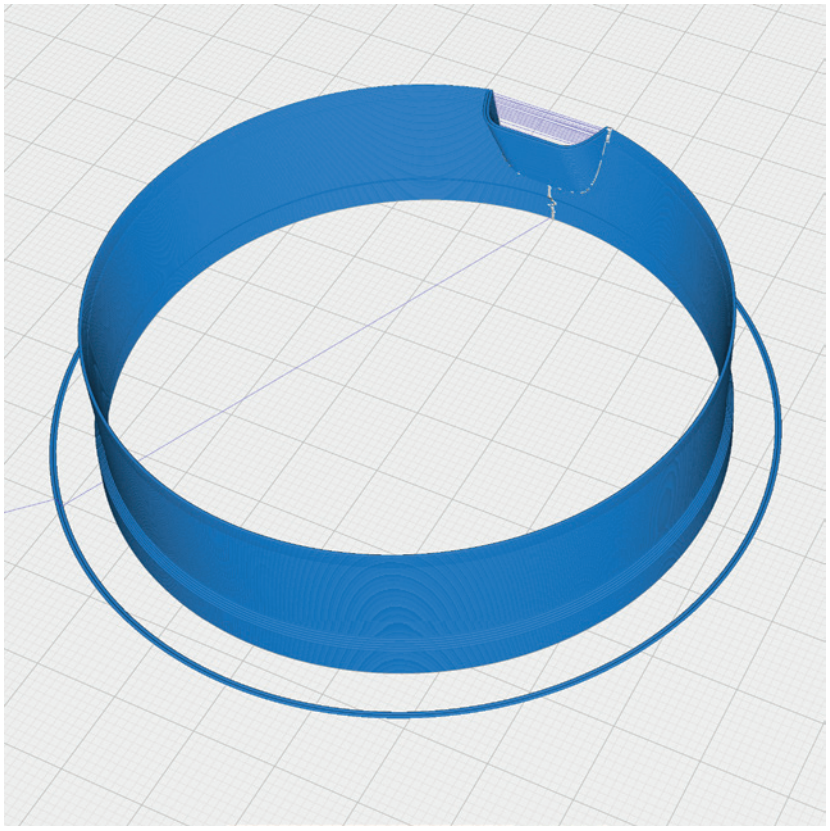


P1_EDF tube FMS70_al.stl

MATERIAL PLA, Weight: ~ 4 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody PLA or Tough PLA

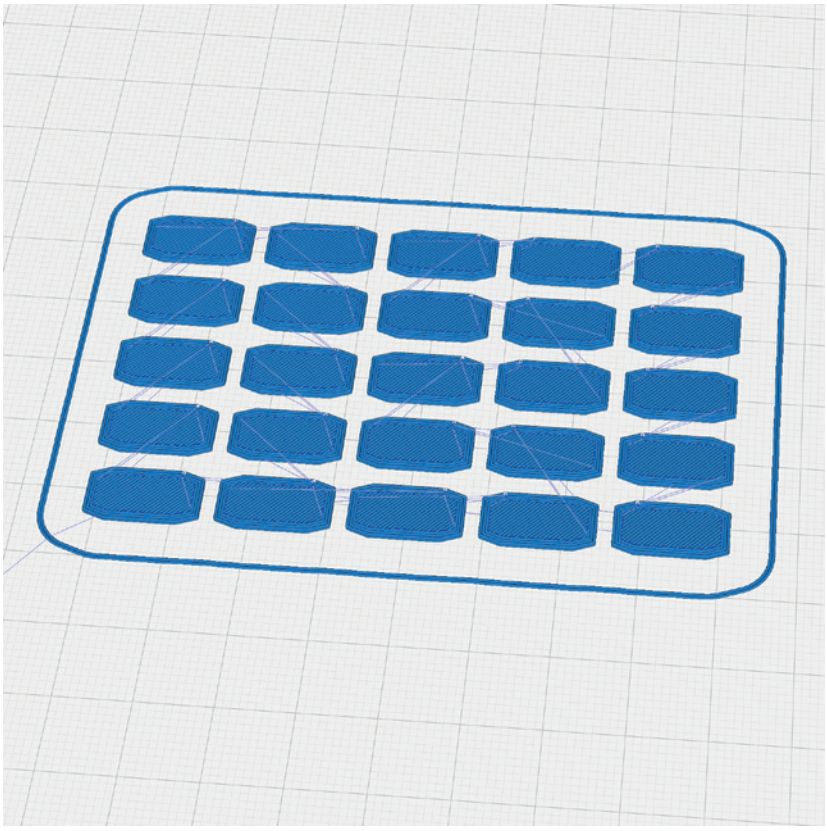
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Interconnects_al.stl

MATERIAL PLA, Weight: ~ 3 g

ADDITIONAL SETTINGS

Print several

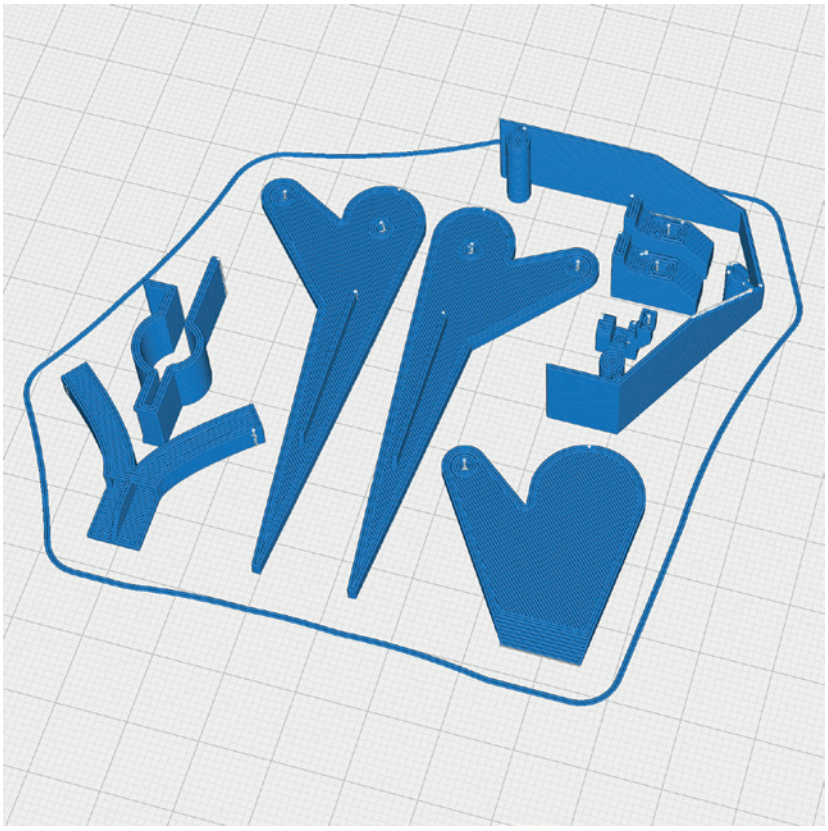


P1_Parts 1_al.stl

MATERIAL PLA, Weight: ~ 8 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody PLA or Tough 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_Parts 2_al.stl

MATERIAL PLA, Weight: ~ 6 g

ADDITIONAL SETTINGS

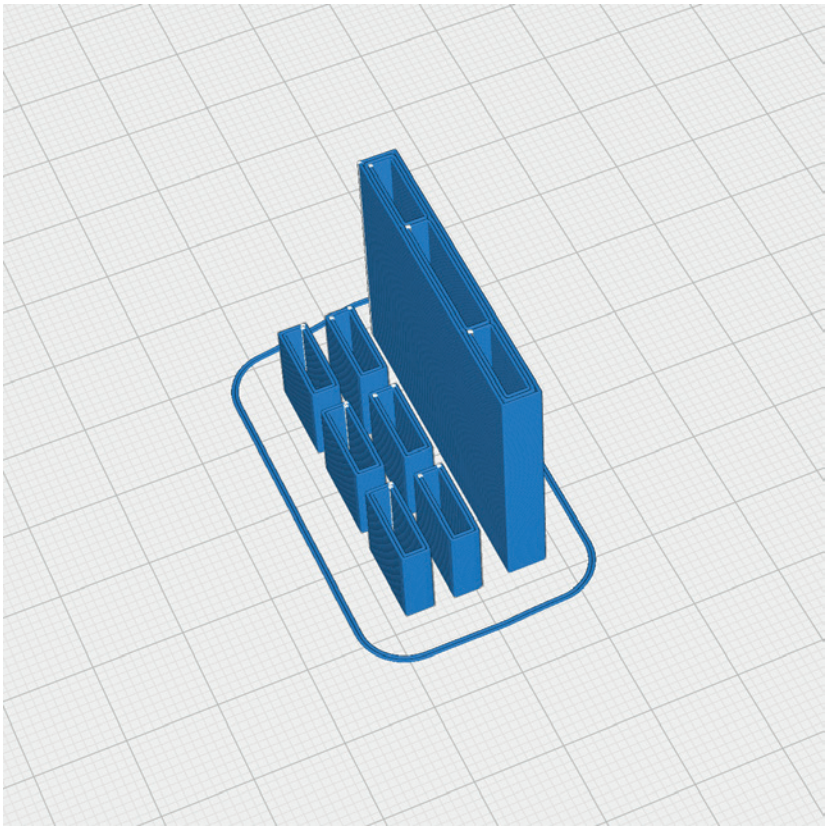
None required

P1_Parts 3_al.stl

MATERIAL PLA, Weight: ~ 5 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody PLA or Tough PLA

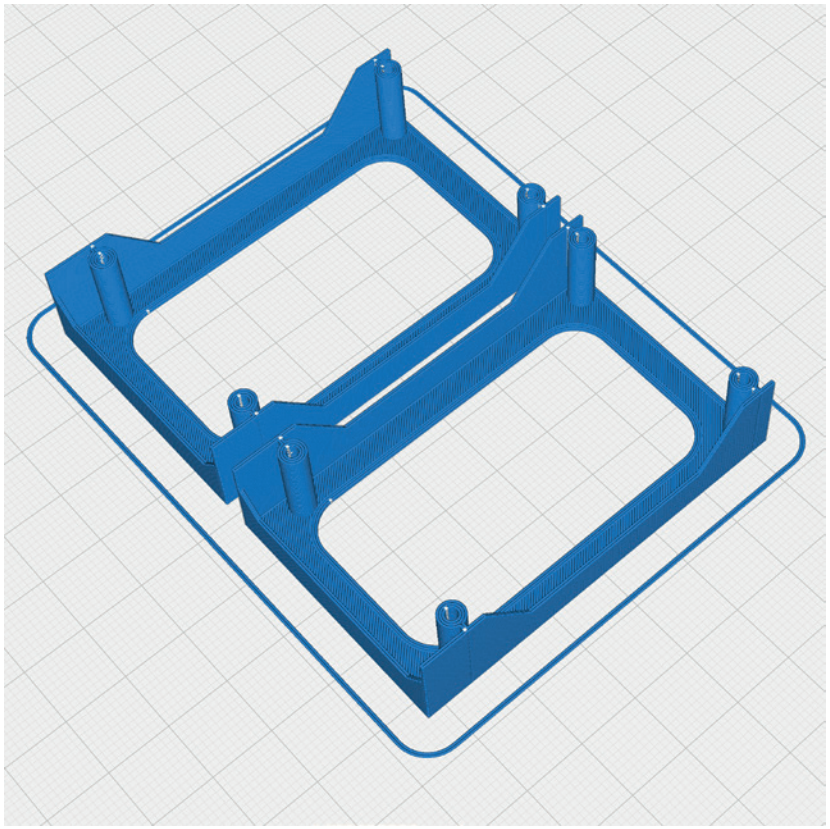
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_wing servo mount_al.stl

MATERIAL PLA, Weight: ~ 7 g

ADDITIONAL SETTINGS

None required

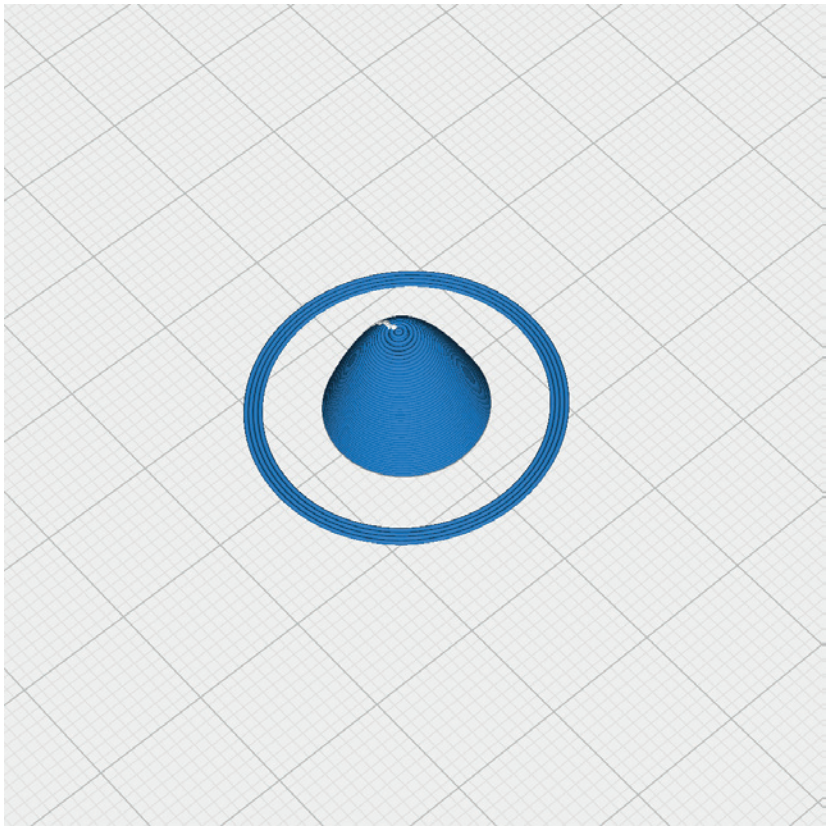


P1_Wingtip light_al.stl

MATERIAL PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

- You can also print this part with transparent PLA or TPU in vase mode
- Print twice



PROFILE P2_Hollowbody PLA or Tough PLA

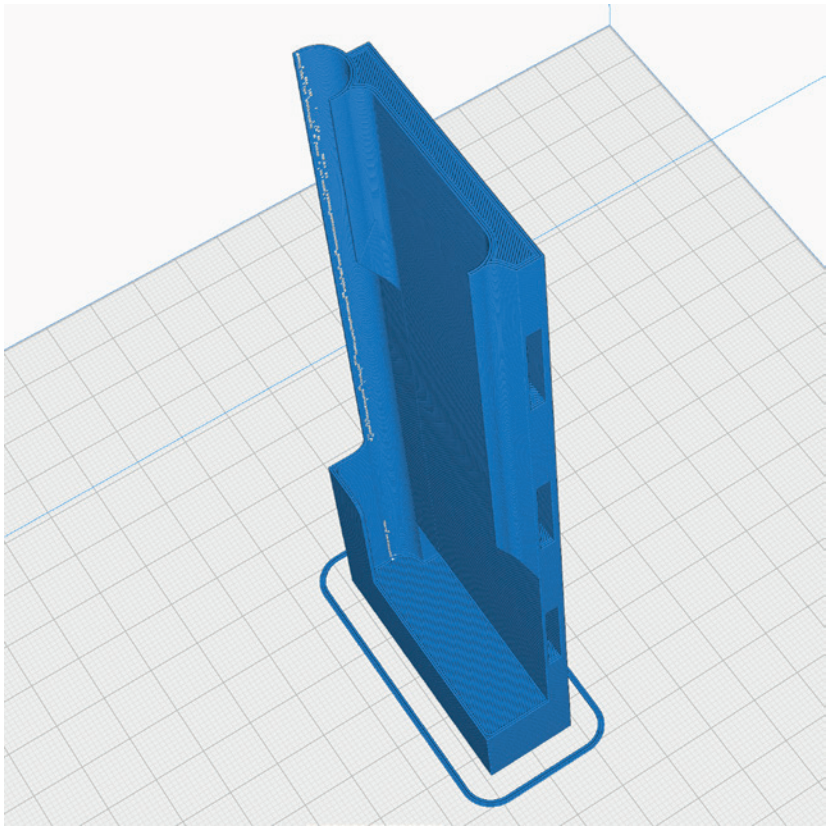
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2 Battery plate_al.stl

MATERIAL PLA, Weight: ~ 22 g

ADDITIONAL SETTINGS

None required

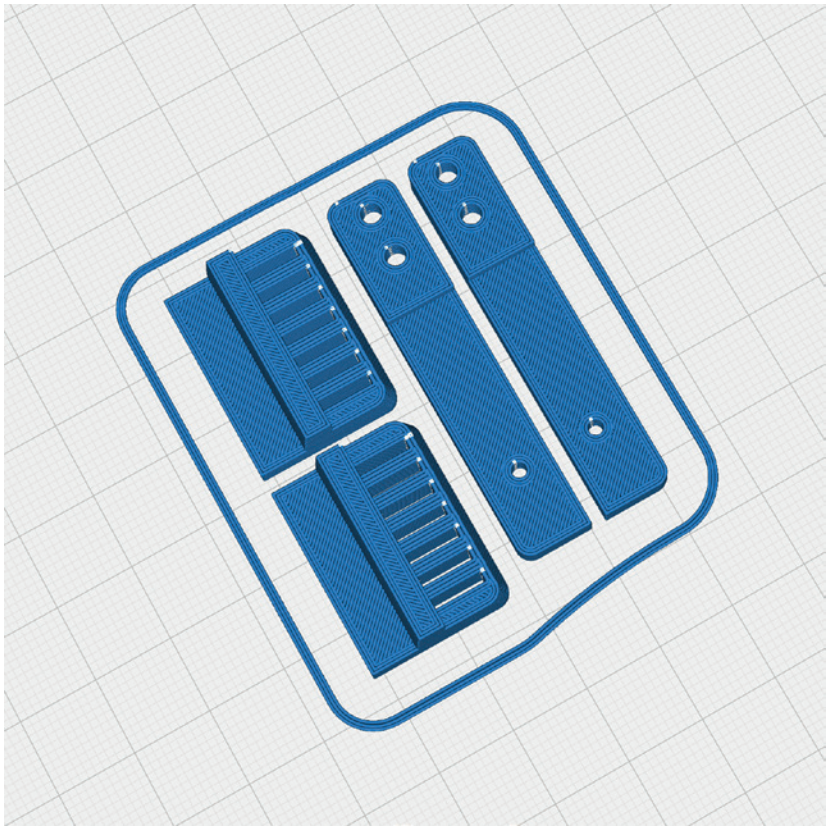


P2_EDF mount_al.stl

MATERIAL PLA, Weight: ~ 6 g

ADDITIONAL SETTINGS

None required



PROFILE P2_Hollowbody PLA or Tough 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_Elevator servo mount_al.stl

MATERIAL PLA, Weight: ~ 10 g

ADDITIONAL SETTINGS

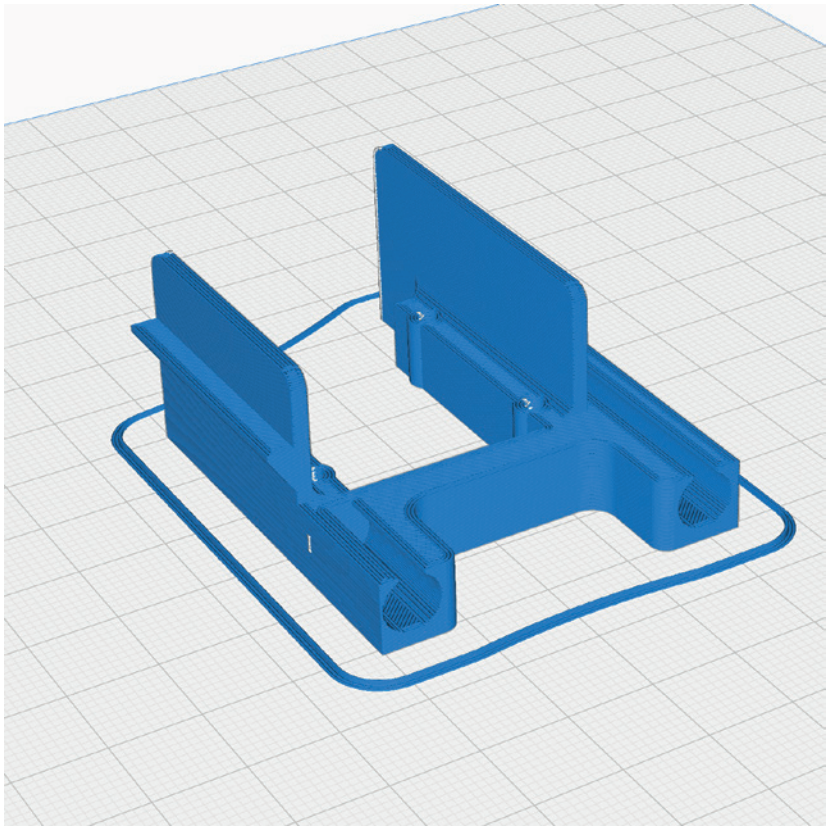
None required

P2_Frontgear mount_al.stl

MATERIAL PLA, Weight: ~ 9 g

ADDITIONAL SETTINGS

None required



PROFILE P2_Hollowbody PLA or Tough PLA

P2

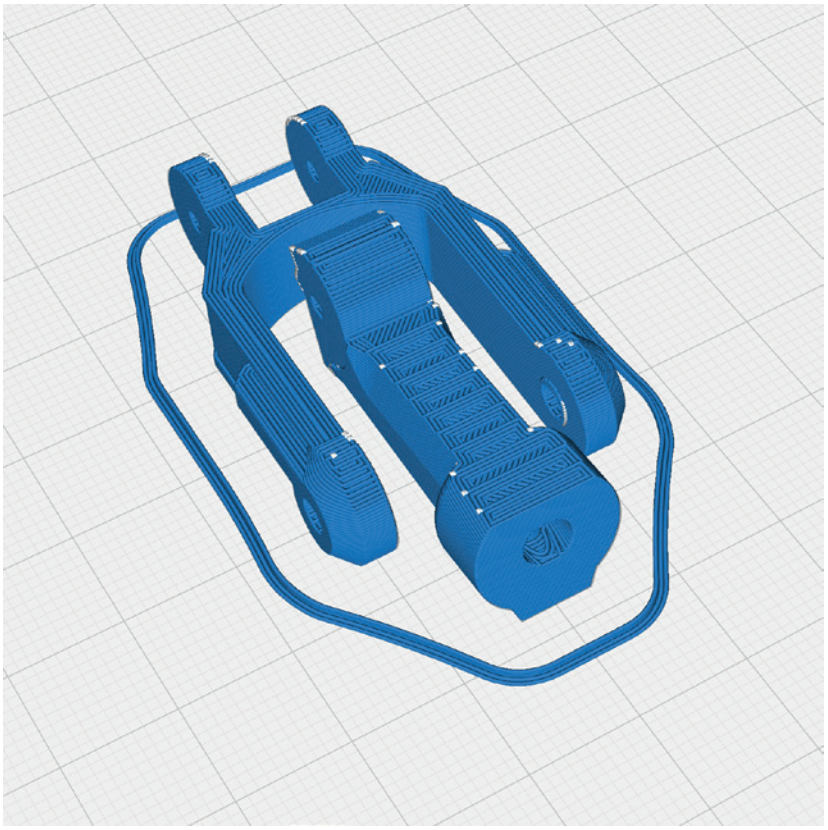
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Gear front_al.stl

MATERIAL PLA, Weight: ~ 6 g

ADDITIONAL SETTINGS

- Wall Line Count (Perimeters): 3
- Top Layers: 5
- Bottom Layers: 5

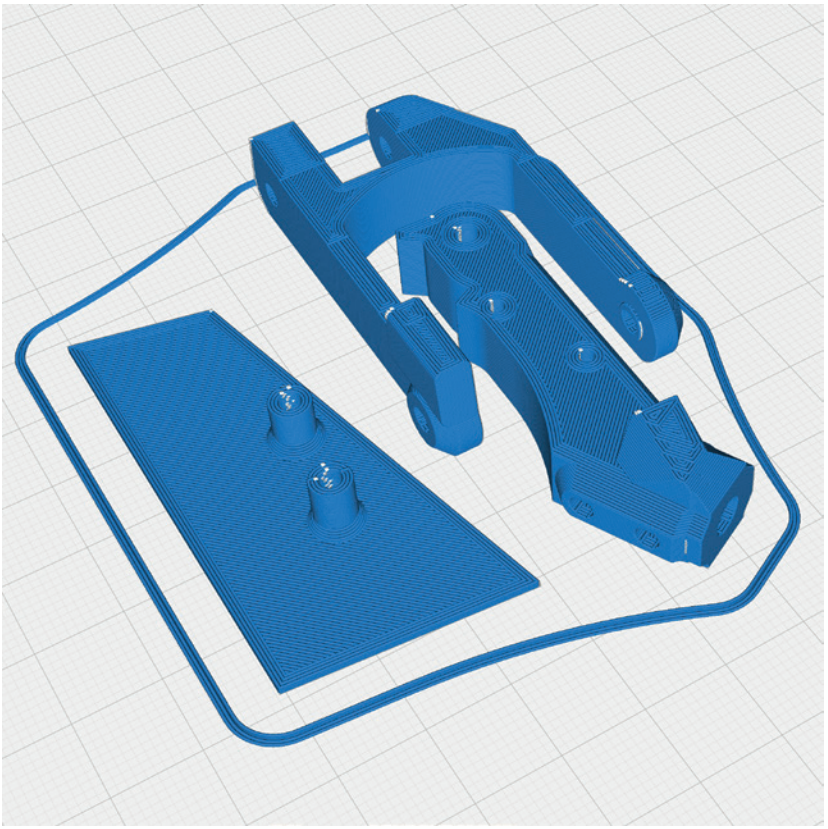


P2_Gear main L_al.stl and P2_Gear main R_al.stl

MATERIAL PLA, Weight: ~ 12 g

ADDITIONAL SETTINGS

- Wall Line Count (Perimeters): 3
- Top Layers: 5
- Bottom Layers: 5



PROFILE P2_Hollowbody PLA or Tough PLA

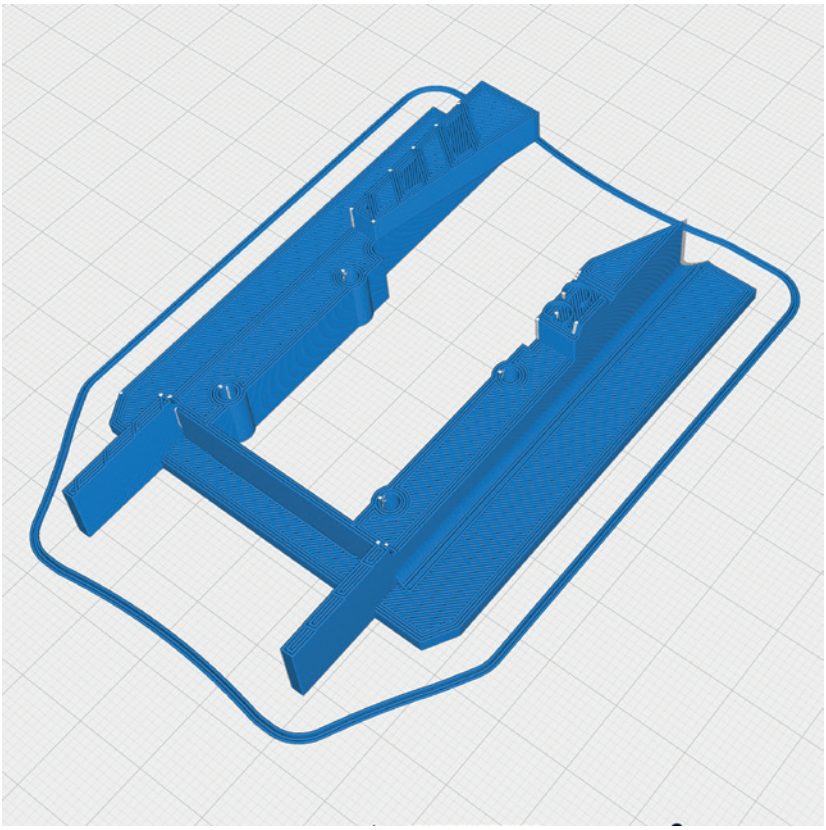
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Gear plate L_al and P2_Gear plate R_al.stl

MATERIAL PLA, Weight: ~ 12 g

ADDITIONAL SETTINGS

- Wall Line Count (Perimeters): 3
- Top Layers: 5
- Bottom Layers: 5

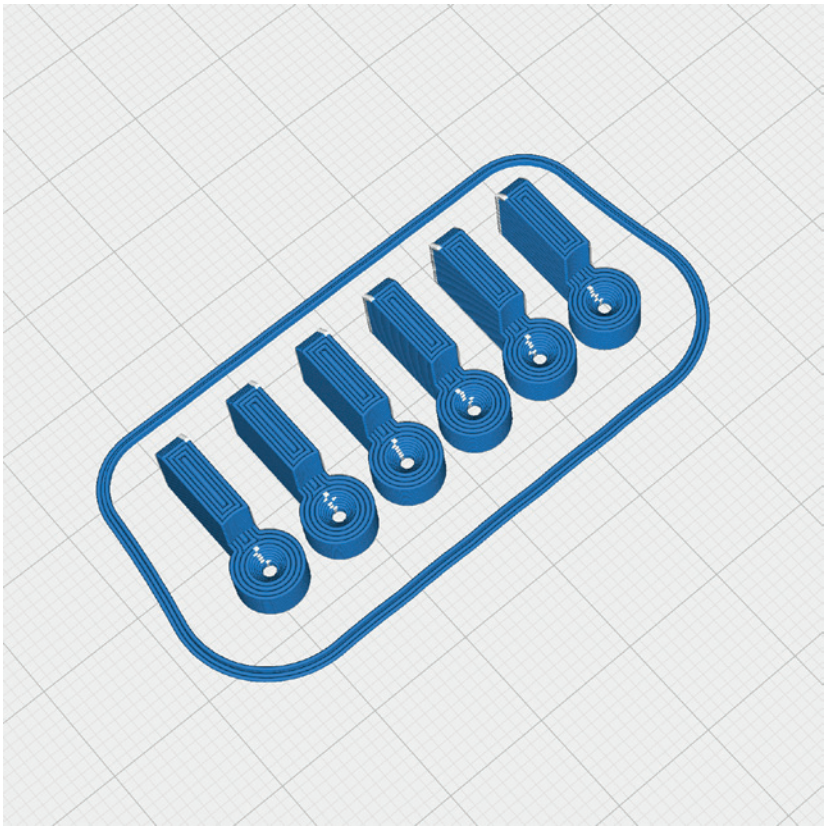


P2_Hinges_al.stl

MATERIAL PLA, Weight: ~ 2 g

ADDITIONAL SETTINGS

- Print them seven times



PROFILE P2_Hollowbody PLA or Tough 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_MPX connectors_al.stl

MATERIAL PLA, Weight: ~ 10 g

ADDITIONAL SETTINGS

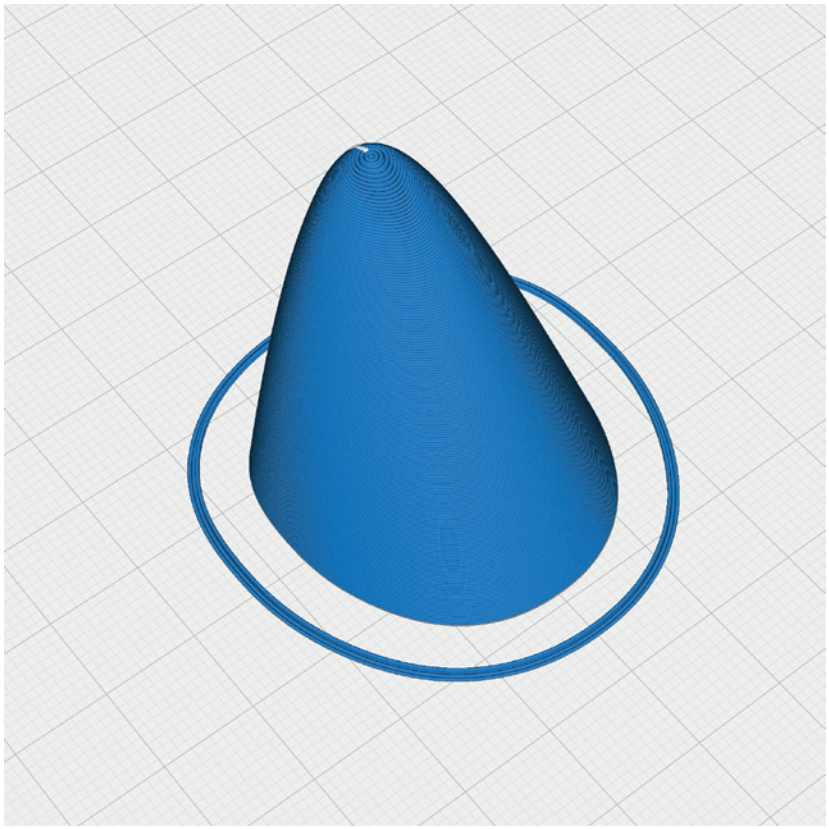
None required

P2_Nose_al.stl

MATERIAL PLA, Weight: ~ 6 g

ADDITIONAL SETTINGS

- Infill Density: 8 %



PROFILE P2_Hollowbody PLA or Tough PLA

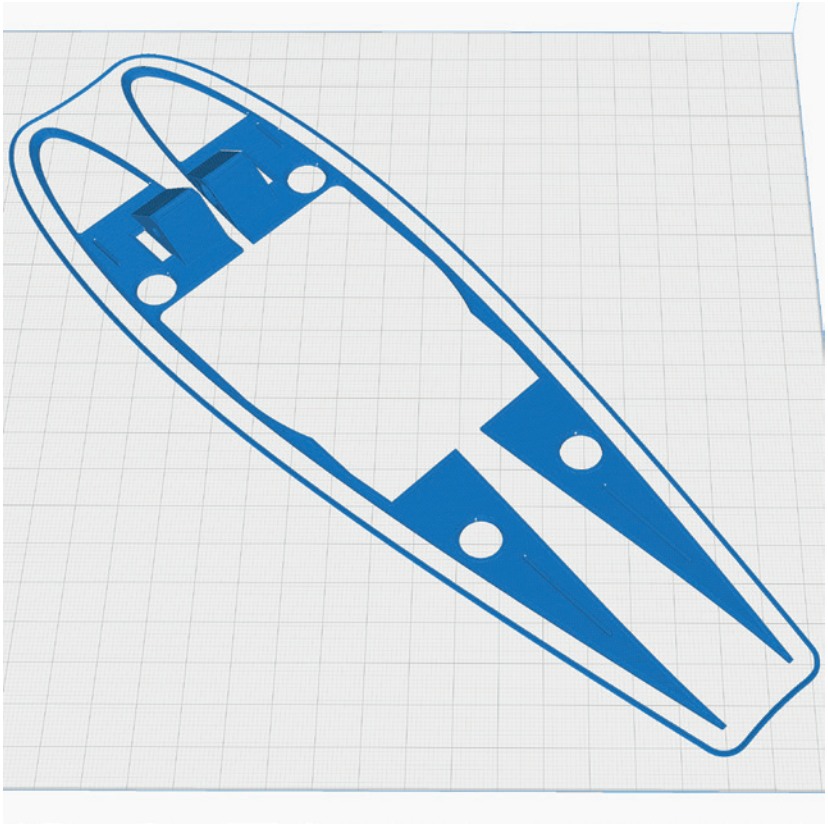
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Protector Fuselage_al.stl

MATERIAL PLA, Weight: ~ 8 g

ADDITIONAL SETTINGS

None required

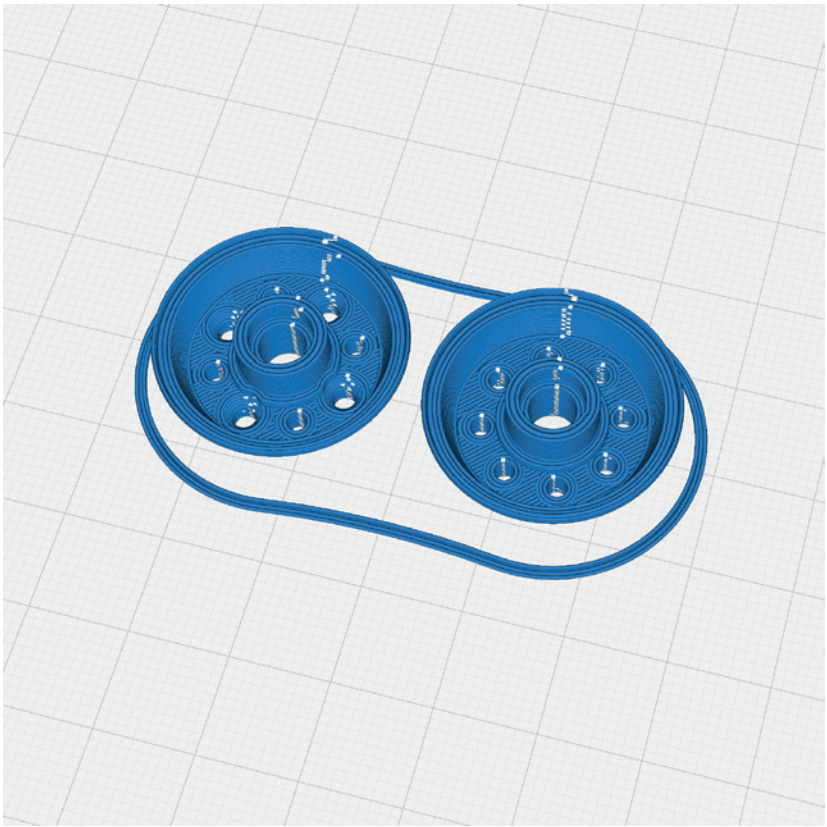


P2_Rim front bb_al.stl

MATERIAL PLA, Weight: ~ 3 g

ADDITIONAL SETTINGS

None required



PROFILE P2_Hollowbody PLA or Tough PLA

P2

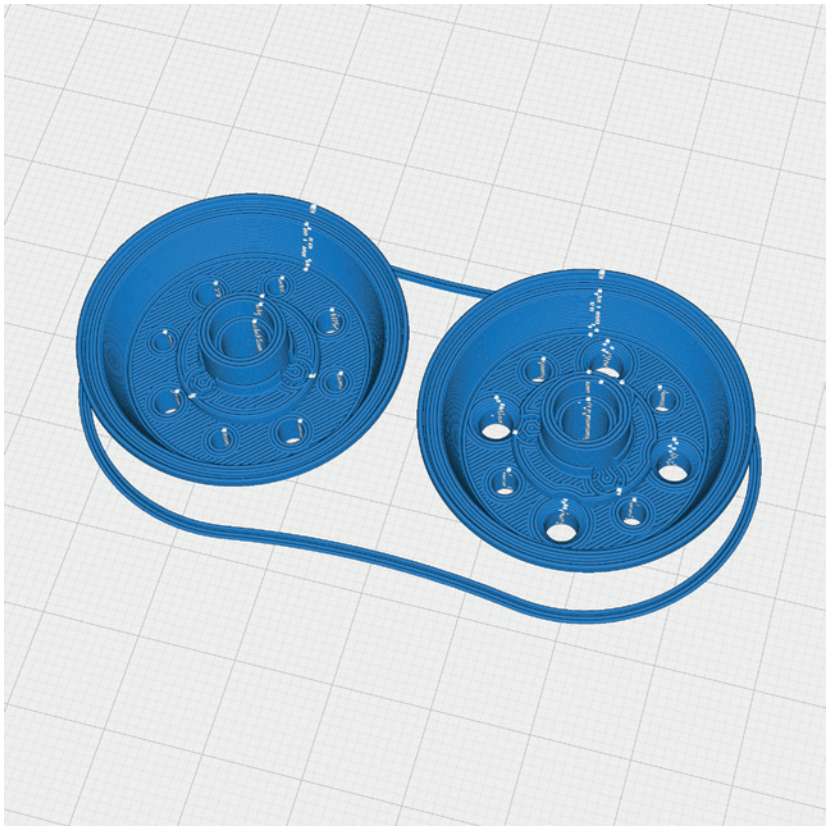
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Rim main bb_al.stl

MATERIAL PLA, Weight: ~ 6 g

ADDITIONAL SETTINGS

- Print twice

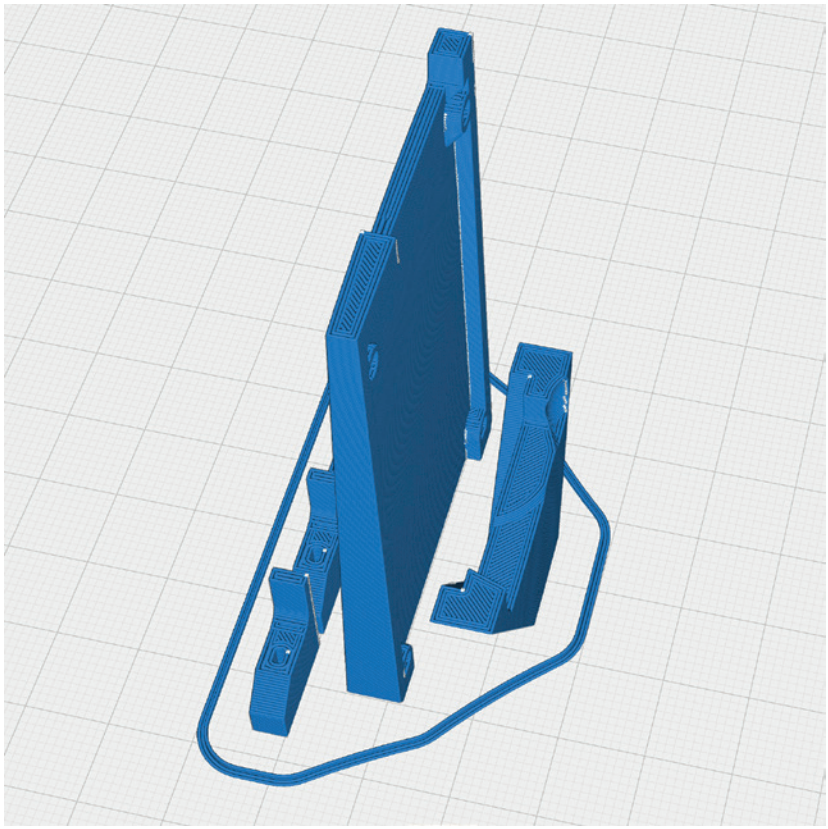


P2_wing servo cover L_al.stl and P2_wing servo cover R_al.stl

MATERIAL PLA, Weight: ~ 10 g

ADDITIONAL SETTINGS

- You can save weight here and set the Wall Line Count (Perimeters) to 1



PROFILE P2_Hollowbody PLA or Tough PLA

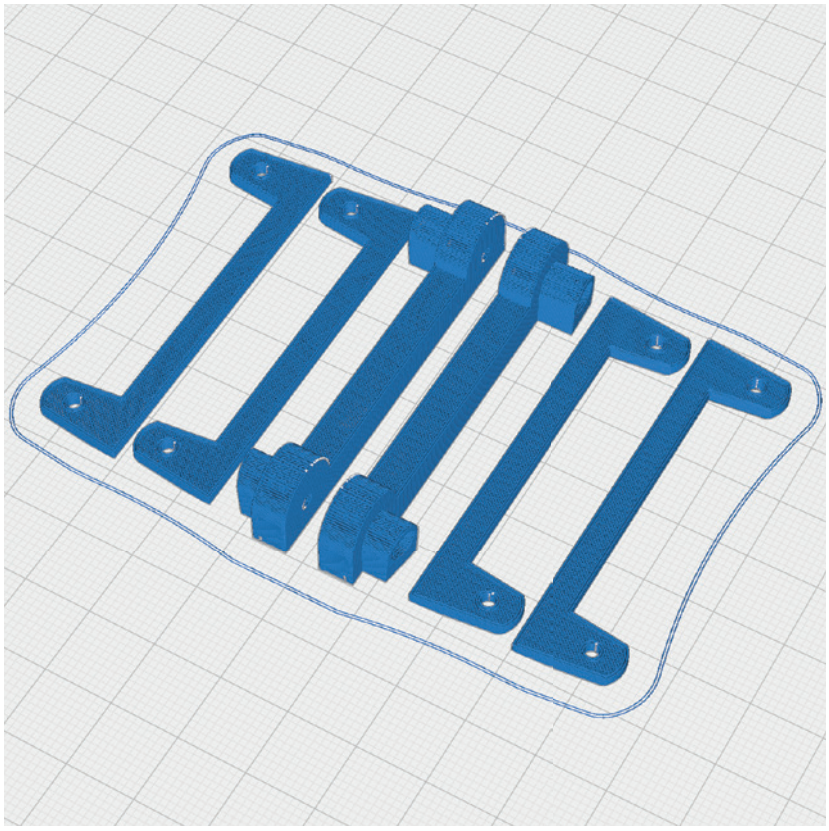
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Wingtip mount_al.stl

MATERIAL PLA, Weight: ~ 7 g

ADDITIONAL SETTINGS

None required

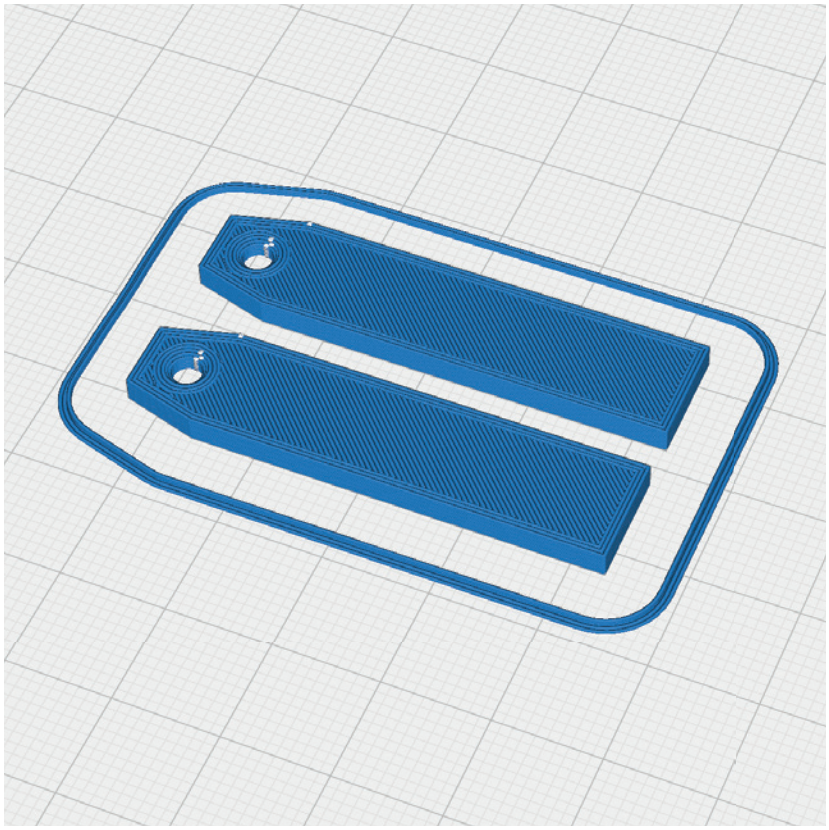


P2_Wing mount_al.stl

MATERIAL PLA, Weight: ~ 2 g

ADDITIONAL SETTINGS

None required



PROFILE P2_Hollowbody PLA or Tough PLA

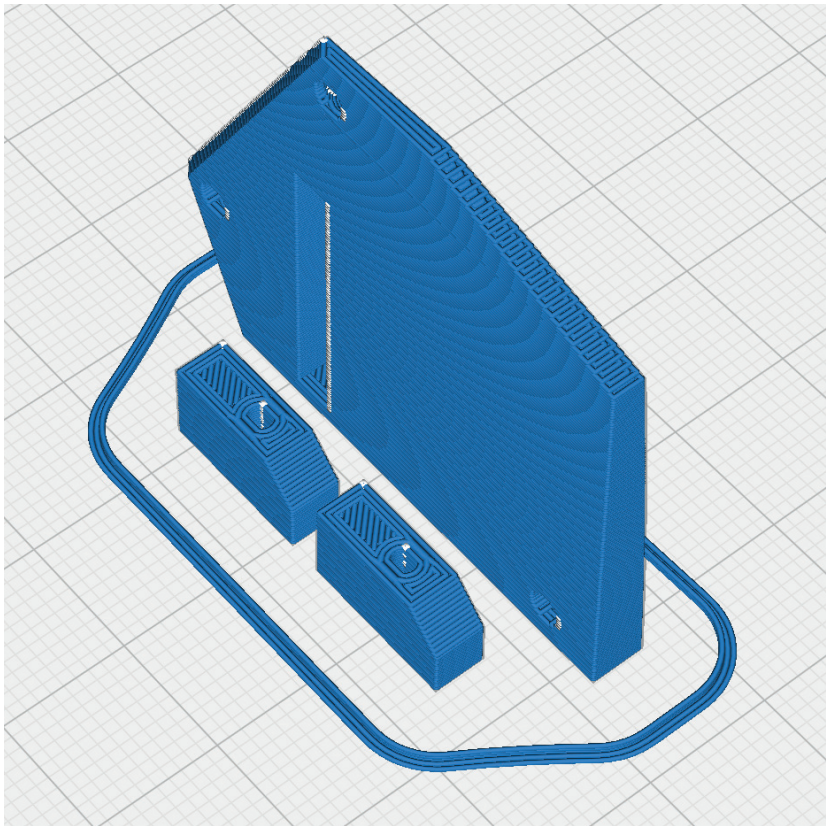
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_rudder servo cover_al.stl

MATERIAL PLA, Weight: ~ 4 g

ADDITIONAL SETTINGS

None required

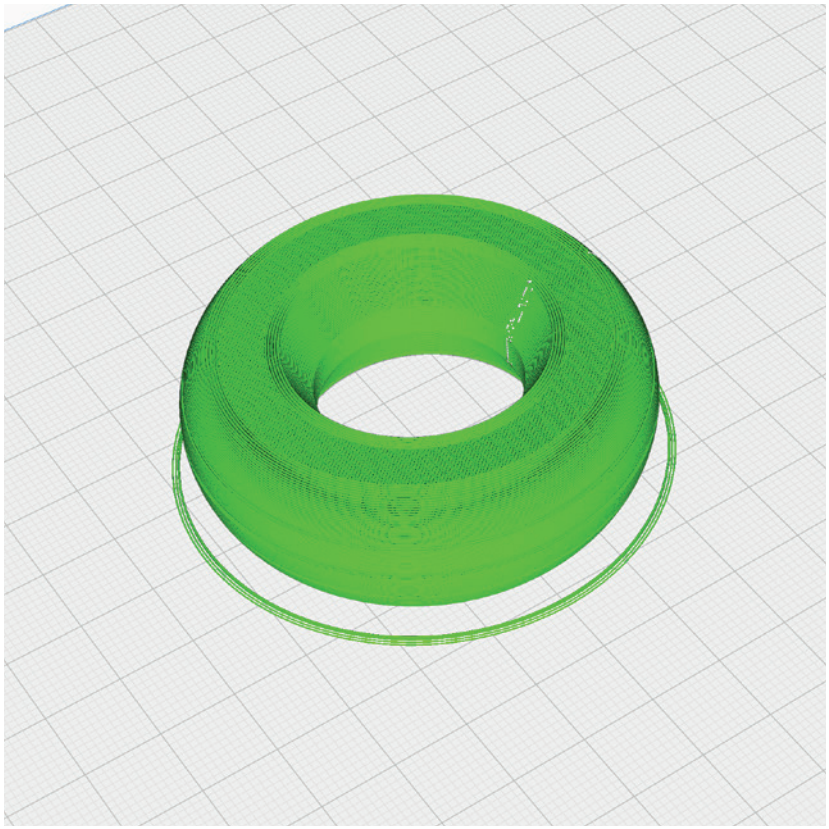


PROFILE P1_Fullbody LW TPU (VarioShore)

P4

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

P4_Tire front_al.stl and
P4_Tire main_al.stl (print twice)

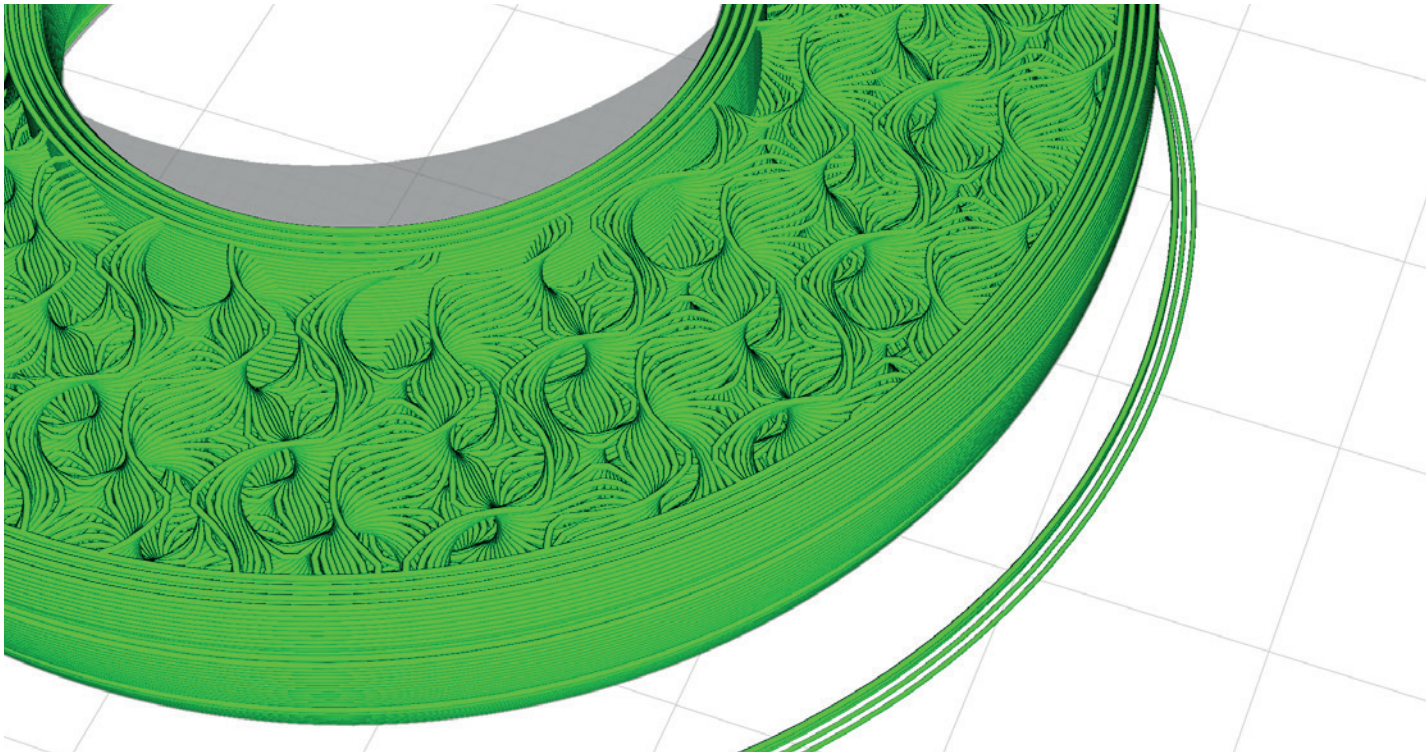


MATERIAL LW TPU, Weight: ~ 7/9 g

ADDITIONAL SETTINGS

VarioShore with Flow 70 %:
- Wall Line Count: 4
- Top Layers: 4
- Bottom Layers: 4
- Infill Density: 15 %
- Infill Pattern: Gyroid

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



PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

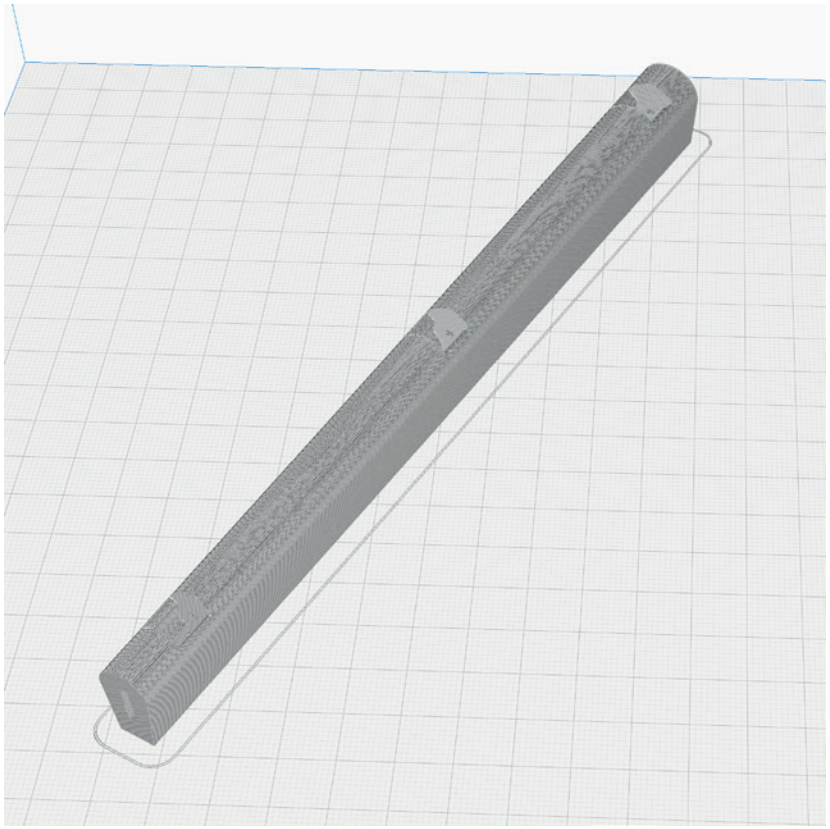
P5_Ail L 1_al.stl and
P5_Ail R 1_al

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 60 minutes

ADDITIONAL SETTINGS

None required



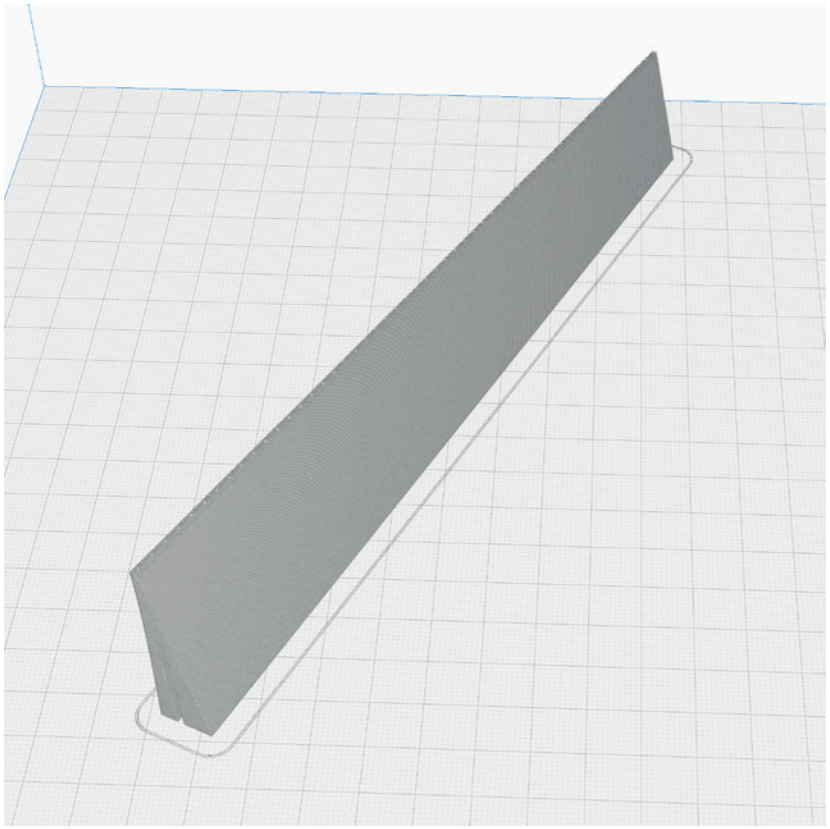
P5_Ail L 2_al.stl and
P5_Ail R 2_al

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 60 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

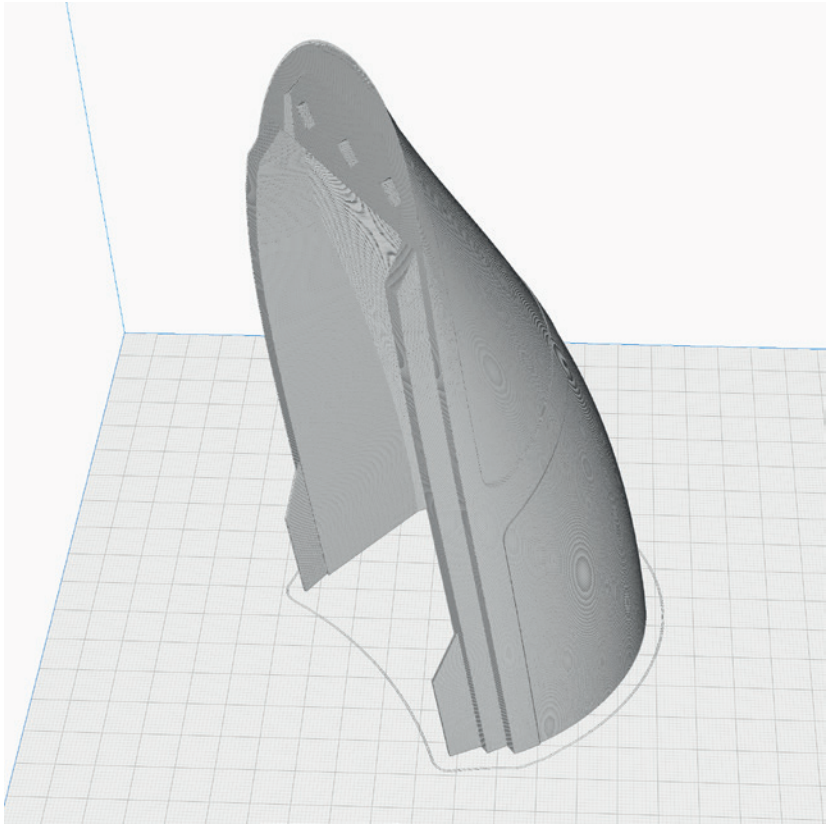
P5_Canopy 1_al.stl

MATERIAL LW PLA, Weight: ~ 22 g

TIME ~ 4 hours

ADDITIONAL SETTINGS

None required



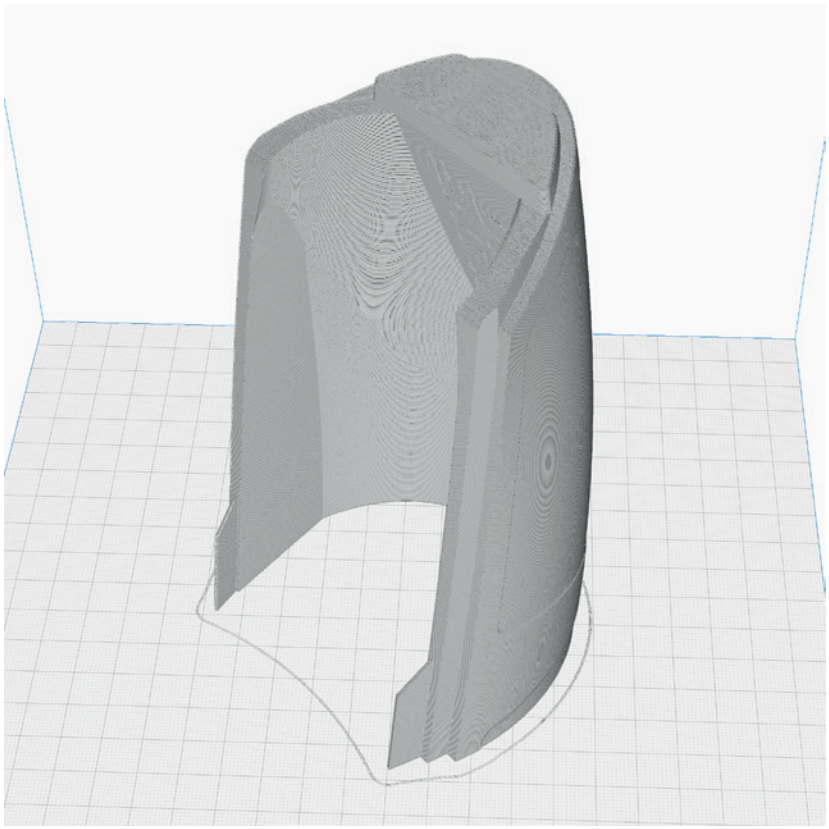
P5_Canopy 2_al.stl

MATERIAL LW PLA, Weight: ~ 21 g

TIME ~ 4 hours

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

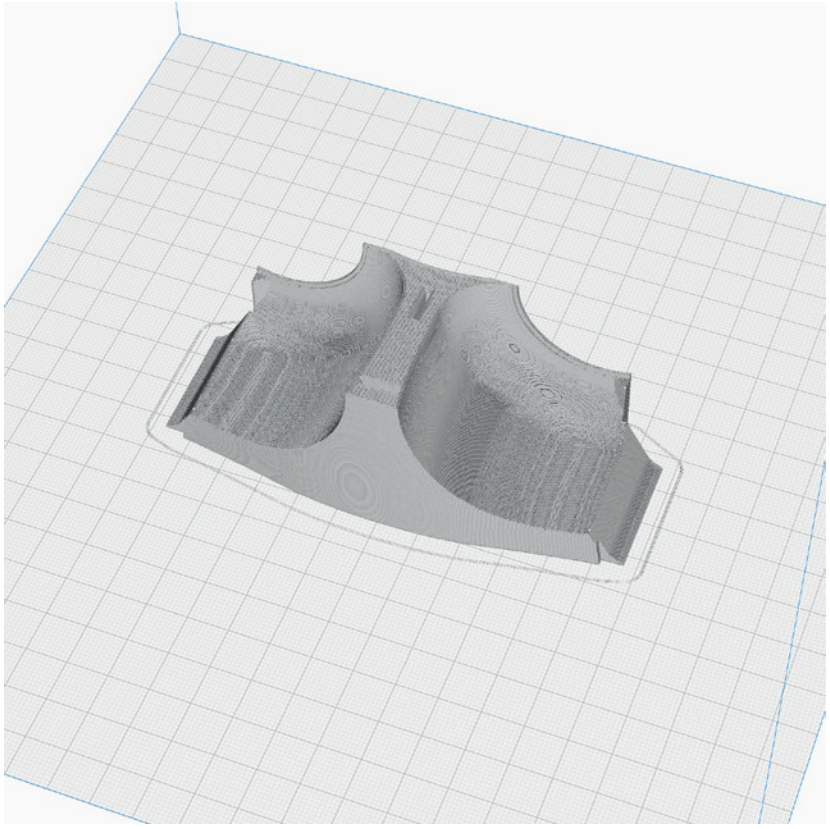
P5_EDF cover 1_al.stl

MATERIAL LW PLA, Weight: ~ 9 g

TIME ~ 1 hour 30 minutes

ADDITIONAL SETTINGS

None required



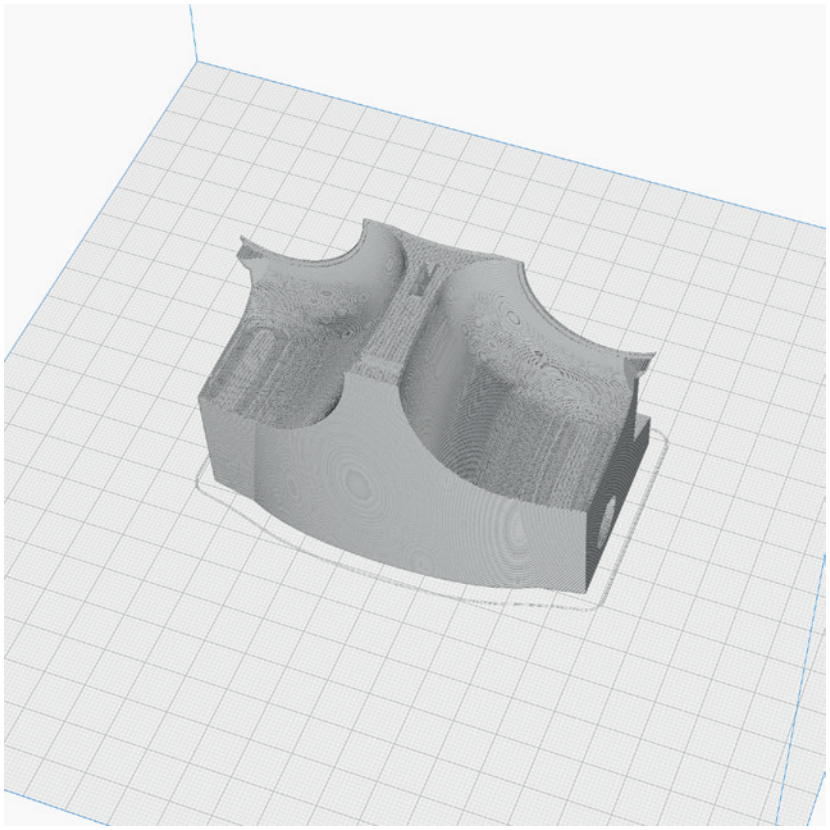
P5_EDF cover 2_al.stl

MATERIAL LW PLA, Weight: ~ 12 g

TIME ~ 2 hours 30 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

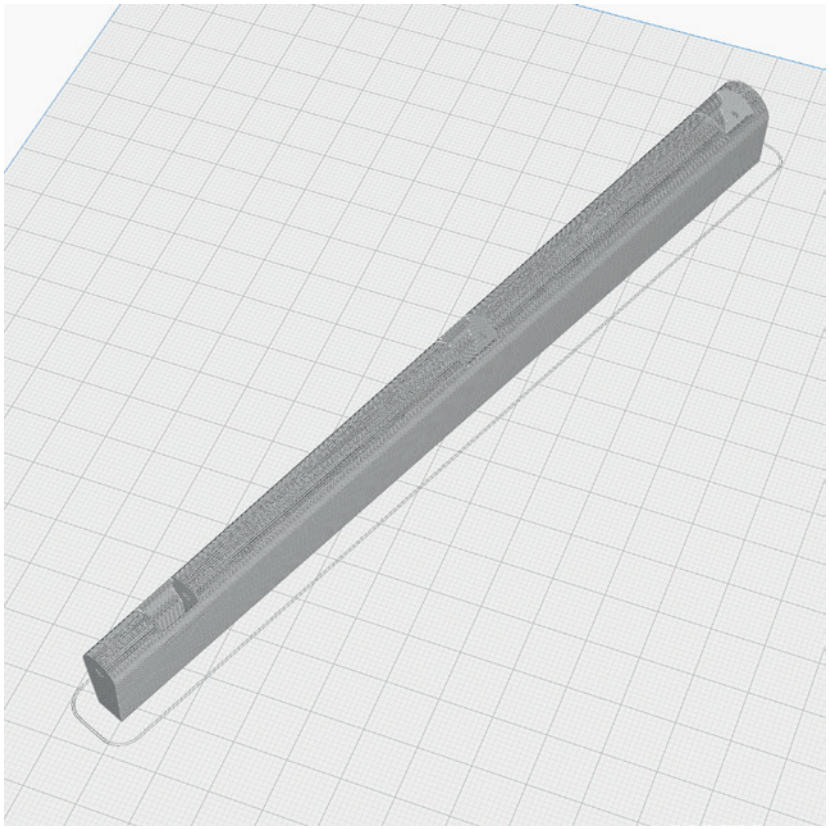
P5_Elevator L 1_al.stl and **P5_Elevator R 1_al**

MATERIAL LW PLA, Weight: ~ 5 g

TIME ~ 60 minutes

ADDITIONAL SETTINGS

None required



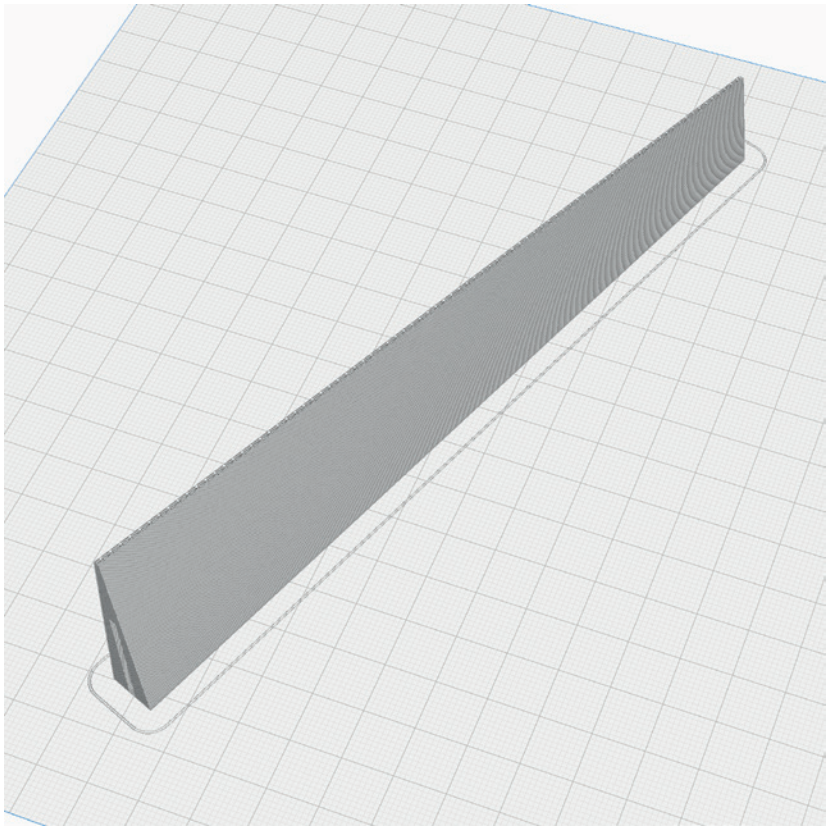
P5_Elevator L 2_al.stl and **P5_Elevator R 2_al**

MATERIAL LW PLA, Weight: ~ 5 g

TIME ~ 60 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

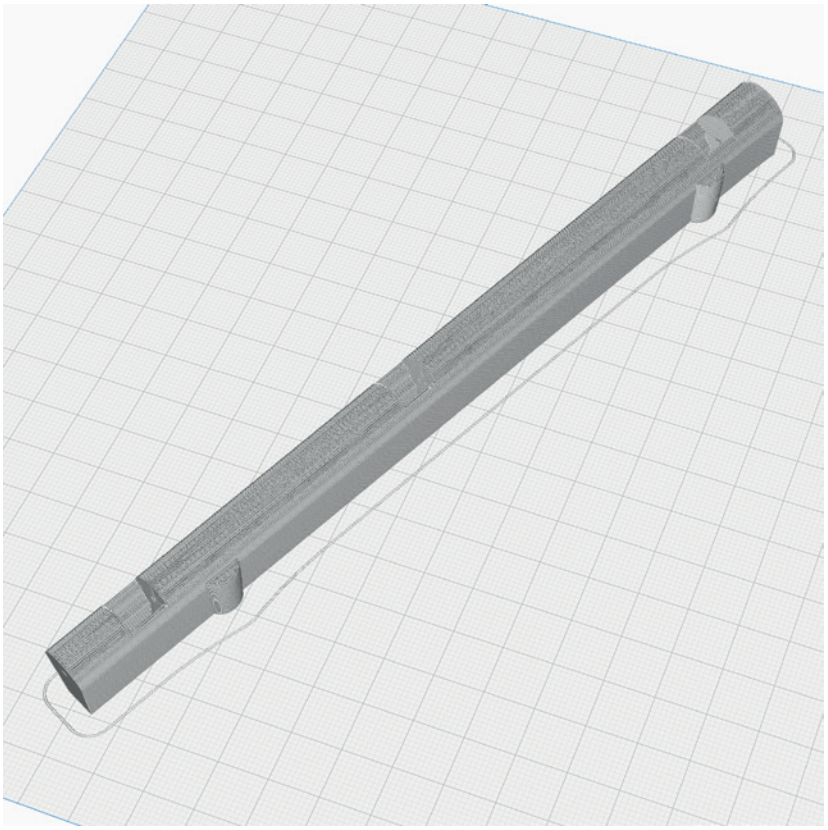
P5_Flap L 1_al.stl and P5_Flap R 1_al

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required



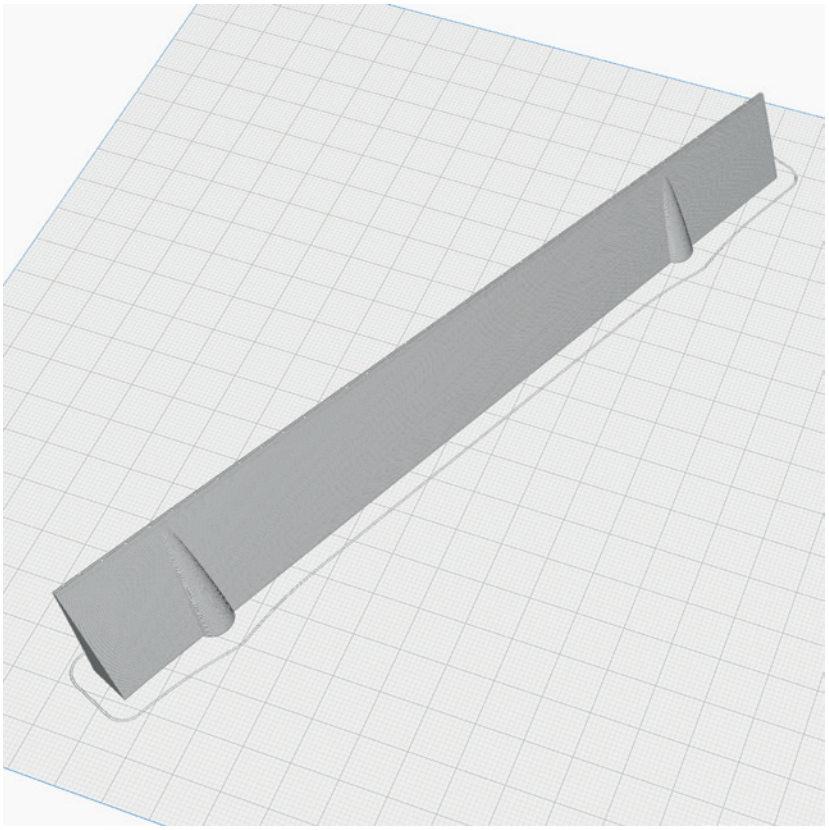
P5_Flap L 2_al.stl and P5_Flap R 2_al

MATERIAL LW PLA, Weight: ~ 5 g

TIME ~ 60 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

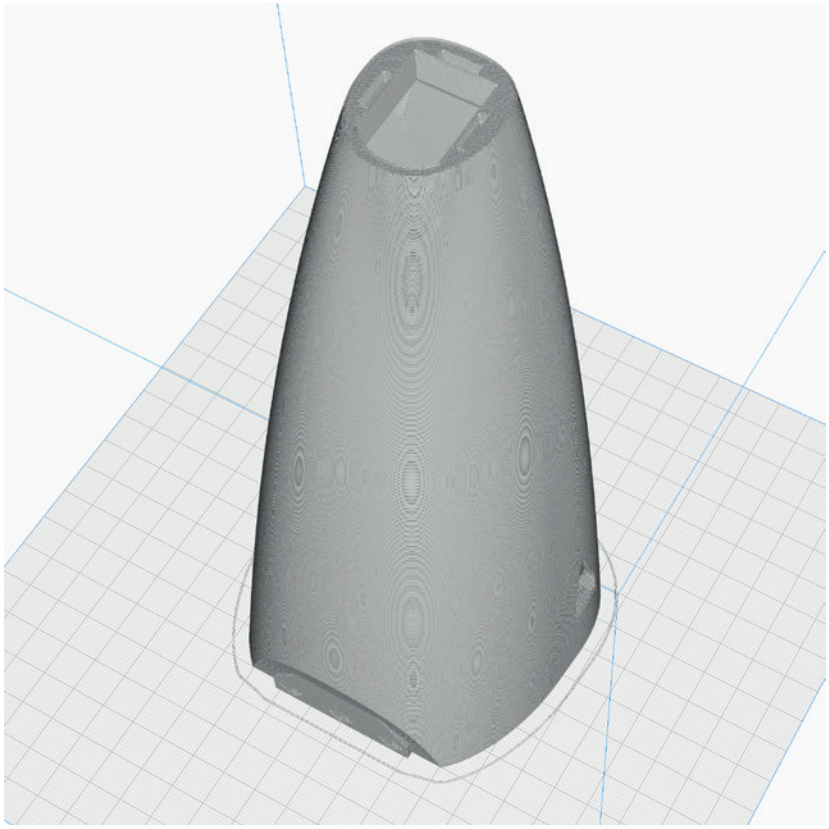
P5_Fuselage 1_al.stl

MATERIAL LW PLA, Weight: ~ 36 g

TIME ~ 7 hours

ADDITIONAL SETTINGS

None required



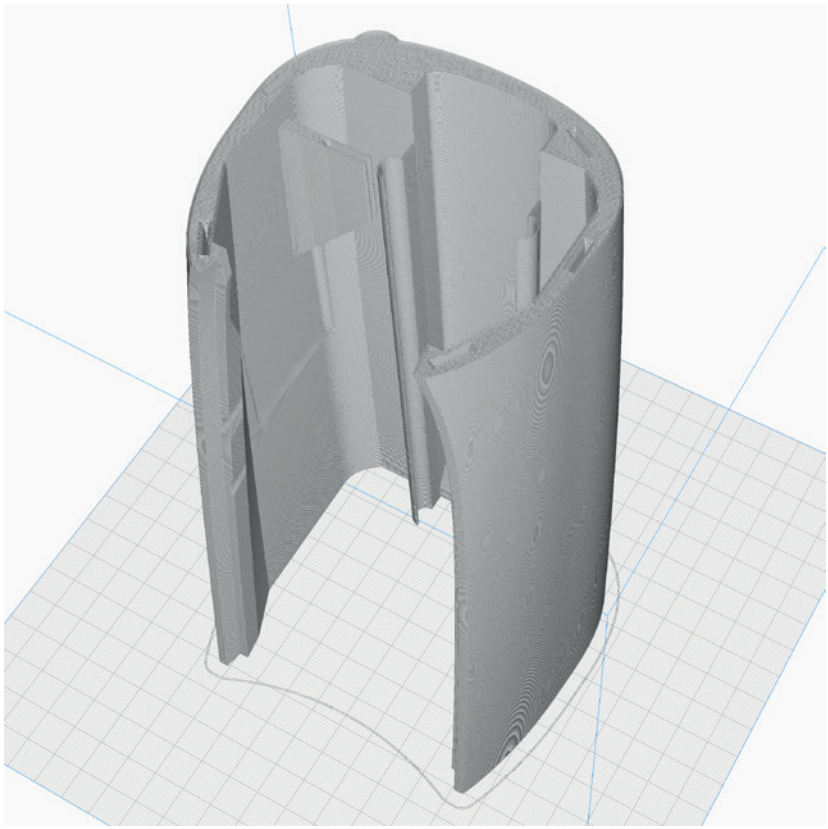
P5_Fuselage 2_al.stl

MATERIAL LW PLA, Weight: ~ 48 g

TIME ~ 9 hours

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

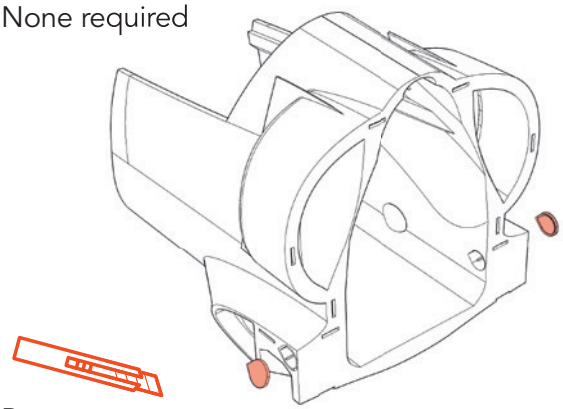
P5_Fuselage 3_al.stl

MATERIAL LW PLA, Weight: ~ 78 g

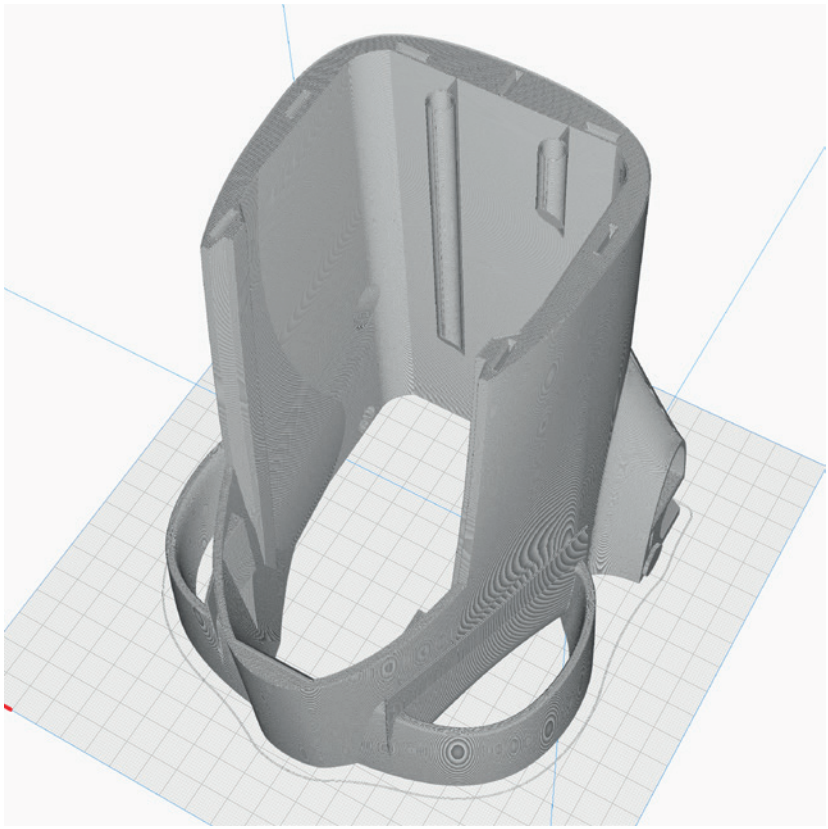
TIME ~ 14 hours

ADDITIONAL SETTINGS

None required



Remove support.
Please be careful with the knife!



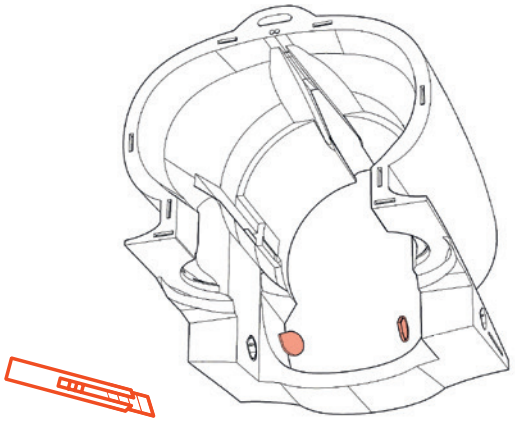
P5_Fuselage 4_al.stl

MATERIAL LW PLA, Weight: ~ 71 g

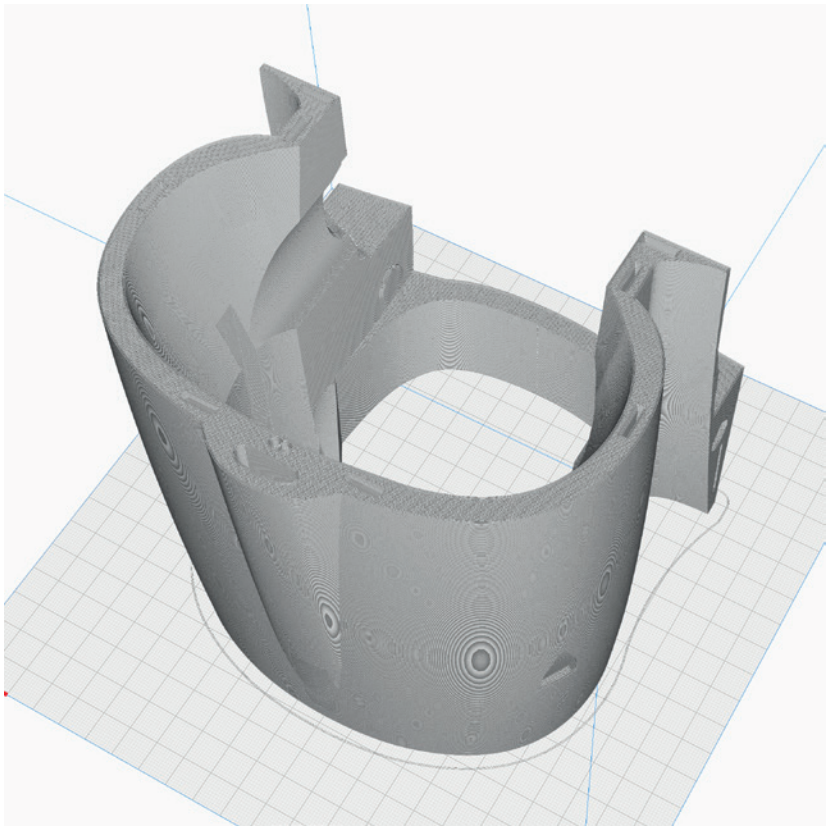
TIME ~ 13 hours

ADDITIONAL SETTINGS

None required



Remove support.
Please be careful with the knife!



PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

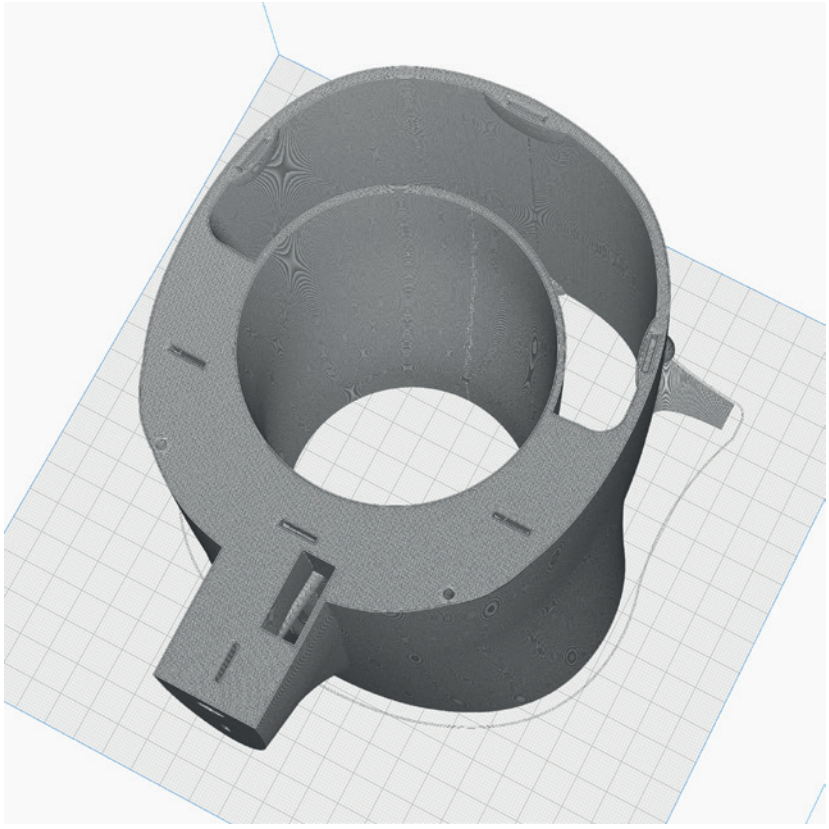
P5_Fuselage 5_al.stl

MATERIAL LW PLA, Weight: ~ 100 g

TIME ~ 18 hours

ADDITIONAL SETTINGS

None required



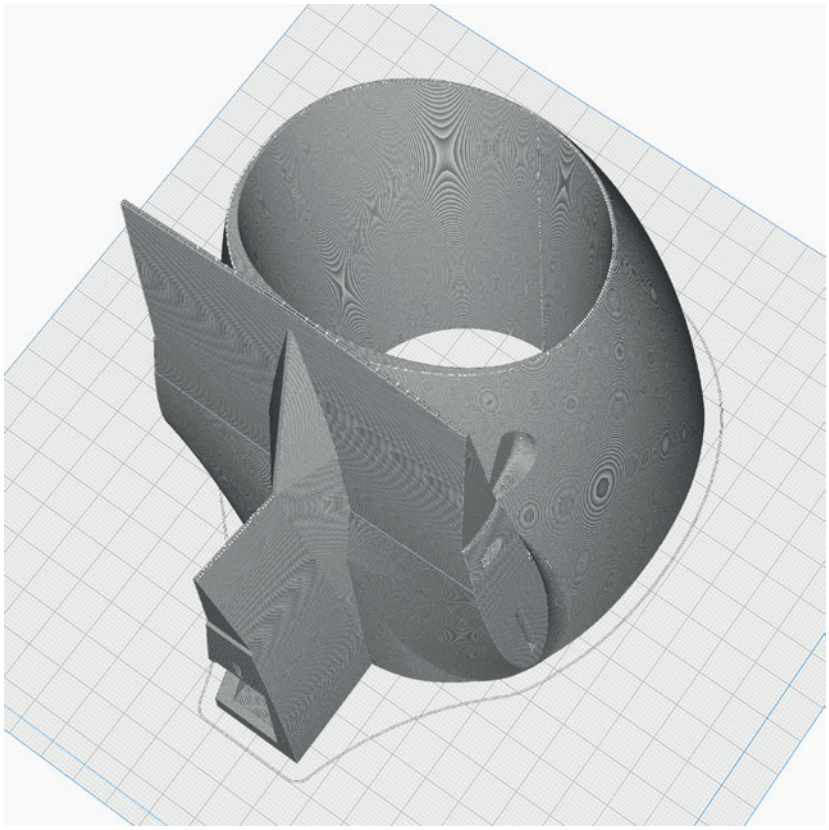
P5_Fuselage 6_al.stl

MATERIAL LW PLA, Weight: ~ 66 g

TIME ~ 11 hours

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

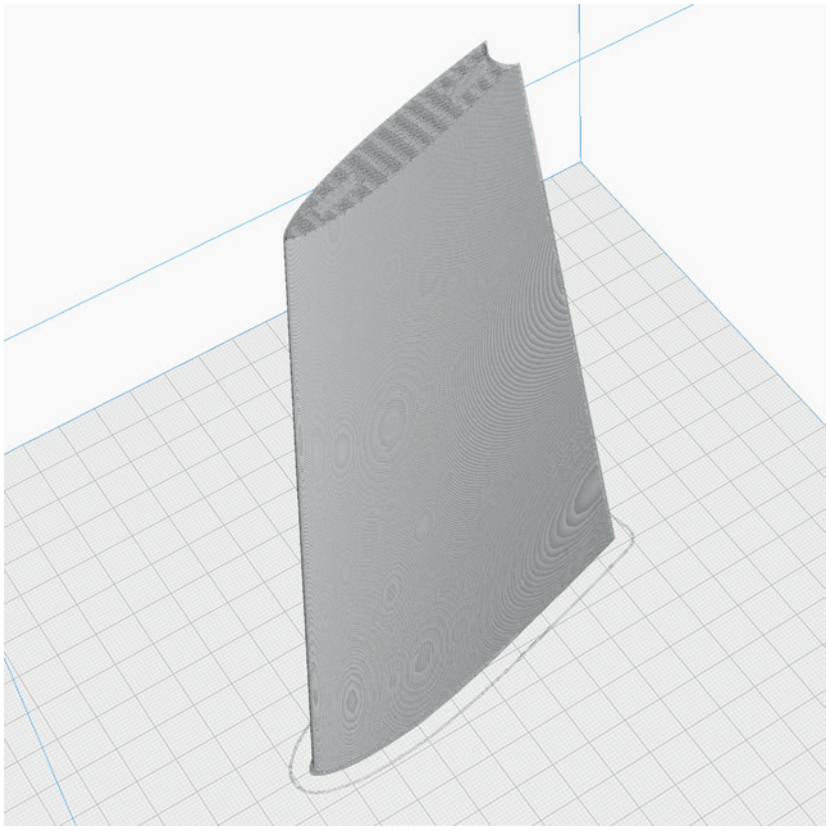
P5_HS L 1_al.stl and **P5_HS R 1_al**

MATERIAL LW PLA, Weight: ~ 16 g

TIME ~ 3 hours

ADDITIONAL SETTINGS

None required



P5_HS L 2_al.stl and **P5_HS R 2_al**

MATERIAL LW PLA, Weight: ~ 2 g

TIME ~ 20 minutes

ADDITIONAL SETTINGS

None required

PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

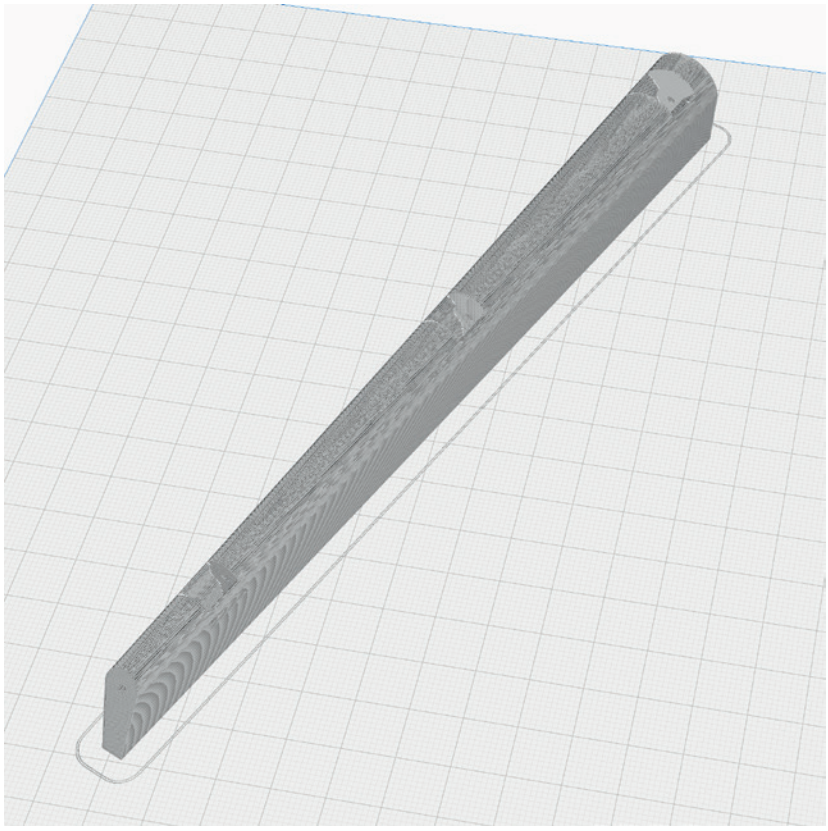
P5_Rudder 1_al.stl

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 60 minutes

ADDITIONAL SETTINGS

None required



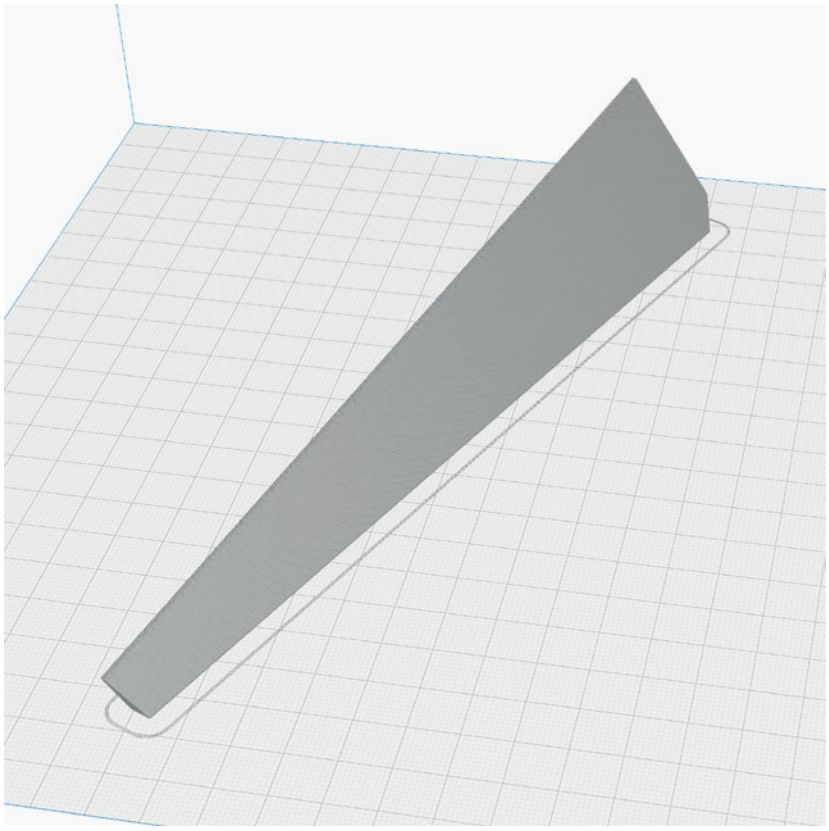
P5_Rudder 1_al.stl

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 60 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

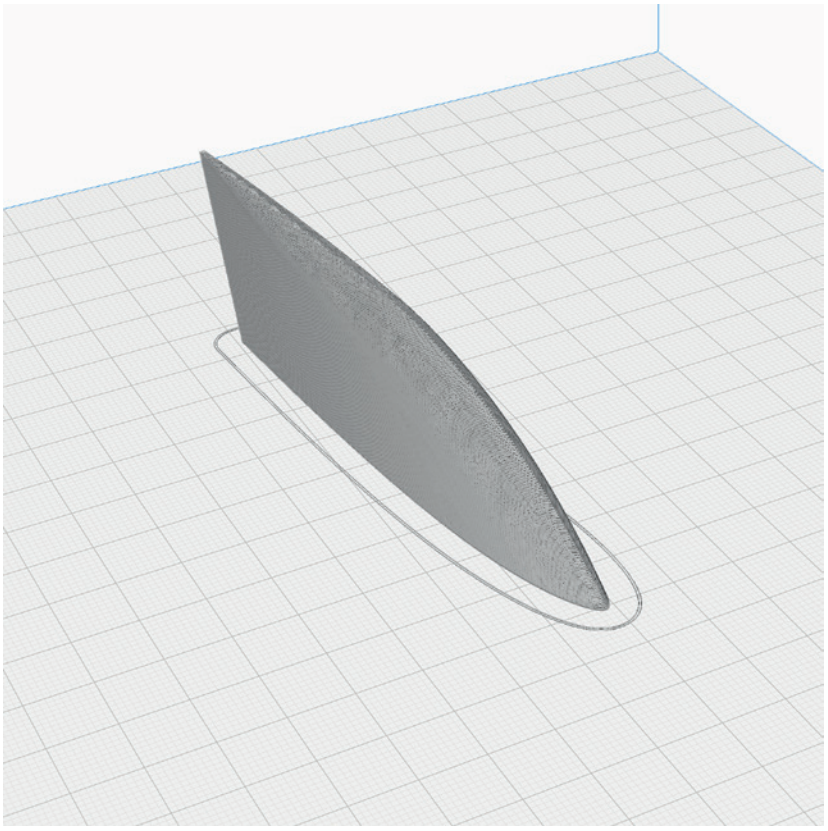
P5_VS Wingtip_al.stl

MATERIAL LW PLA, Weight: ~ 3 g

TIME ~ 30 minutes

ADDITIONAL SETTINGS

None required



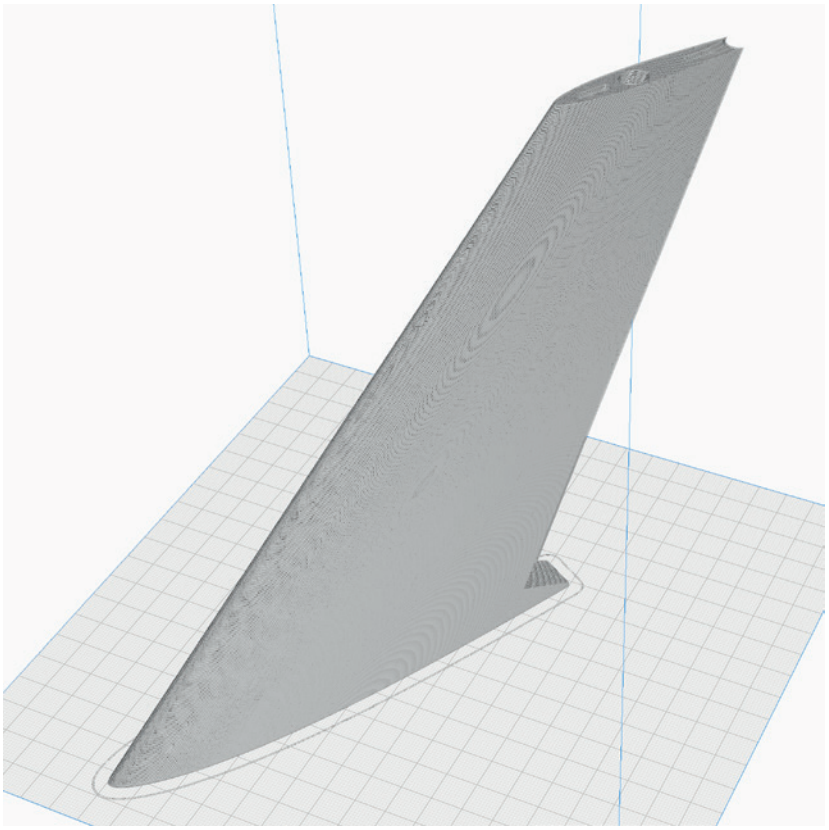
P5_VS_al.stl

MATERIAL LW PLA, Weight: ~ 26 g

TIME ~ 4 hours 40 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

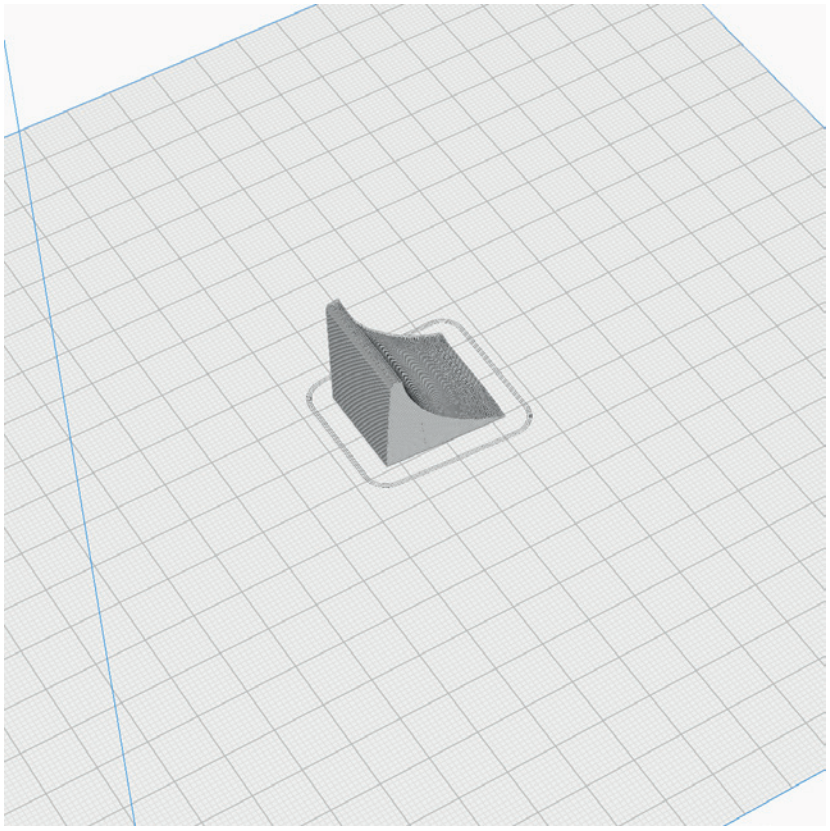
P5_Wing 1 part L_al.stl and
P5_Wing 1 part R_al.stl

MATERIAL LW PLA, Weight: ~ 1 g

TIME ~ 15 minutes

ADDITIONAL SETTINGS

None required



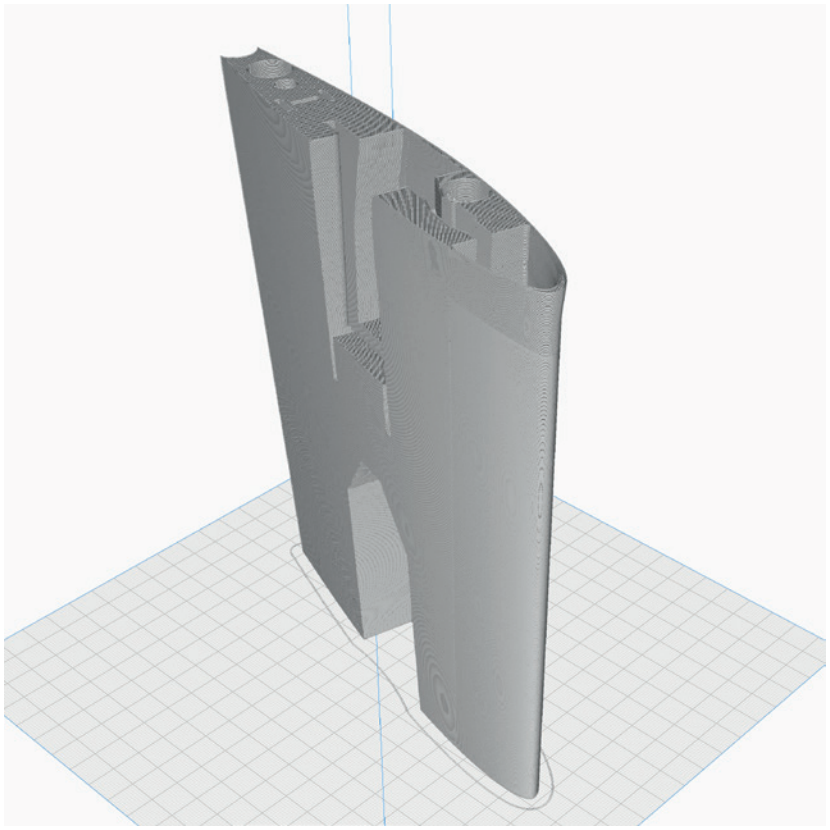
P5_Wing 1 L_al.stl and
P5_Wing 1 R_al.stl

MATERIAL LW PLA, Weight: ~ 55 g

TIME ~ 10 hours

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

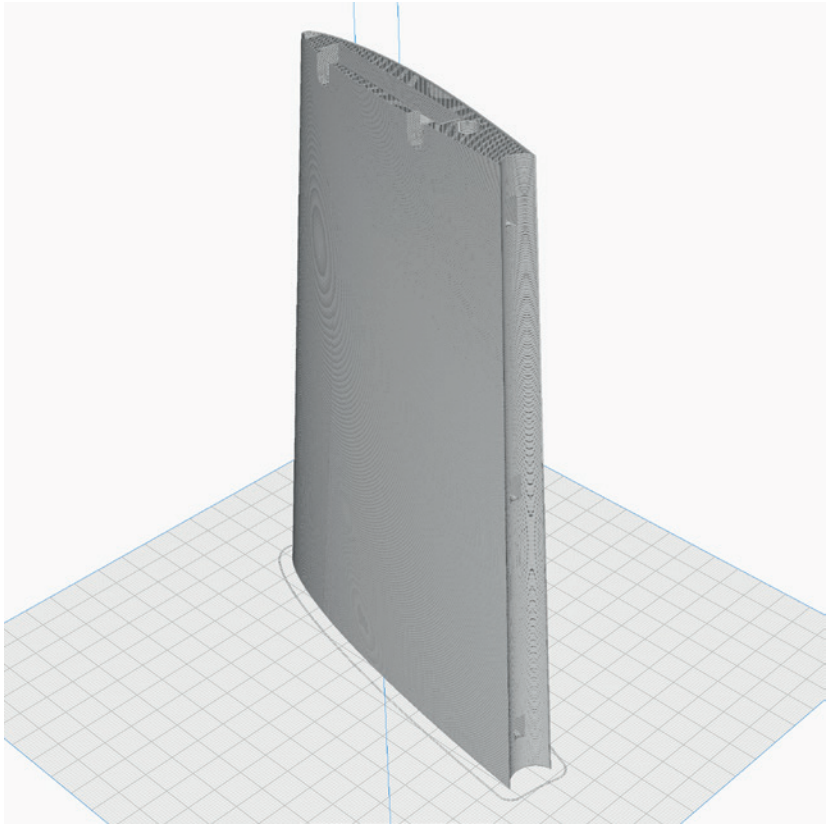
P5_Wing 2 L_al.stl and P5_Wing 2 R_al.stl

MATERIAL LW PLA, Weight: ~ 37 g

TIME ~ 6 hours 20 minutes

ADDITIONAL SETTINGS

None required



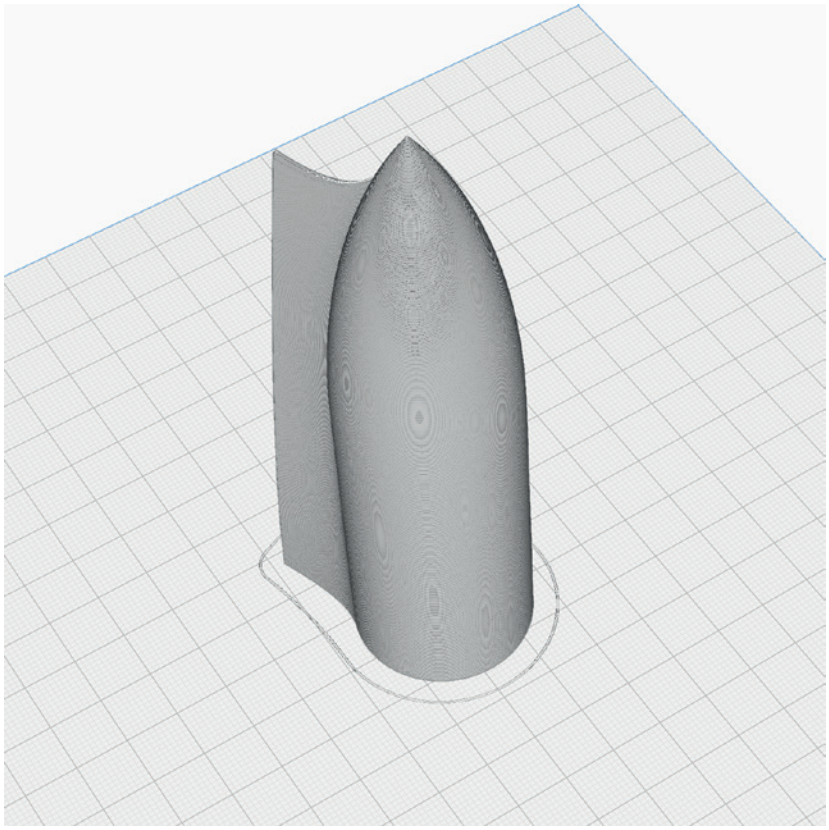
P5_Wingtip L back_al.stl and P5_Wingtip R back_al.stl

MATERIAL LW PLA, Weight: ~ 9 g

TIME ~ 1 hour 20 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid Light-Weight LW-PLA!

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 LW-PLA!

Basic settings for LW-PLA: Please follow the instructions in our **WINGTEST AND CALIBRATION TOOL** on our website for correct adjustment!

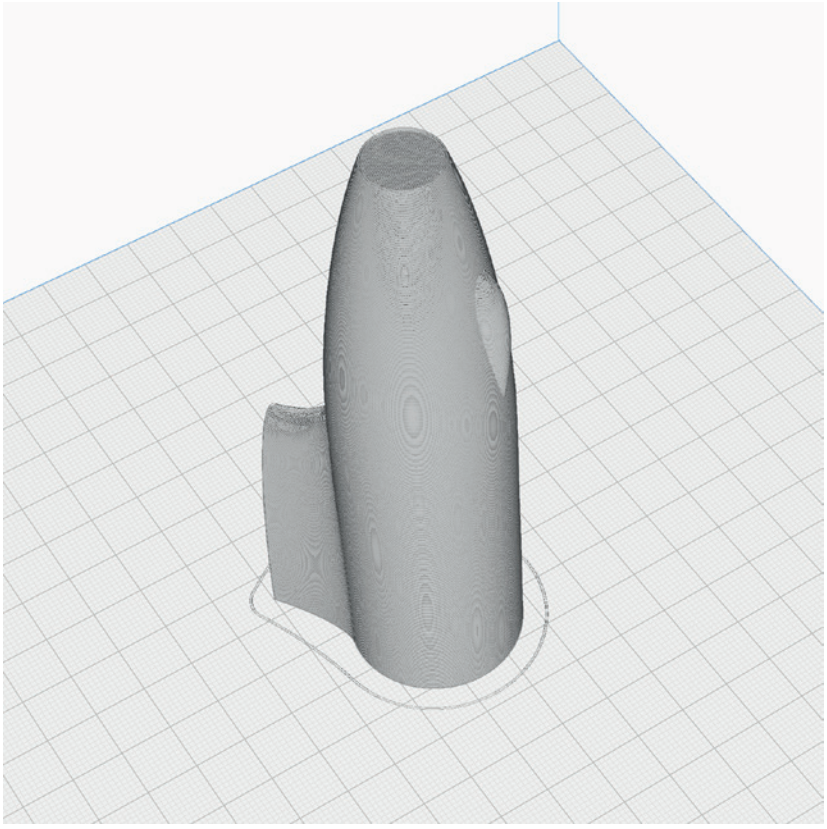
P5_Wingtip L front_al.stl and P5_Wingtip R front_al.stl

MATERIAL LW PLA, Weight: ~ 8 g

TIME ~ 1 hour 20 minutes

ADDITIONAL SETTINGS

None required



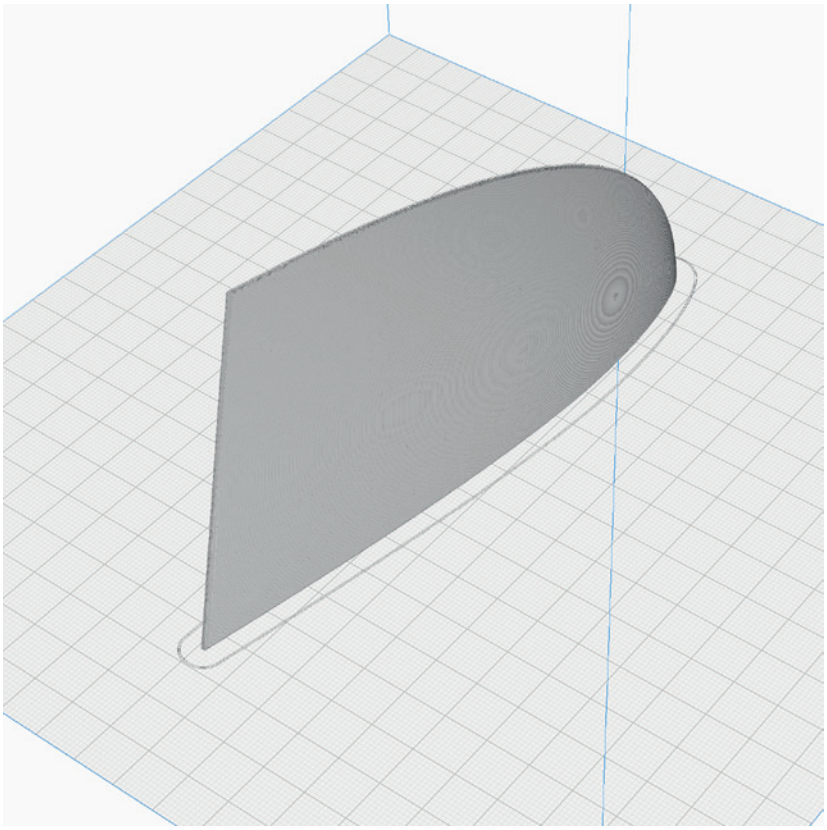
P5_Wingtip reno L_al.stl and P5_Wingtip reno R_al.stl

MATERIAL LW PLA, Weight: ~ 9 g

TIME ~ 1 hour 40 minutes

ADDITIONAL SETTINGS

None required



Basic Information:

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.

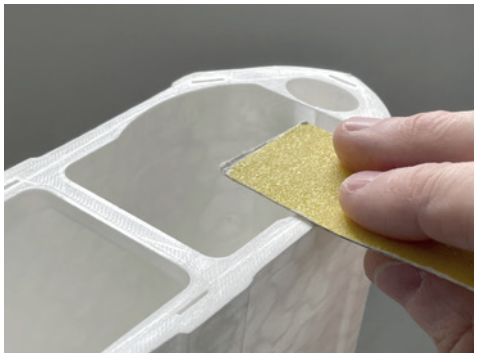
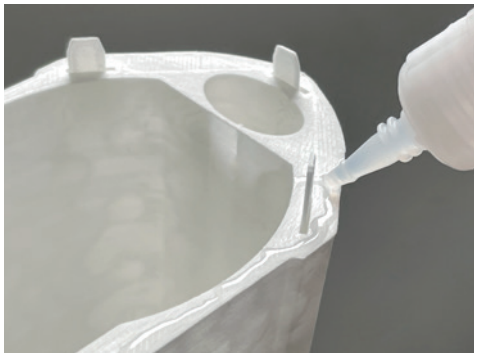
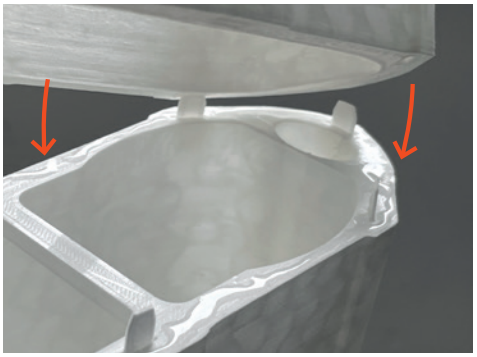
STEP 2 Insert the **interconnects into the slots** provided on one side.

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.

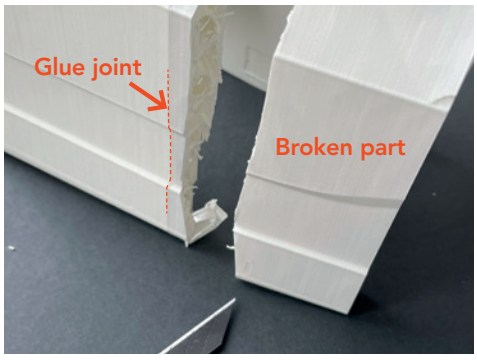




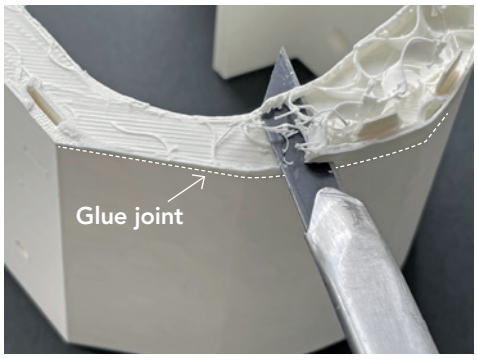
PROFILES 5 parts are easy to repair

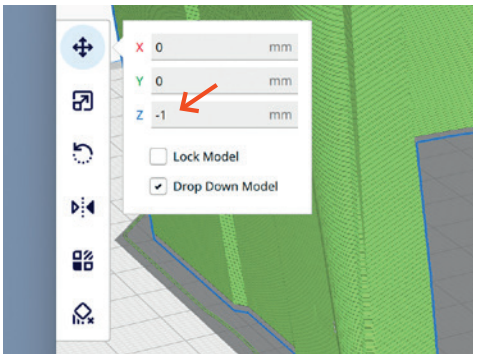
STEP 1 Using the knife, carefully remove the damaged part about 3 mm from the glue joint between two parts.

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.

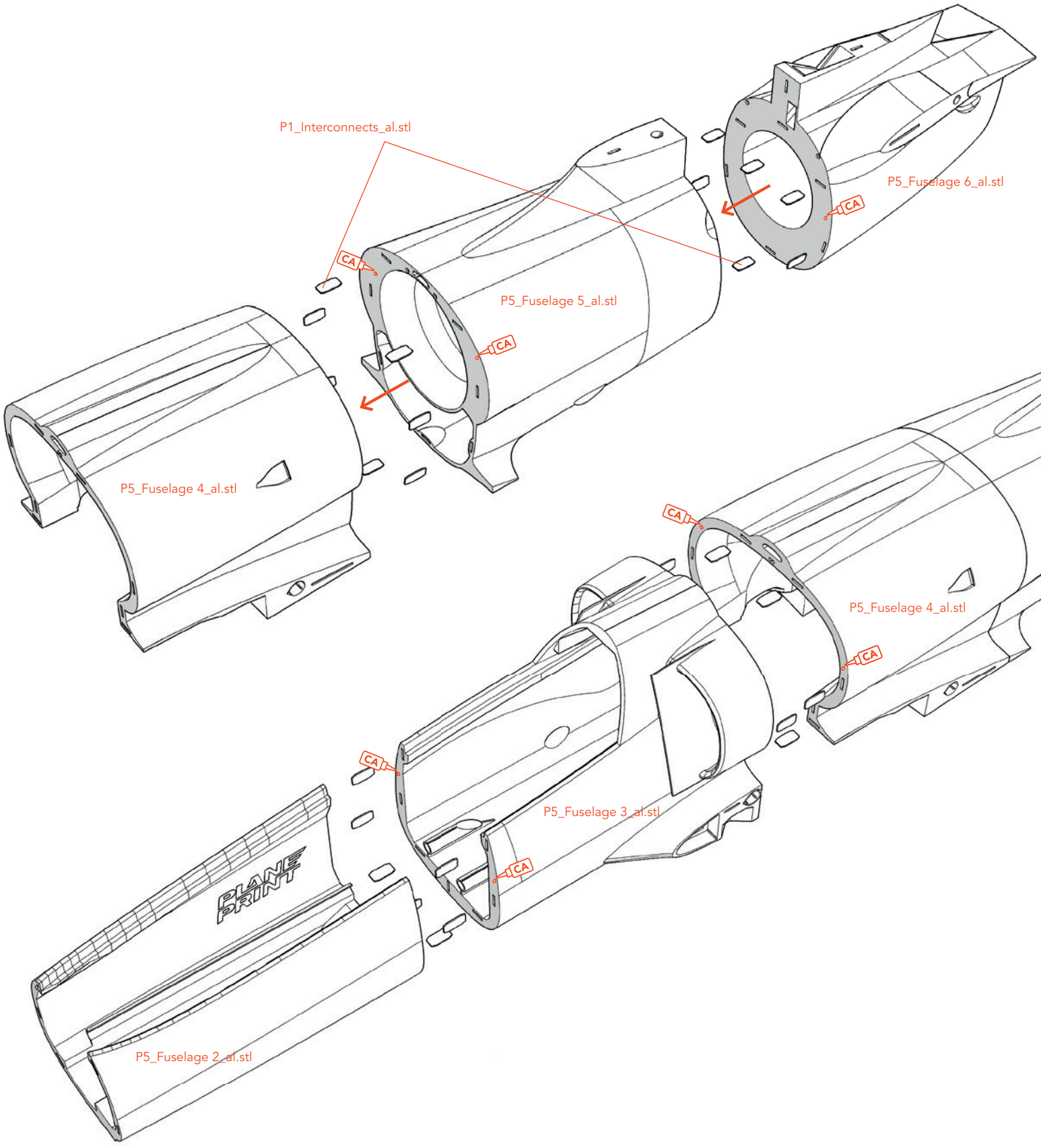




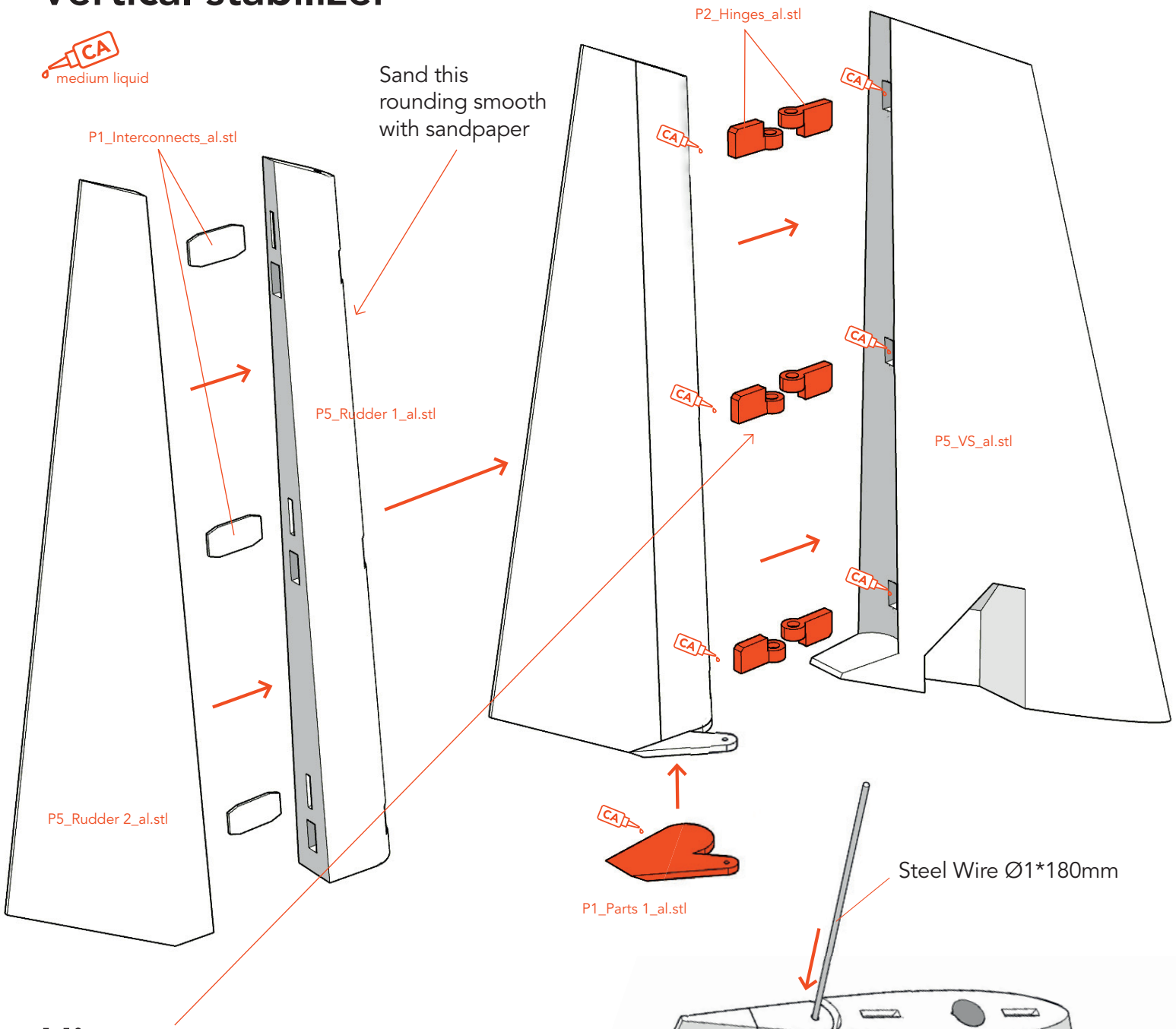


Fuselage assembly

CA
medium liquid



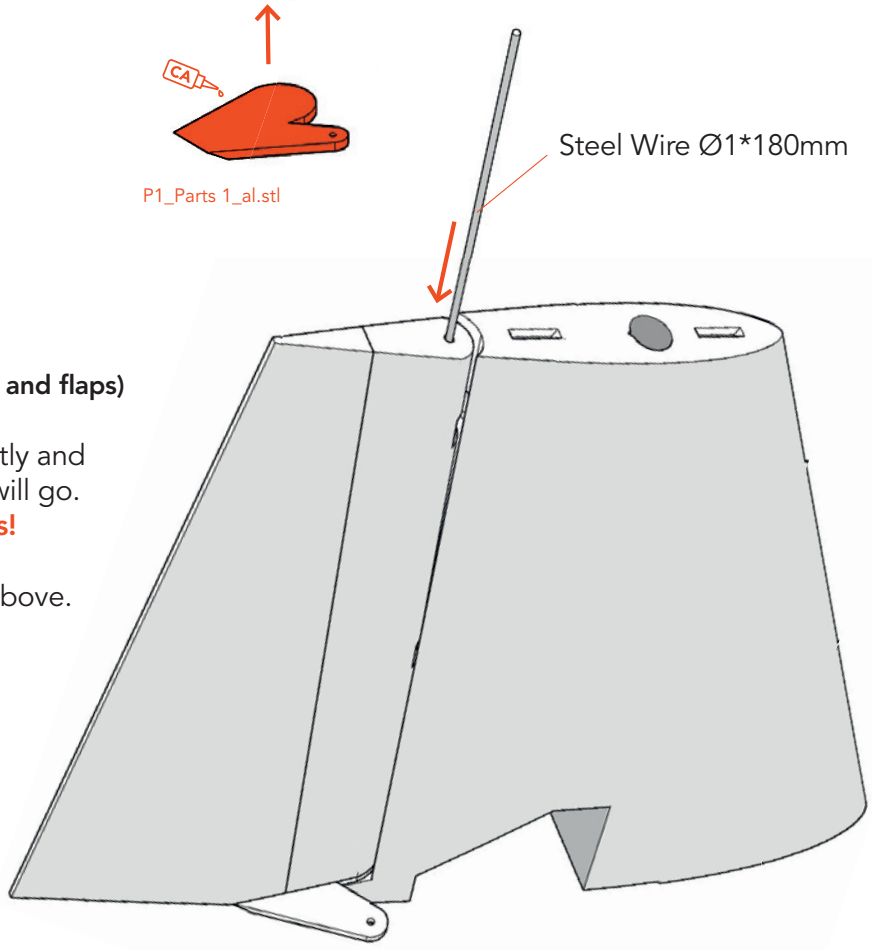
Vertical stabilizer



Hinges (also valid for elevator, aileron and flaps)

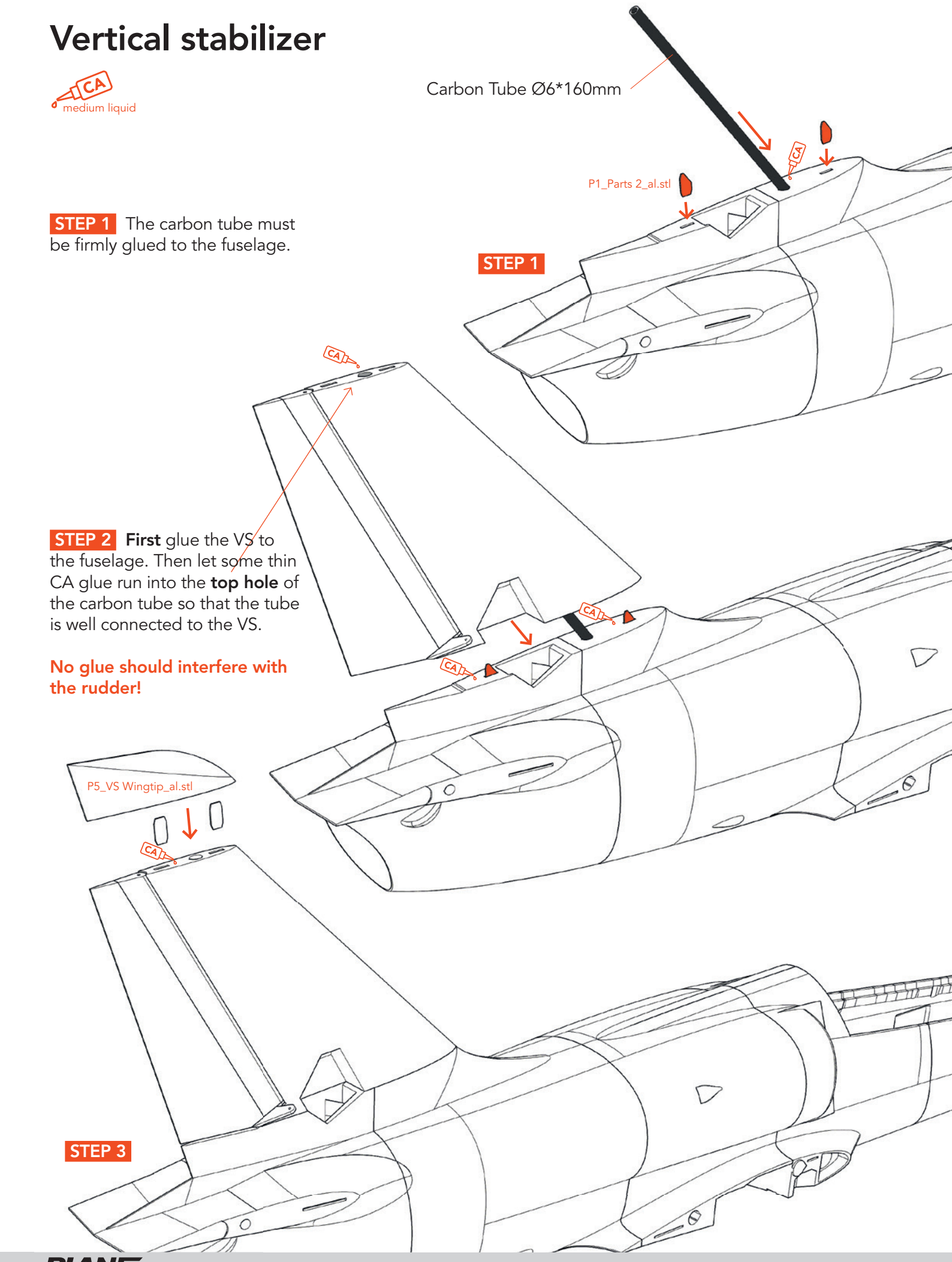
Make sure that the hinges are aligned correctly and insert them into the openings as far as they will go.
Do not allow any glue to get into the holes!

Then insert a steel wire into the hinge from above.



Vertical stabilizer

CA
medium liquid



STEP 1 The carbon tube must be firmly glued to the fuselage.

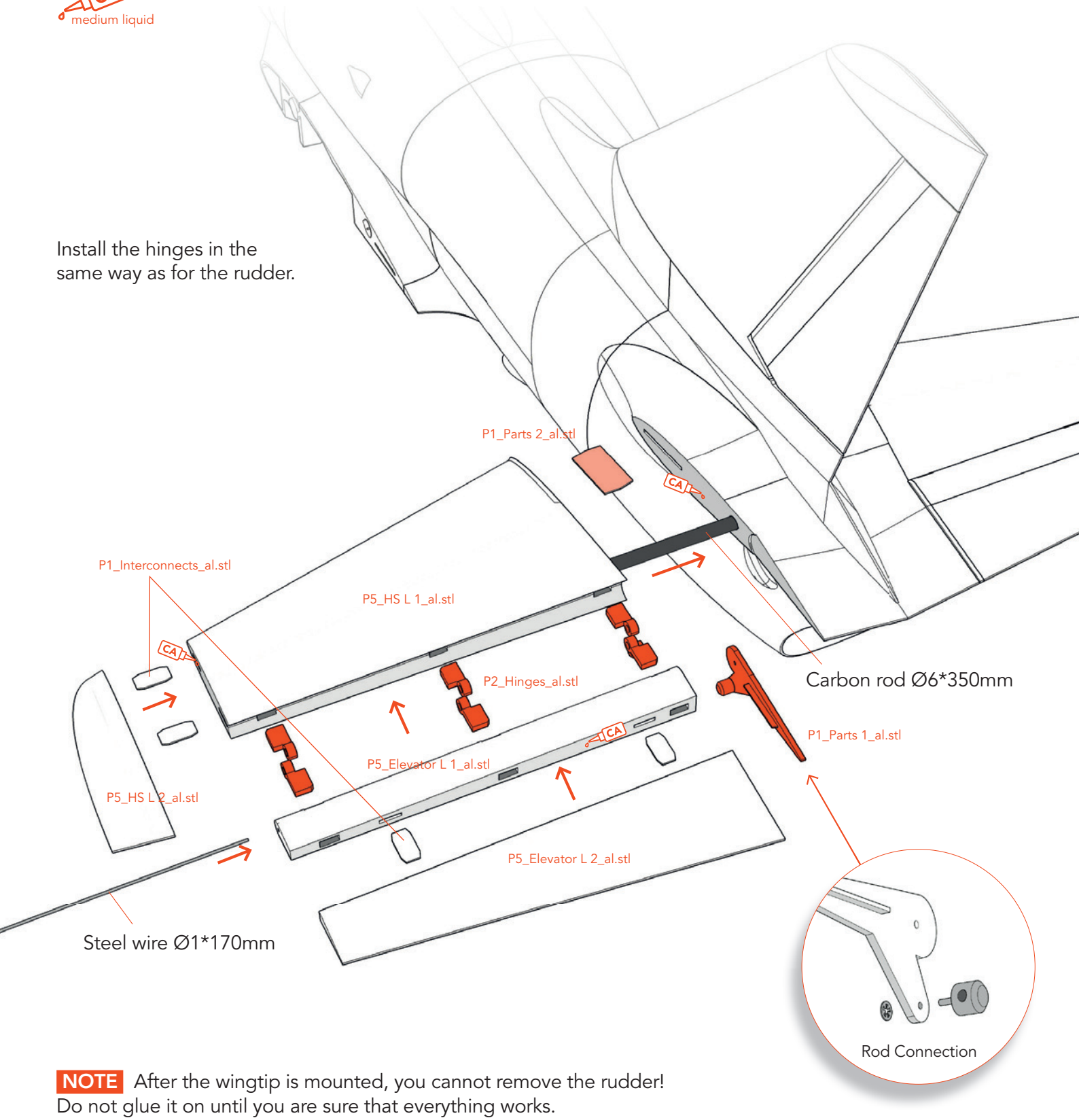
STEP 2 **First** glue the VS to the fuselage. Then let some thin CA glue run into the **top hole** of the carbon tube so that the tube is well connected to the VS.

No glue should interfere with the rudder!

Vertical stabilizer

CA
medium liquid

Install the hinges in the same way as for the rudder.



NOTE After the wingtip is mounted, you cannot remove the rudder! Do not glue it on until you are sure that everything works.

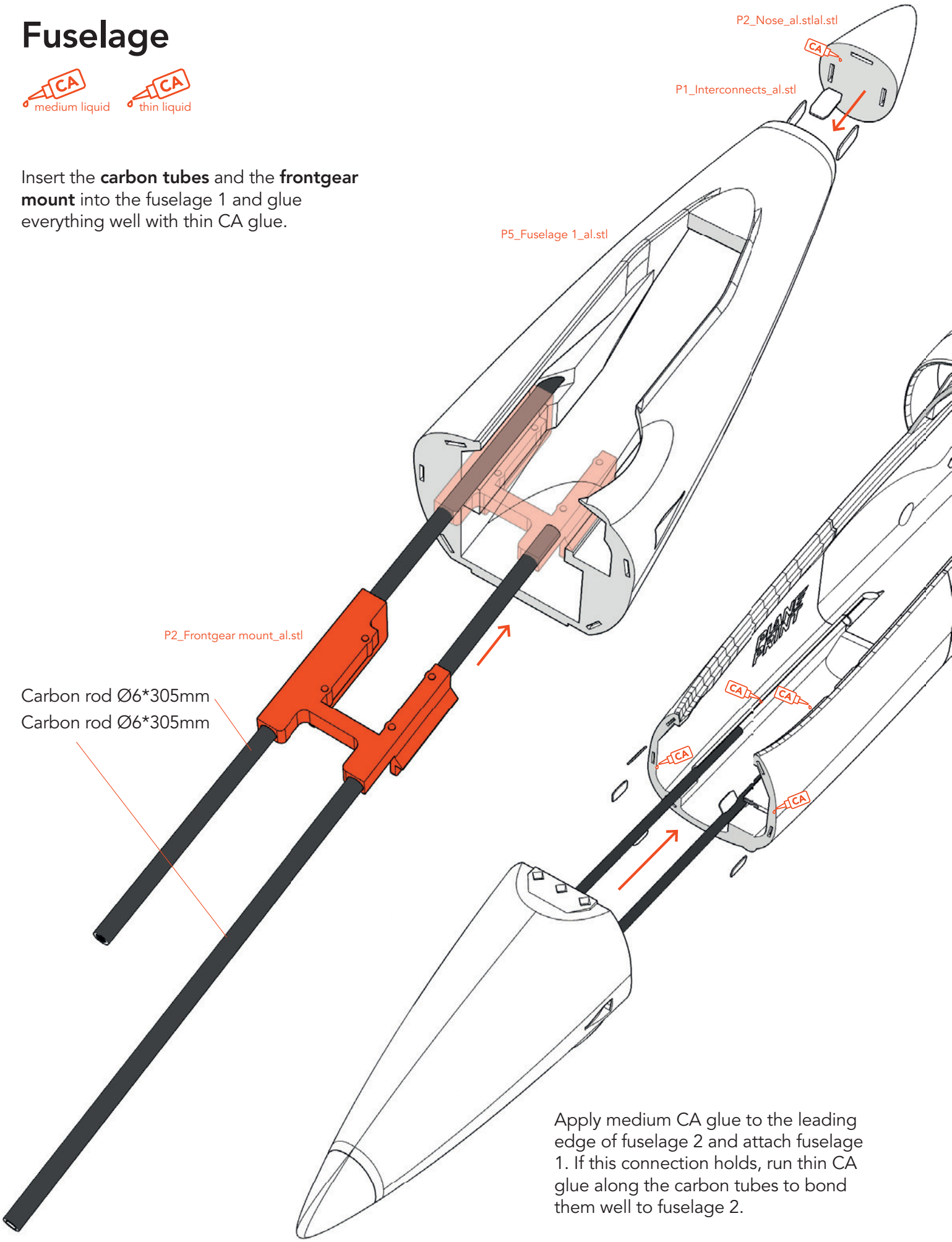
The elevators must be absolutely smooth-running!

Fuselage

CA medium liquid

CA thin liquid

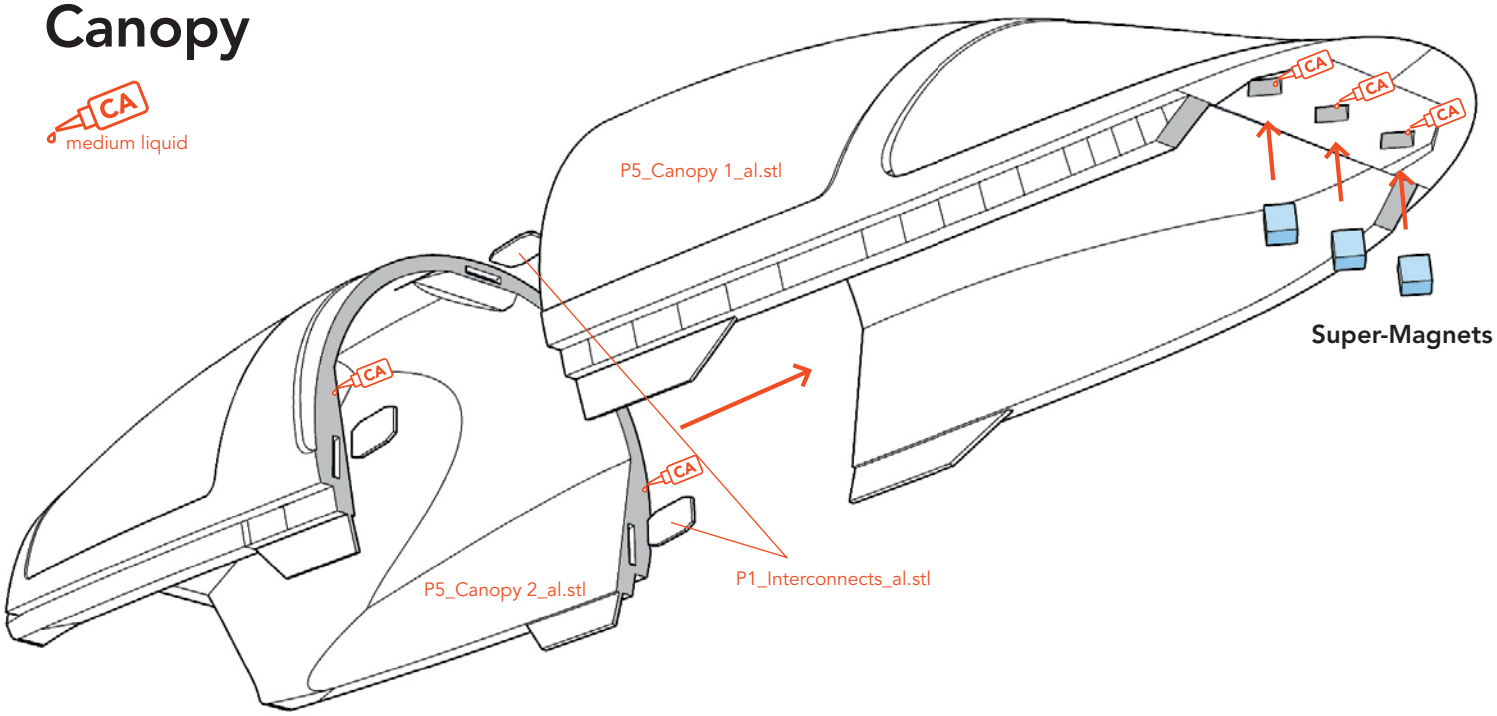
Insert the **carbon tubes** and the **frontgear mount** into the fuselage 1 and glue everything well with thin CA glue.

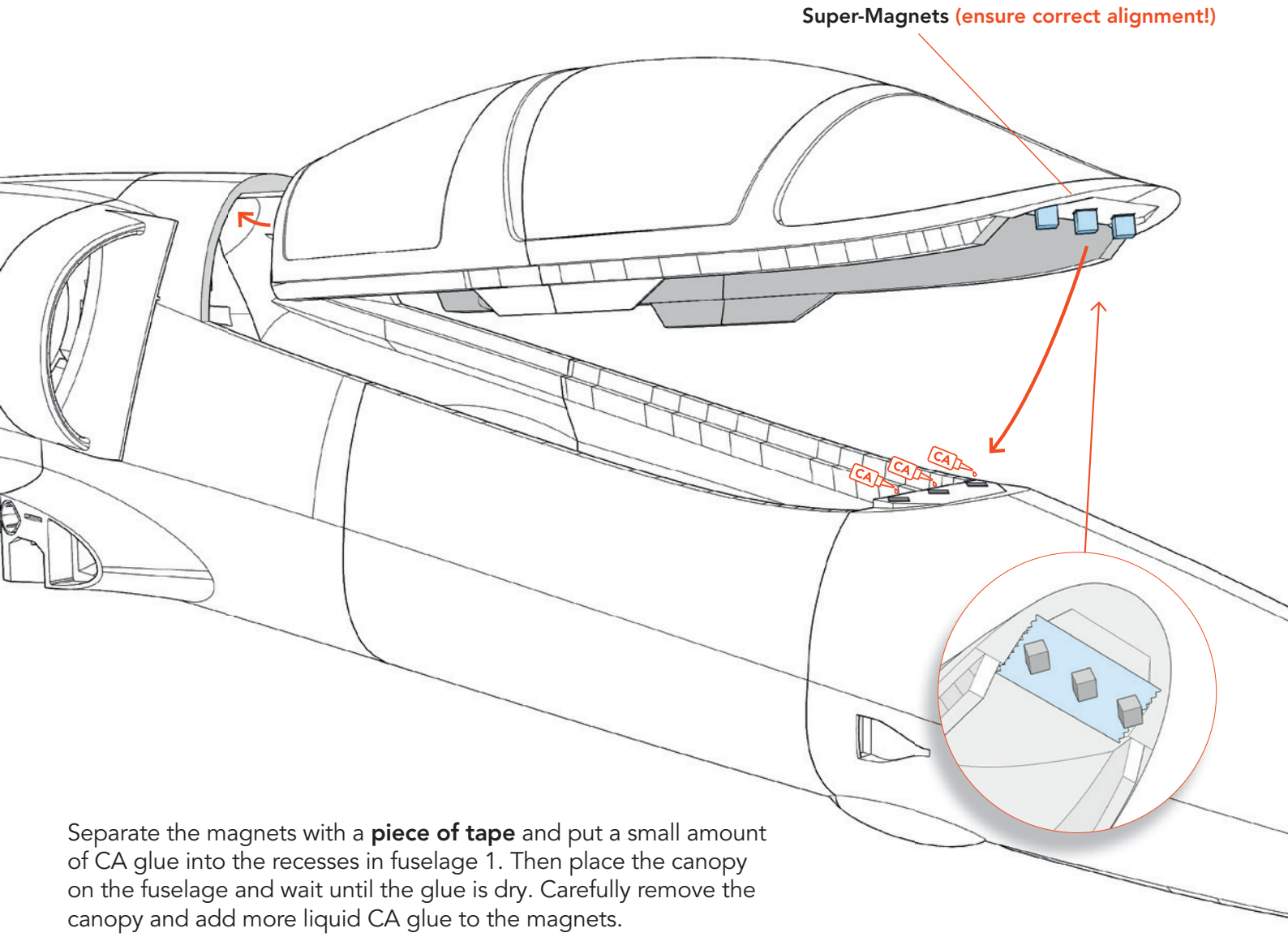


Apply medium CA glue to the leading edge of fuselage 2 and attach fuselage 1. If this connection holds, run thin CA glue along the carbon tubes to bond them well to fuselage 2.

Canopy

CA
medium liquid





Separate the magnets with a **piece of tape** and put a small amount of CA glue into the recesses in fuselage 1. Then place the canopy on the fuselage and wait until the glue is dry. Carefully remove the canopy and add more liquid CA glue to the magnets.

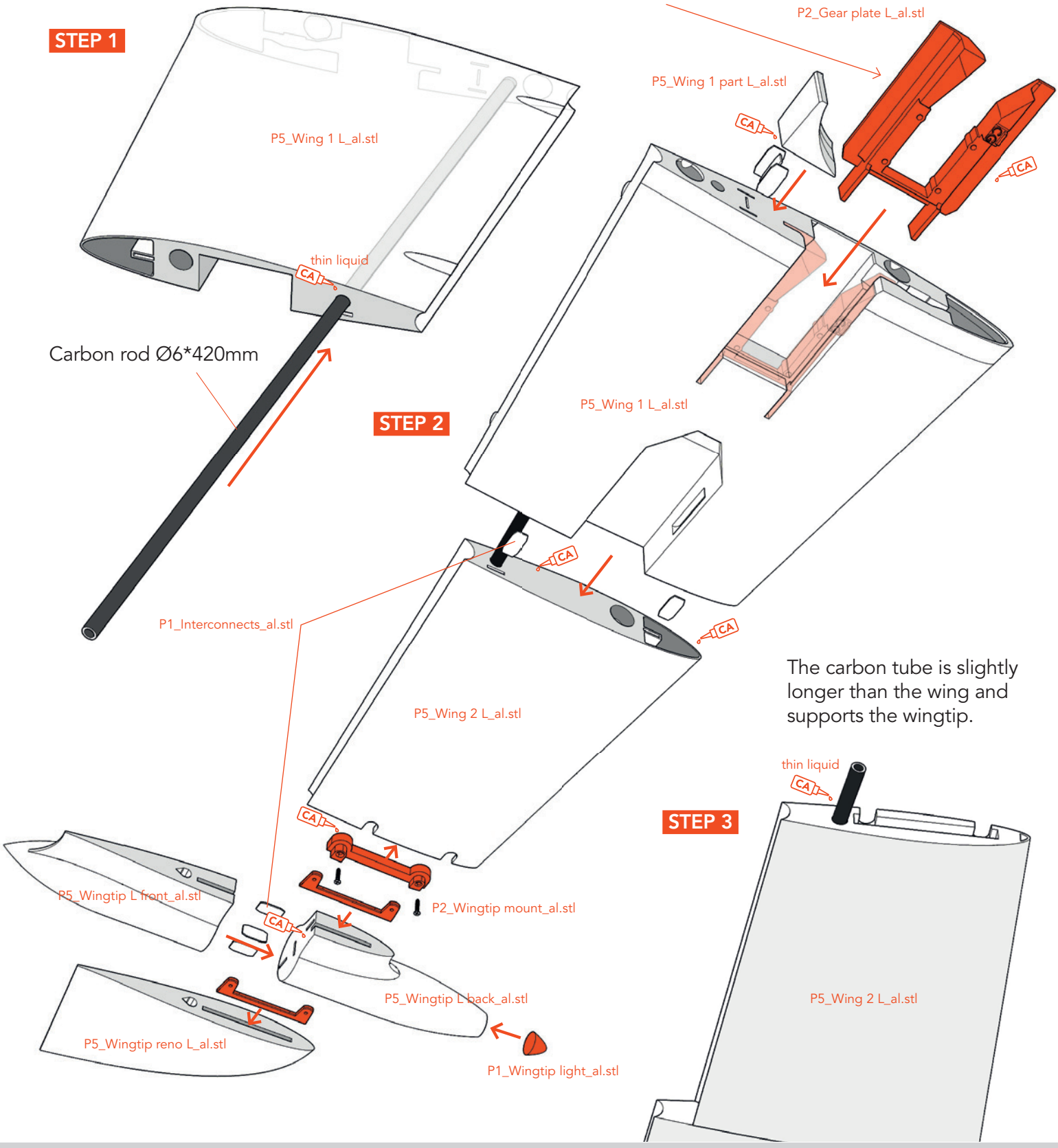
Wing assembly

CA medium liquid CA thin liquid

First glue the carbon tube into Wing 1, then assemble all parts as shown in **STEP 2**. **It is important that the gear plate is very well connected to the wing!**

STEP 3: Run thin CA glue into the hole of the carbon tube so that the wing is well bonded to the carbon and torsionally stiff.
For the wingtips, you can choose whether you prefer the tanks or the Reno Airrace version. You can change them easily with two screws.

Before you mount the Gear Plate, check if the holes of your Rectract fit. Contact us if you need other hole positions.



The carbon tube is slightly longer than the wing and supports the wingtip.

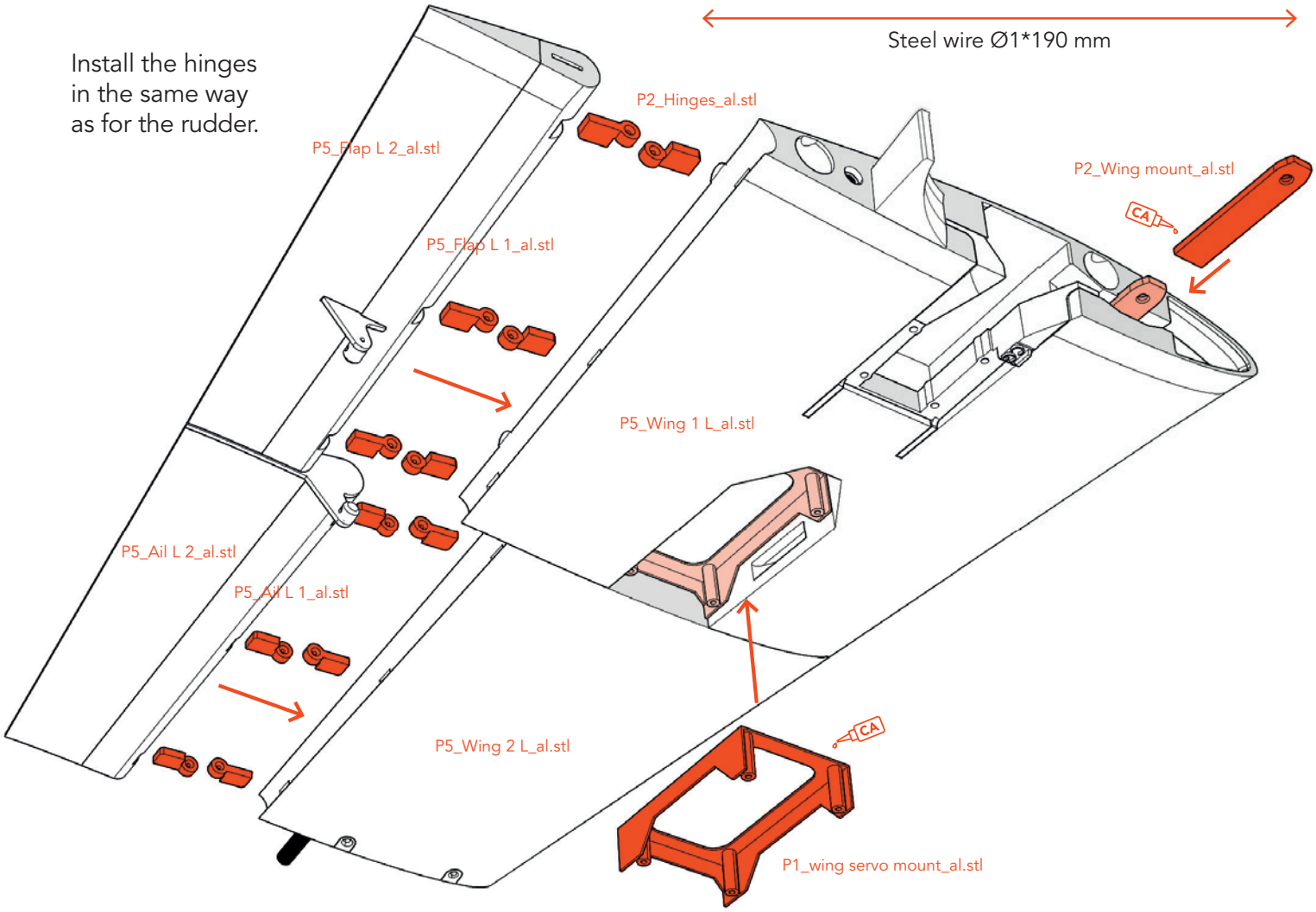
Ailerons and Flaps assembly

medium liquid

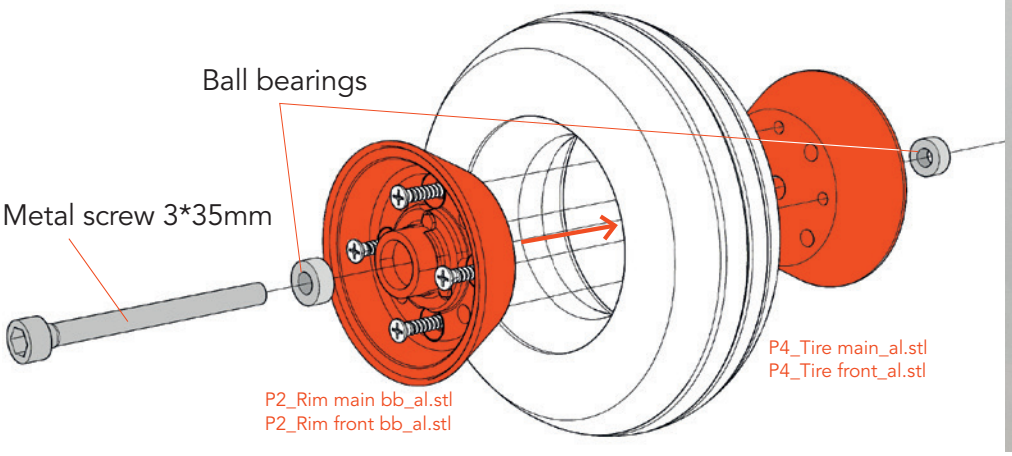
Prepare four pieces of steel wire for the hinges and insert them into the flaps/ailerons from the outside. You can remove them at any time.

Steel wire Ø1*190 mm

Install the hinges in the same way as for the rudder.

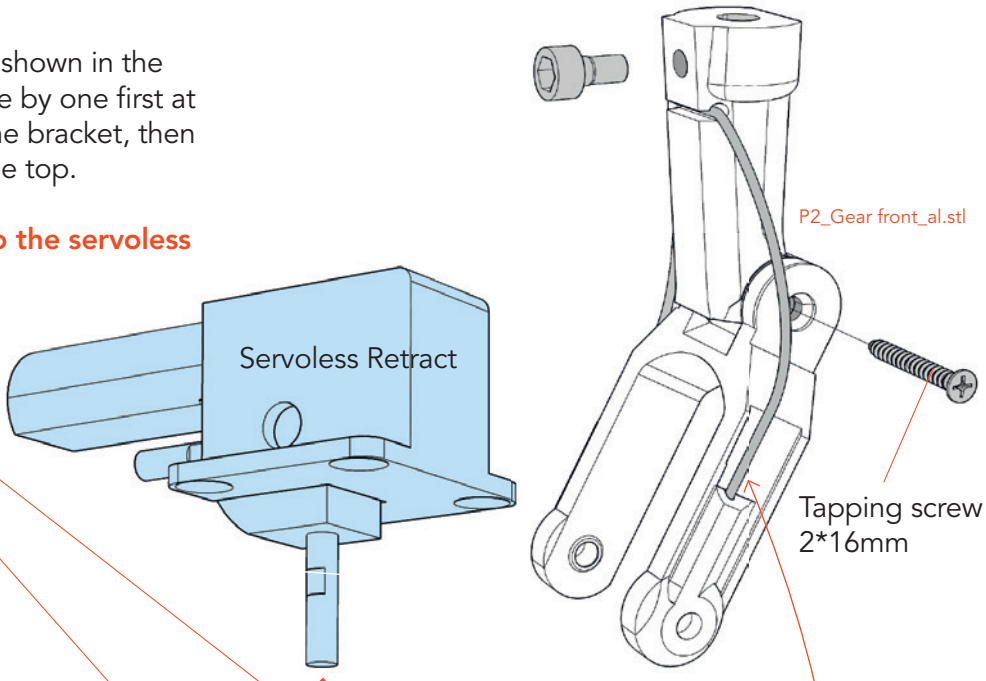


Gear assembly

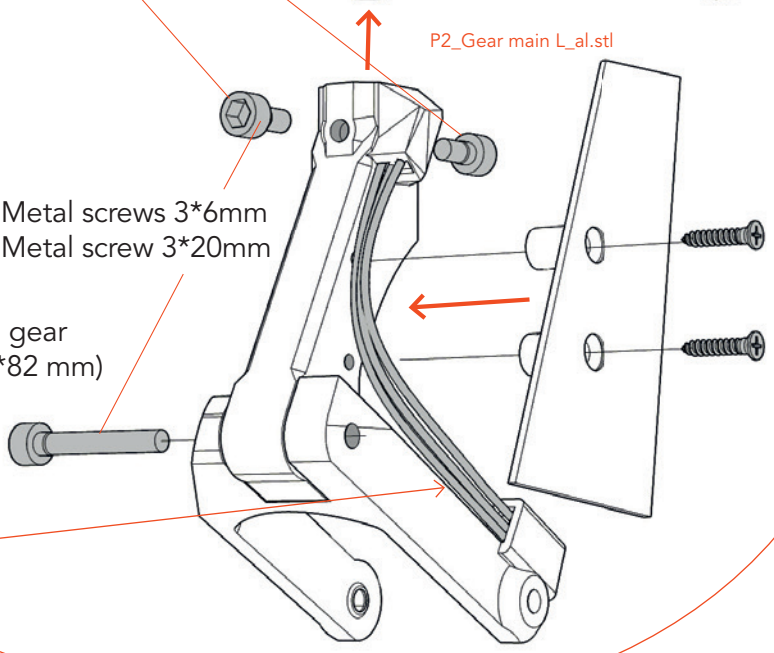


Assemble the landing gear parts as shown in the picture and insert the steel wires one by one first at the bottom of the wheel axle into the bracket, then the upper end into the bracket at the top.

Do not screw the gear too tight to the servoless retract and check regularly!



Print this page (100% size!) and bend these steel wires for the suspension:



1 time front gear
(Steel wire 1*122 mm)

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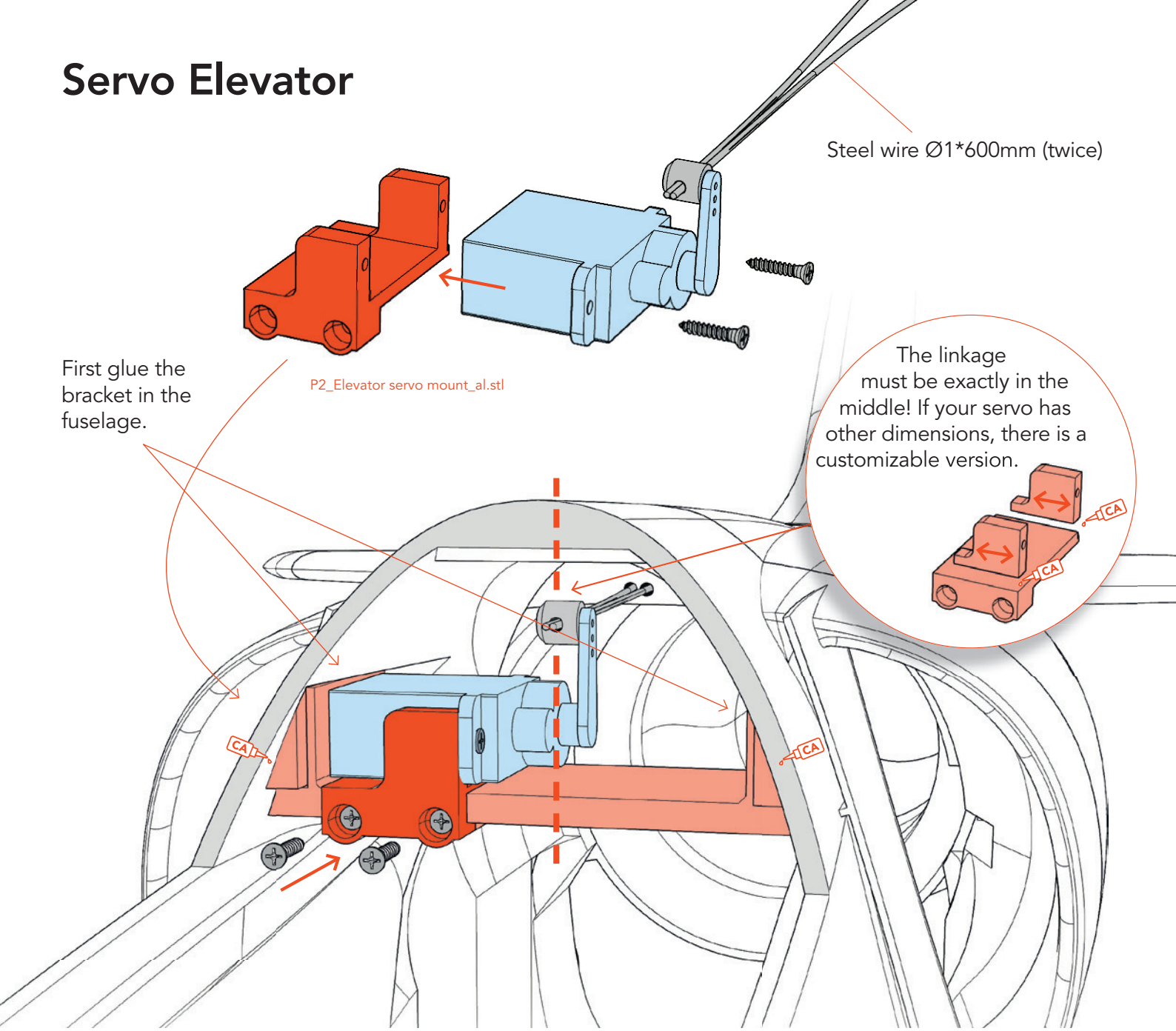
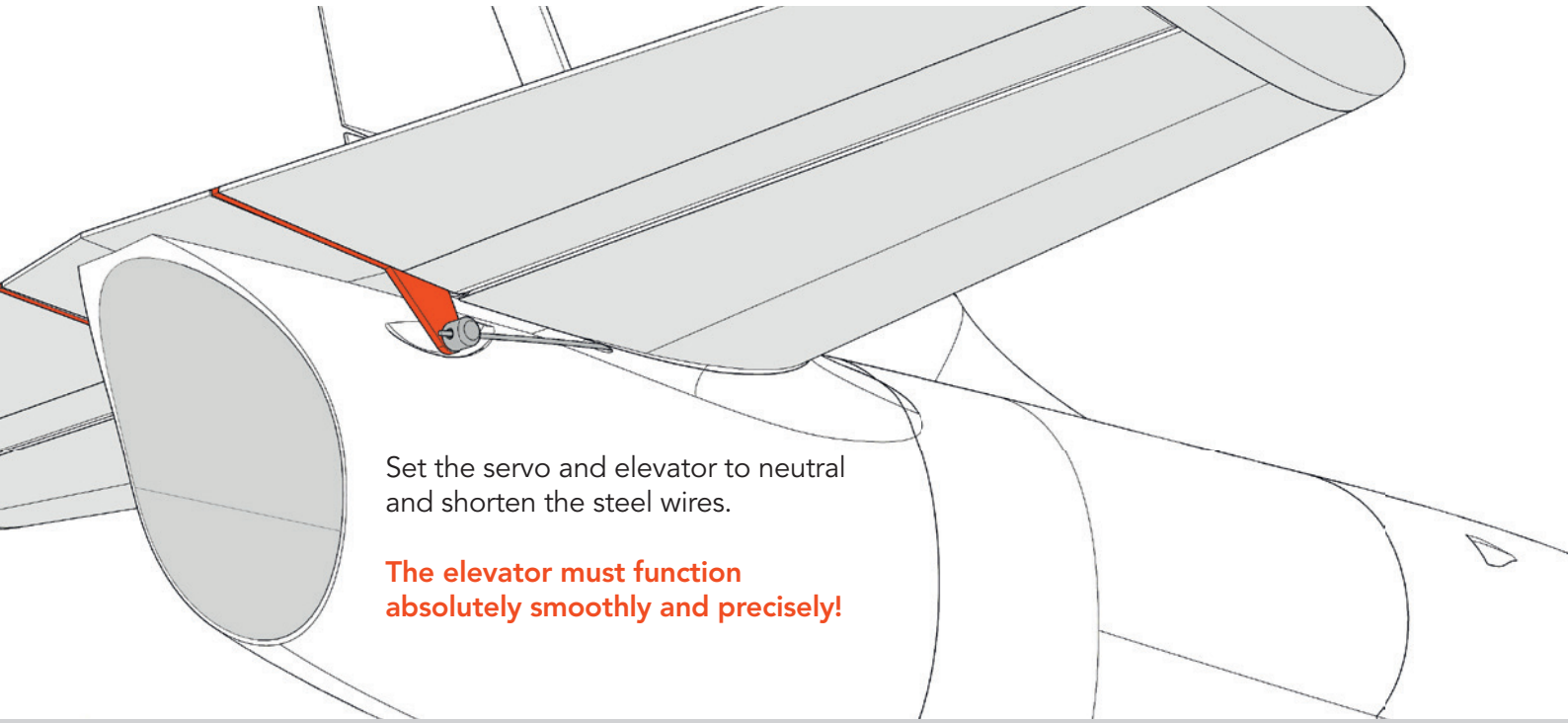
Servo Elevator



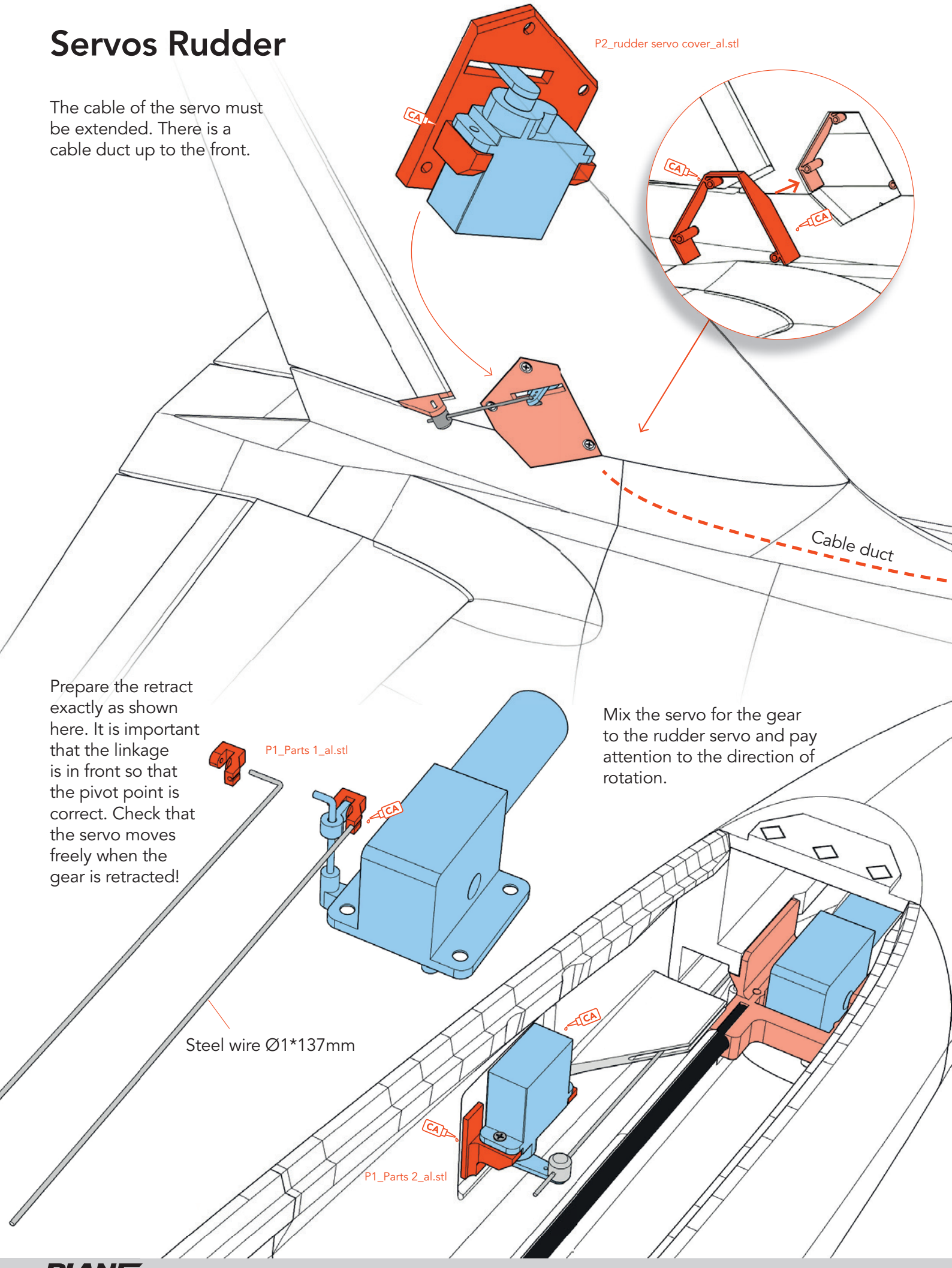


Set the servo and elevator to neutral and shorten the steel wires.

The elevator must function absolutely smoothly and precisely!

Servos Rudder

The cable of the servo must be extended. There is a cable duct up to the front.

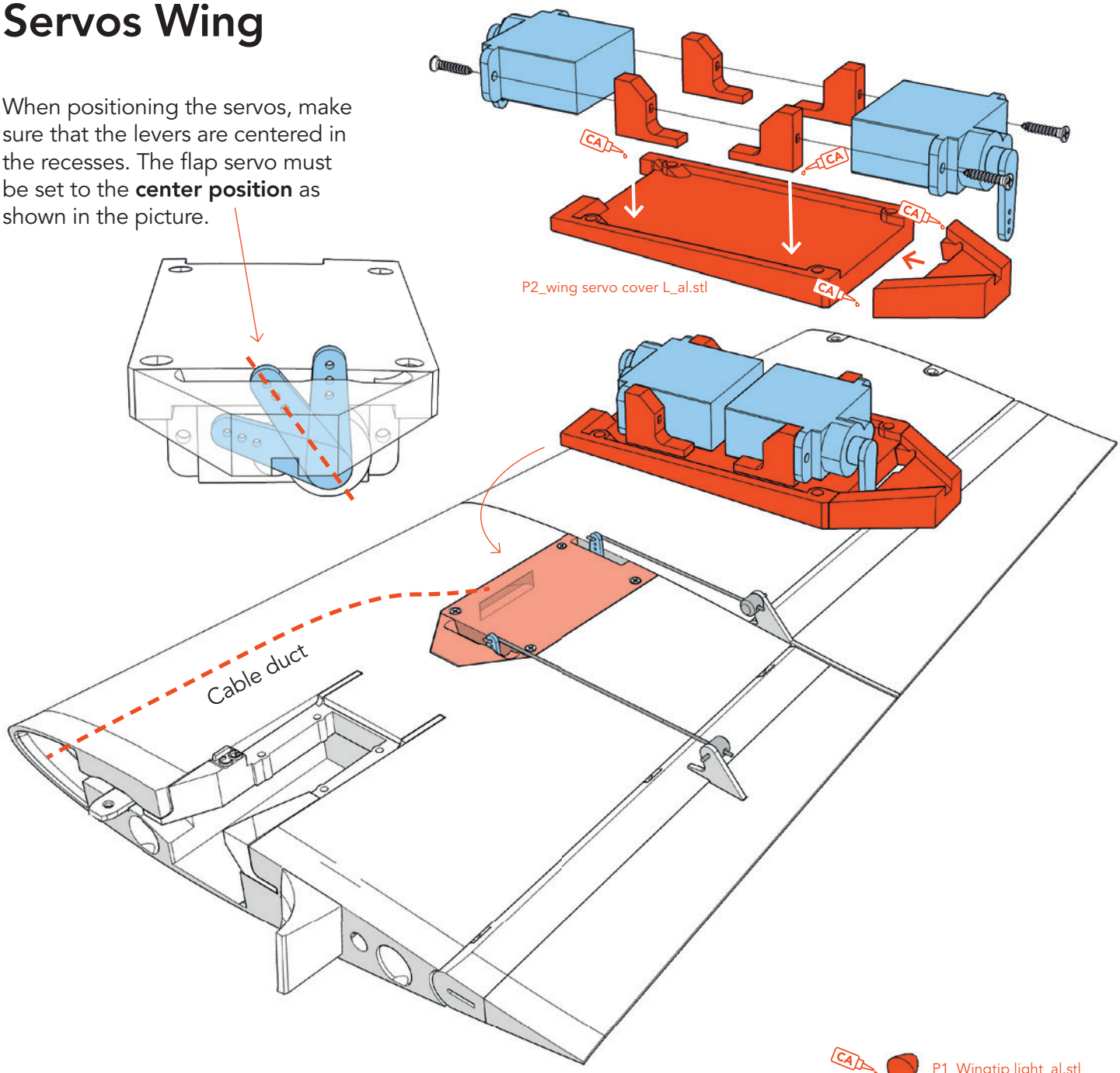


Prepare the retract exactly as shown here. It is important that the linkage is in front so that the pivot point is correct. Check that the servo moves freely when the gear is retracted!

Mix the servo for the gear to the rudder servo and pay attention to the direction of rotation.

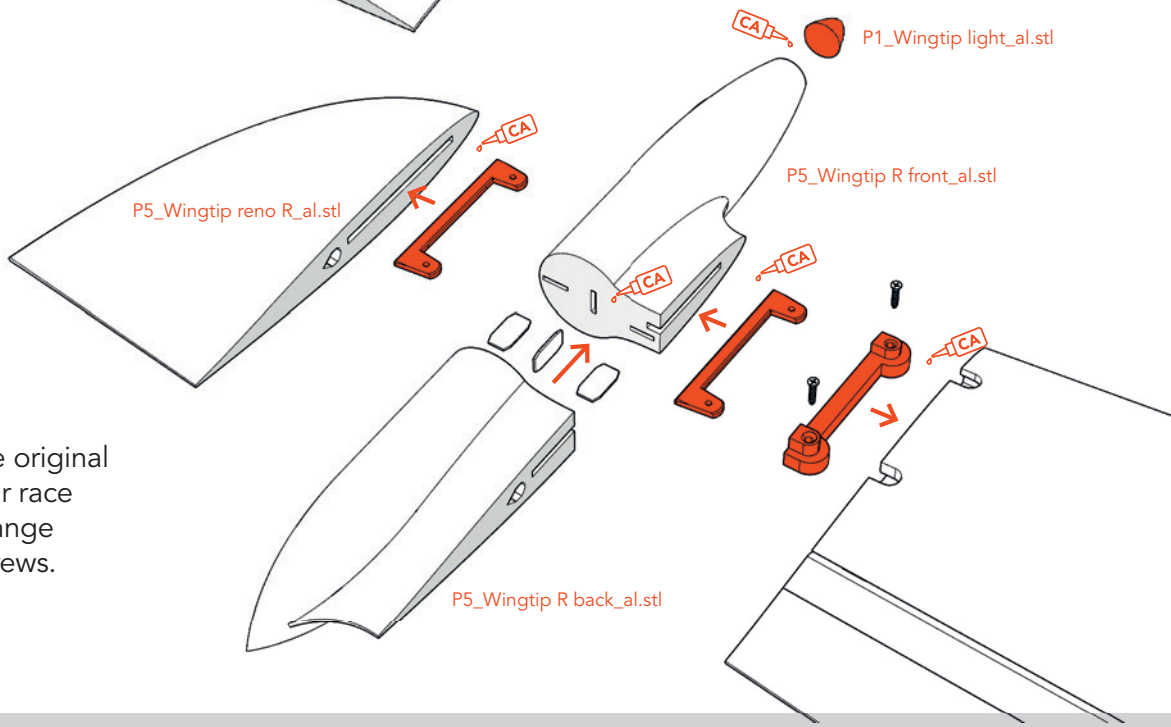
Servos Wing

When positioning the servos, make sure that the levers are centered in the recesses. The flap servo must be set to the **center position** as shown in the picture.



Wingtips

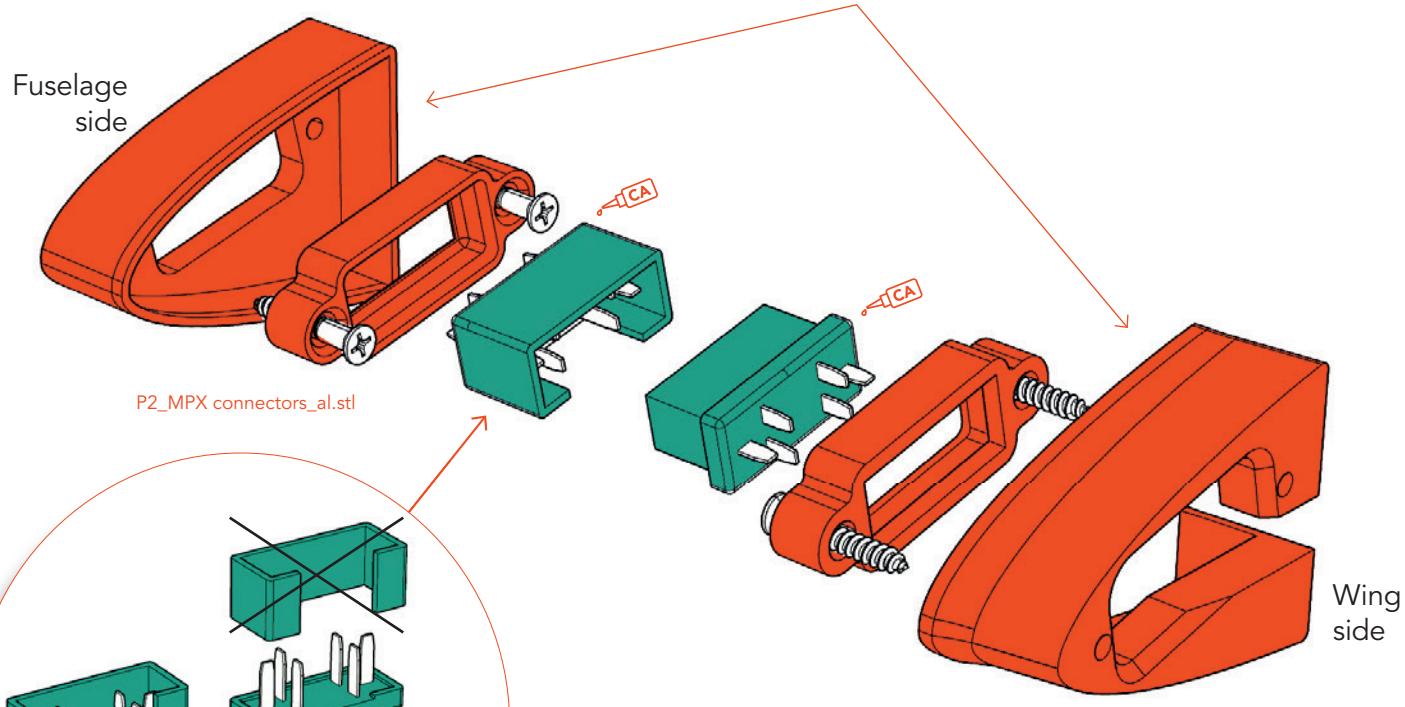
There are two variants, the original L39 tanks and the Reno Air race version. You can easily change them with two tapping screws.

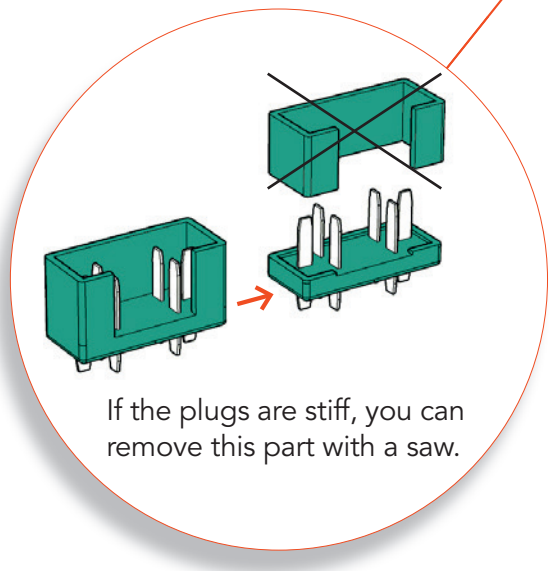


MPX Connectors

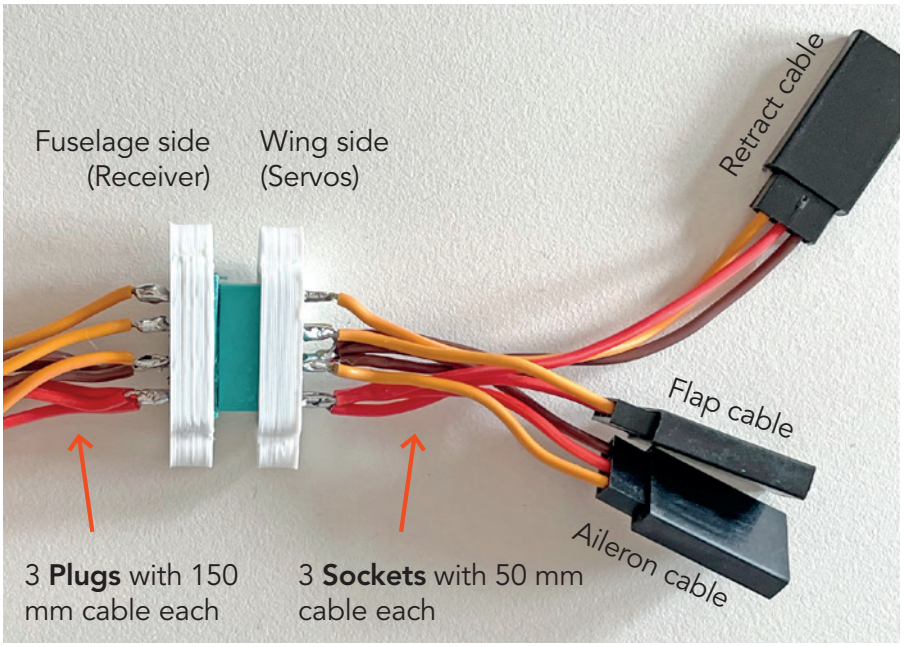
If you want to use MPX Connectors as a quick connector for the **wingservos**, you have to solder the wiring as shown here:

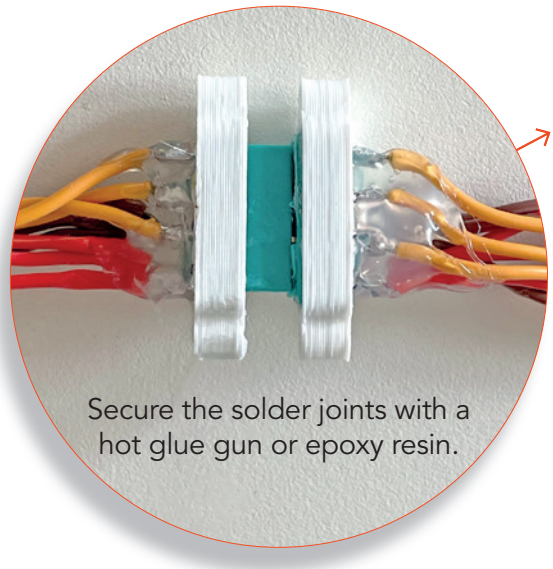
Glue this two brackets in the fuselage and wing so that they are flush with the outer edge. Check that the screwed-in connectors have sufficient contact when the wing is mounted.





If the plugs are stiff, you can remove this part with a saw.

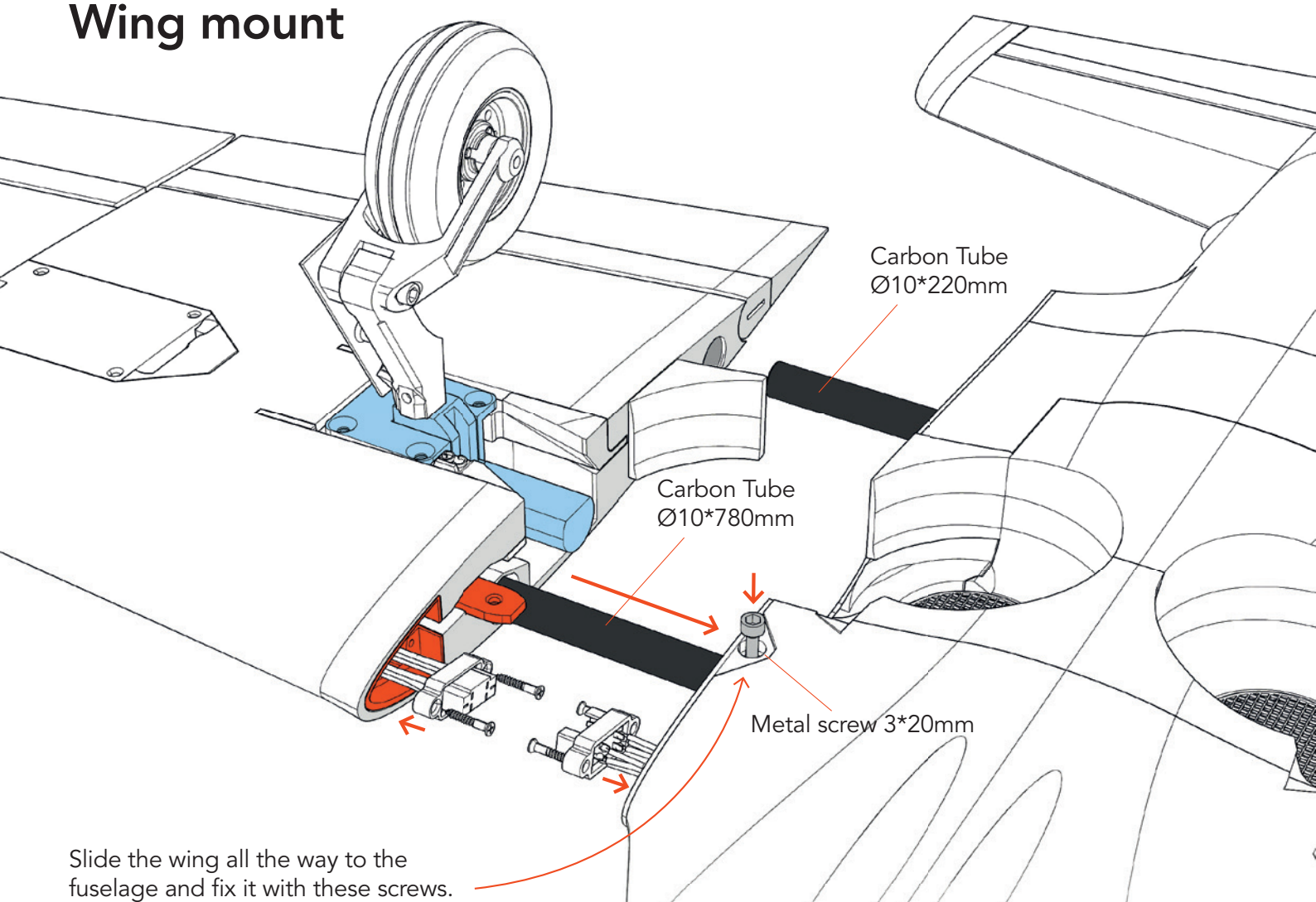




Secure the solder joints with a hot glue gun or epoxy resin.

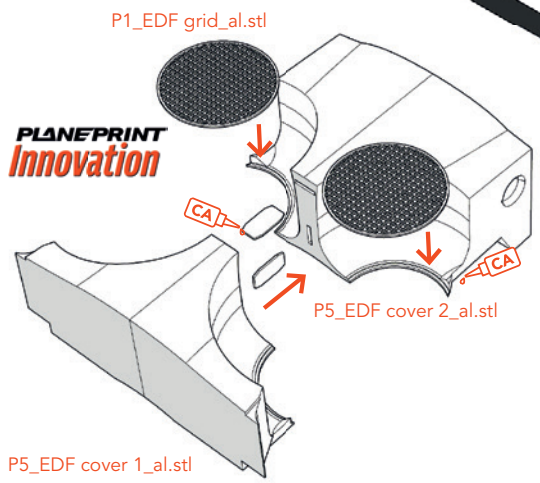
The MPX Connectors have 6 contacts over which 3 servos must be routed. Therefore **all red cables (+) and all black cables (-) are soldered together to ONE contact each**. The yellow signal cables must be soldered to separate contact pins!

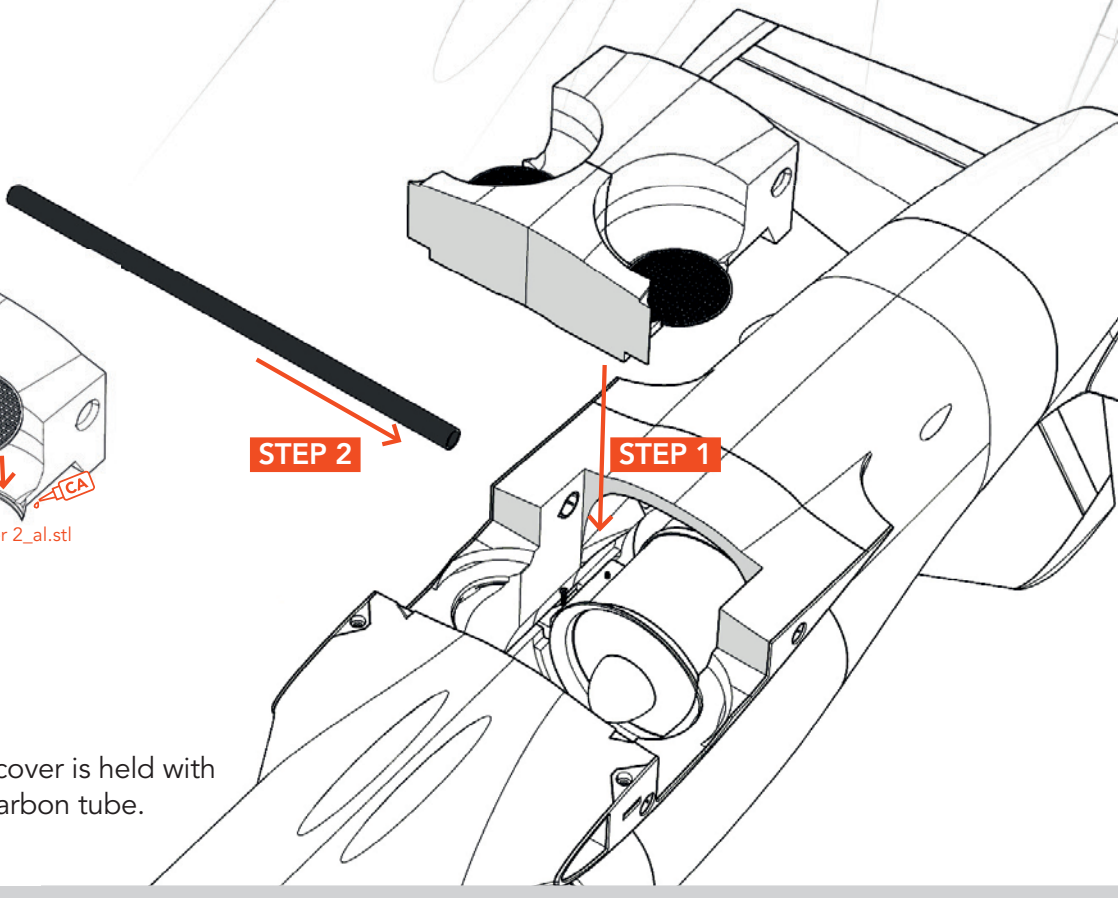
Wing mount



Slide the wing all the way to the fuselage and fix it with these screws.

EDF Cover



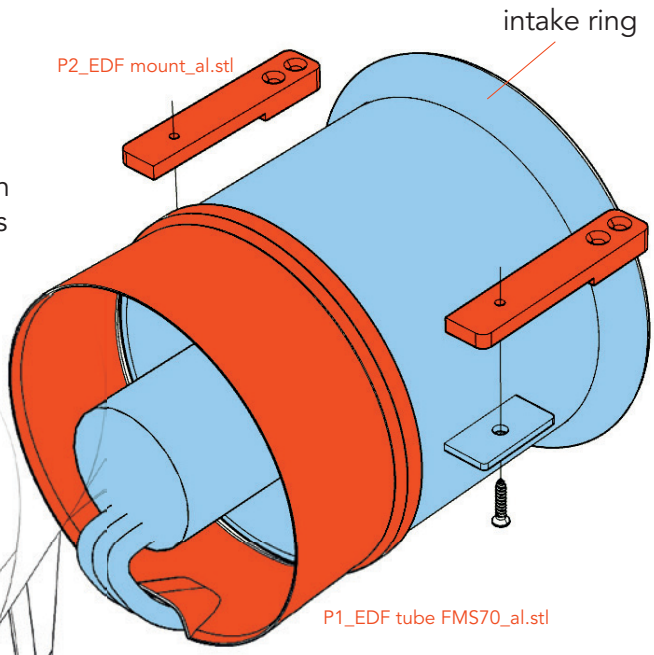


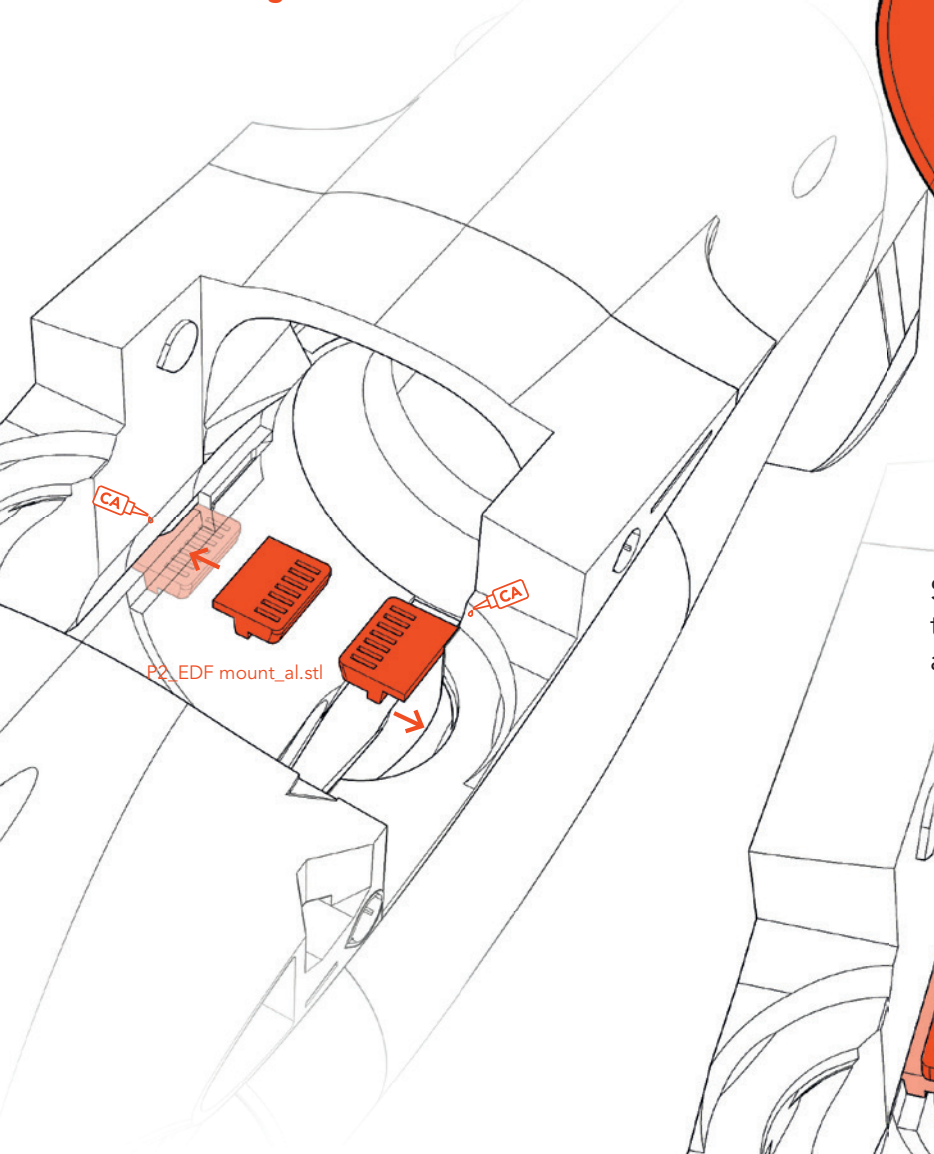
The EDF cover is held with the rear carbon tube.

EDF mount

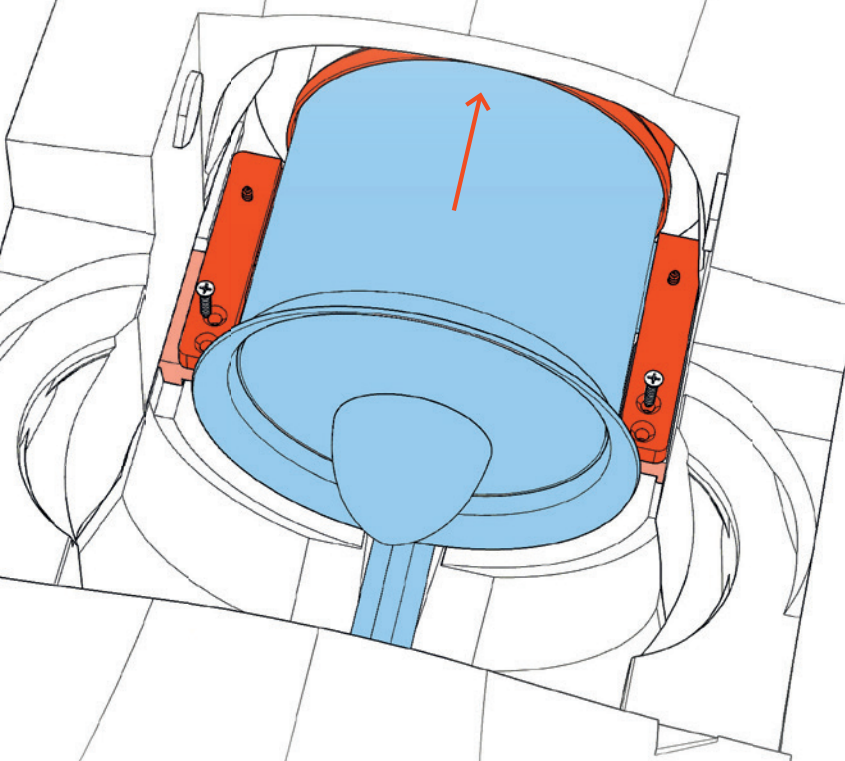
Screw on the EDF mount holder and secure the tube well with tape (If the tube does not fit your EDF, give us the dimensions and you will receive a customized tube).

The intake ring of the EDF must be mounted!



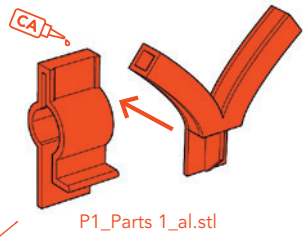


Slide the EDF back so that the tube is tight against the pushrod at the rear and tighten it.



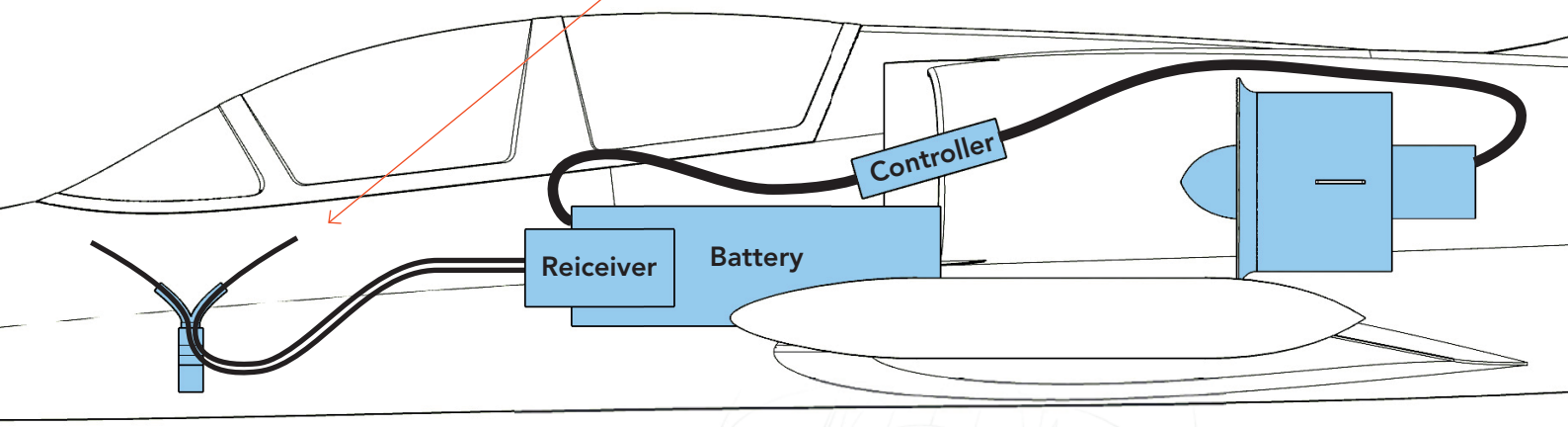
SAFETY FIRST Make sure the prop does not generate vibrations. **Check regularly that the EDF mounting is tight!**

RC Components

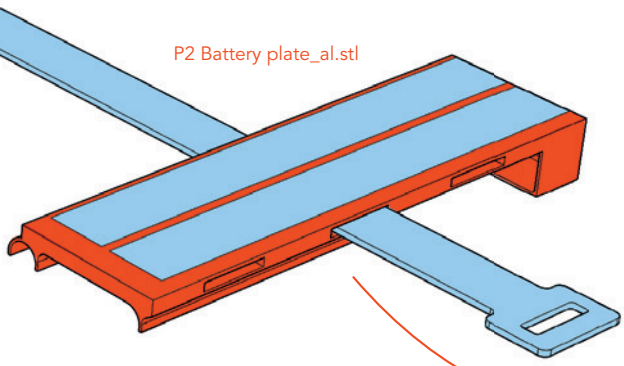


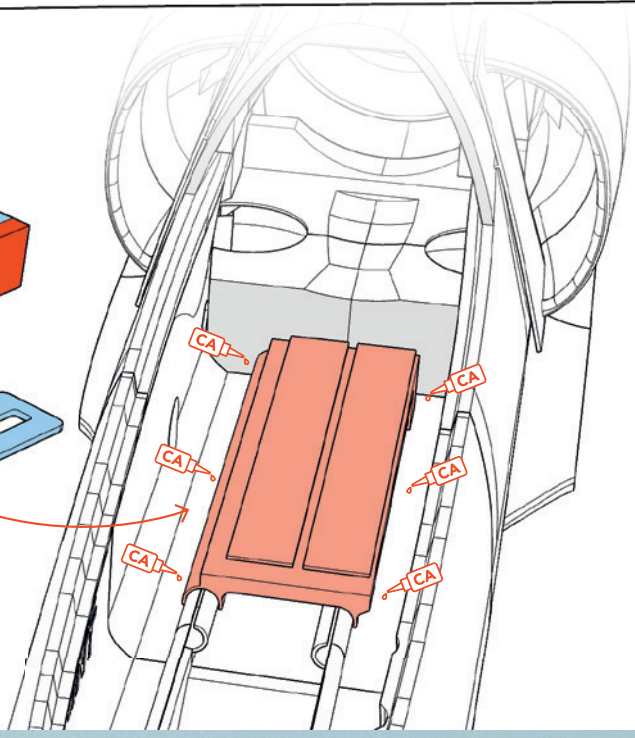
This antenna holder is clipped onto the carbon tube in fuselage 2 and aligns the antennas at a 90° angle.

P1_Parts 1_al.stl



P2 Battery plate_al.stl

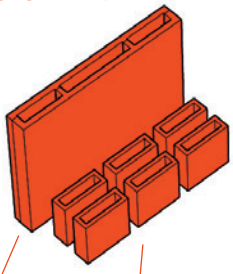


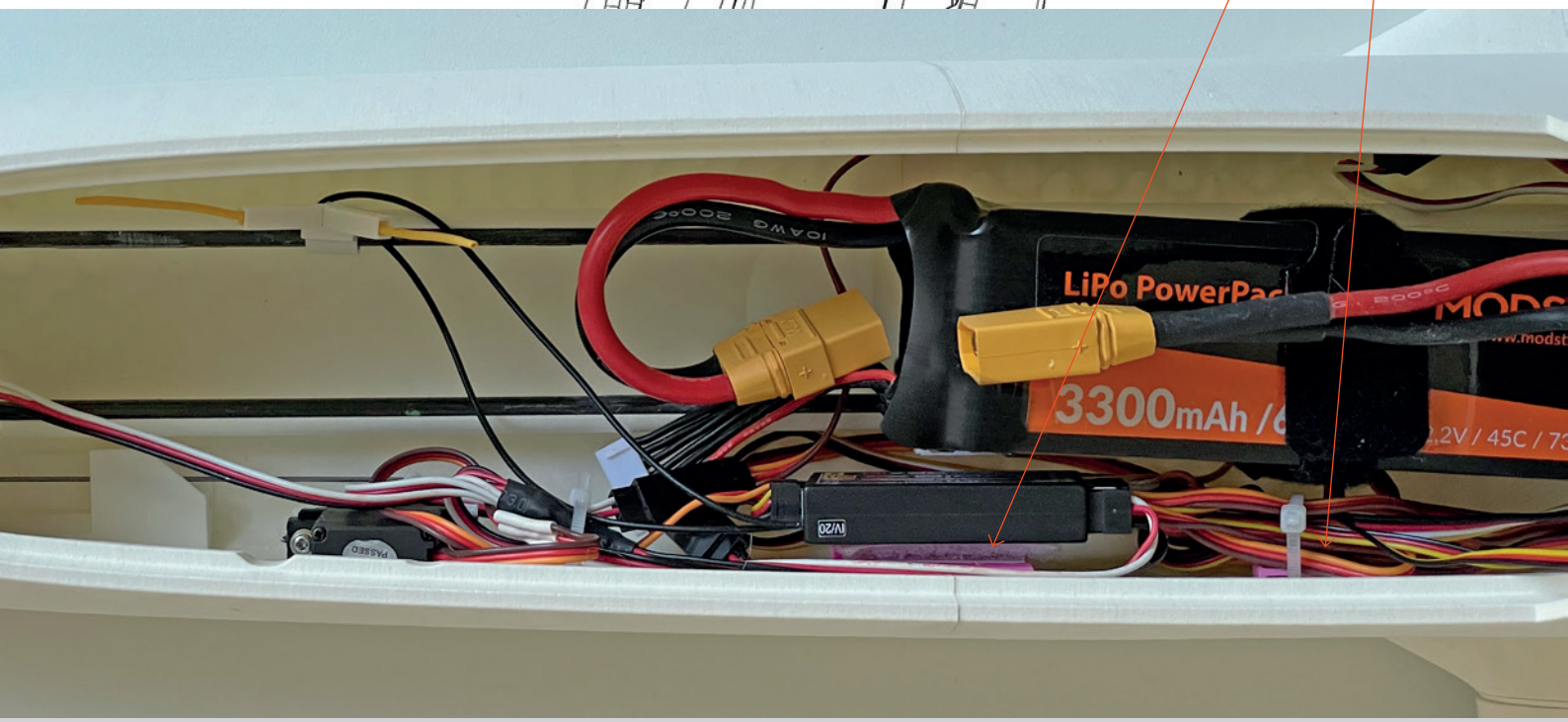


Use self-adhesive Velcro tape and Velcro strap to attach the battery.

These holders are suitable for cable ties, for fixing cables and Receiver/Controller.

Make sure that all cables are well fixed and can not get into the EDF!





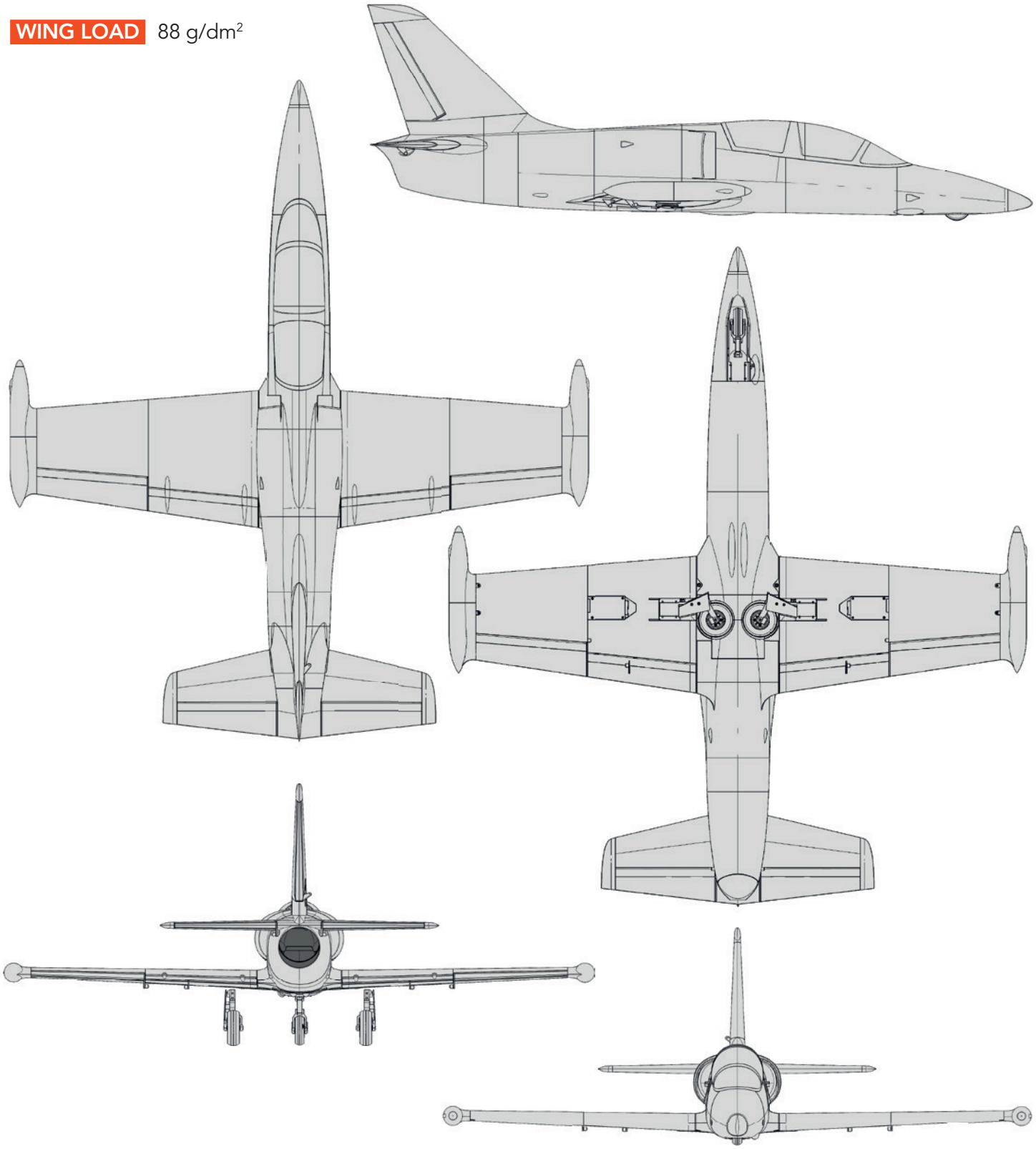
Technical specifications

WINGSPAN 1100 mm/43 inches

LENGTH 1160 mm/45.7 inches

FLIGHT WEIGHT 2410 grams

WING LOAD 88 g/dm^2

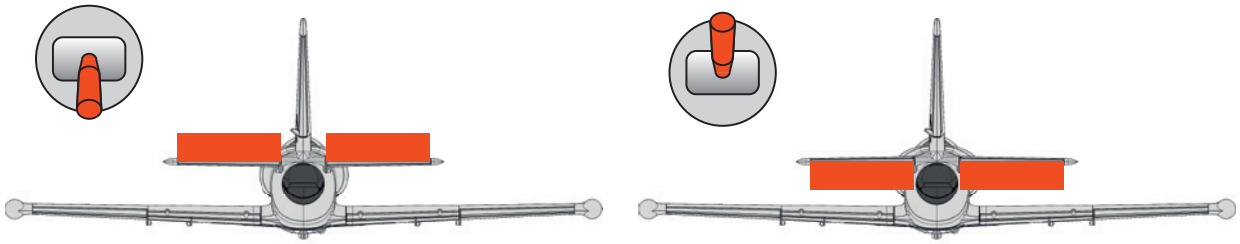


Control Direction Test

Look at the aircraft from behind

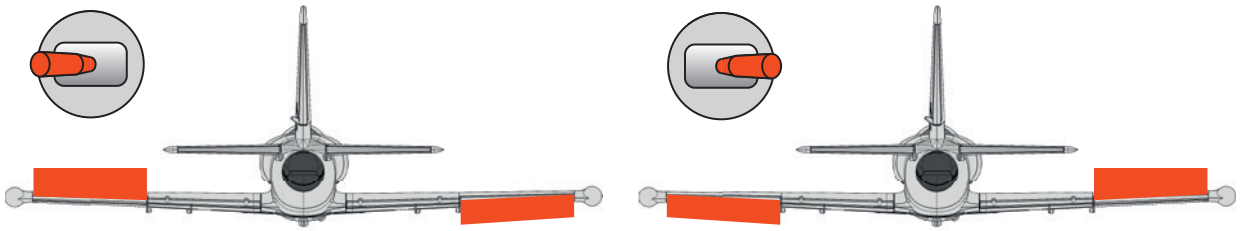
ELEVATOR

18 mm up
18 mm down



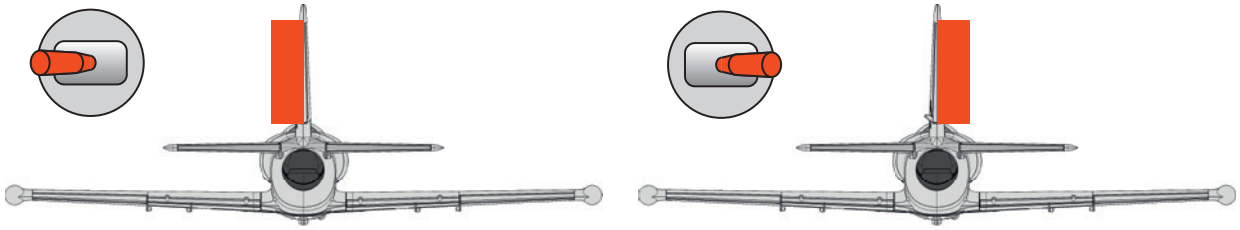
AILERON

19 mm up
13 mm down



RUDDER

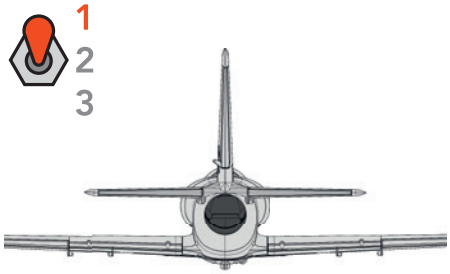
30 mm left
30 mm right



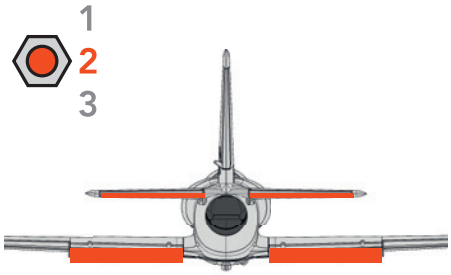
NOTE Mix the front wheel servo to this channel.

FLAPS

Normal

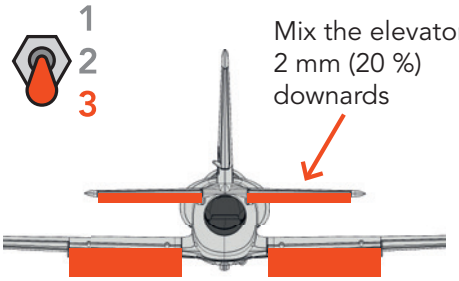


Start, slow flight



10 mm down

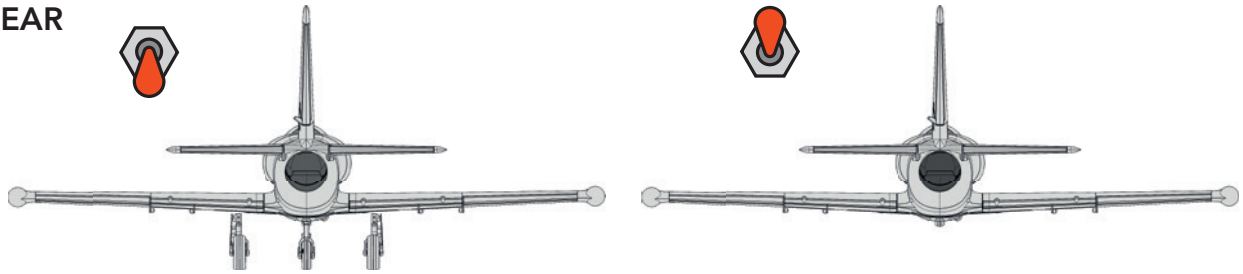
Landing



33 mm down

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

LANDING GEAR

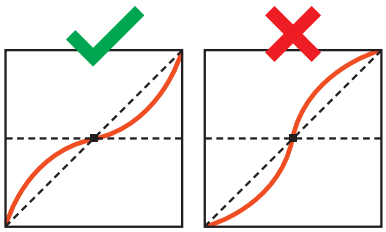


EXPO

ELEVATOR 40 %

AILERON 40 %

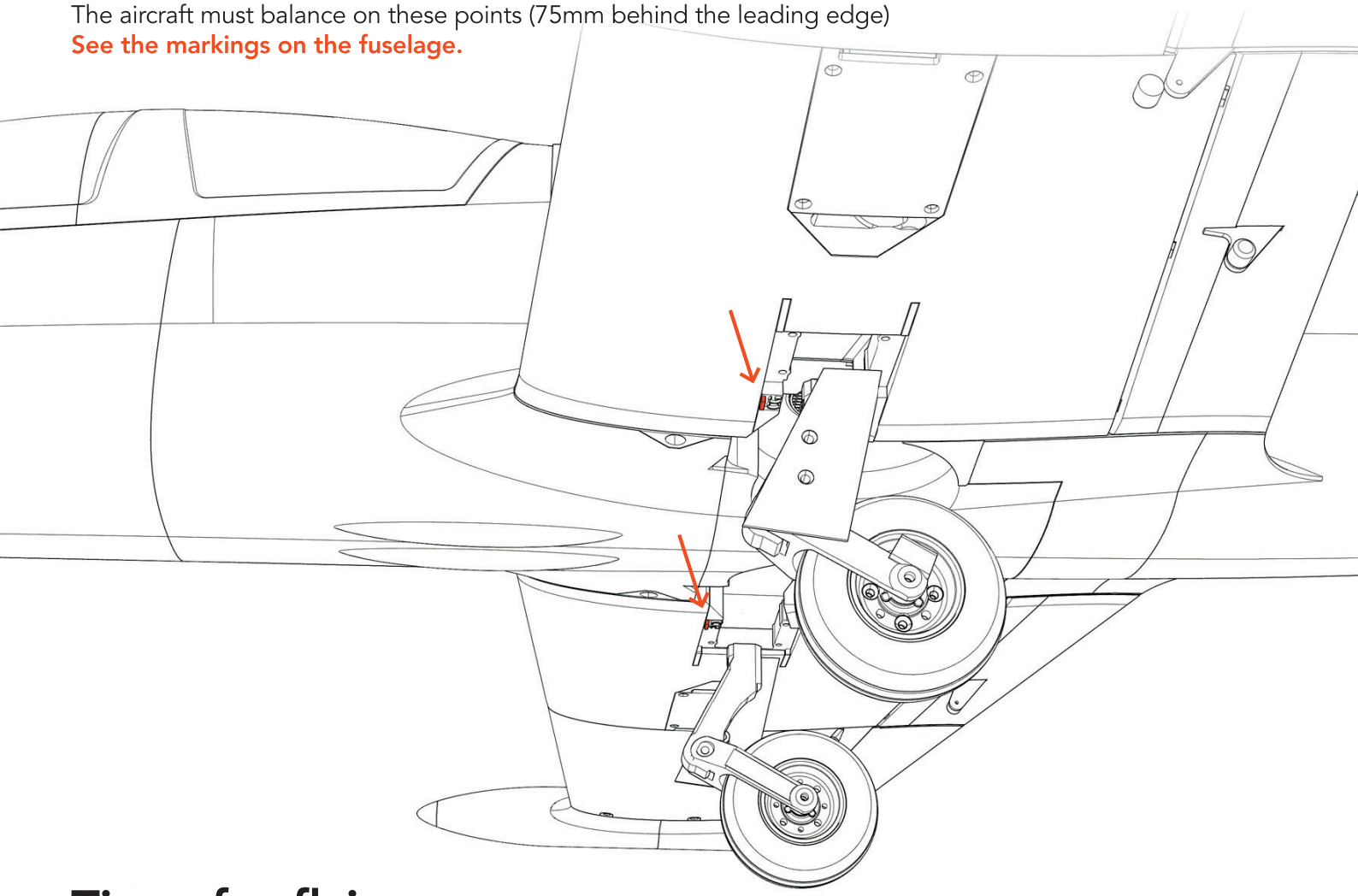
RUDDER 30 %



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

Center of Gravity (CG)

The aircraft must balance on these points (75mm behind the leading edge)
See the markings on the fuselage.



Tipps for flying

Before the maiden flight, do sufficient roll tests and set the front wheel for precise straight running. **You should fully charge the battery afterwards!**

Set the flaps to level 2 (start/slow flight) **for takeoff**, they increase lift and do not slow the aircraft down as much as fully set flaps.

Allow the L39 to accelerate to high speed before using the elevator to gently lift off.

Note that EDF drives need a lot of power and allow correspondingly short flight times. With a 3300 6S battery recommended and the FMS EDF, a flight time of about 4 to 6 minutes is achieved (not always full throttle of course). For the first flights it is therefore enormously important that you immediately familiarize yourself with the flight characteristics with the landing gear extended and flaps set. Preferably at high altitude! **Try the first landing a little earlier,** so that you still have enough power for a second or third landing attempt.

Fully extend the flaps and gear on the **opposite** approach. The **landing turn** should be flown very carefully, don't let the L39 slow down too much and don't fly it too flat. On final approach, let the model glide down gently, flaring out at low altitude by giving more and more elevator up until it touches down gently on the main gear.

If you land on asphalt, be prepared for a long roll, because the ball bearing wheels have little braking effect. However, they are absolutely necessary to have little resistance at takeoff and not to overheat the rims.

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!

The purchase of the STL does not authorize the production of models for third parties.

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.

PLANEPRINT.com assumes no responsibility for damage to persons and property caused by pressure, transport or use of the product. Filaments, printing supplies, hardware or consumables that can not be used after faulty 3D printing will not be replaced by PLANEPRINT.com in any way.

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.

We develop our models to the best of our knowledge and belief. We accept no liability for consequential damage and injuries caused by improper use or incorrectly printed parts. **Please be careful when handling motors, batteries and propellers** and only move your model with insurance and in approved places!

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