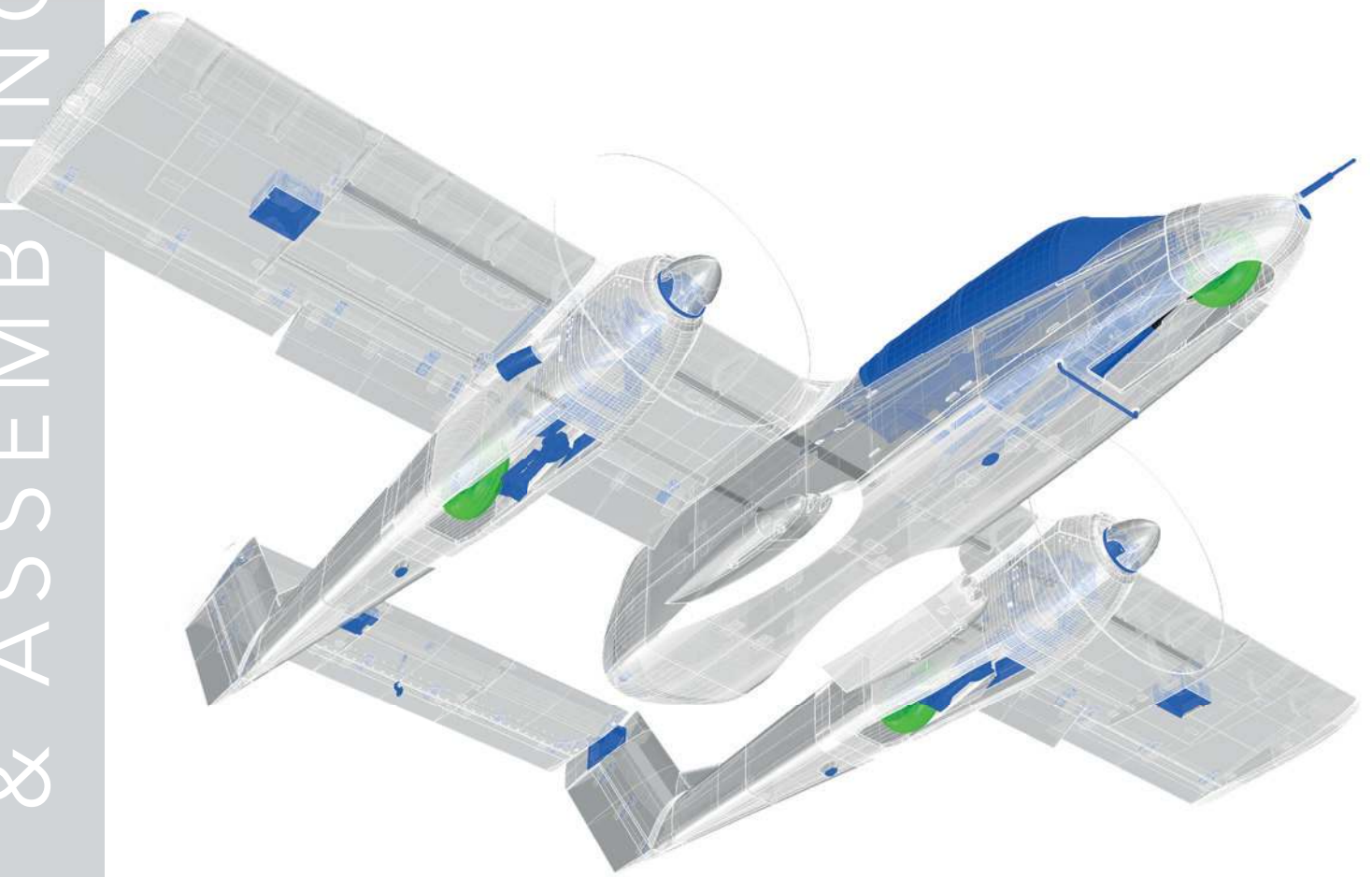


PLANE PRINT



PLANE PRINT *OV10* Bronco

Twin-engine Aircraft with landing flaps and retractable landing gear



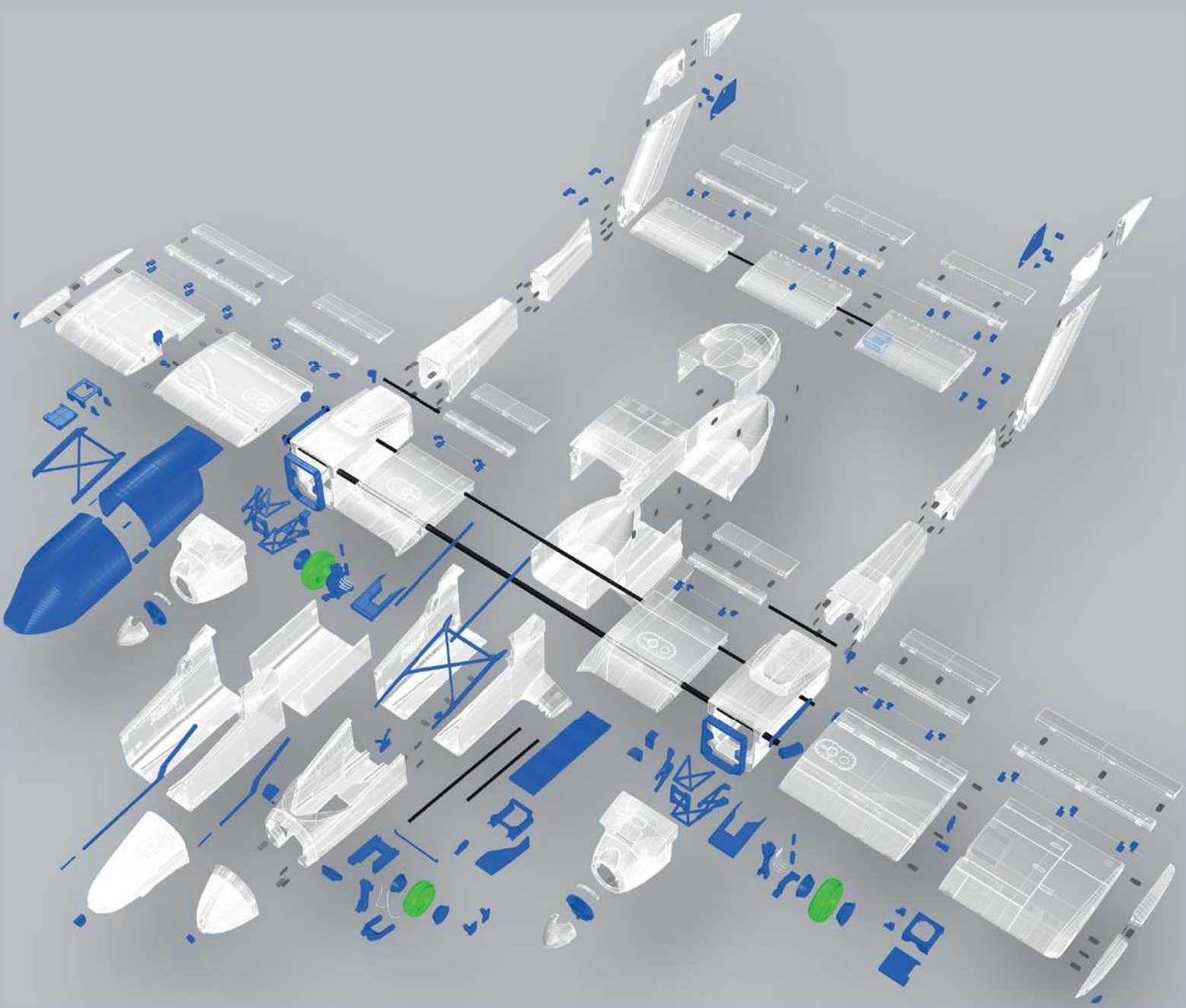
NOTE:
Slicing works best
with CURA!



www.planeprint.com

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

PLANE PRINT *OV10* Bronco



 LW-PLA  PLA  TPU  CARBON

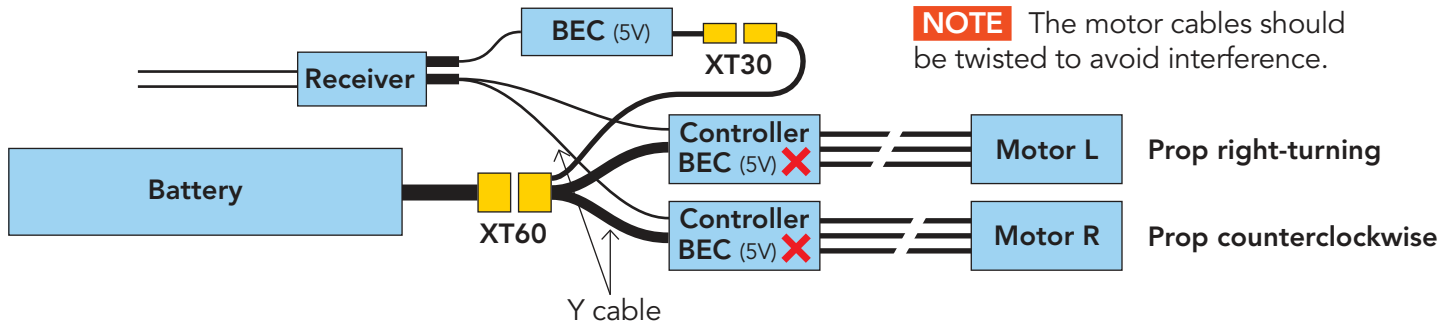
RC Components

MOTORS 2 pieces, for example: • PLANET-HOBBY JOKER 3542-6,5 V3 800 KV BRUSHLESS MOTOR

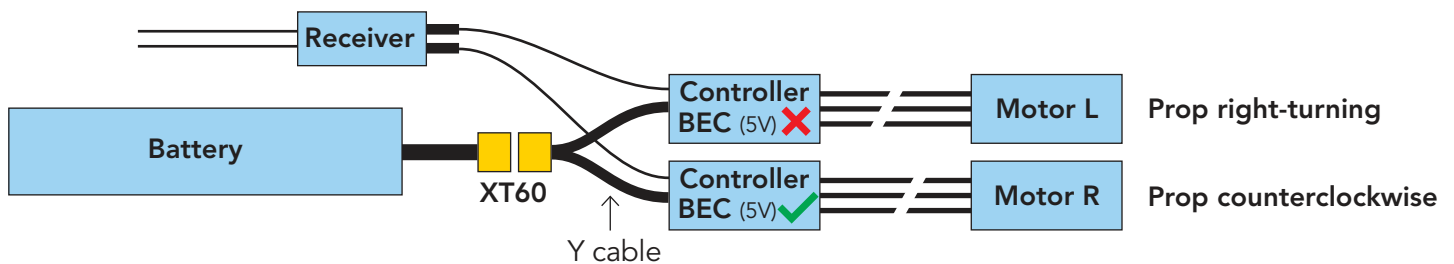
PROPELLER 3 blade Prop 10*7 like Master Airscrew, 1 piece clockwise and 1 piece counterclockwise!
or 2 blades 12*7 (is very close to the ground when the gear deflects!)

CONTROLLERS suitable for your Motors, 2 pieces

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 9 Channel

BATTERY 4S LiPo-Akku, 3500 - 4500 mAh (Ideal weight 300 to 400 grams)

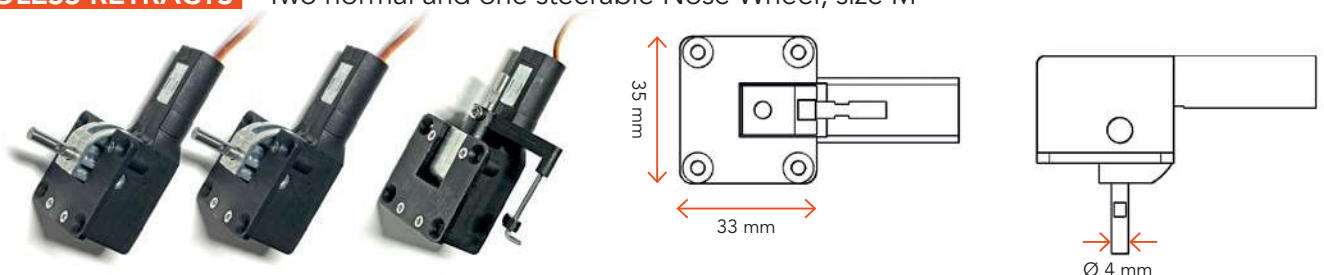
SERVOS 6 pieces **max 12 mm** thick, for example: • Hitec HS55
• Savox SH-0254

2 Servos **max 9 mm** thick, for example: • PLANET-HOBBY ECO Plus Picco 8
• Hitec HS 40 Eco Servo 4,8g

SERVO CABLE cross section 0.25 qmm, twisted cable, **4 meters** 
(We recommend soldering the cables instead of using plug-in extensions)
Servo cable extension **with plugs** 50 mm, **2 pieces**

MOTOR CABLE cross section 1.5 qmm (to extend the distance between controller and motor)

SERVOLESS RETRACTS Two normal and one steerable Nose Wheel, size M



Required accessoires – basic equipment

Links to recommended accessories can be found on www.planeprint.com/ov10 (scroll down)

- **LW-PLA (cannot be replaced by PLA!)**, ~1100 grams
- **PLA** oder better **Tough PLA**, ~400 grams
- **LW-TPU Colorfabb VarioShore** (A95 possible), ~100 grams

Materials

- CA super glue (liquid and liquid medium)
- CA activator
- some tapping screws $\varnothing 2\text{mm}$
- Metal screw 3*8mm, 5 pieces
- Metal screw 3*20mm, 11 pieces
- Metal screw 3*35mm, 3 pieces
- Metal screw 3*6mm (or grub screw), 5 pieces
- Metal screw nut 3mm, 7 pieces
- Carbon tube $\varnothing 10\text{mm} \times 1000\text{mm}$ (inside 8mm), 1 piece
- Carbon tube $\varnothing 6 \times 1000\text{mm}$, 2 pieces
- Carbon fiber strip (flat profile) $1 \times 5 \times 1000\text{mm}$, 1 piece
(Can also be replaced by a carbon rod $\varnothing 3\text{mm}$)
- Steel wire $\varnothing 1 \times 1000\text{mm}$, 3 pieces
- Rod connection hole $\varnothing 1$ to 2mm, 8 pieces
- Ball bearings 3x6x2,5mm, 6 pieces
- Self-adhesive Velcro tape
- Velcro strap

Tools

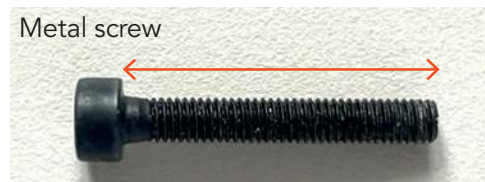
Cutter knife, small Philips screwdriver, Sandpaper grain ~150, Metal saw, Needle nose pliers, Soldering tool



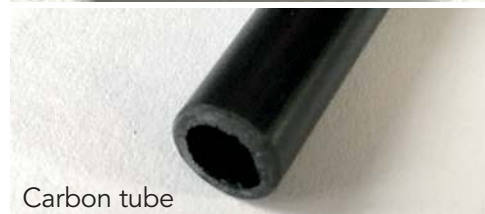
Tapping screws $\varnothing 2\text{mm}$



Rod connection hole $\varnothing 1$ to 2mm

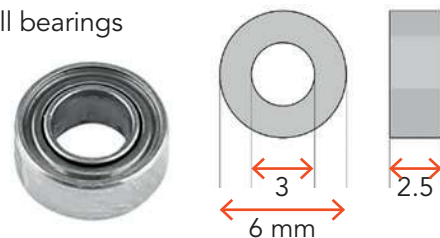


Metal screw



Carbon tube

Ball bearings





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.planepprint.com/print

For this model you need the following profiles:



NOTE When printing the OV-10 Bronco you should pay particular attention to a light weight of **each** individual part, since the necessary installations are already very heavy in total (Gear, Motors, 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 Tough PLA or PLA



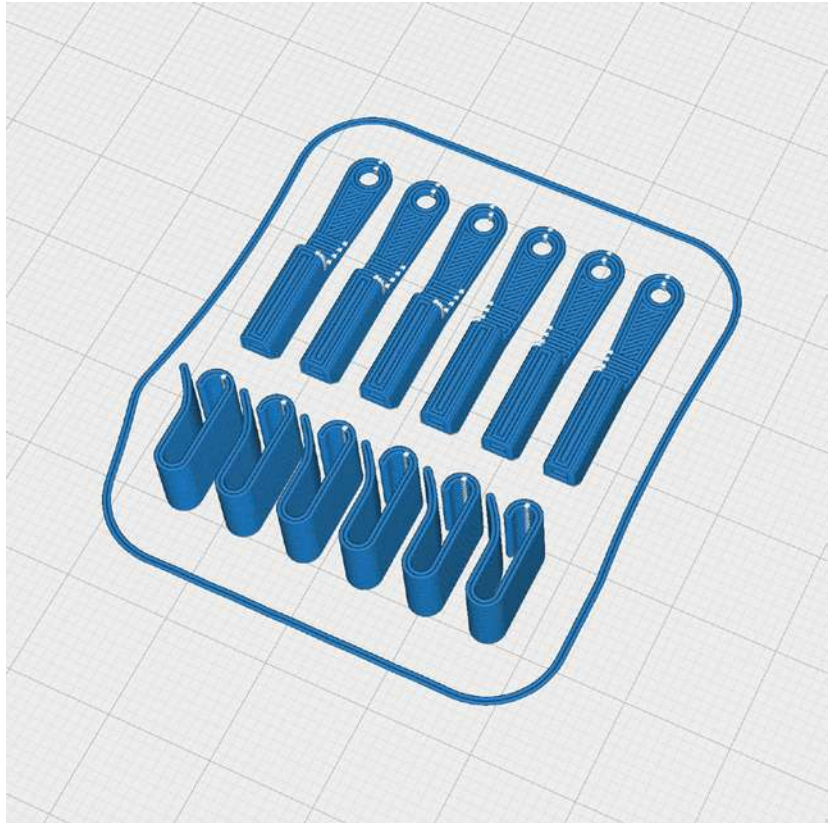
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Clips-br.stl

MATERIAL Tough PLA, Weight: ~ 3 g

ADDITIONAL SETTINGS

None required

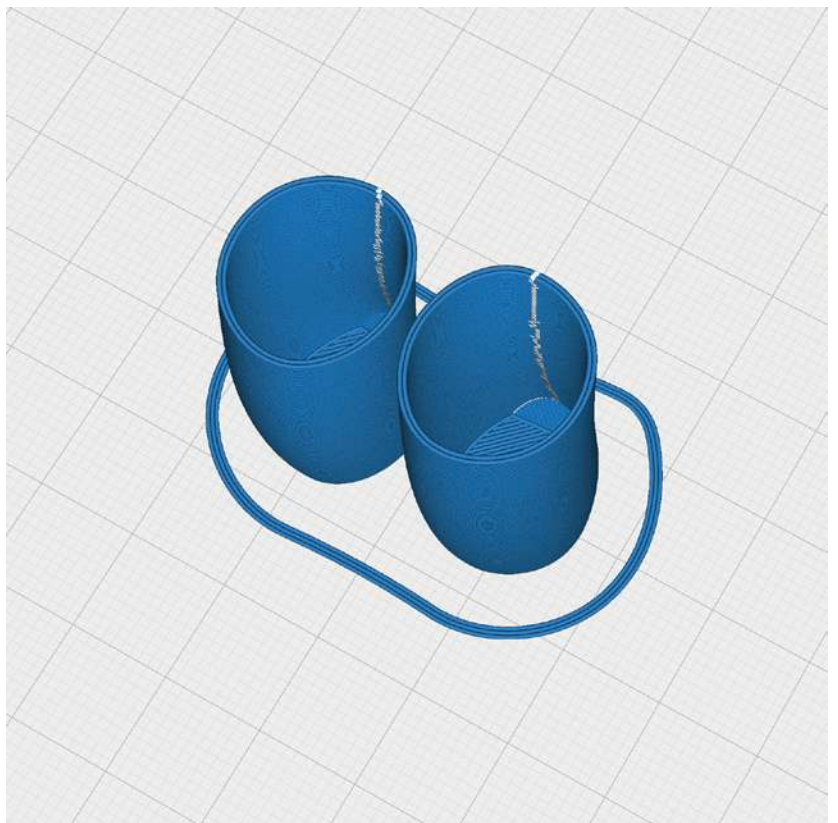


P1_Exhaust-br.stl

MATERIAL PLA, Weight: ~ 4 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody Tough PLA or PLA



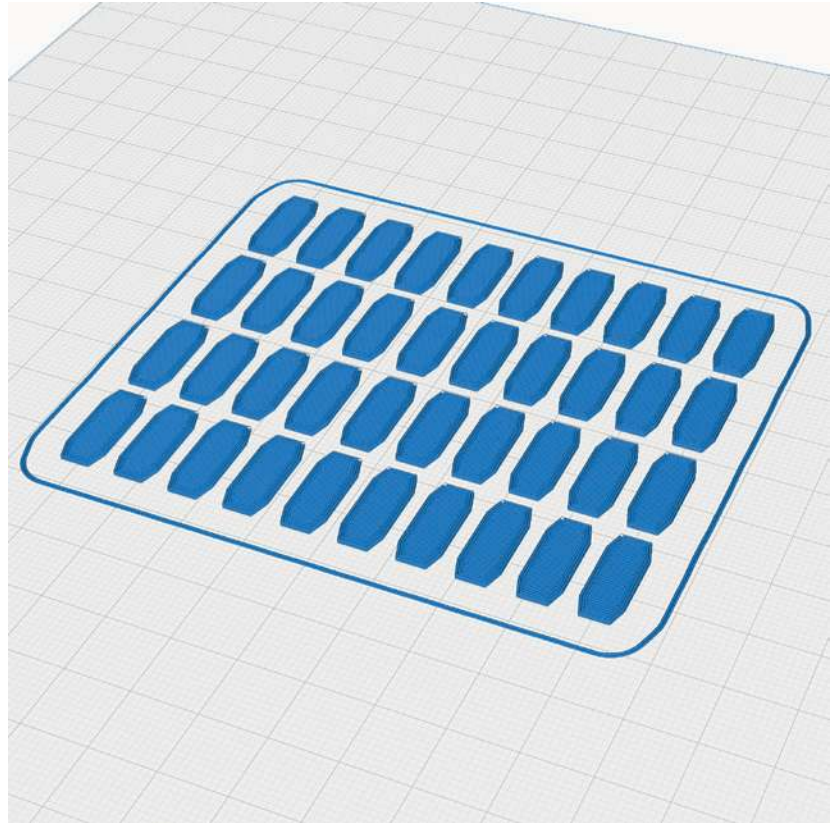
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Interconnects-br.stl

MATERIAL PLA, Weight: ~ 4 g

ADDITIONAL SETTINGS

- Print this part 3 times

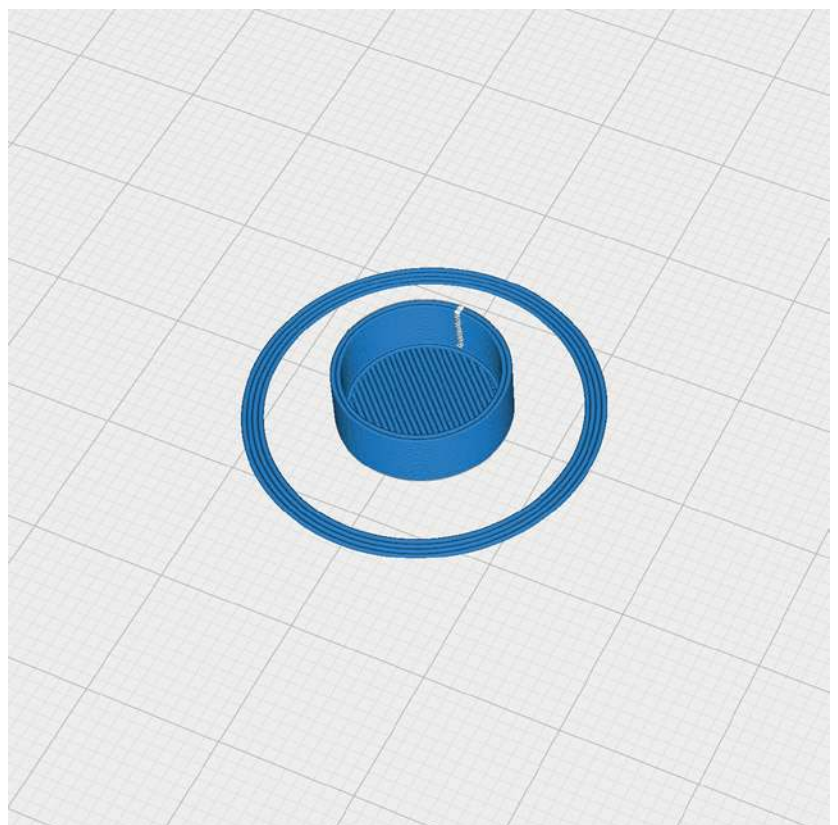


P1_Landing light A version-br.stl

MATERIAL PLA, Weight: ~ 0 g

ADDITIONAL SETTINGS

- Transparent filament recommended



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!

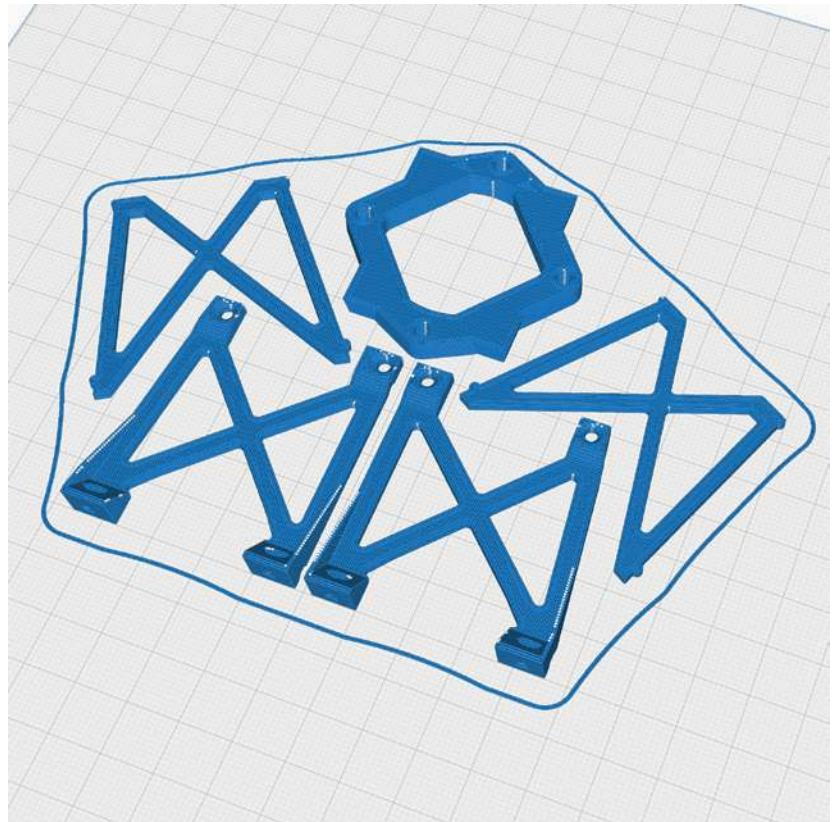
P1_Motormount 42-br.stl

MATERIAL Tough PLA, Weight: ~ 14 g

ADDITIONAL SETTINGS

- Print this part 2 times

These parts hold the motor and must be **absolutely stable!** Ensure good layer adhesion.

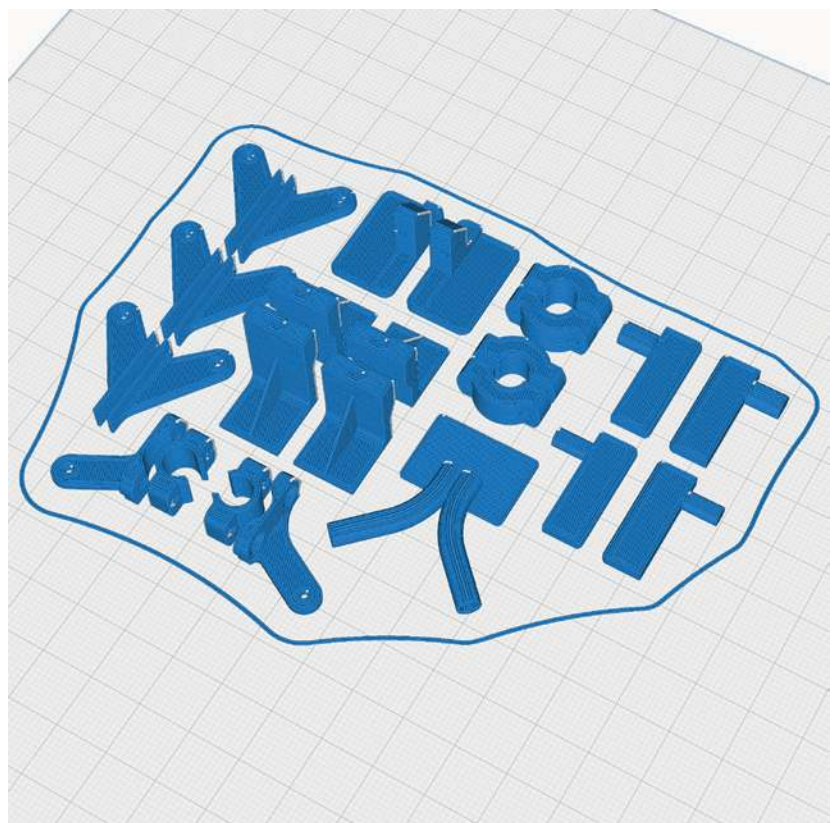


P1_Parts 1-br.stl

MATERIAL Tough PLA, Weight: ~ 17 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody Tough PLA or PLA



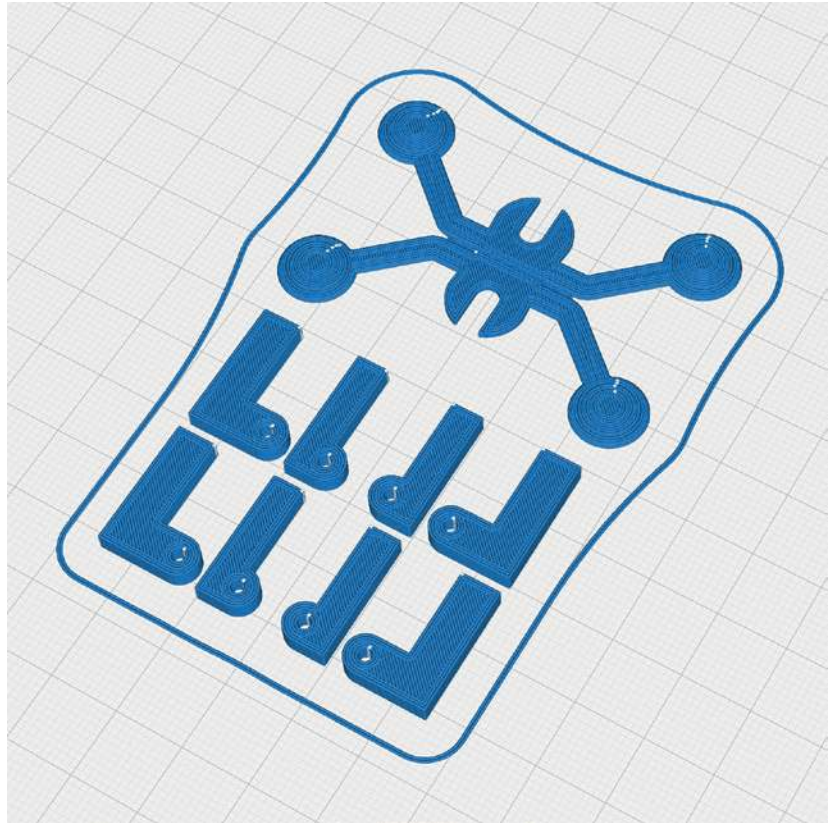
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Parts 2-br.stl

MATERIAL PLA, Weight: ~ 5 g

ADDITIONAL SETTINGS

None required

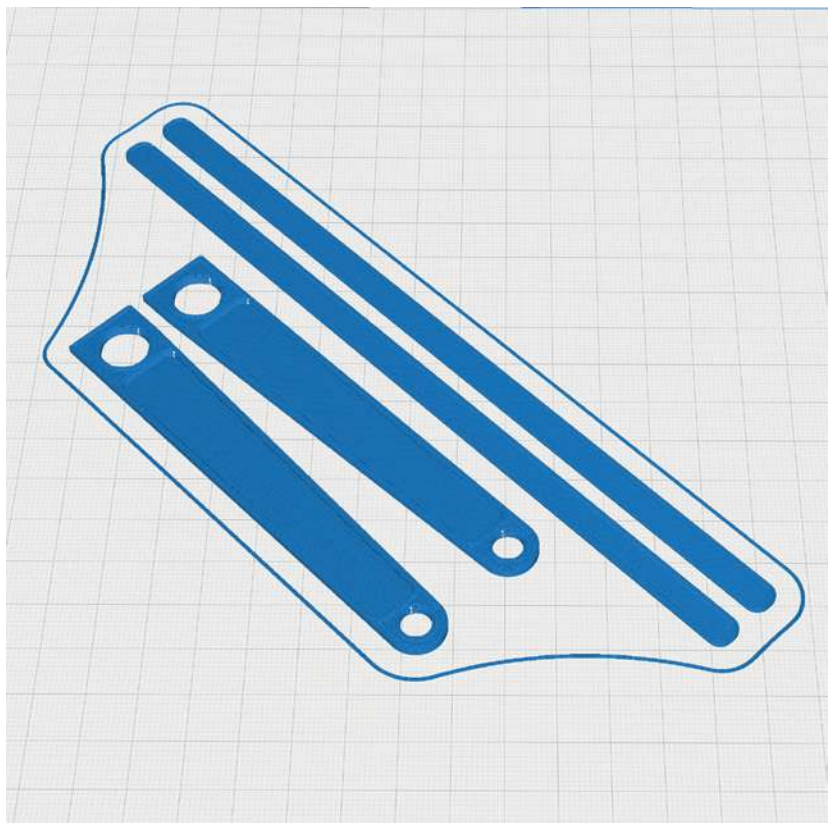


P1_Parts 3-br.stl

MATERIAL PLA, Weight: ~ 7 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody Tough PLA or PLA



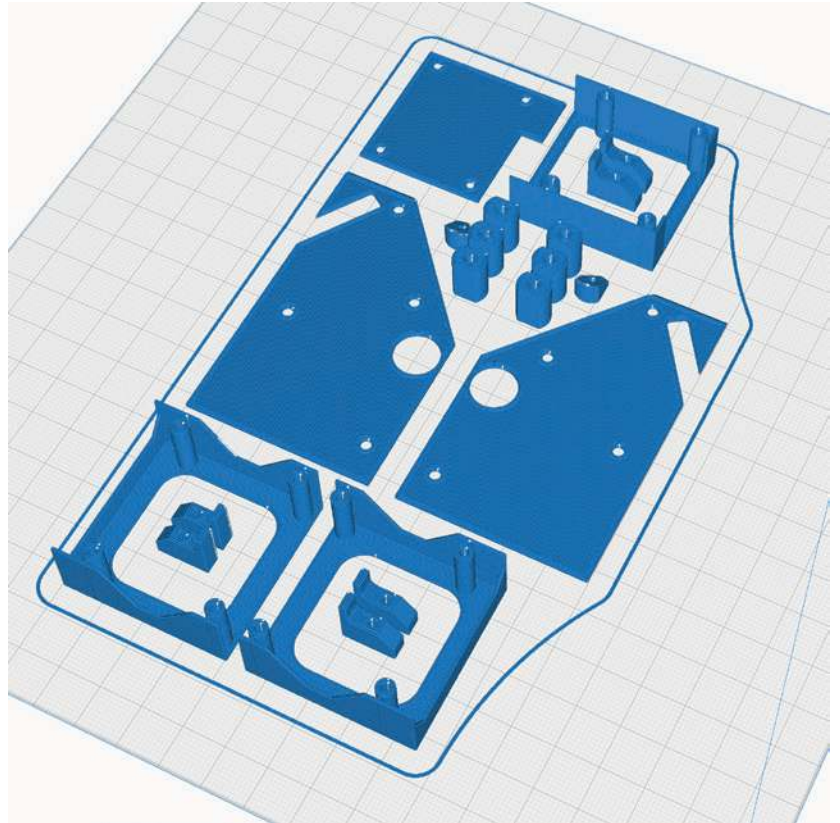
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Servo mount-br.stl

MATERIAL PLA, Weight: ~ 24 g

ADDITIONAL SETTINGS

None required

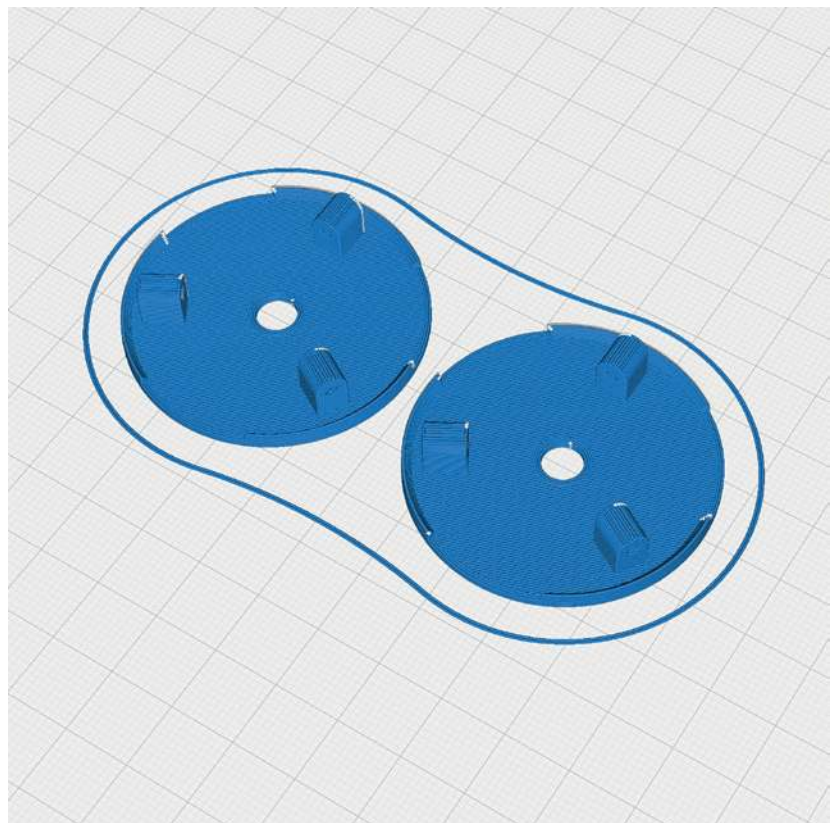


P1_Spinner Plates 6mm-br.stl

MATERIAL PLA, Weight: ~ 7 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_Wing Clips-br.stl

MATERIAL PLA, Weight: ~ 2 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!

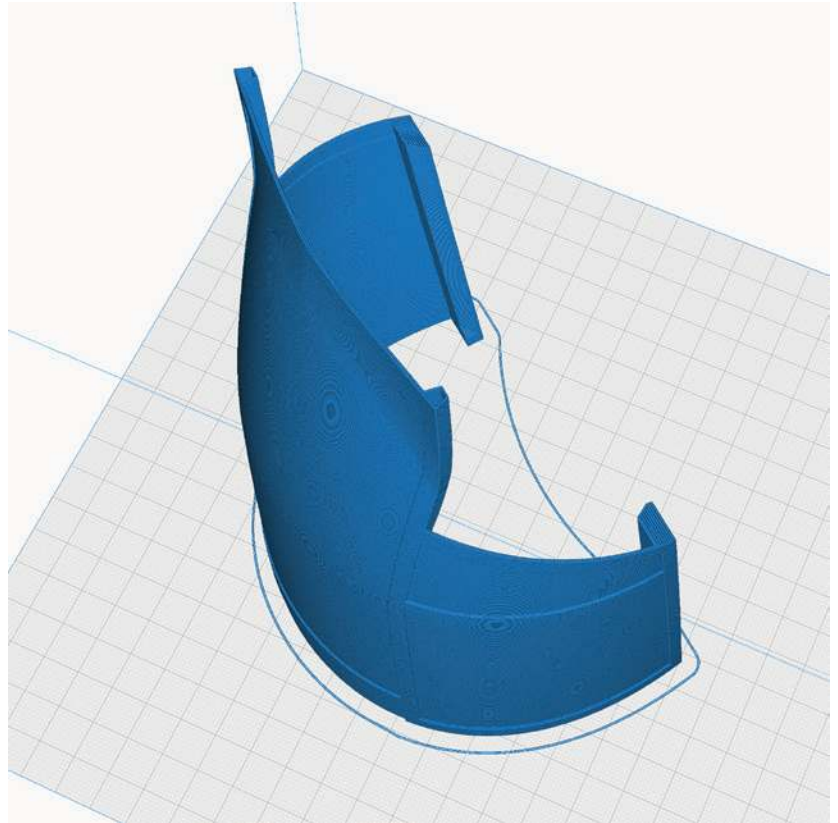
V_Canopy back-br.stl

MATERIAL PLA, ~ 34 g

SETTINGS

- Layer Height: 0.25 mm
- Wall Line Count/Perimeters: 1
- Spiralize Outer Contour (Cura)/
Spiral Vase (Prusa)
- Top and Bottom Layers: 0
- Set Brim

Transparent filament recommended



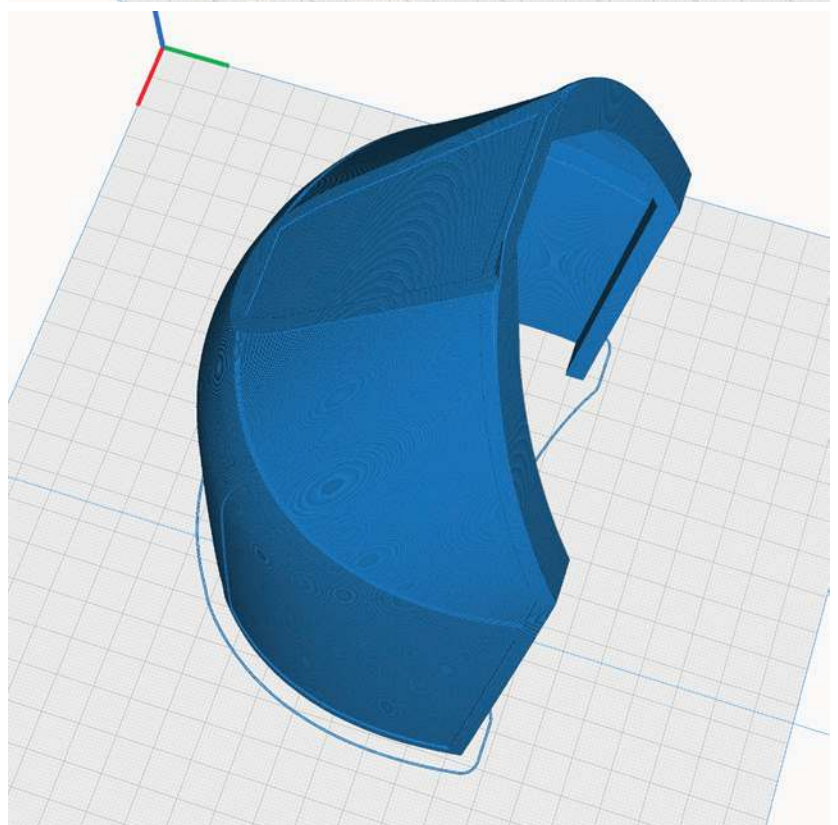
V_Canopy front-br.stl

MATERIAL PLA, ~ 42 g

SETTINGS

- Layer Height: 0.25 mm
- Wall Line Count/Perimeters: 1
- Spiralize Outer Contour (Cura)/
Spiral Vase (Prusa)
- Top and Bottom Layers: 0
- Set Brim

Transparent filament recommended



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!

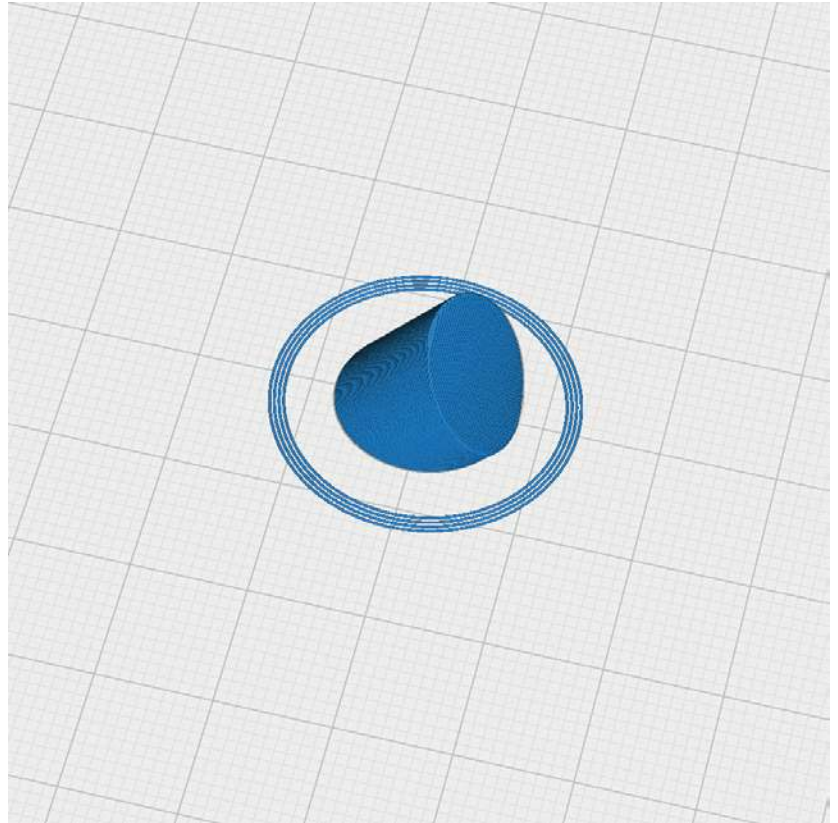
V_Landing light D version-br.stl

MATERIAL PLA, ~ 0 g

SETTINGS

- Layer Height: 0.25 mm
- Wall Line Count/Perimeters: 1
- Spiralize Outer Contour (Cura)/
Spiral Vase (Prusa)
- Top and Bottom Layers: 0

Transparent filament recommended



V_Light 1-br.stl 2 pieces

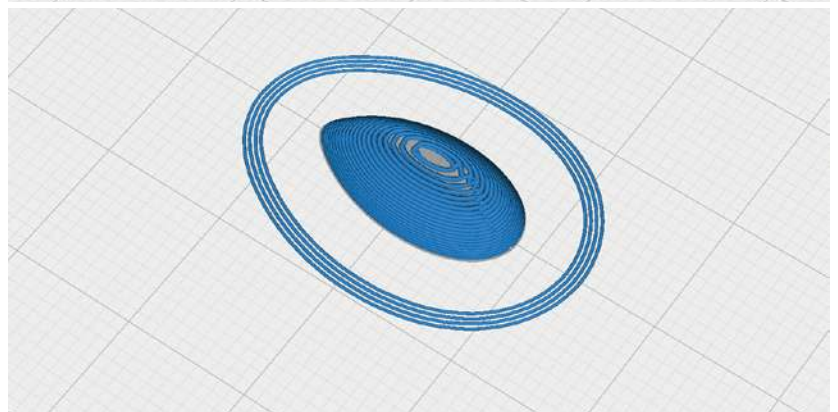
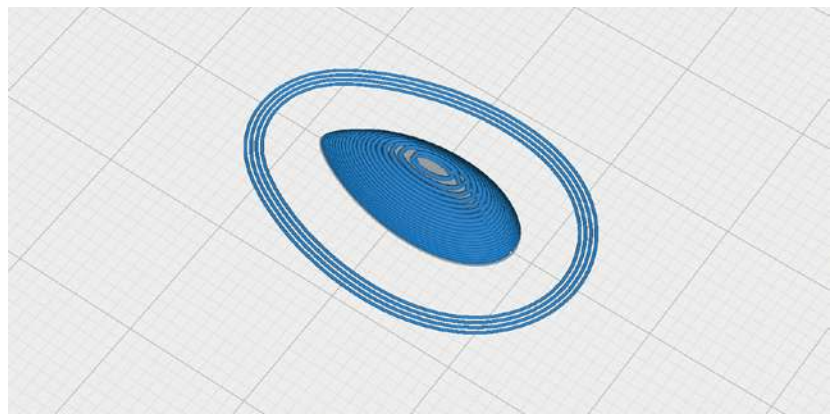
V_Light 2-br.stl 4 pieces

MATERIAL PLA, ~ 0 g

SETTINGS

- Layer Height: 0.25 mm
- Wall Line Count/Perimeters: 1
- Spiralize Outer Contour (Cura)/
Spiral Vase (Prusa)
- Top and Bottom Layers: 0

Transparent filament recommended



PROFILE P2_Hollowbody Tough PLA or PLA



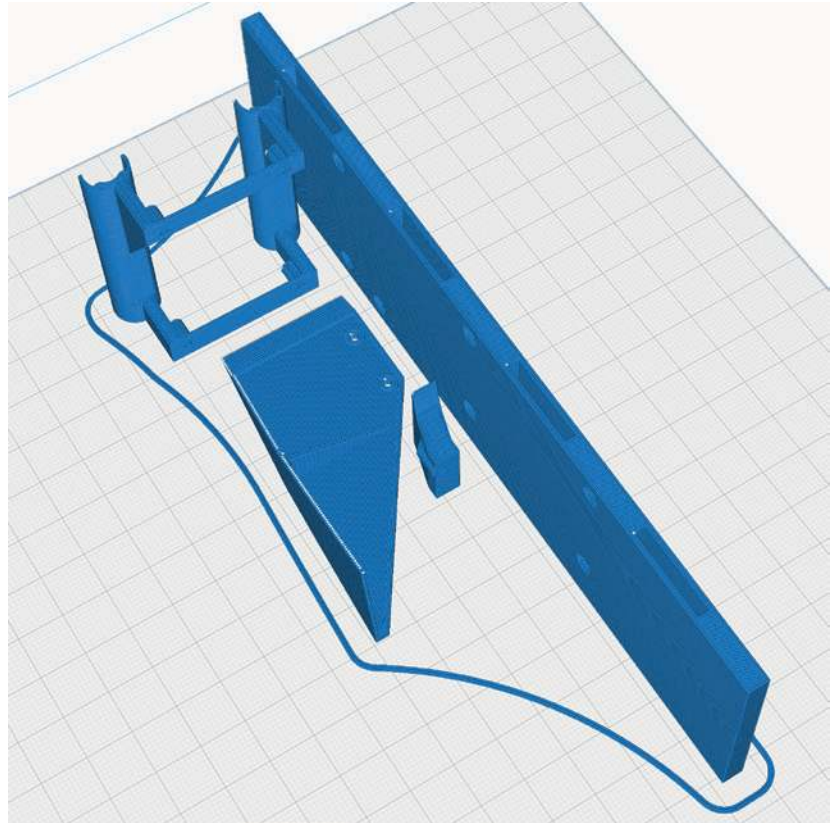
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Battery plate-br.stl

MATERIAL PLA, Weight: ~ 34 g

ADDITIONAL SETTINGS

None required

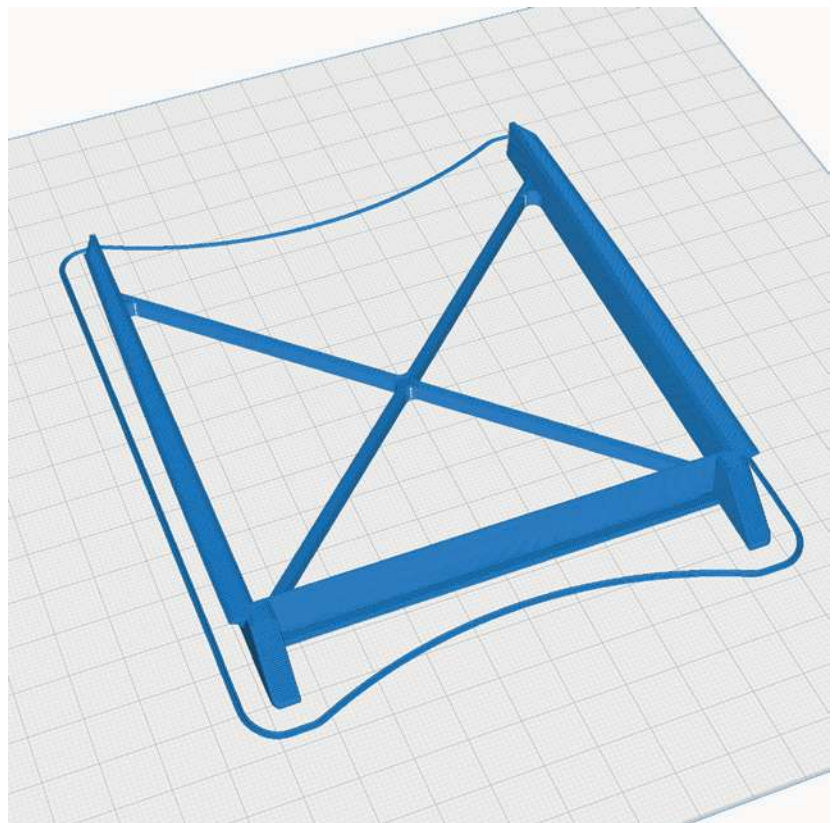


P2_Canopy cross-br.stl

MATERIAL PLA, Weight: ~ 6 g

ADDITIONAL SETTINGS

- Wall Line Count/Perimeters: 1
- Infill Density/Fill Density: 6 %



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_Canopy interconnects-br.stl

MATERIAL PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

None required

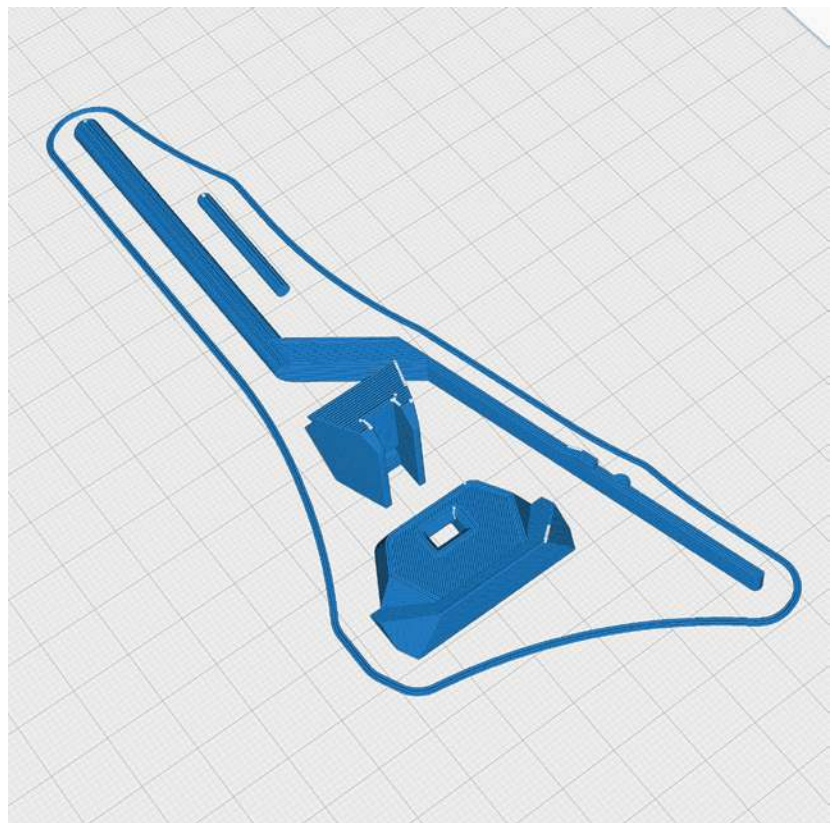
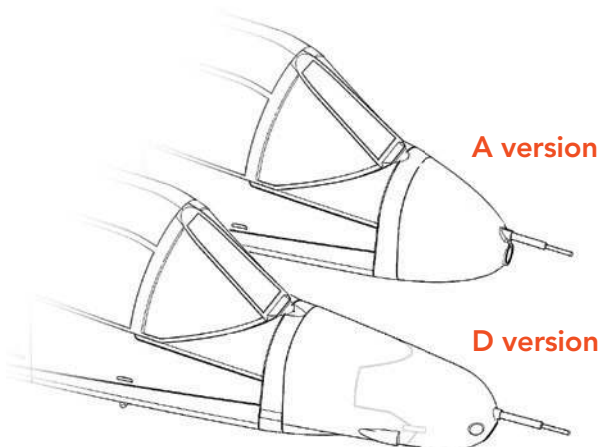


P2_Canopy lock A version-br.stl or P2_Canopy lock D version-br.stl

MATERIAL PLA, Weight: ~ 7 g

ADDITIONAL SETTINGS

None required



PROFILE P2_Hollowbody Tough PLA or PLA



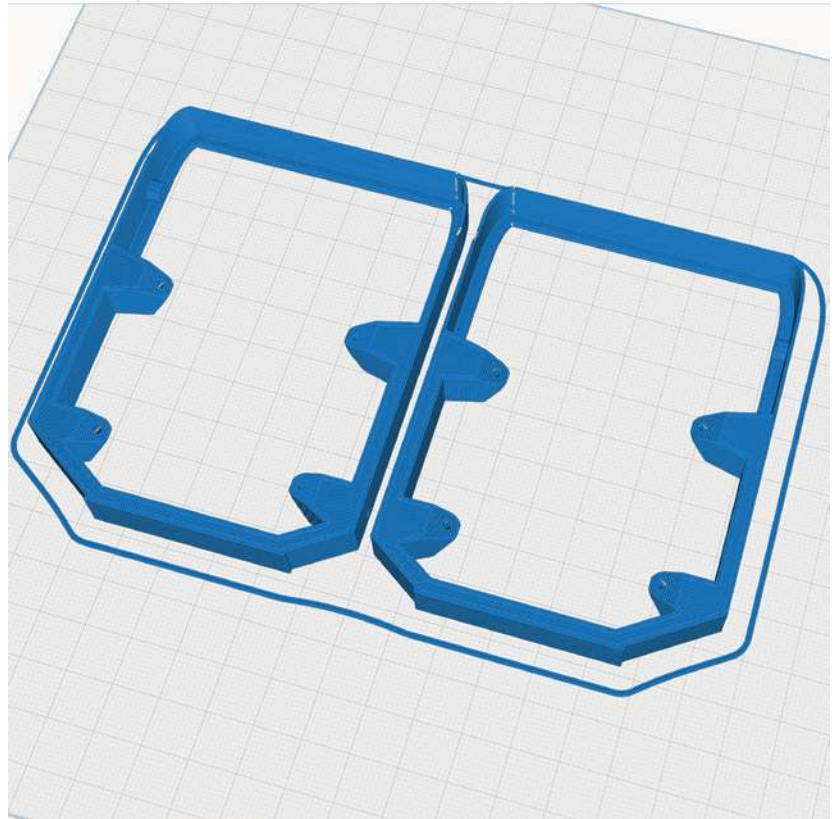
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_FUS 2 frames-br.stl

MATERIAL PLA, Weight: ~ 18 g

ADDITIONAL SETTINGS

None required

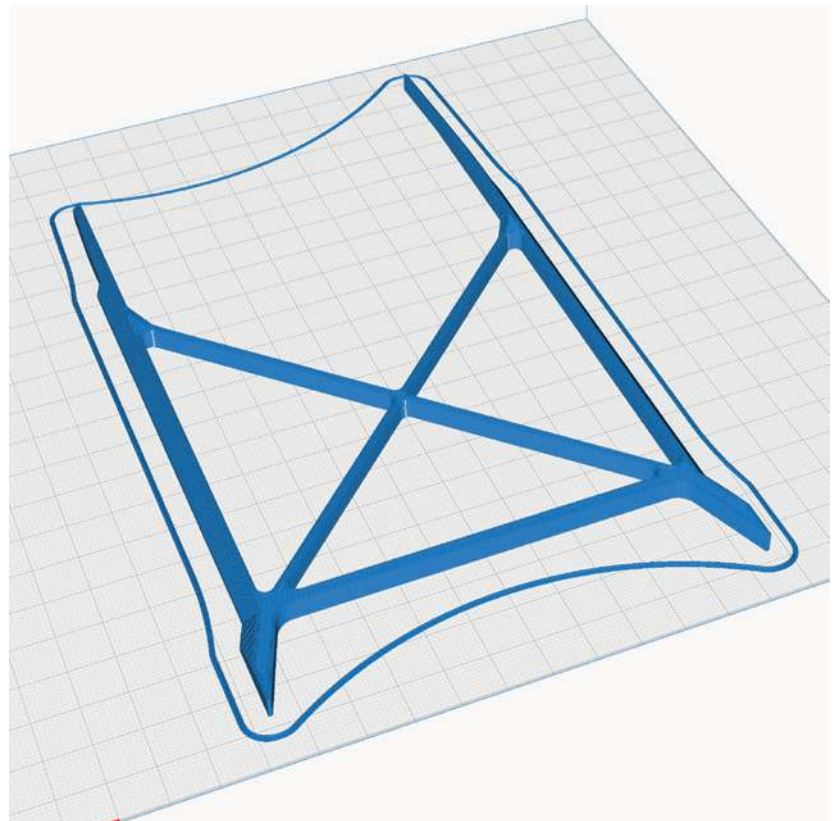


P2_FUS M2 cross-br.stl

MATERIAL PLA, Weight: ~ 10 g

ADDITIONAL SETTINGS

None required



PROFILE P2_Hollowbody Tough PLA or PLA



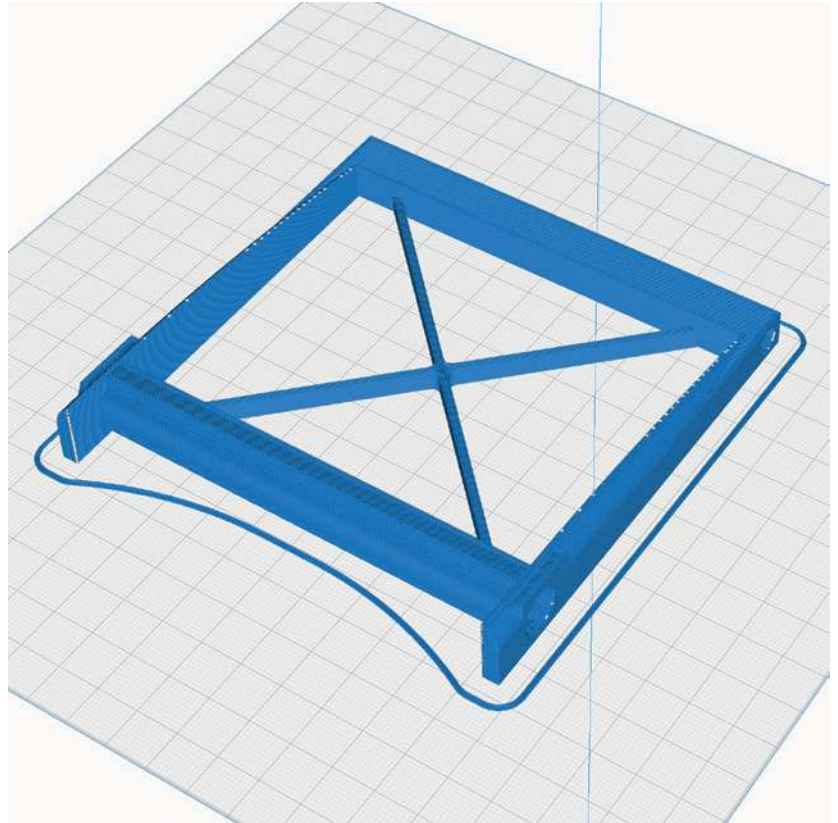
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_FUS M3 cross-br.stl

MATERIAL PLA, Weight: ~ 23 g

ADDITIONAL SETTINGS

None required

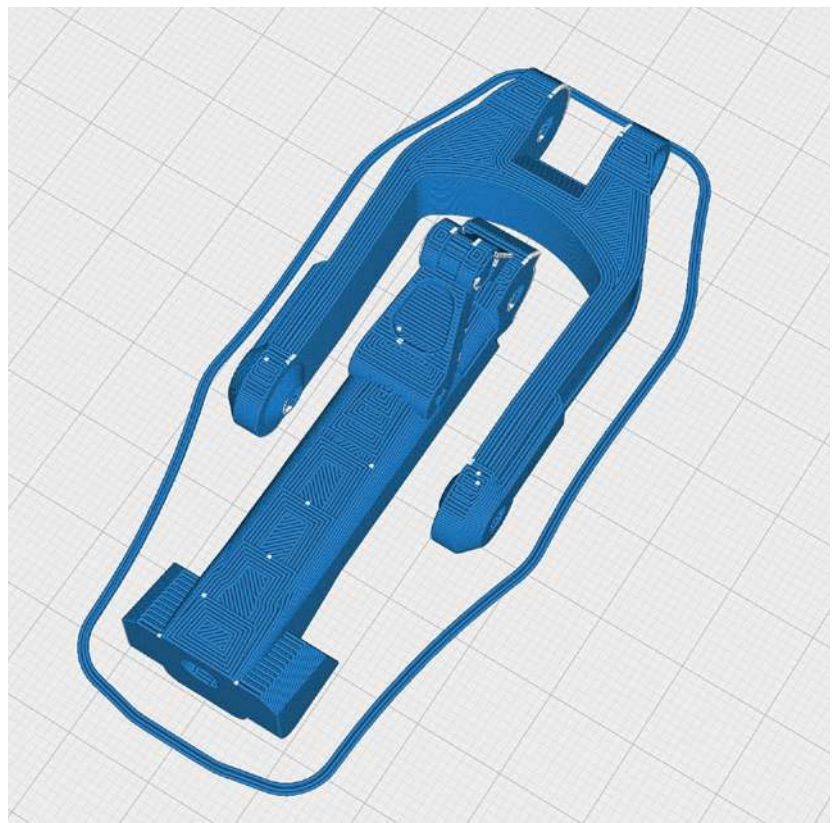


P2_Gear front-br.stl

MATERIAL PLA, Weight: ~ 12 g

ADDITIONAL SETTINGS

- Wall Line Count/Perimeters: 5
- Top Layers: 5
- Bottom Layers: 5



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 L-br.stl and P2_Gear R-br.stl

MATERIAL PLA, Weight: ~ 15 g

ADDITIONAL SETTINGS

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

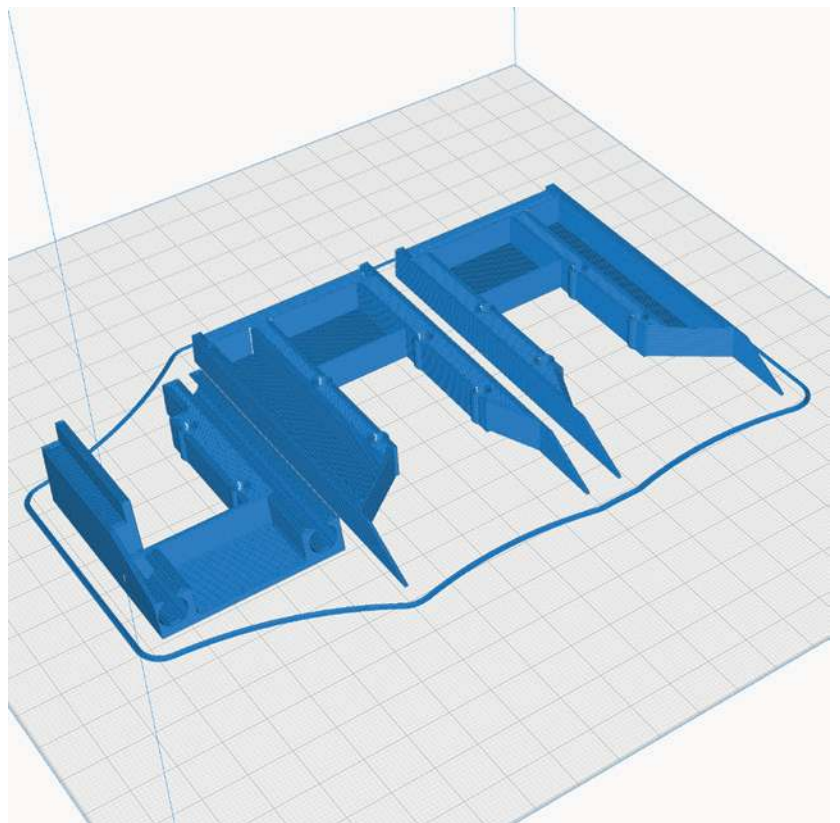


P2_Gear mount-br.stl

MATERIAL PLA, Weight: ~ 29 g

ADDITIONAL SETTINGS

- Wall Line Count/Perimeters: 3
- Top Layers: 3
- Bottom Layers: 3



PROFILE P2_Hollowbody Tough PLA or PLA



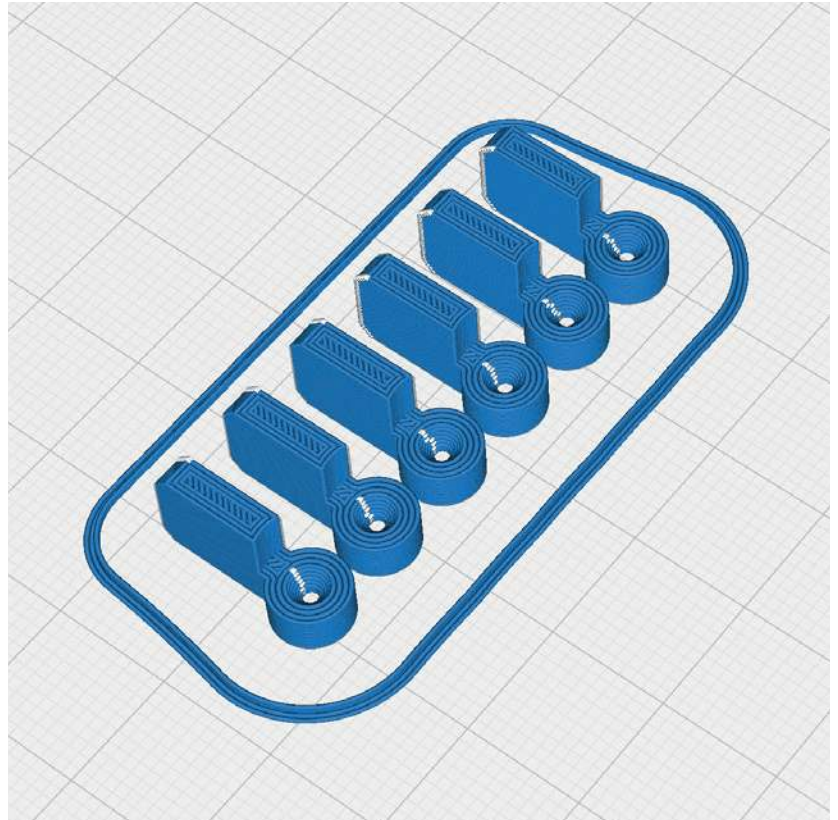
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Hinges-br.stl

MATERIAL PLA, Weight: ~ 2 g

ADDITIONAL SETTINGS

- Print this part 9 times

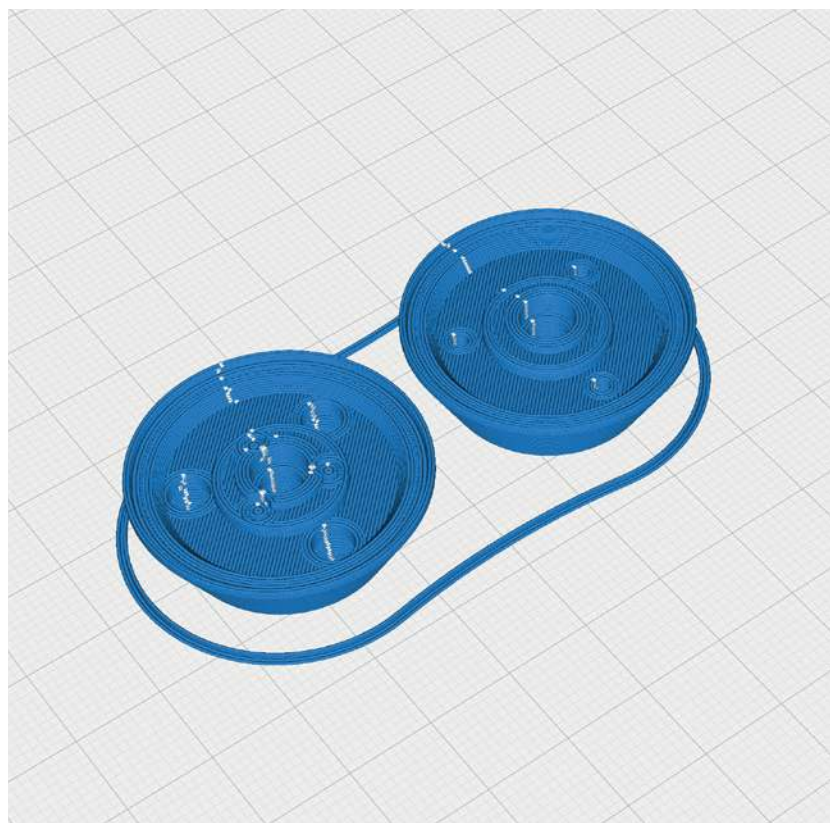


P2_Rim front bb-br.stl

MATERIAL PLA, Weight: ~ 6 g

ADDITIONAL SETTINGS

None required



PROFILE P2_Hollowbody Tough PLA or PLA



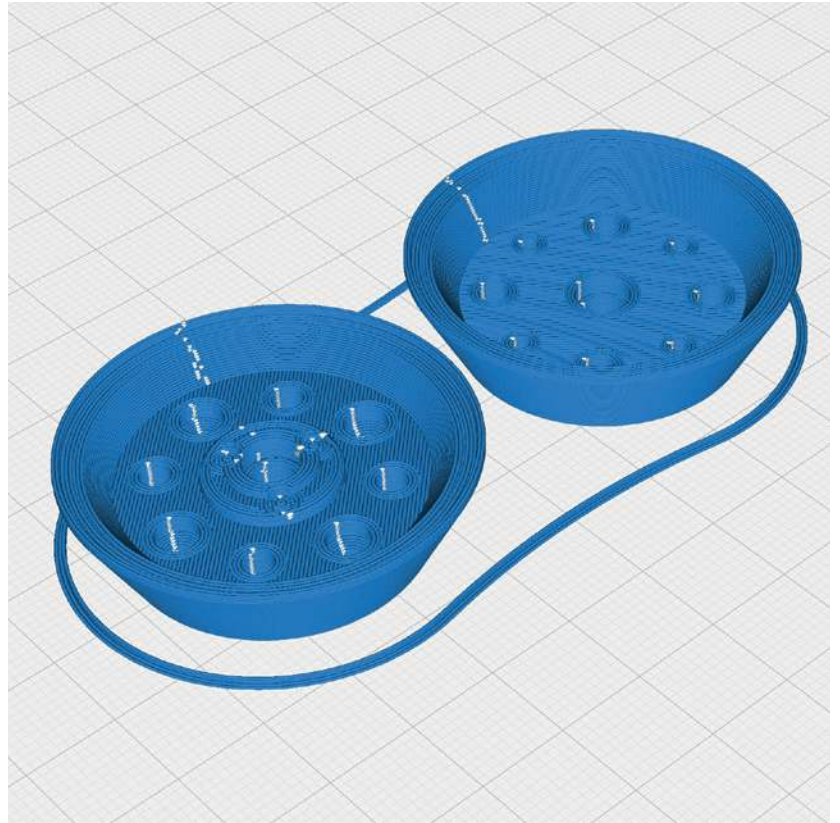
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Rim main bb-br.stl

MATERIAL PLA, Weight: ~ 9 g

ADDITIONAL SETTINGS

- Print twice

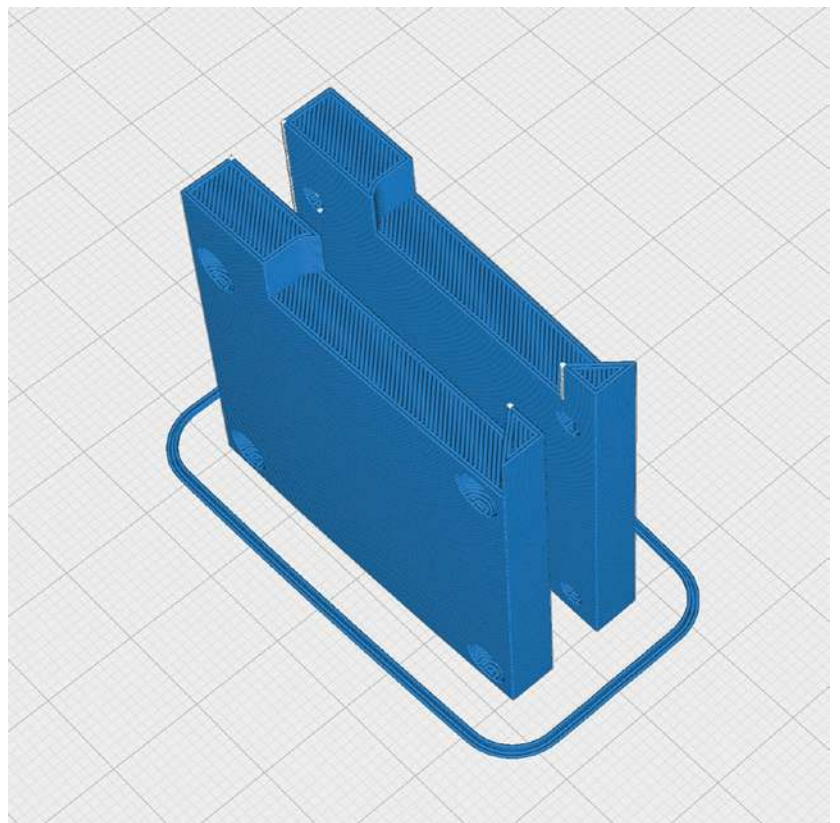


P2_Servo covers ALL-br.stl

MATERIAL PLA, Weight: ~ 5 g

ADDITIONAL SETTINGS

- Wall Line Count/Perimeters: 1
- Infill Density/Fill Density: 6 %



PROFILE P2_Hollowbody Tough PLA or PLA



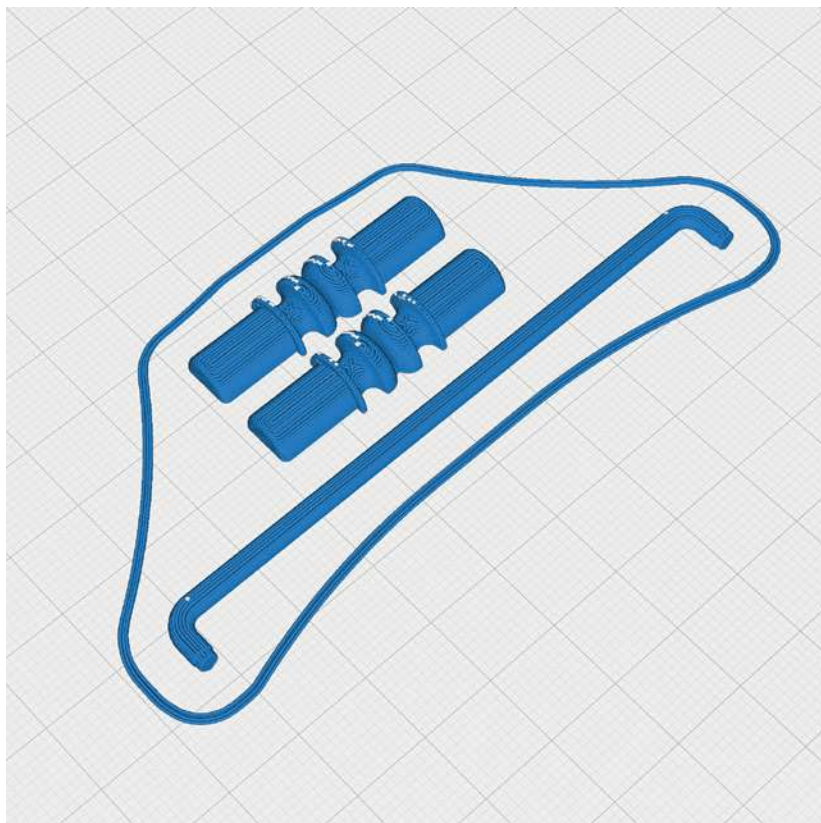
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Wing mount-br.stl

MATERIAL PLA, Weight: ~ 2 g

ADDITIONAL SETTINGS

None required

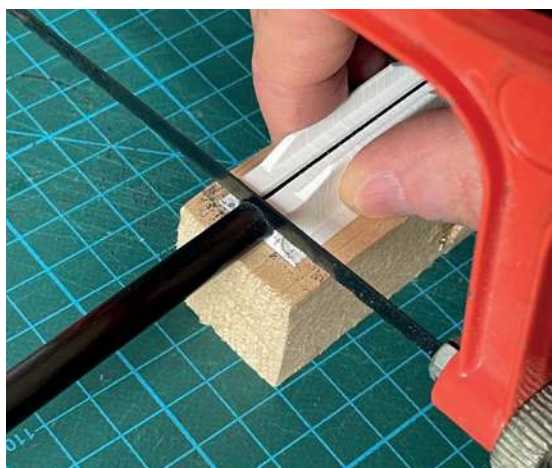
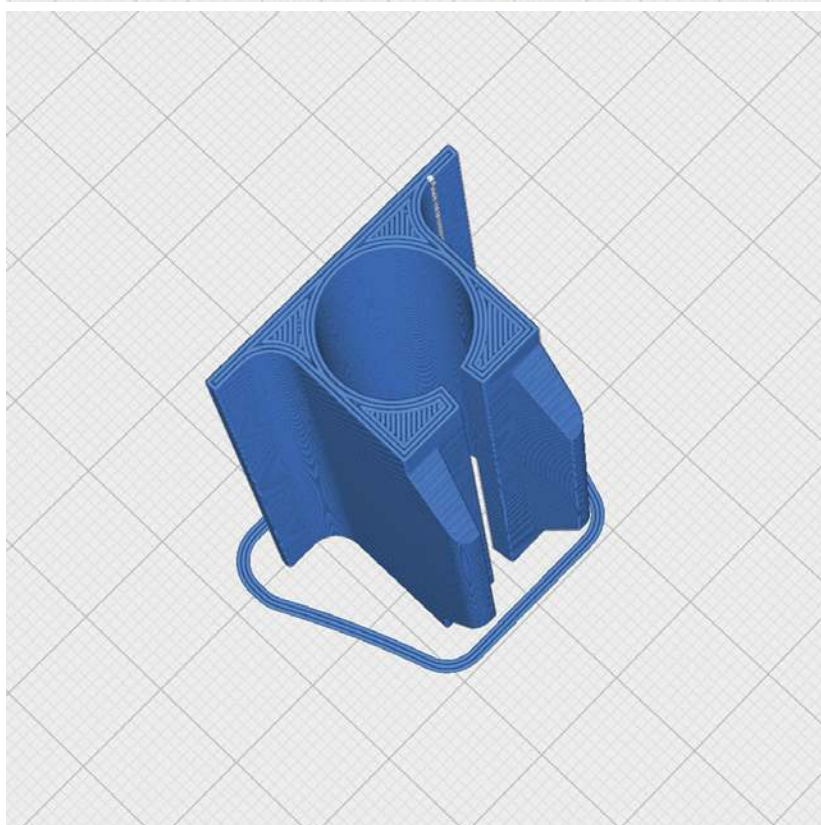


P2_Carbon tool 10mm.stl and P2_Carbon tool 6mm.stl

MATERIAL PLA, Weight: ~ 10 g

ADDITIONAL SETTINGS

None required



PROFILE P4_Flex LW TPU (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_Tire front_br.stl and
P4_Tire main_br.stl (print twice)

MATERIAL LW TPU, Weight: ~ 18/27 g

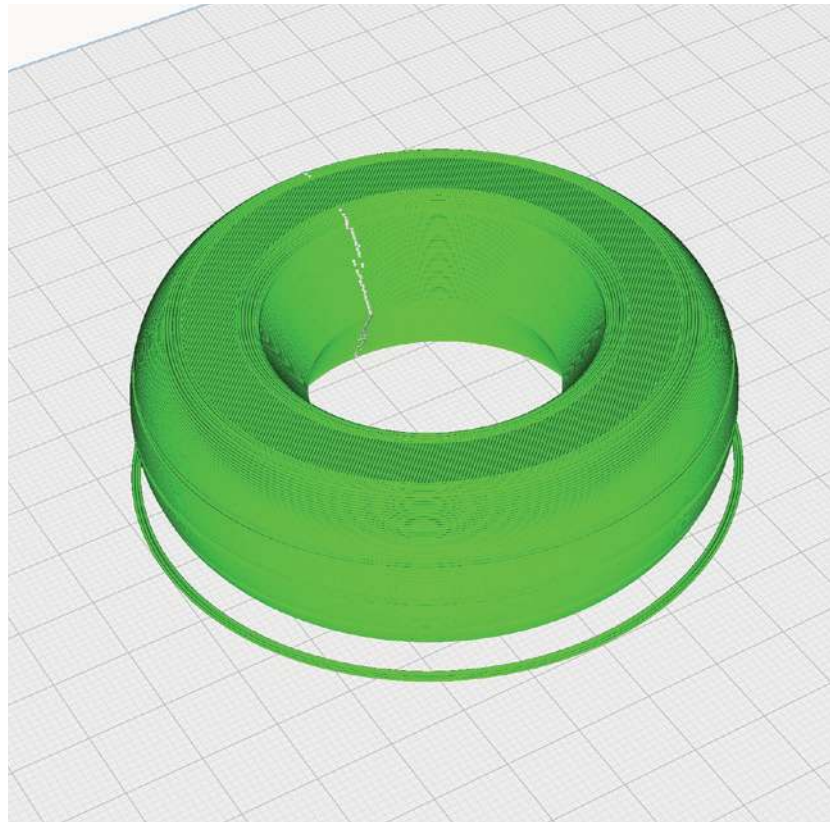
ADDITIONAL SETTINGS

VarioShore with Flow 70 %:

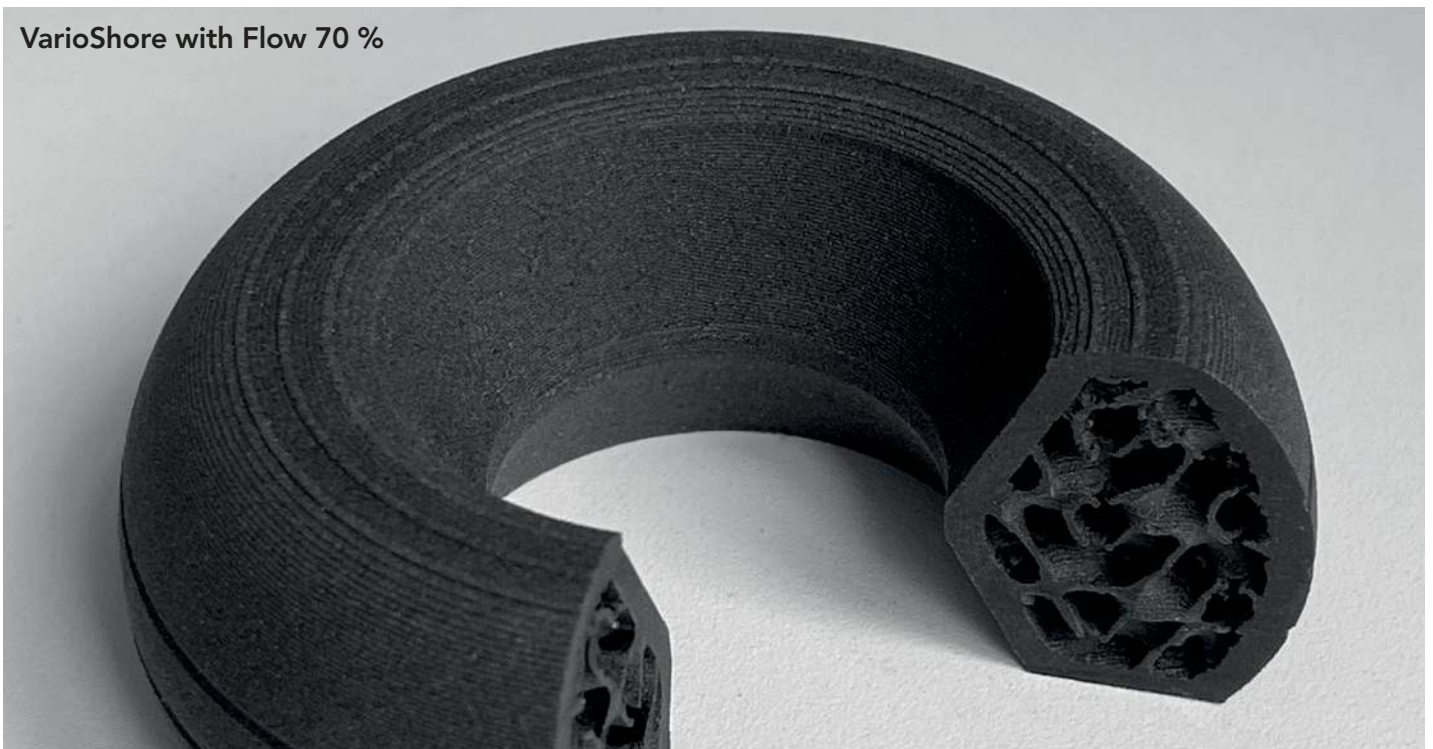
- Wall Line Count: 5
- Top Layers: 5
- Bottom Layers: 5
- Infill Density: 15 %
- Infill Pattern: Gyroid

TPU A95:

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



VarioShore with Flow 70 %



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!

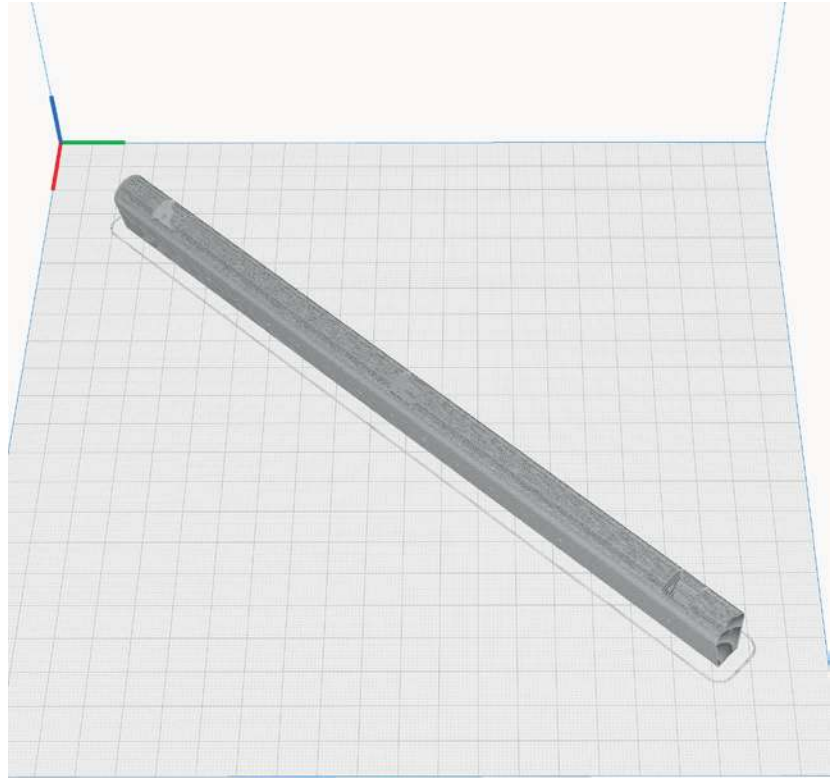
P5_AIL 1 L-br.stl and
P5_AIL 1 R-b.rstl

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required



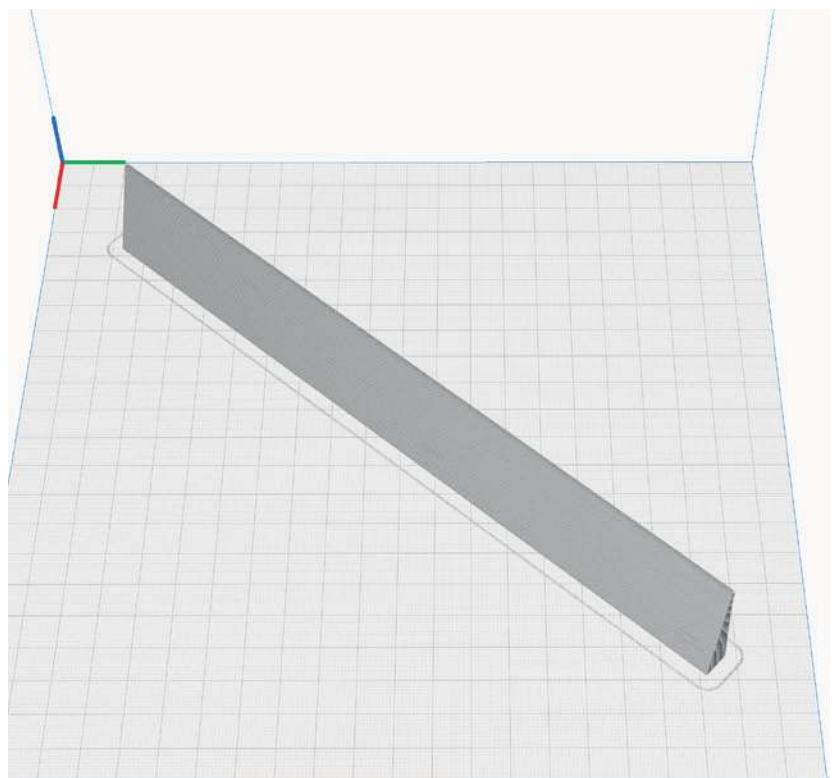
P5_AIL 2 L-br.stl and
P5_AIL 2 R-br.stl

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 1 hour

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!

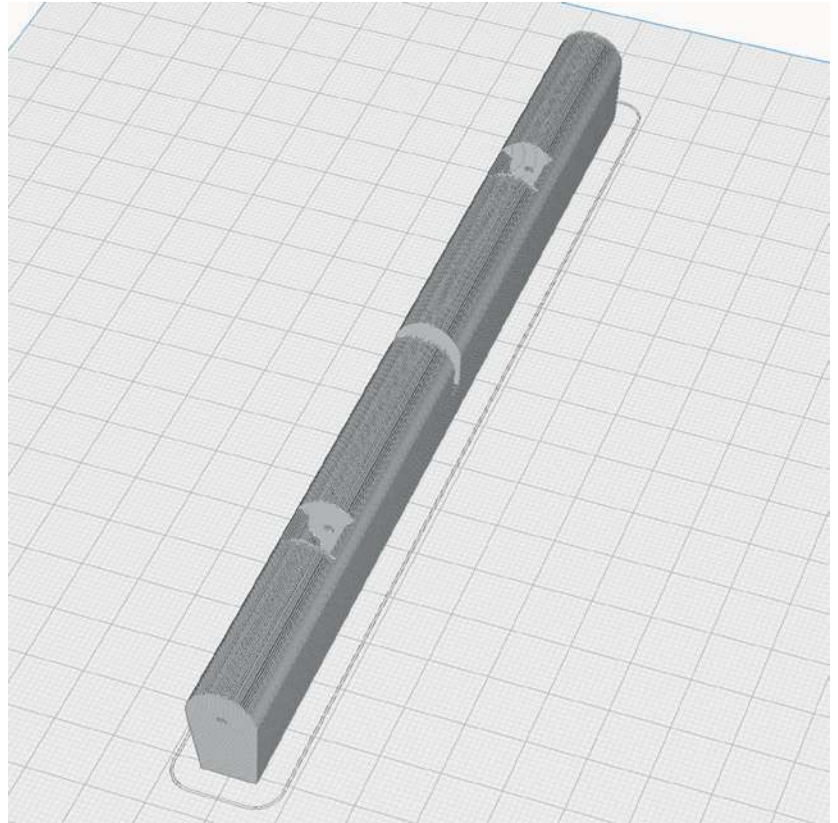
P5_ELE 1-br.stl

MATERIAL LW PLA, Weight: ~ 5 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required



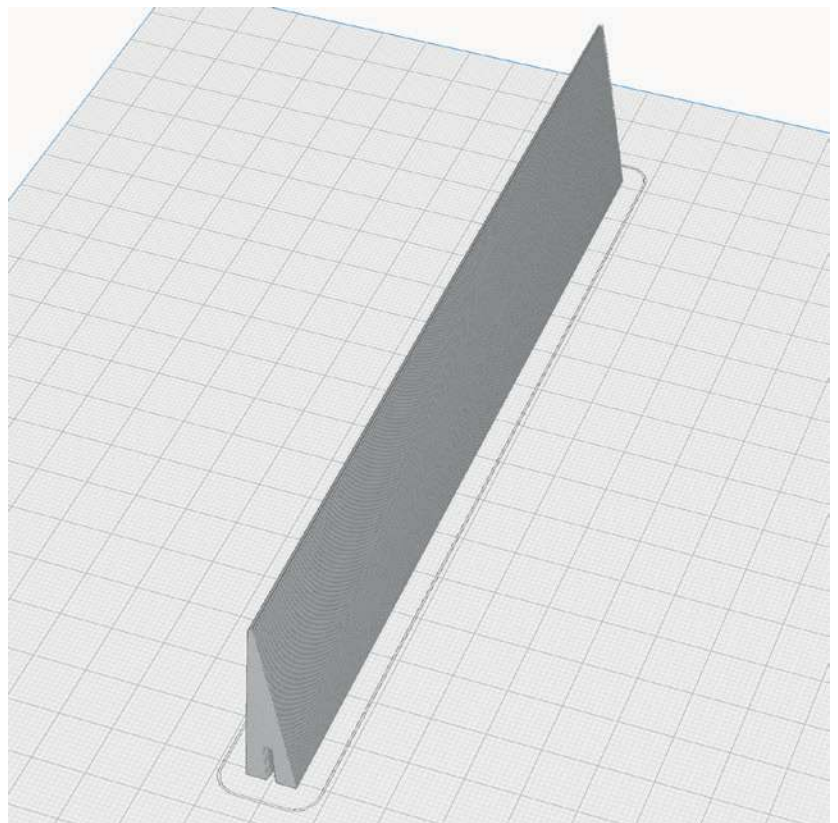
P5_ELE 2-br.stl

MATERIAL LW PLA, Weight: ~ 5 g

TIME ~ 1 hour

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!

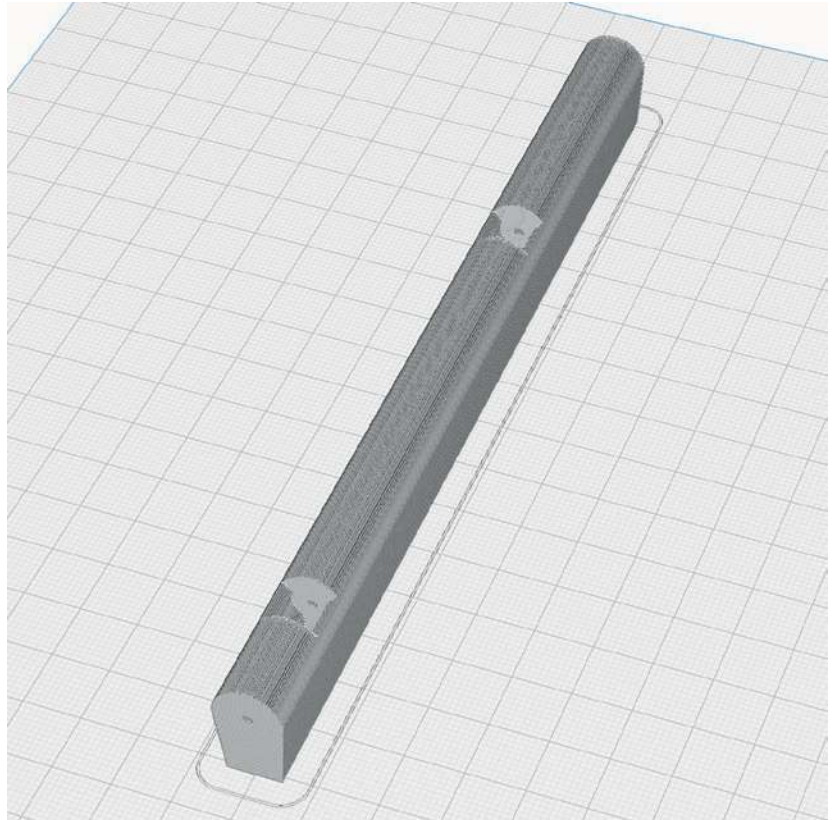
P5_ELE 3-br.stl

MATERIAL LW PLA, Weight: ~ 5 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

- print twice



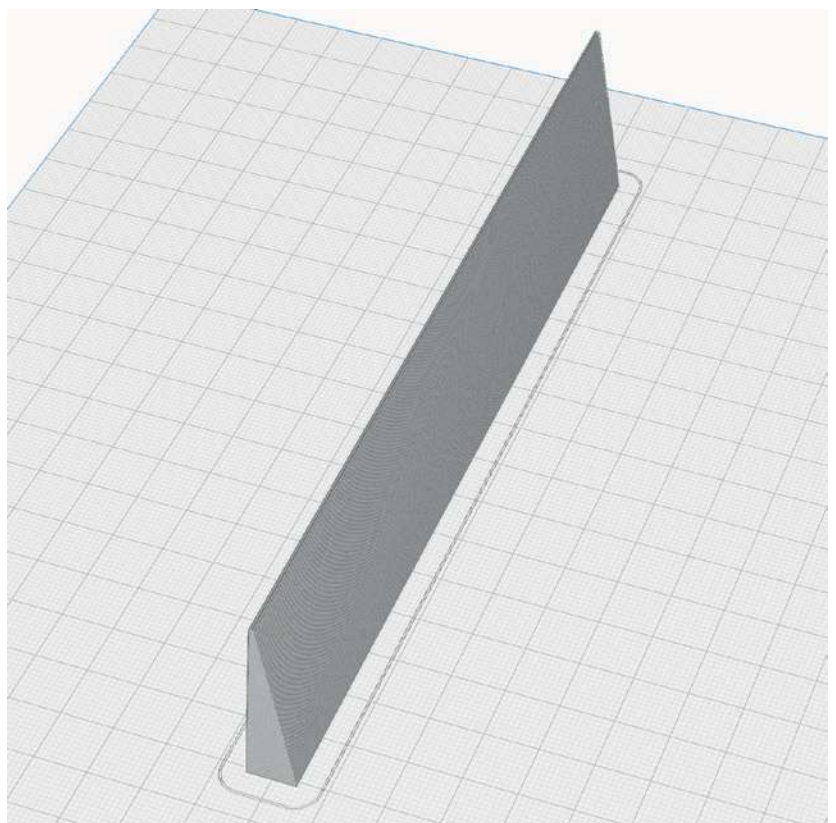
P5_ELE 4-br.stl

MATERIAL LW PLA, Weight: ~ 5 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

- print twice



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!

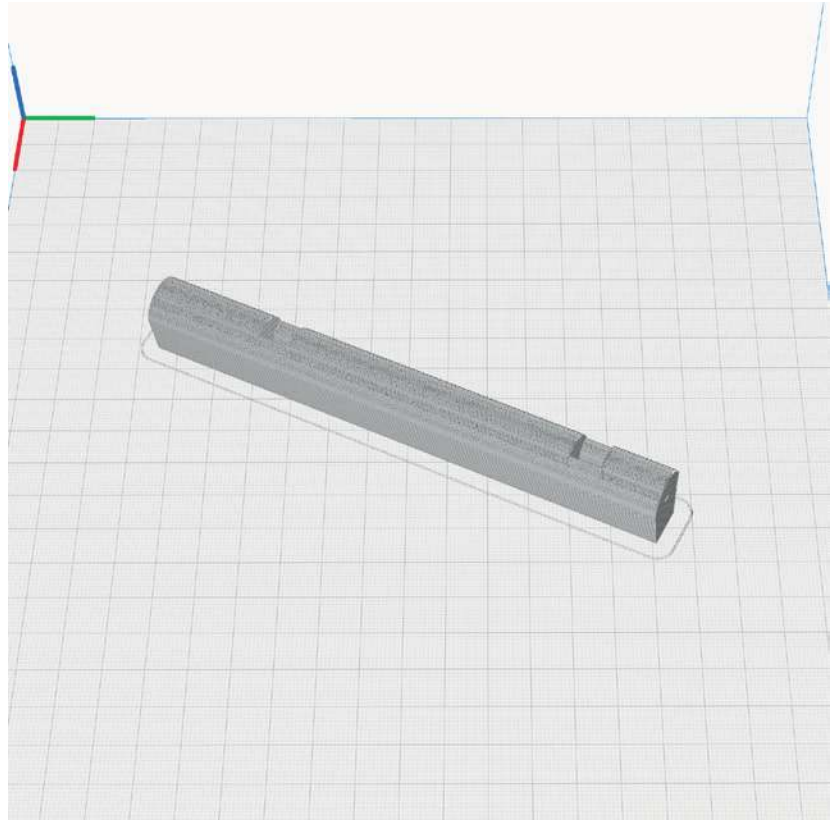
P5_Flap 1 L-br.stl and P5_Flap 1 R-br.stl

MATERIAL LW PLA, Weight: ~ 5 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required



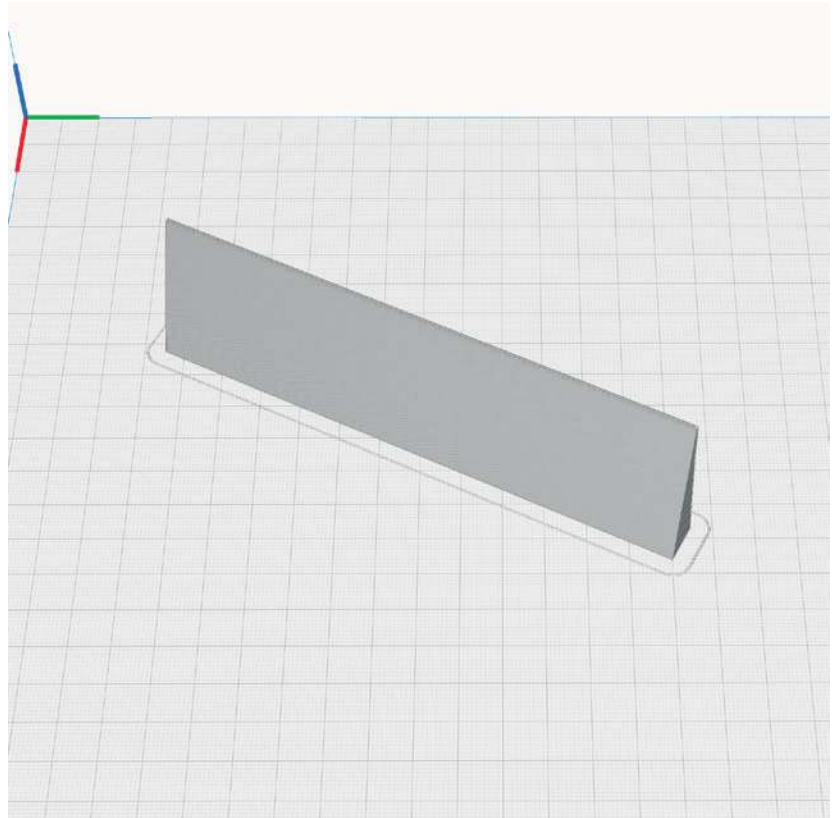
P5_Flap 2 L-br.stl and P5_Flap 2 R-br.stl

MATERIAL LW PLA, Weight: ~ 5 g

TIME ~ 1 hour

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!

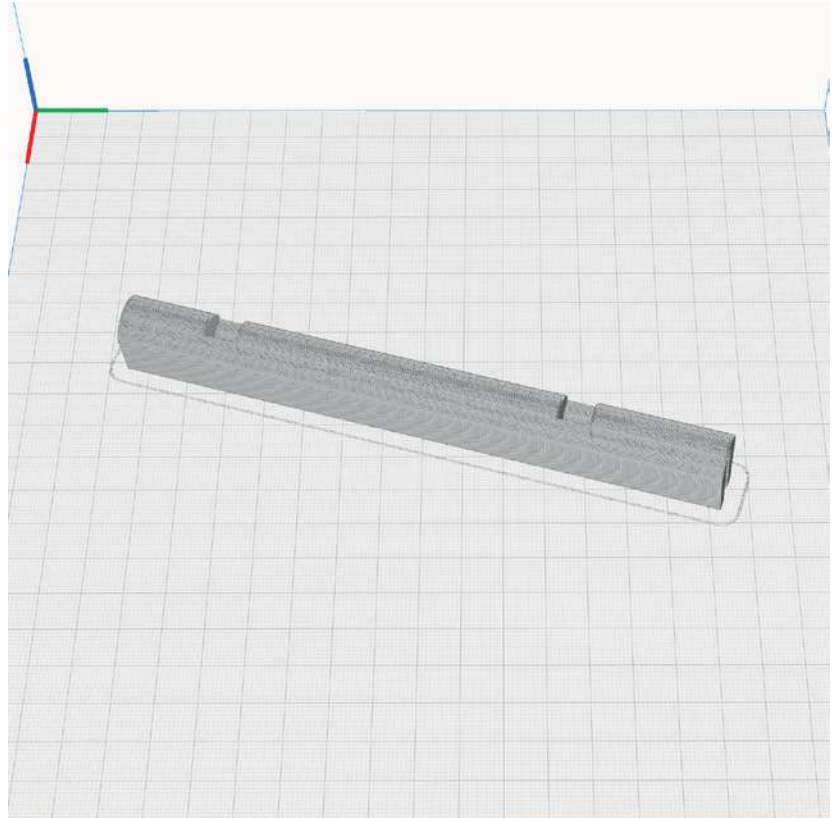
P5_Flap 3 L-br.stl and P5_Flap 3 R-br.stl

MATERIAL LW PLA, Weight: ~ 5 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required



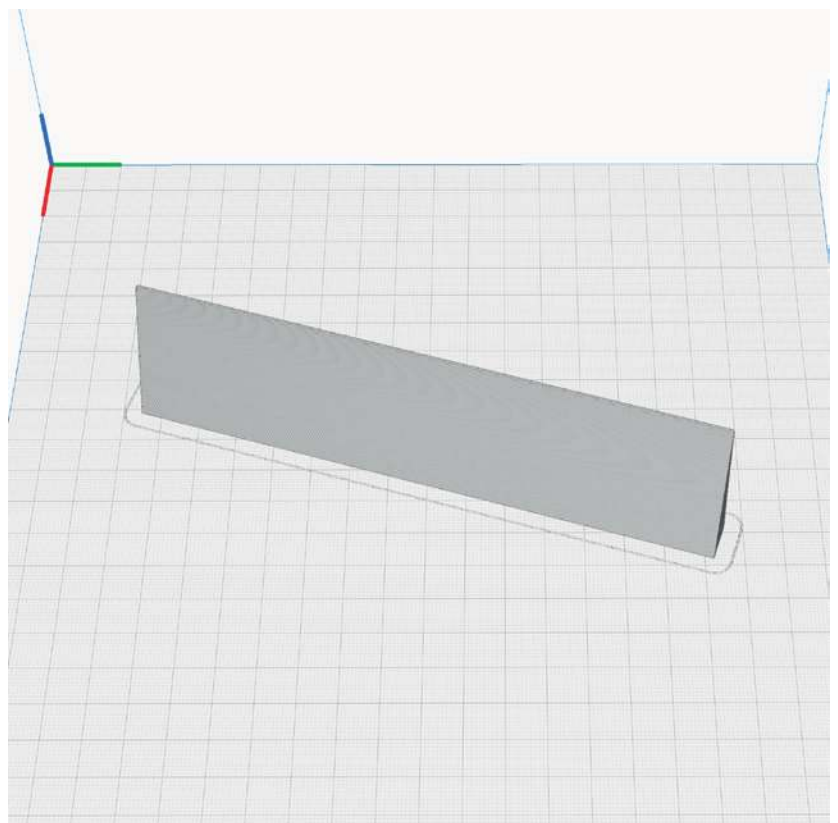
P5_Flap 4 L-br.stl and P5_Flap 4 R-br.stl

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 1 hour

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!

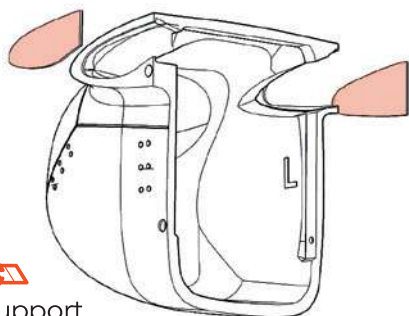
P5_Fus 1 L-br.stl and P5_Fus 1 R-br.stl

MATERIAL LW PLA, Weight: ~ 26 g

TIME ~ 5 hours

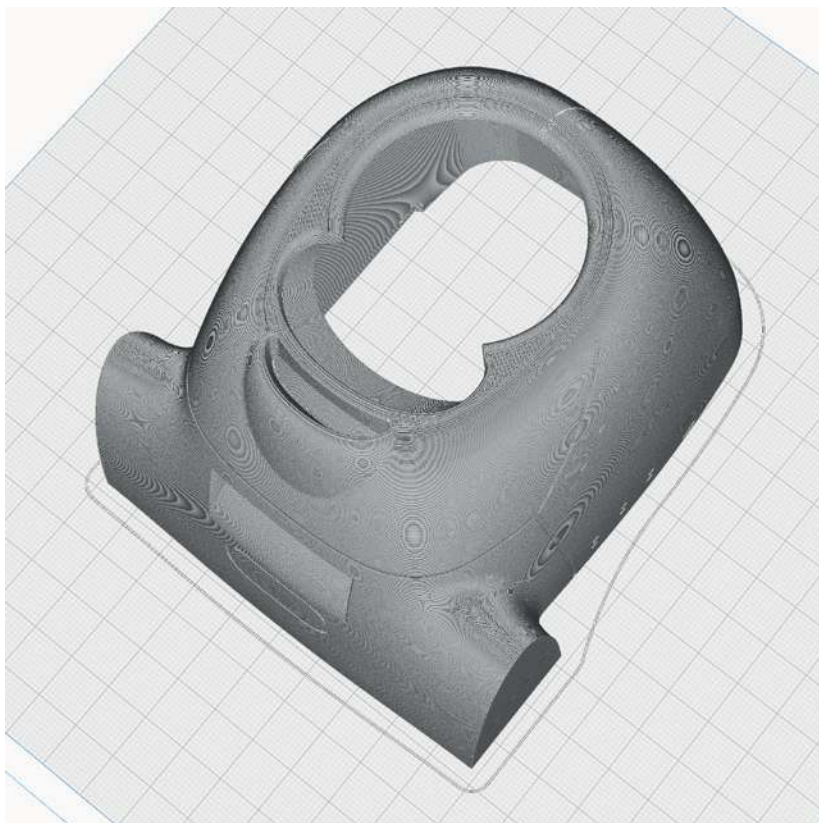
ADDITIONAL SETTINGS

None required



Remove support.

Please be careful with the knife!



P5_Fus 1 part-br.stl

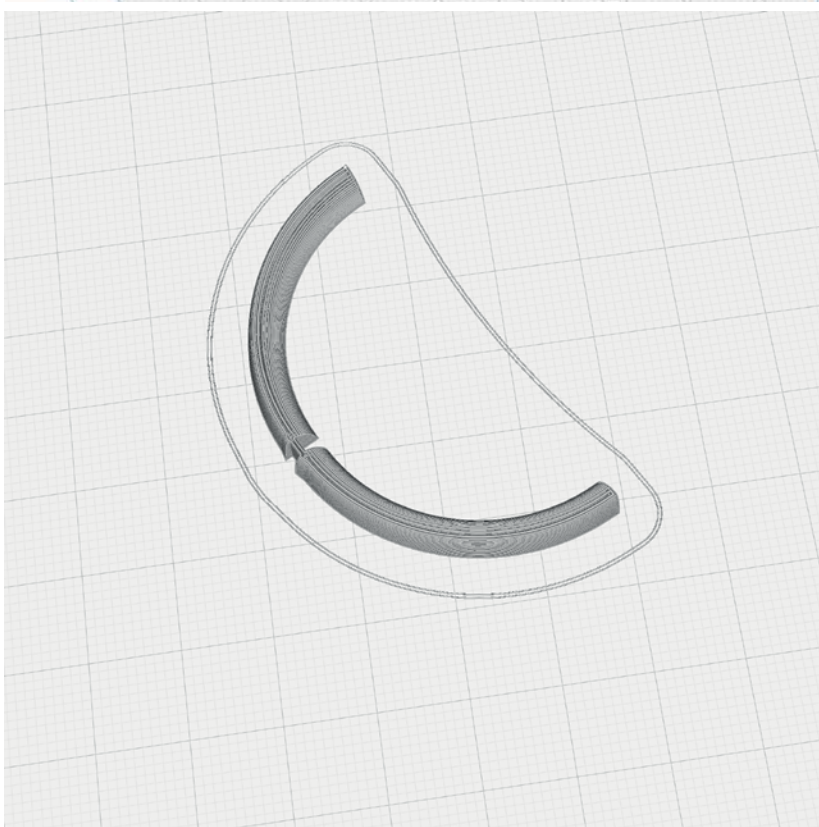
MATERIAL LW PLA, Weight: ~ 0 g

TIME ~ 4 minutes

ADDITIONAL SETTINGS

None required

Cut the two parts apart and remove the bar.



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!

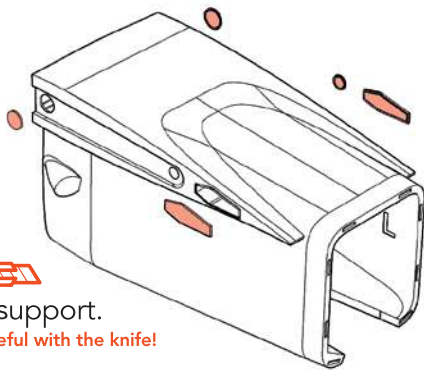
P5_Fus 2 L-br.stl and P5_Fus 2 R-br.stl

MATERIAL LW PLA, Weight: ~ 52 g

TIME ~ 10 hour

ADDITIONAL SETTINGS

None required



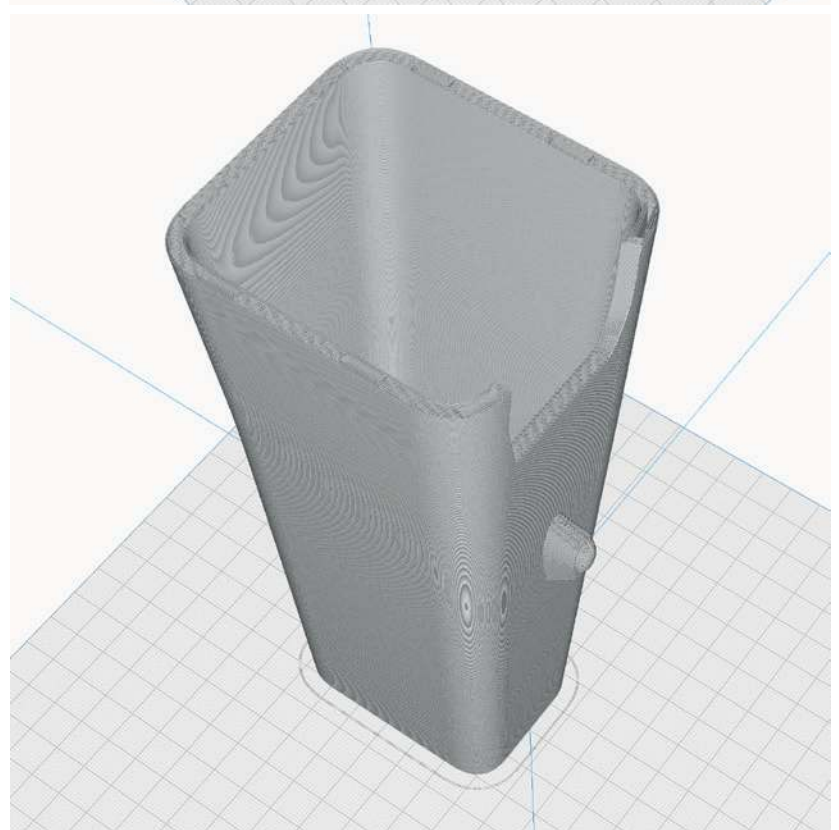
P5_Fus 3 L-br.stl and P5_Fus 3 R-br.stl

MATERIAL LW PLA, Weight: ~ 32 g

TIME ~ 6 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!

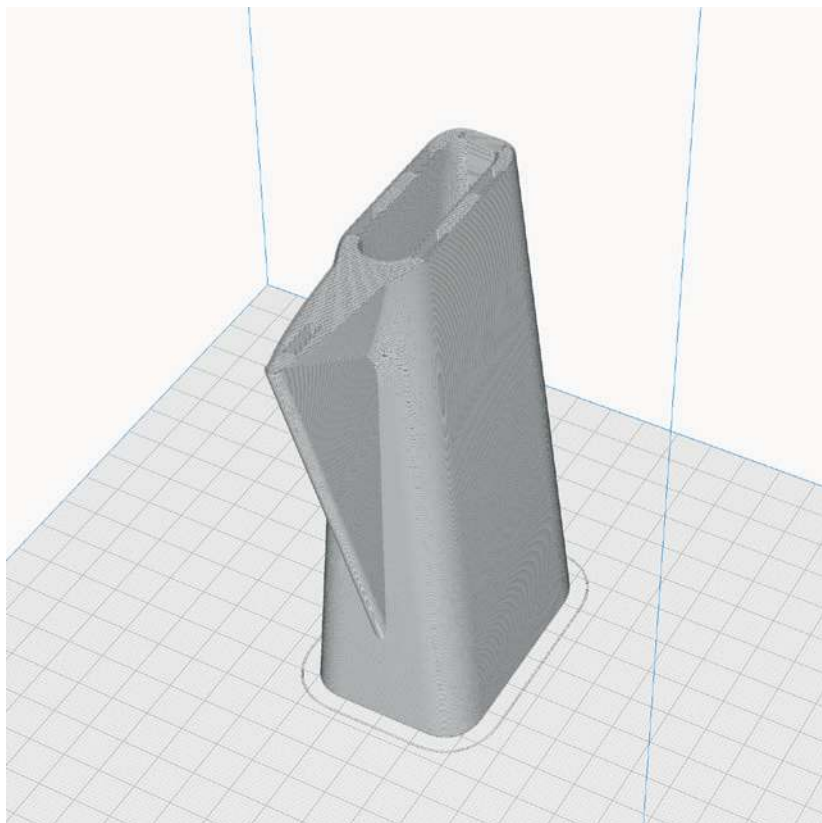
P5_Fus 4 L-br.stl and P5_Fus 4 R-br.stl

MATERIAL LW PLA, Weight: ~ 18 g

TIME ~ 3 hours 30 minutes

ADDITIONAL SETTINGS

None required



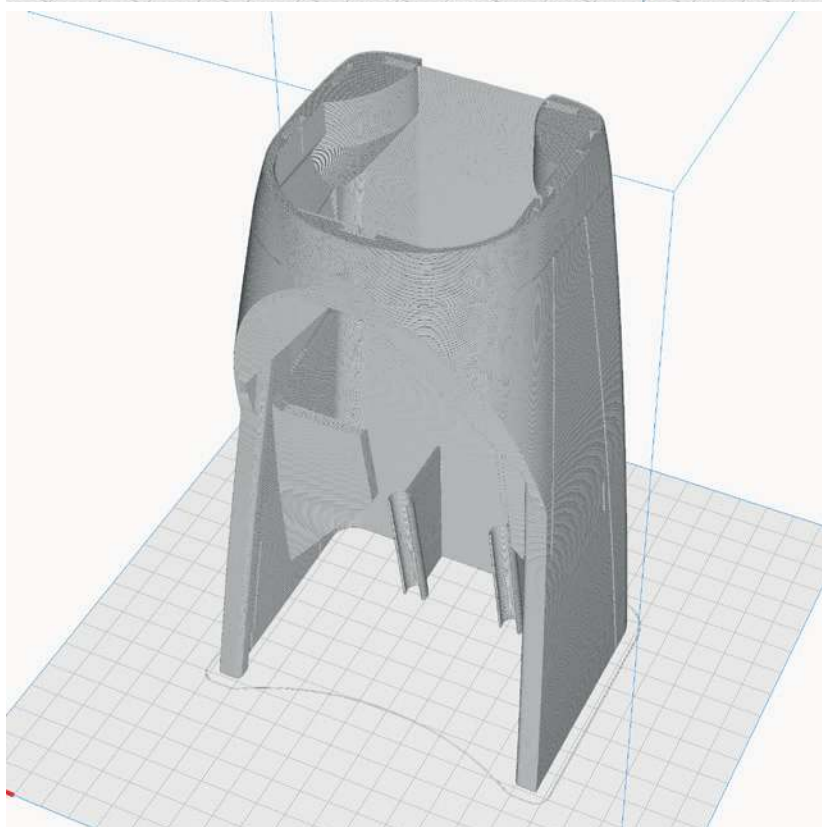
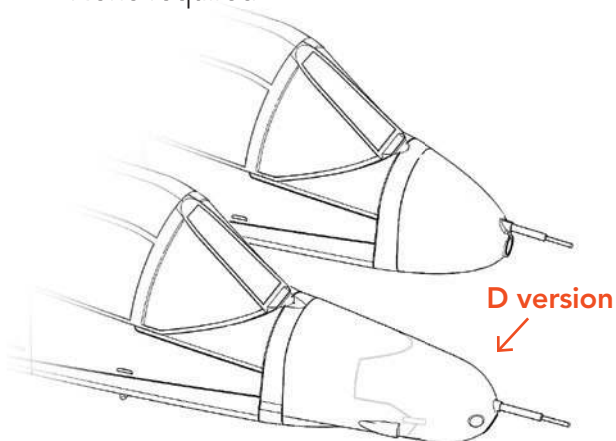
P5_Fus M1-br.stl or P5_Fus M1 D version-br.stl

MATERIAL LW PLA, Weight: ~ 45 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_Fus M2 L-br.stl and
P5_Fus M2 R-br.stl

or

P5_Fus M2 L flat version-br.stl and
P5_Fus M2 R flat version-br.stl

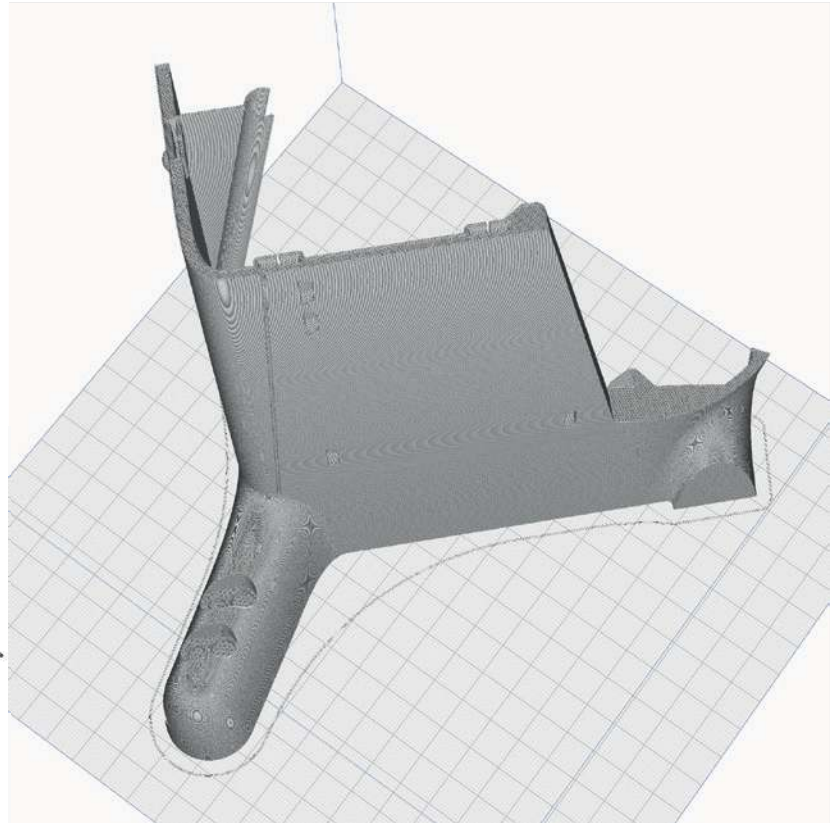
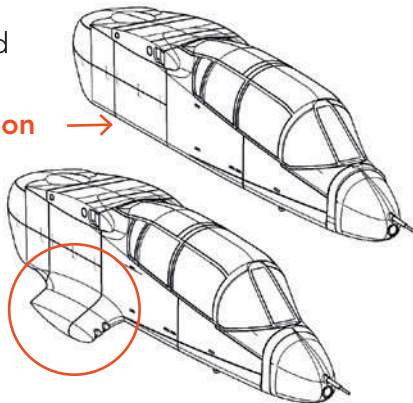
MATERIAL LW PLA, Weight: ~ 30 g

TIME ~ 6 hours

ADDITIONAL SETTINGS

None required

Flat version →



P5_Fus M3 down-br.stl or
P5_Fus M3 down flat version-br.stl

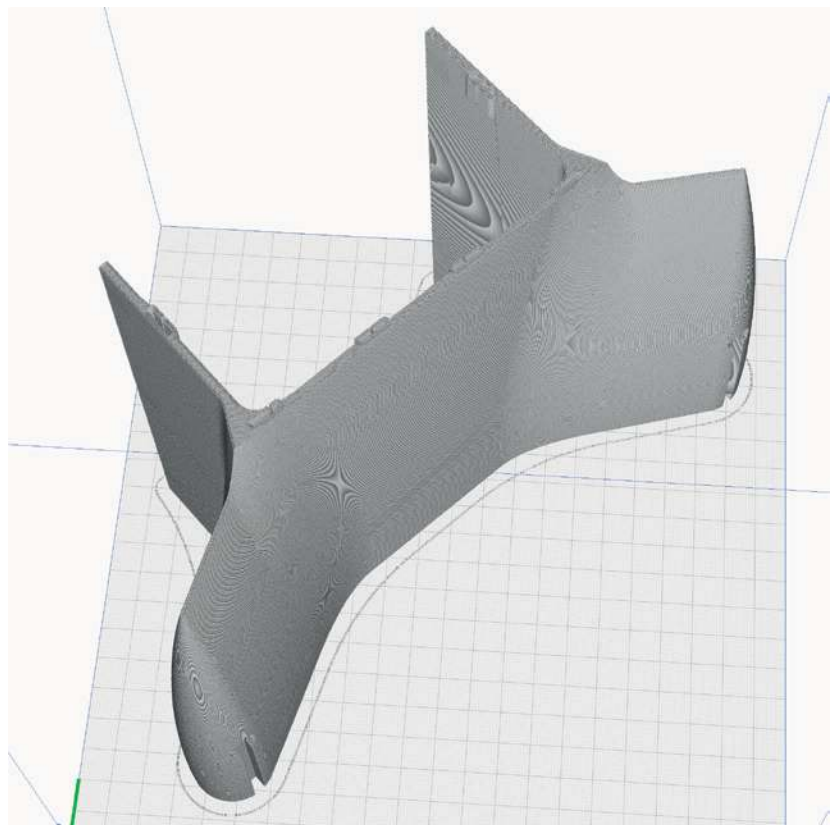
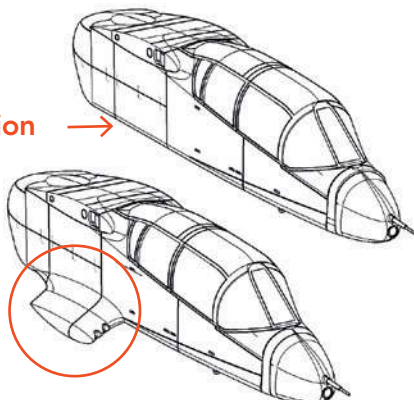
MATERIAL LW PLA, Weight: ~ 48 g

TIME ~ 9 hours

ADDITIONAL SETTINGS

None required

Flat version →



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!

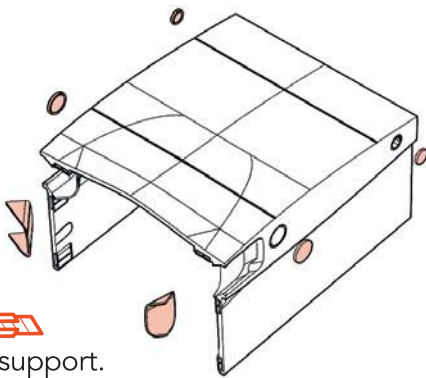
P5_Fus M3 up-br.stl

MATERIAL LW PLA, Weight: ~ 30 g

TIME ~ 6 hours 30 minutes

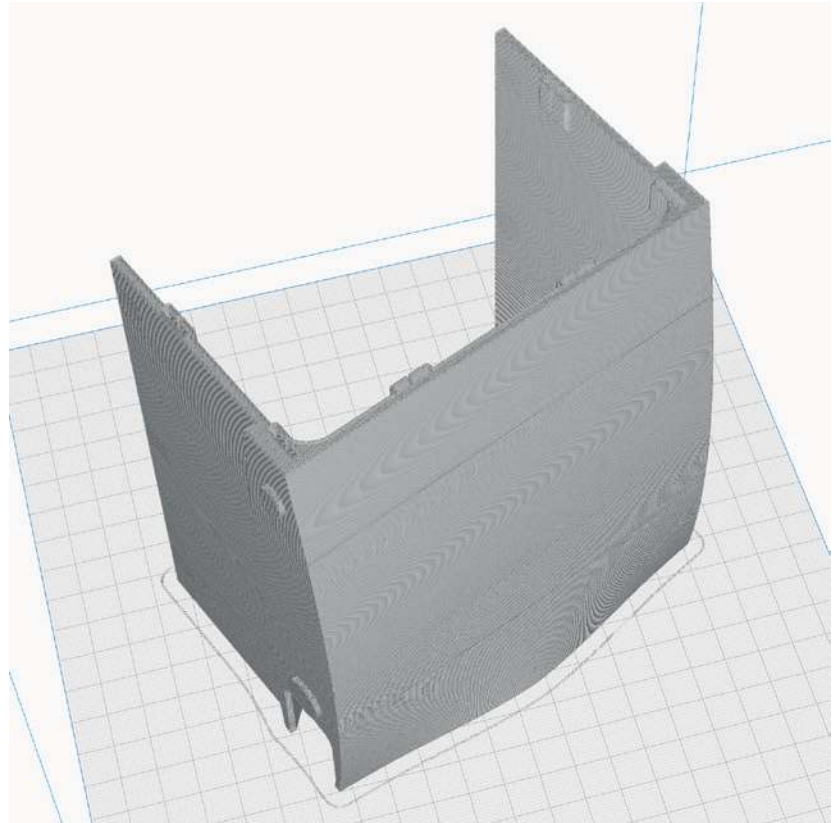
ADDITIONAL SETTINGS

None required



Remove support.

Please be careful with the knife!



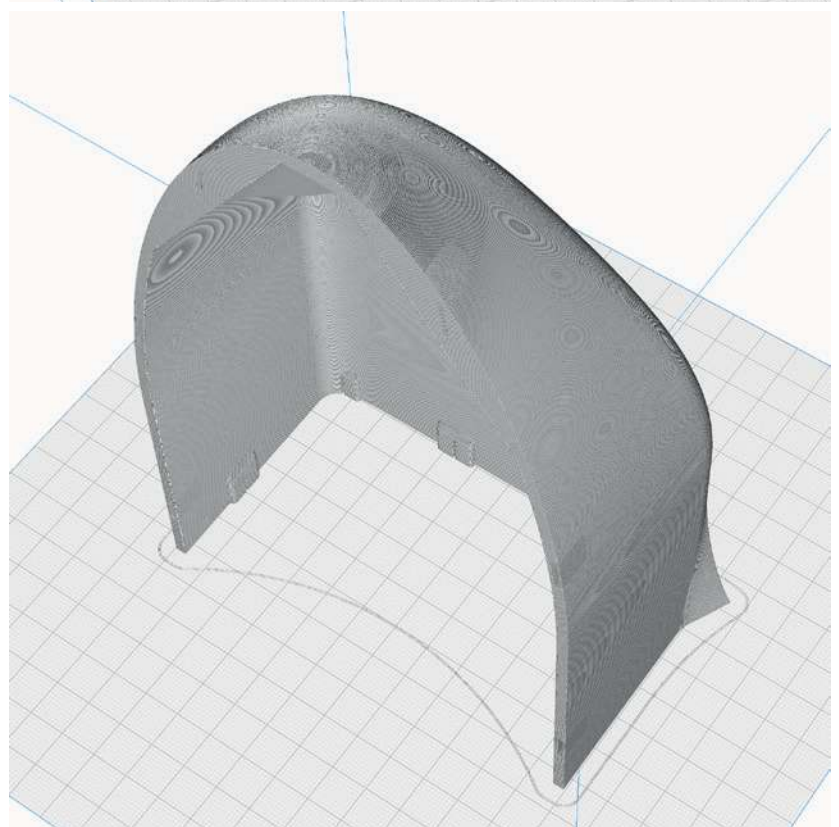
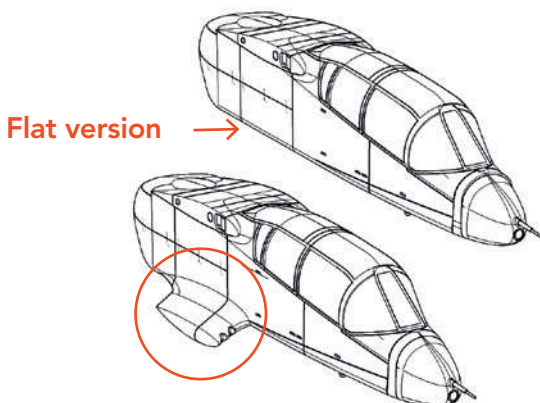
P5_Fus M4 down-br.stl or P5_Fus M4 down flat version-br.stl

MATERIAL LW PLA, Weight: ~ 30 g

TIME ~ 6 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!

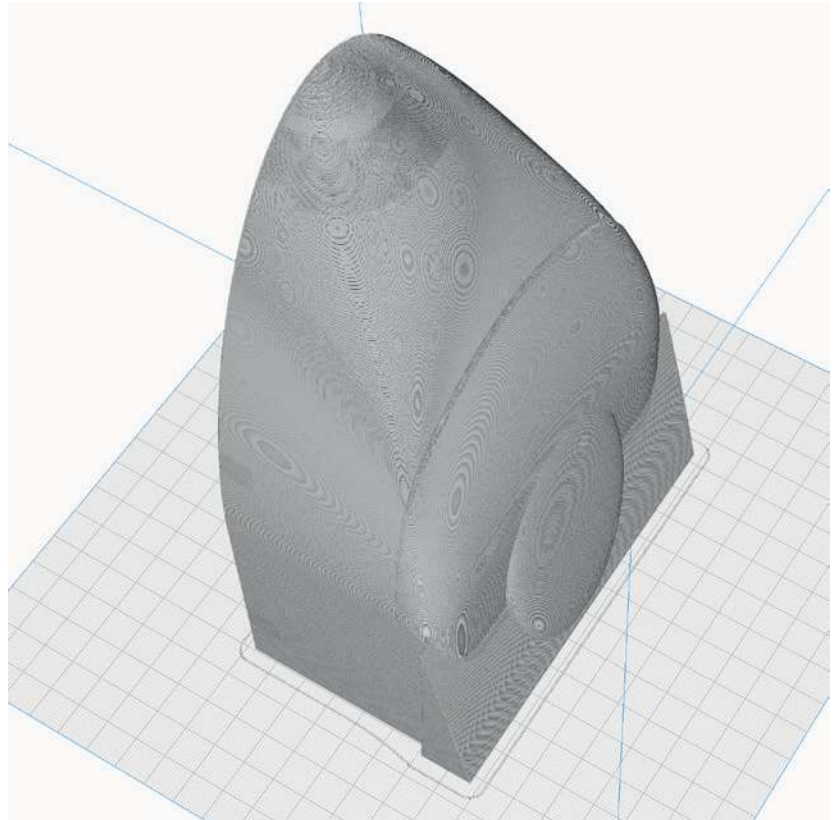
P5_Fus M4 up-br.stl

MATERIAL LW PLA, Weight: ~ 30 g

TIME ~ 6 hours

ADDITIONAL SETTINGS

None required



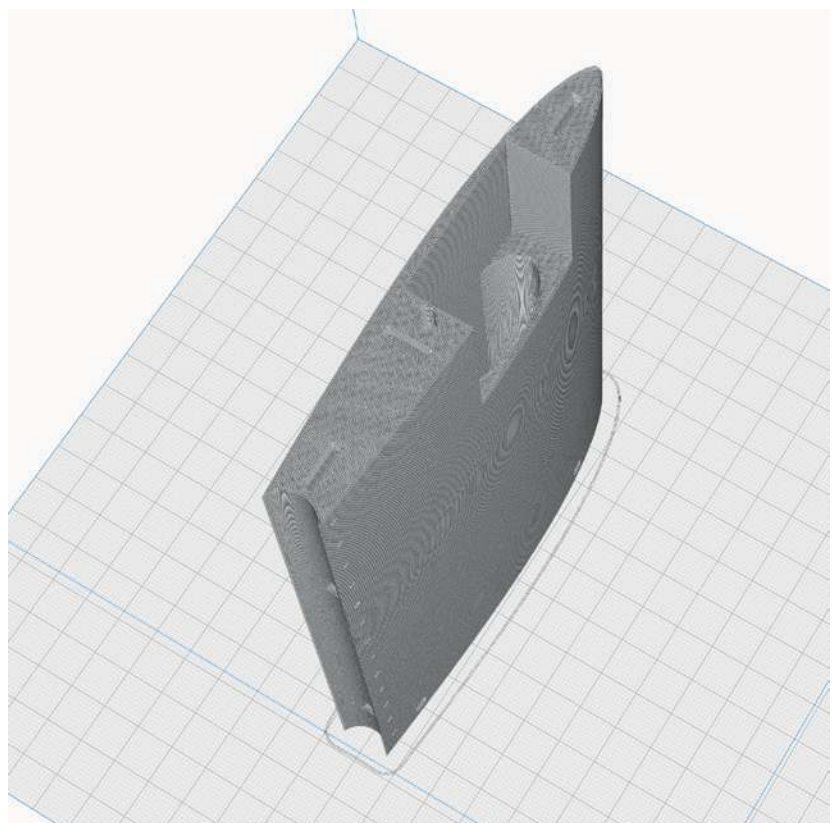
P5_HS L-br.stl and P5_HS R-br.stl

MATERIAL LW PLA, Weight: ~ 22 g

TIME ~ 5 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!

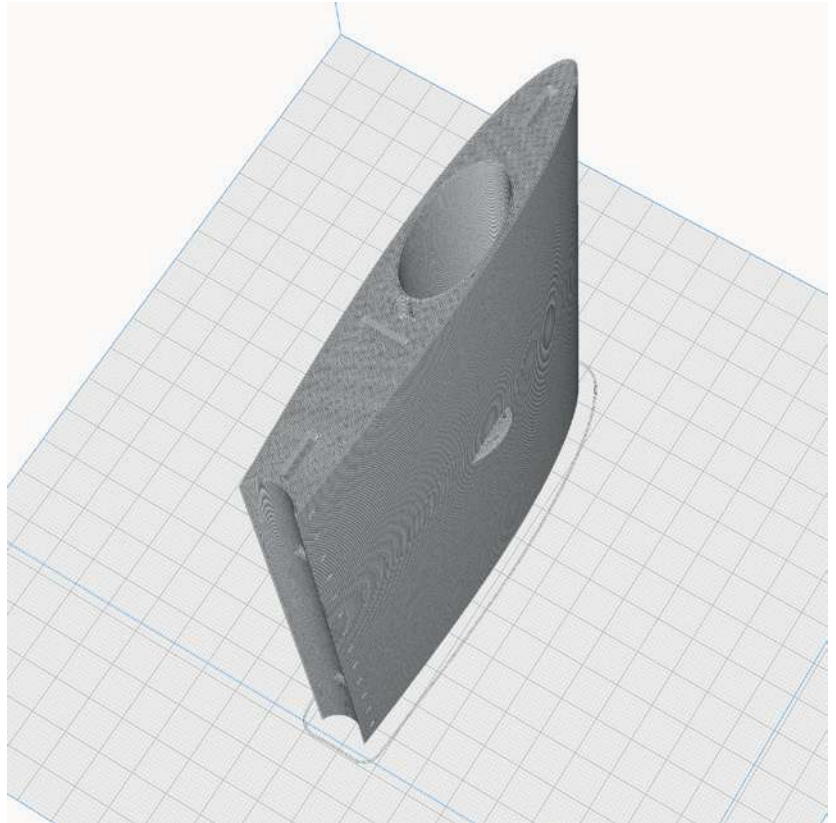
P5_HS M-br.stl

MATERIAL LW PLA, Weight: ~ 23 g

TIME ~ 4 hours 30 minutes

ADDITIONAL SETTINGS

None required



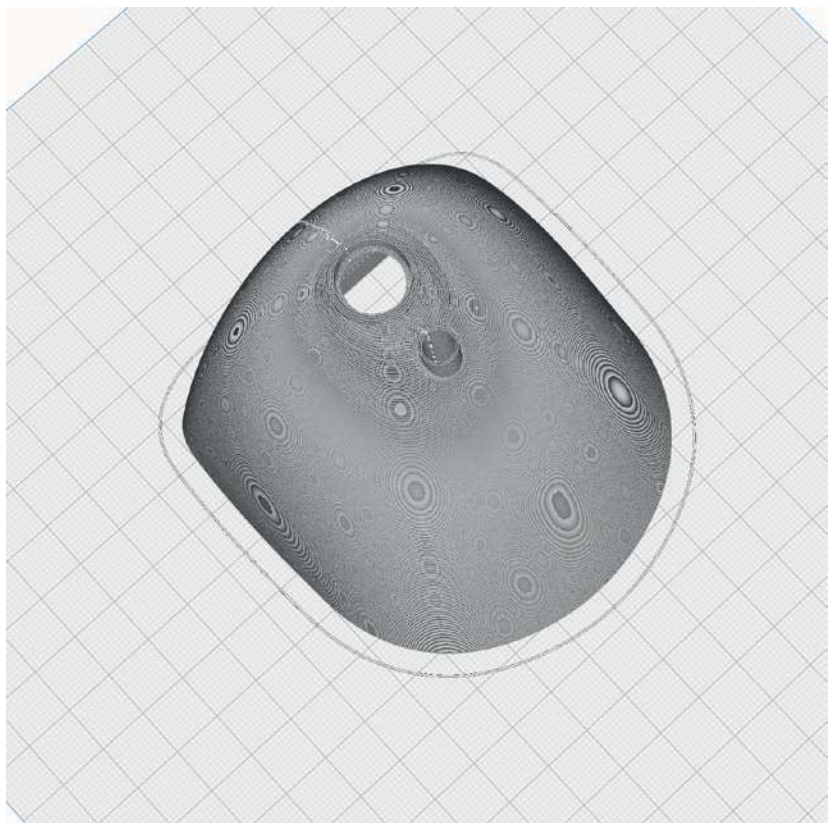
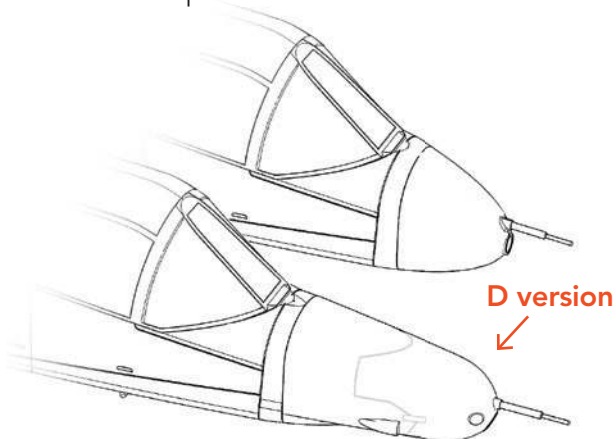
P5_Nose-br.stl or P5_Nose D-Version-br.stl

MATERIAL LW PLA, Weight: ~ 15 g

TIME ~ 3 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!

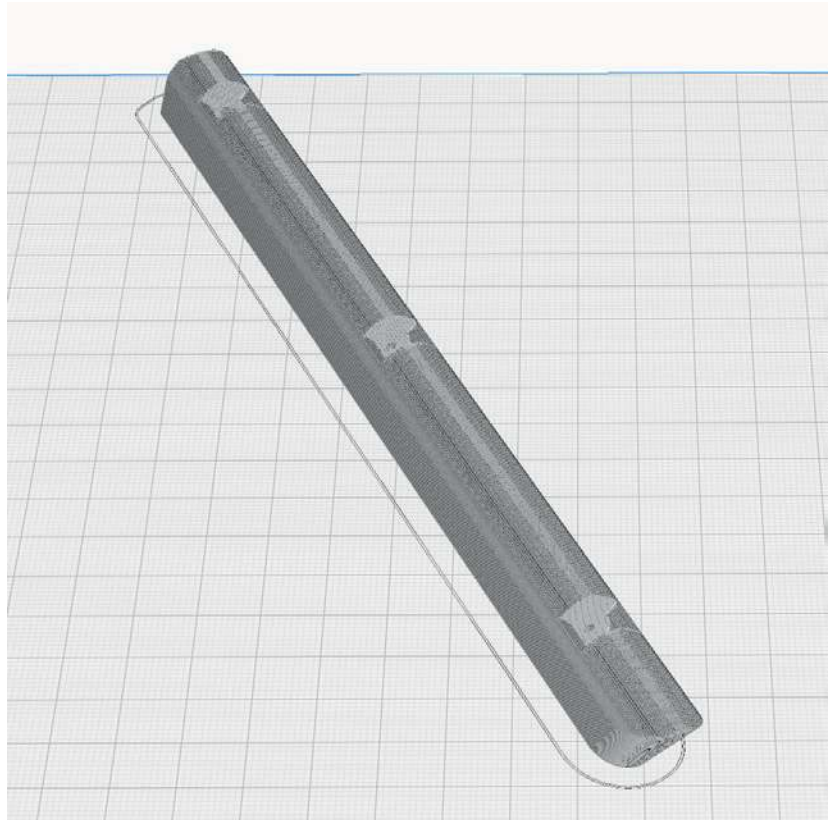
P5_Rudder 1-br.stl

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

- Print twice



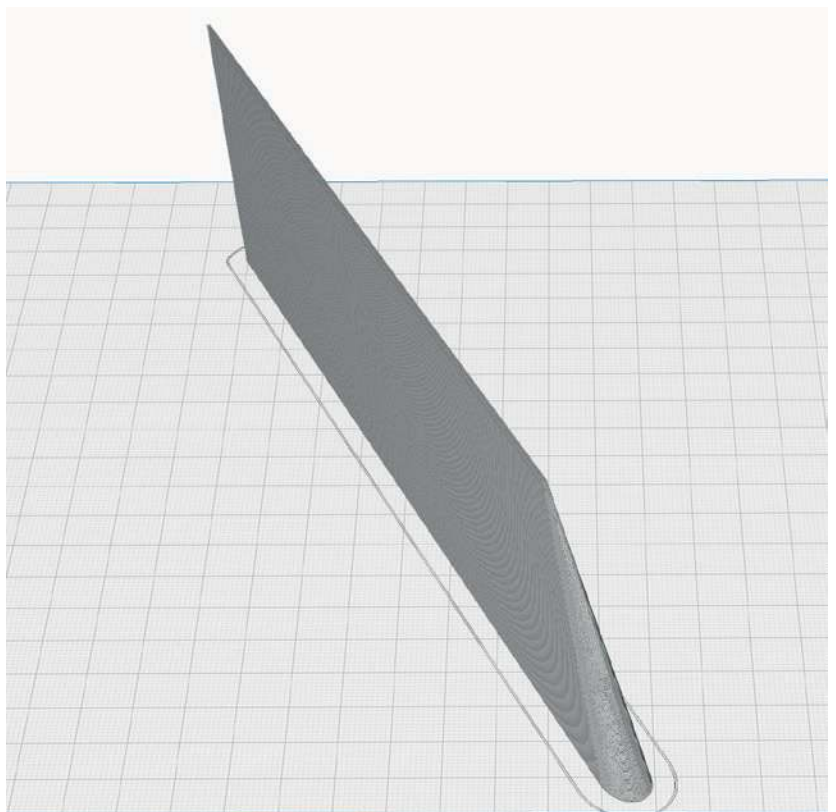
P5_Rudder 2-br.stl

MATERIAL LW PLA, Weight: ~ X g

TIME ~ 1 hour 30 minutes

ADDITIONAL SETTINGS

- Print twice



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!

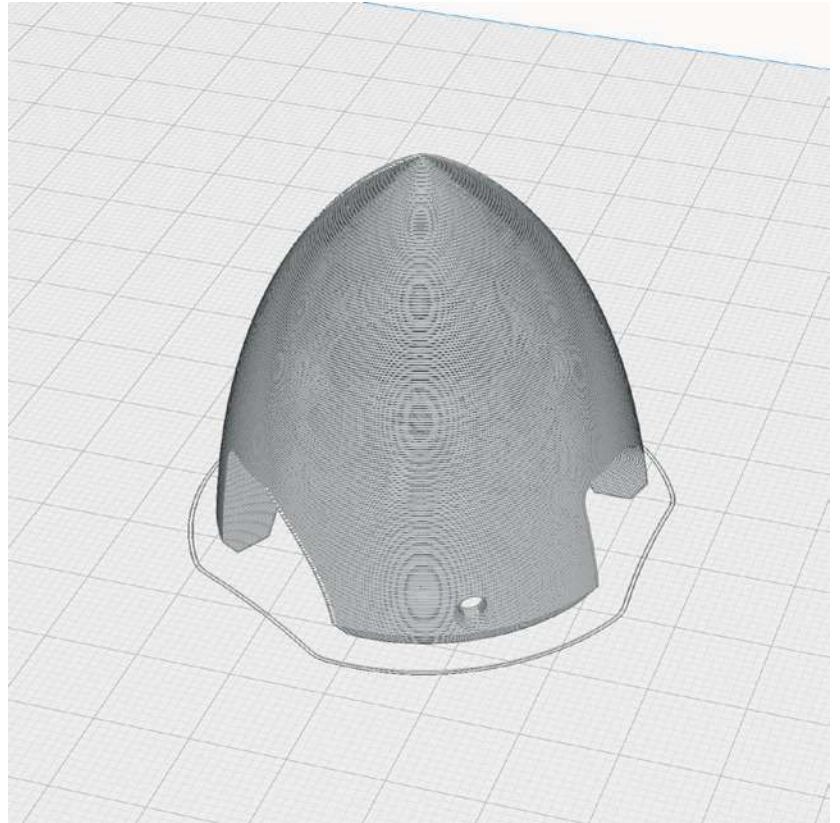
P5_Spinner 3B L-br.stl and P5_Spinner 3B R-br.stl

MATERIAL LW PLA, Weight: ~ 4 g

TIME ~ 30 minutes

ADDITIONAL SETTINGS

None required



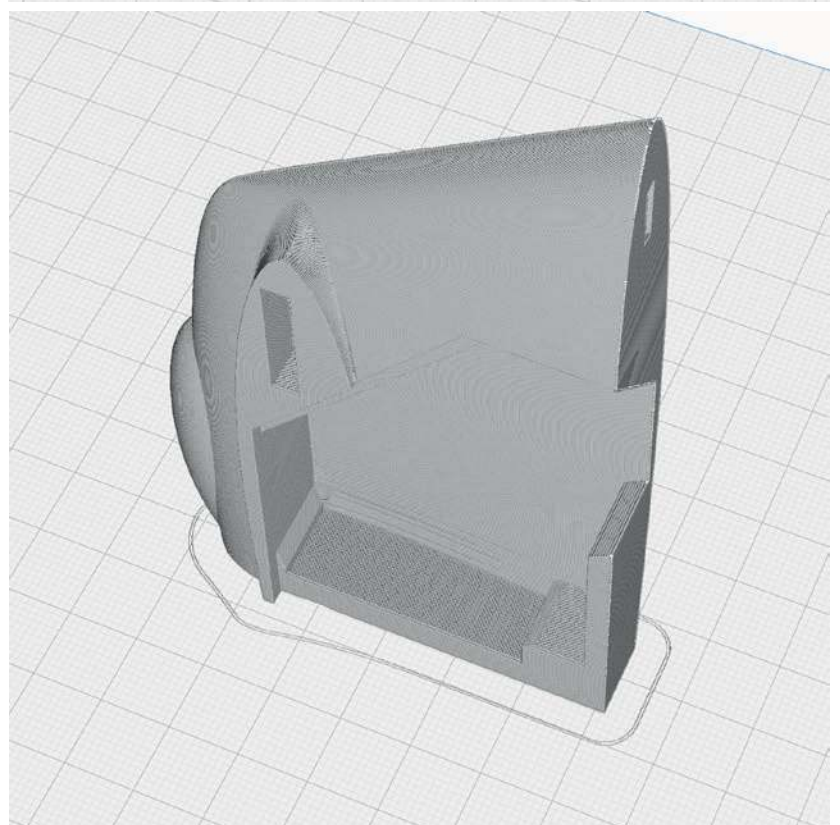
P5_VS 1 up L-br.stl and P5_VS 1 up R-br.stl

MATERIAL LW PLA, Weight: ~ 7 g

TIME ~ 1 hour

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!

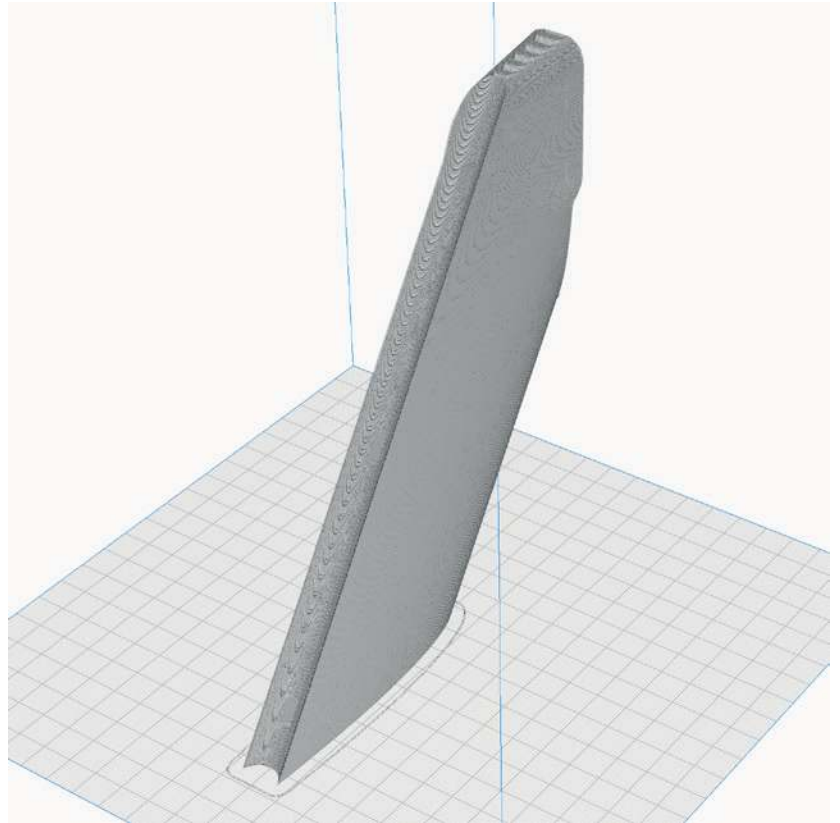
P5_VS 1 down L-br.stl and
P5_VS 1 down R-br.stl

MATERIAL LW PLA, Weight: ~ 20 g

TIME ~ 4 hours

ADDITIONAL SETTINGS

None required



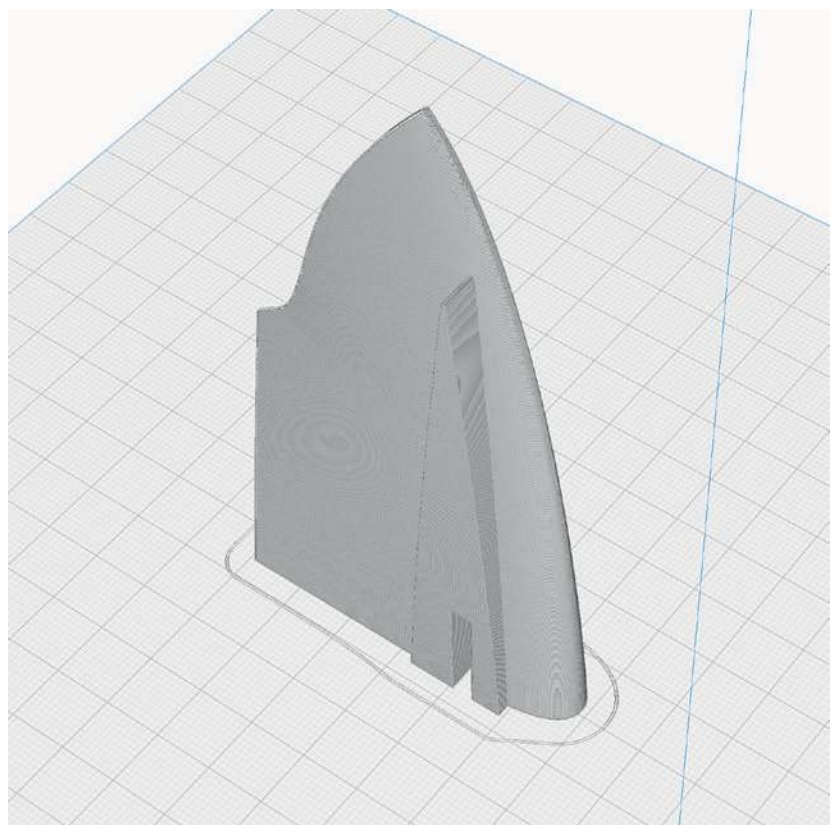
P5_VS 2 up L-br.stl and
P5_VS 2 up R-br.stl

MATERIAL LW PLA, Weight: ~ 5 g

TIME ~ 1 hour

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!

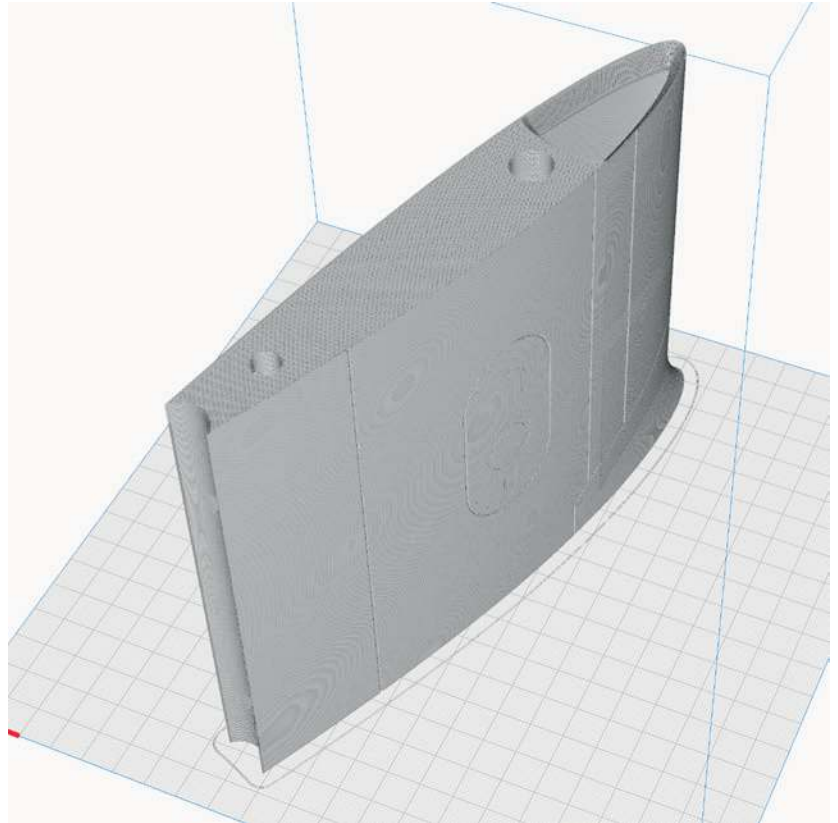
P5_Wing 1 L_br.stl and P5_Wing 1 R_br.stl

MATERIAL LW PLA, Weight: ~ 45 g

TIME ~ 7 hours 30 minutes

ADDITIONAL SETTINGS

None required



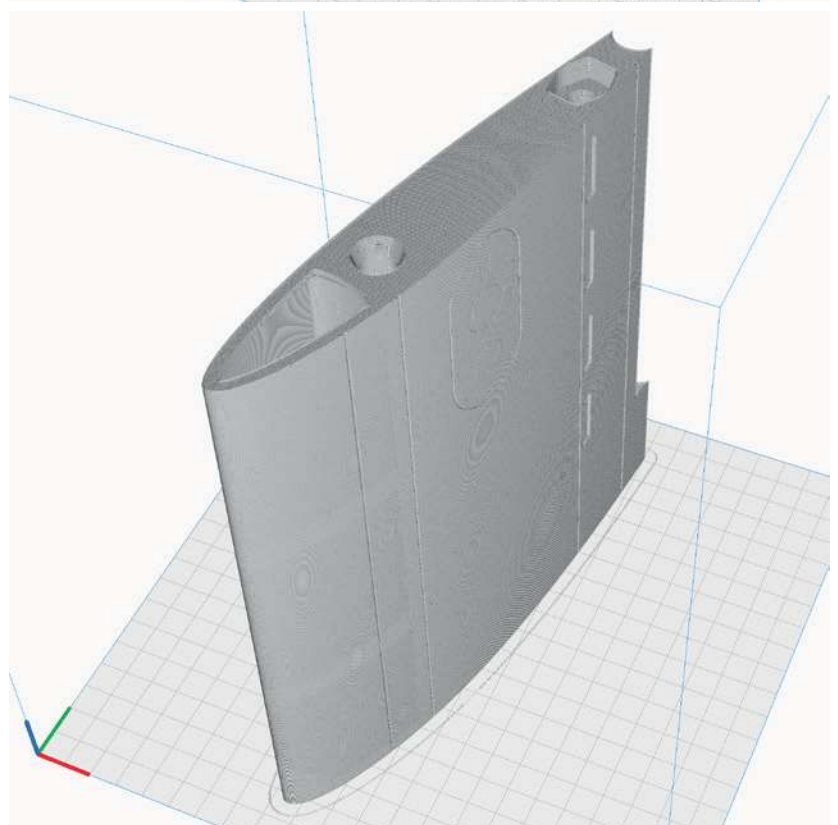
P5_Wing 2 L_br.stl and P5_Wing 2 R_br.stl

MATERIAL LW PLA, Weight: ~ 62 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!

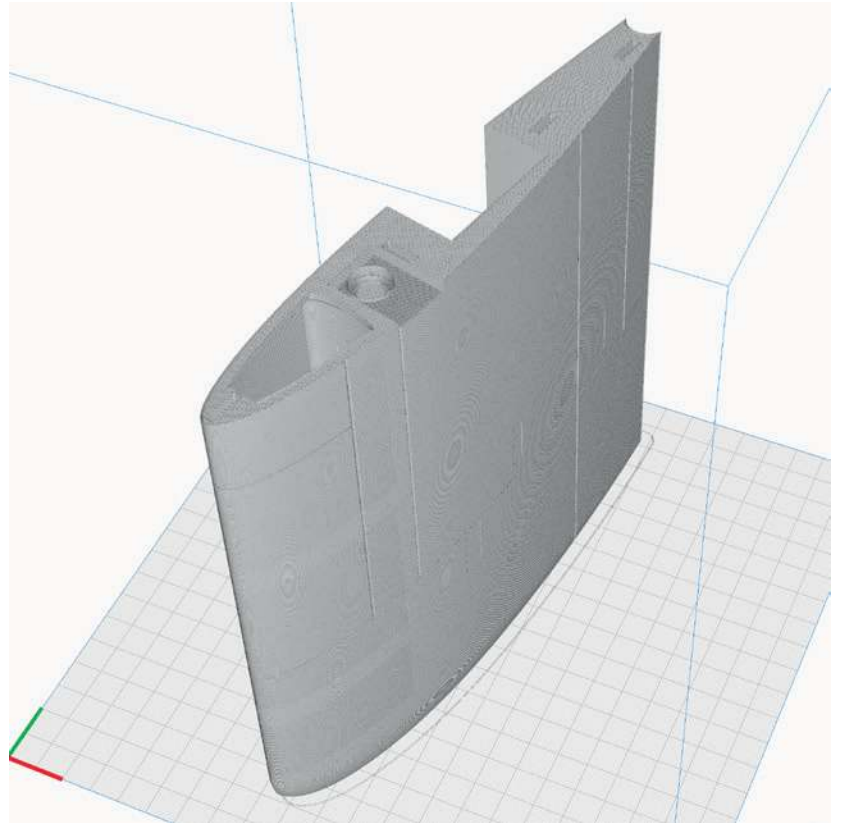
P5_Wing 3 L_br.stl and P5_Wing 3 R_br.stl

MATERIAL LW PLA, Weight: ~ 55 g

TIME ~ 9 hours

ADDITIONAL SETTINGS

None required



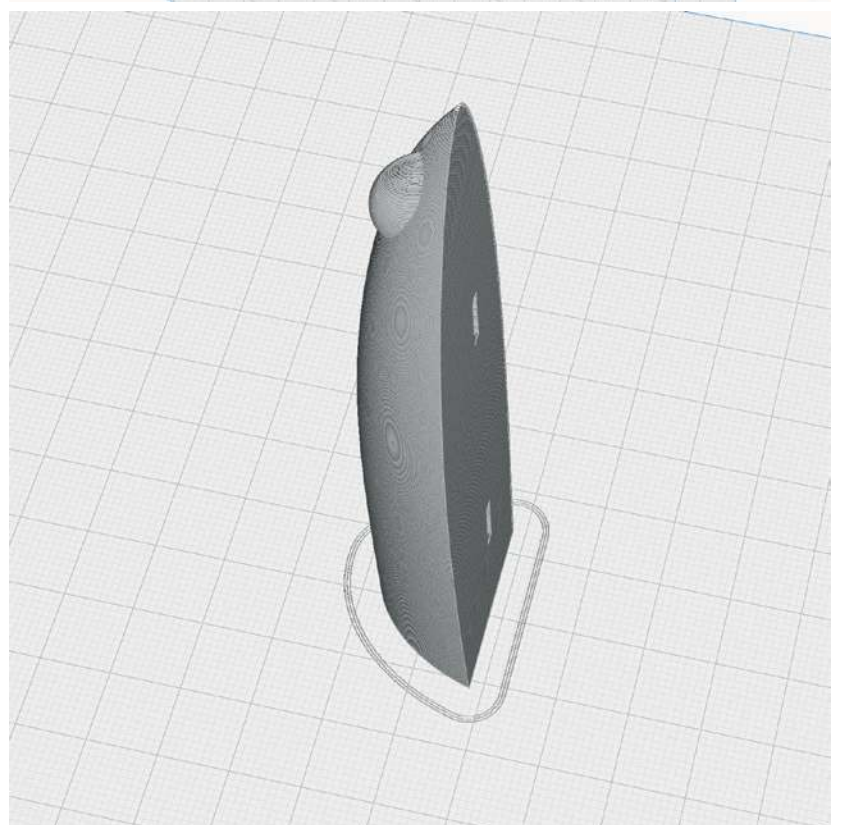
P5_Wingtip 1 L-br.stl and P5_Wingtip 1 R-br.stl

MATERIAL LW PLA, Weight: ~ 4 g

TIME ~ 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!

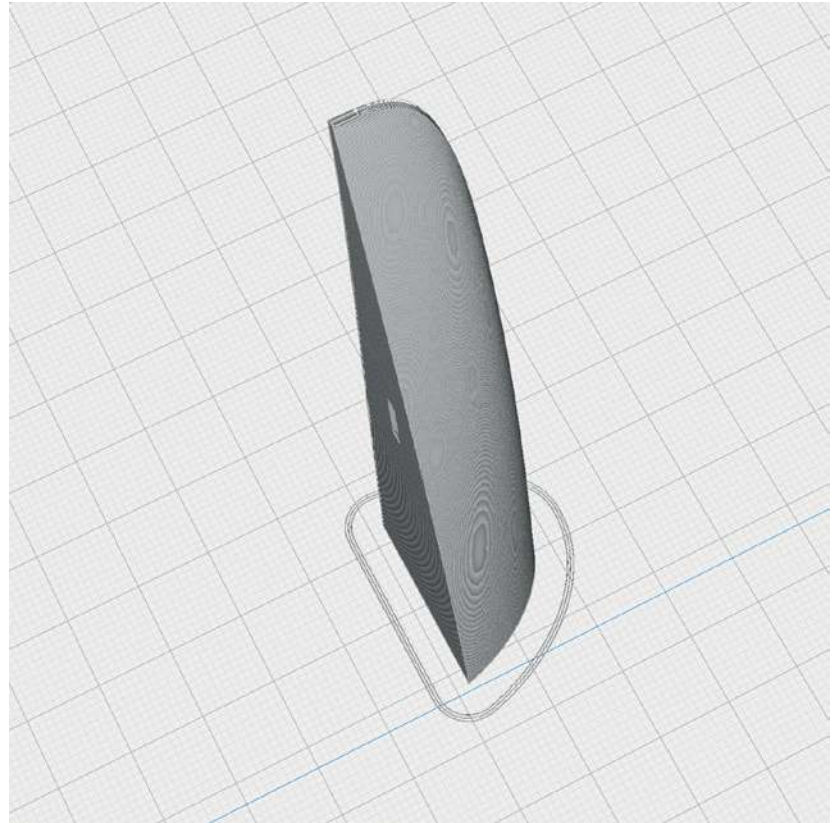
P5_Wingtip 2 L-br.stl and
P5_Wingtip 2 R-br.stl

MATERIAL LW PLA, Weight: ~ 3 g

TIME ~ 30 minutes

ADDITIONAL SETTINGS

None required



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.

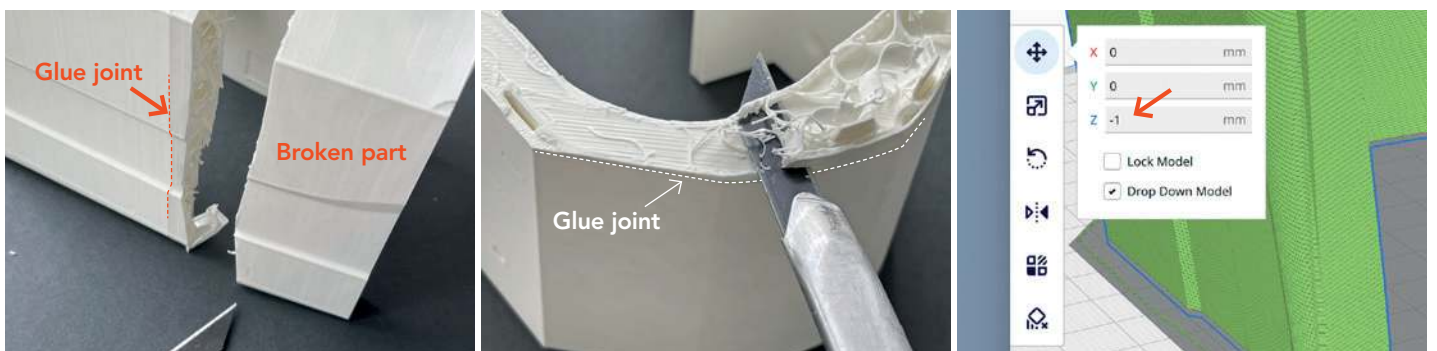
After assembly, **align the two parts exactly** and wipe off the excess CA glue from the surface with a cloth. Now spray with activator spray along the gluing surface and carefully press the parts together.

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



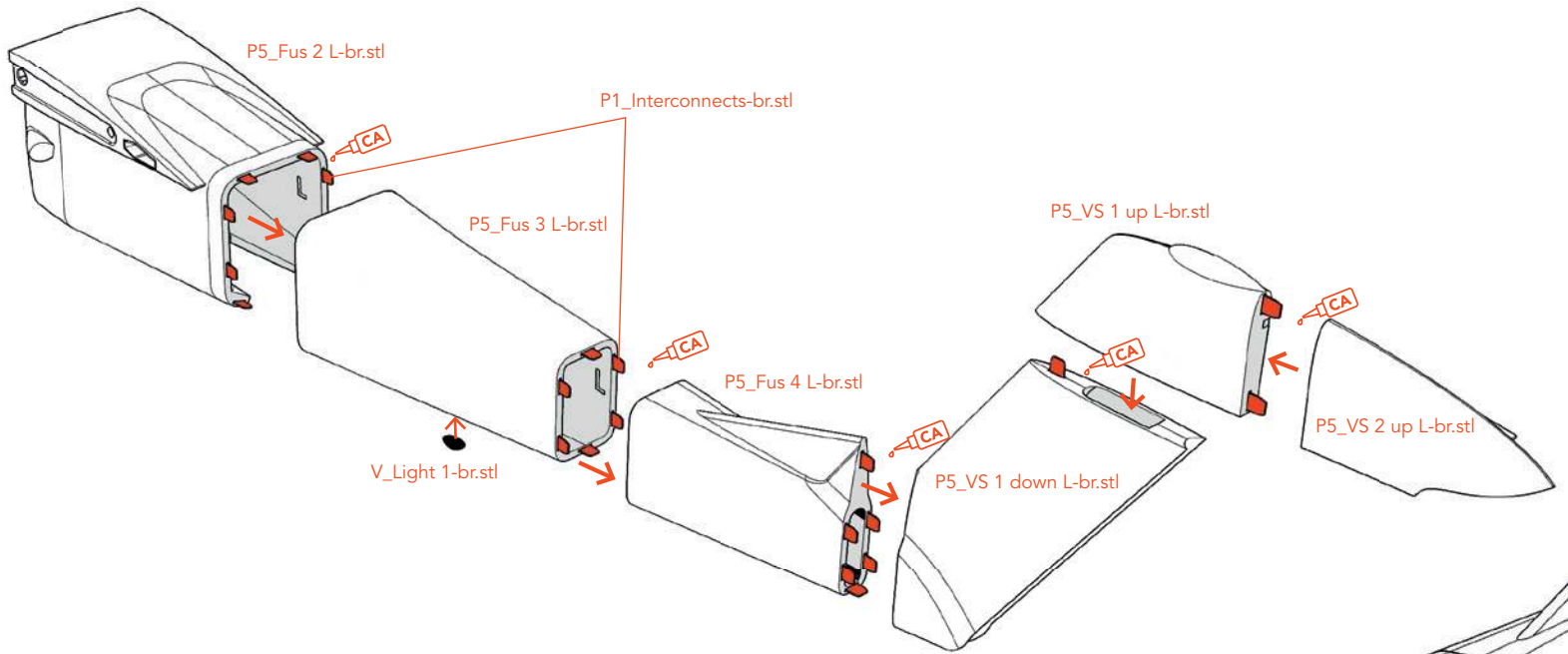
PROFILES 5 parts are easy to repair

- 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.



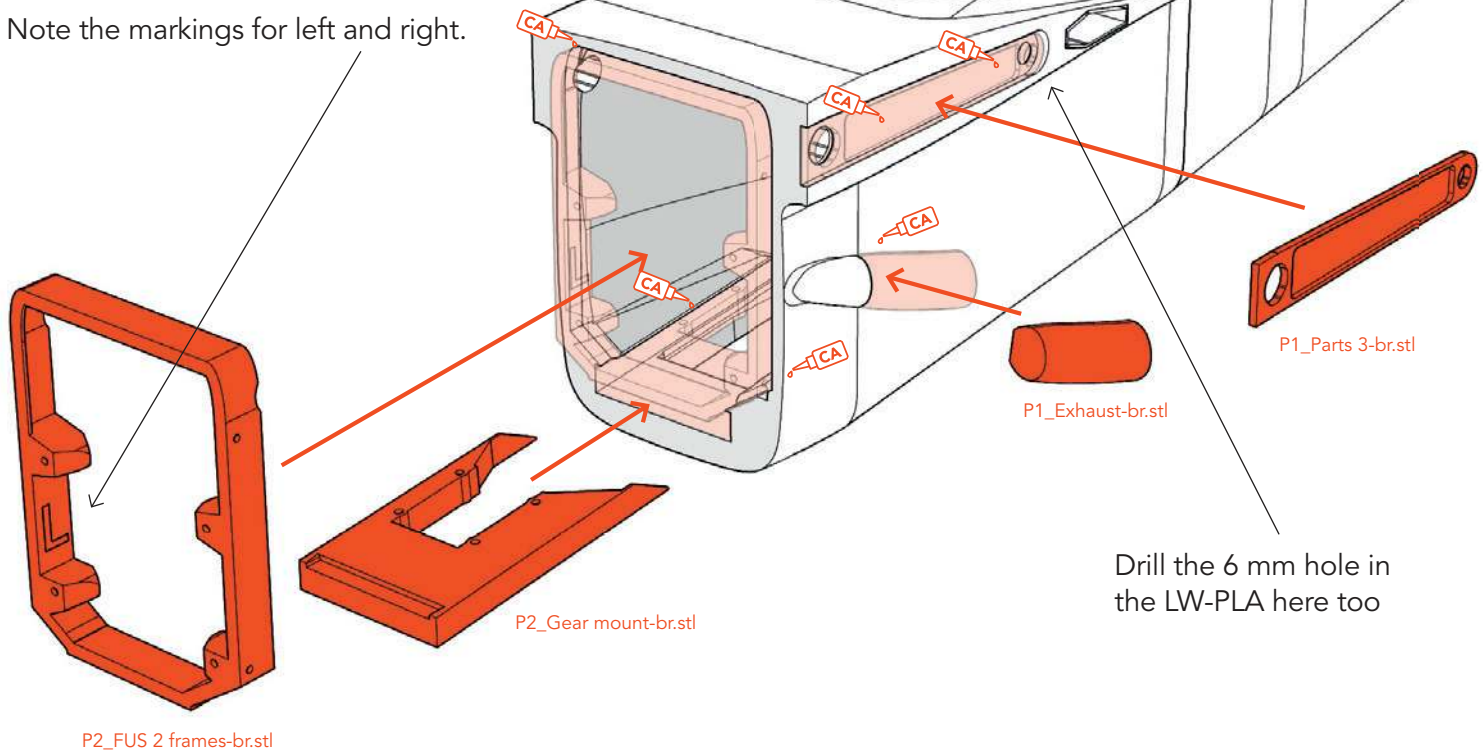
Fuselage assembly

Here is the example for the **left** outer fuselage. Repeat these steps with the right side in reverse.



The gear mount and FUS 2 frames must be glued absolutely firmly to the LW-PLA over the **entire** contact surface! These parts must secure the motor and gear

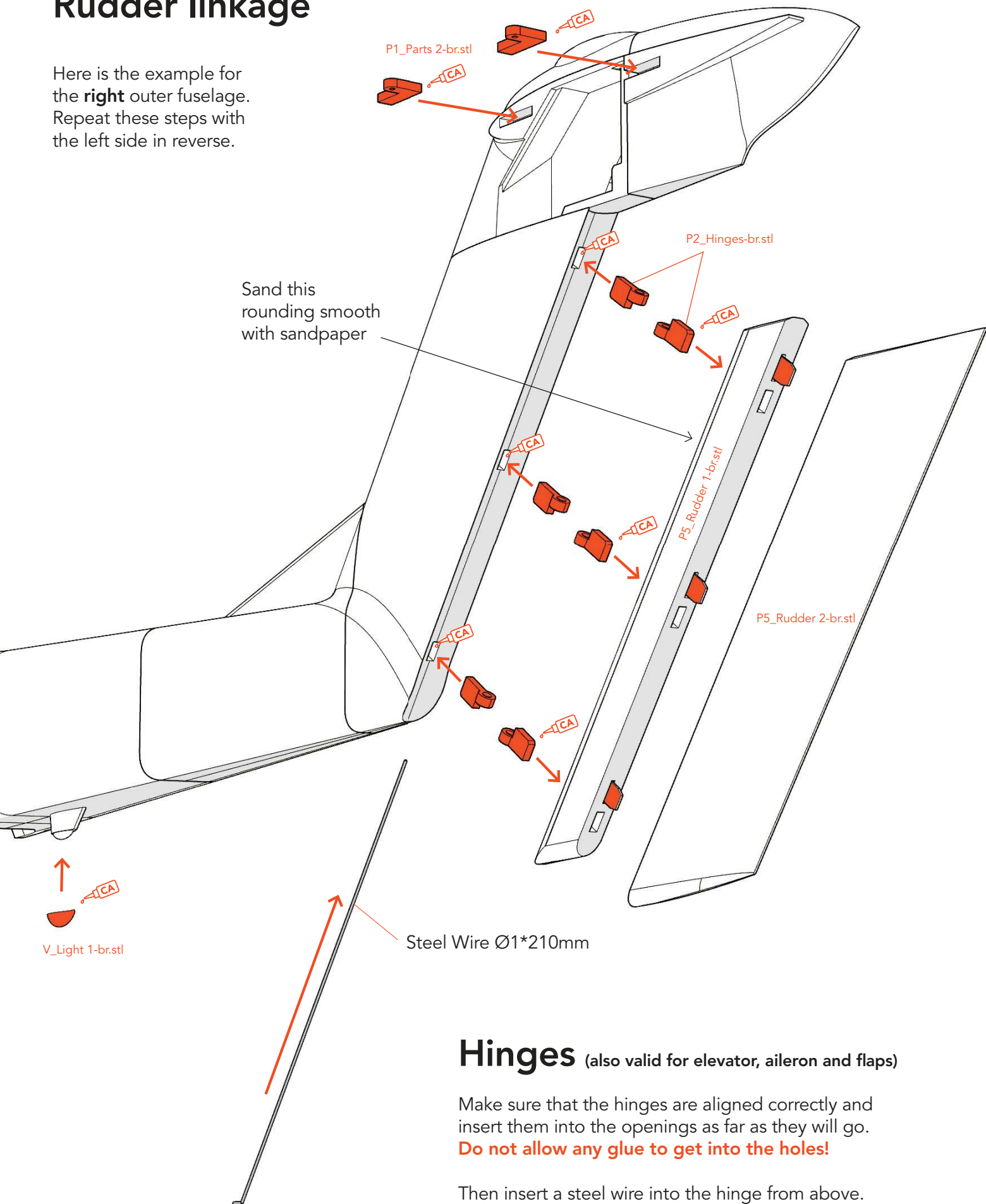
Note the markings for left and right.



Drill the 6 mm hole in the LW-PLA here too

Rudder linkage

Here is the example for the **right** outer fuselage. Repeat these steps with the left side in reverse.

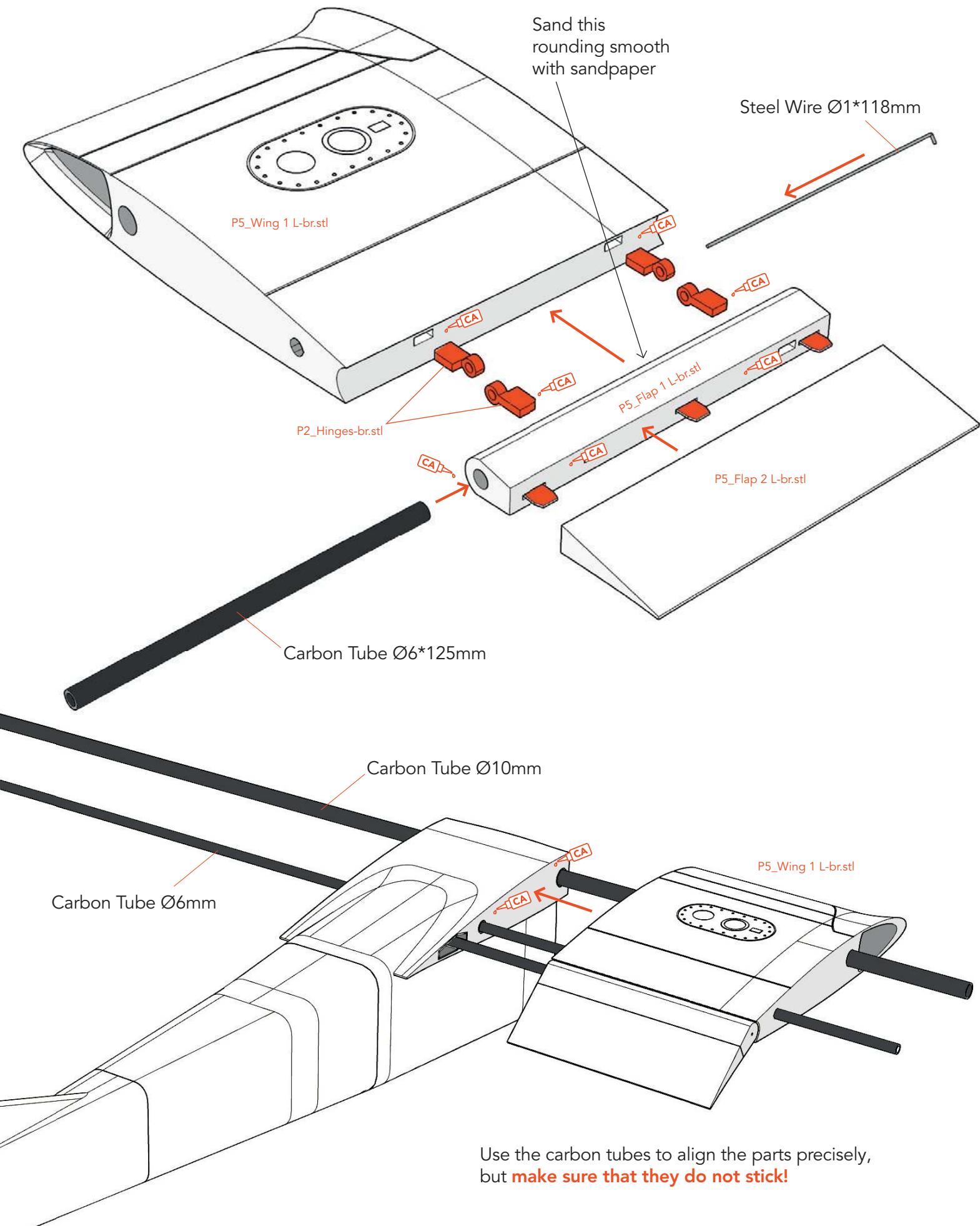


Hinges (also valid for elevator, aileron and flaps)

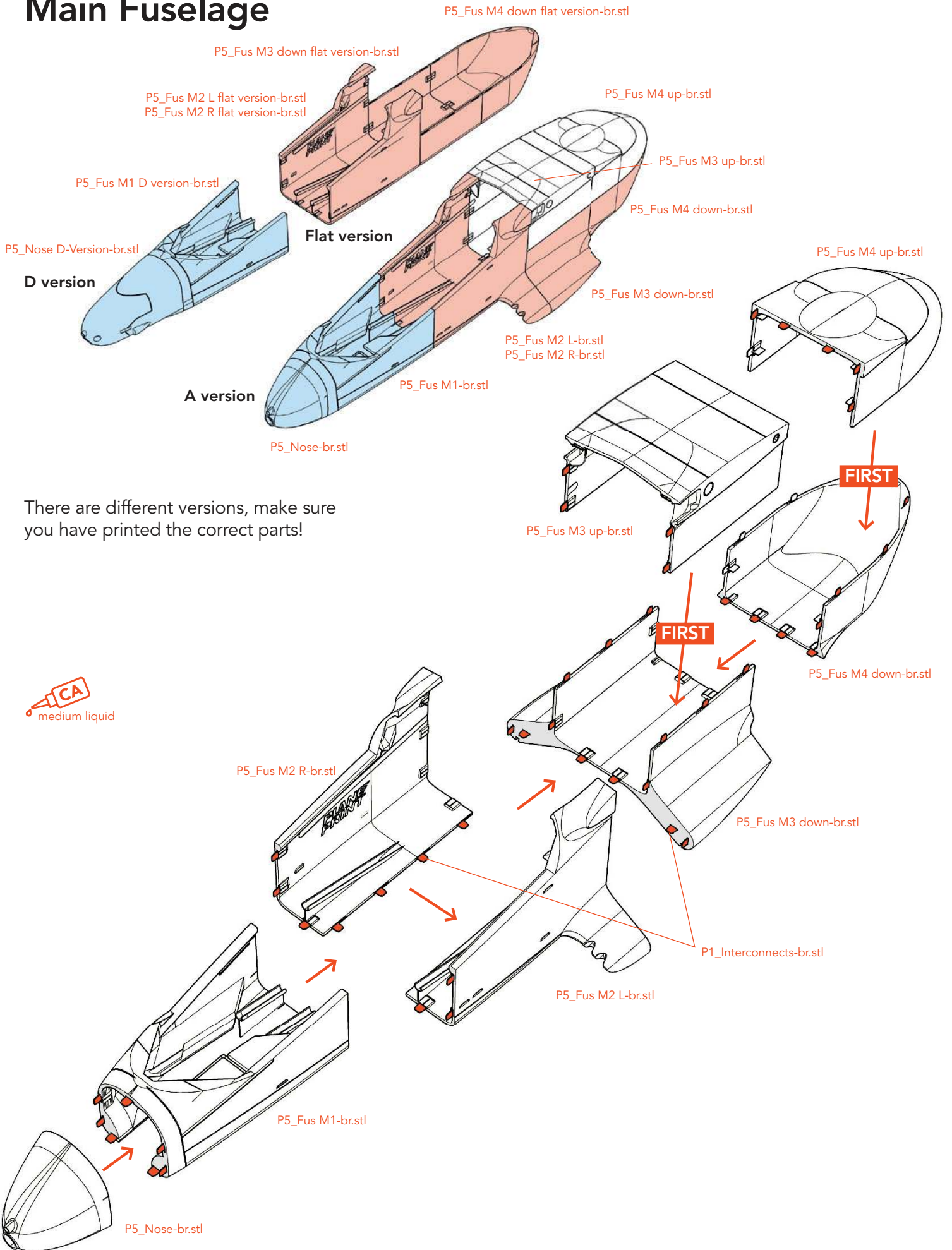
Make sure that the hinges are aligned correctly and insert them into the openings as far as they will go. **Do not allow any glue to get into the holes!**

Then insert a steel wire into the hinge from above.

Flap inner Wing



Main Fuselage



There are different versions, make sure you have printed the correct parts!

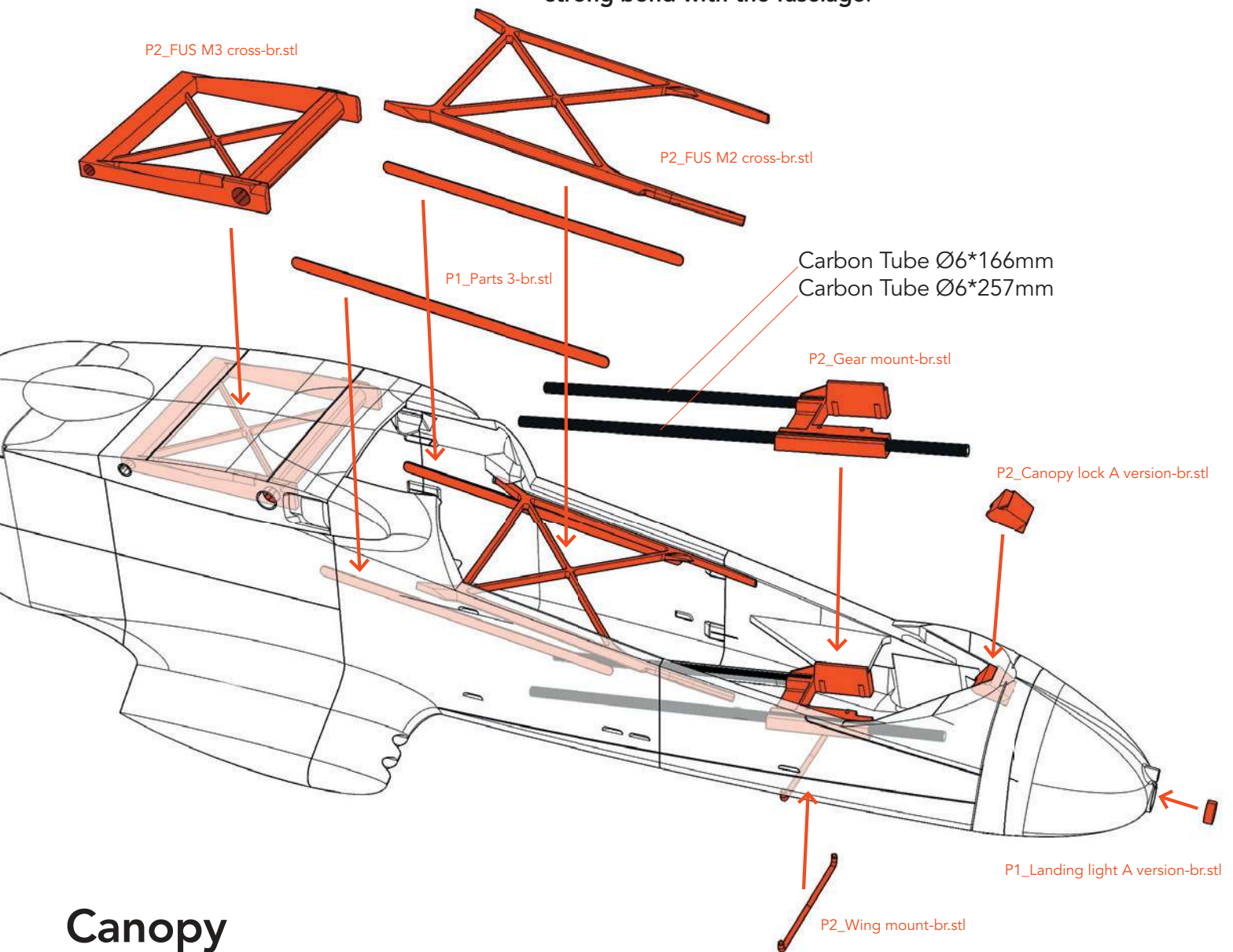


Main Fuselage

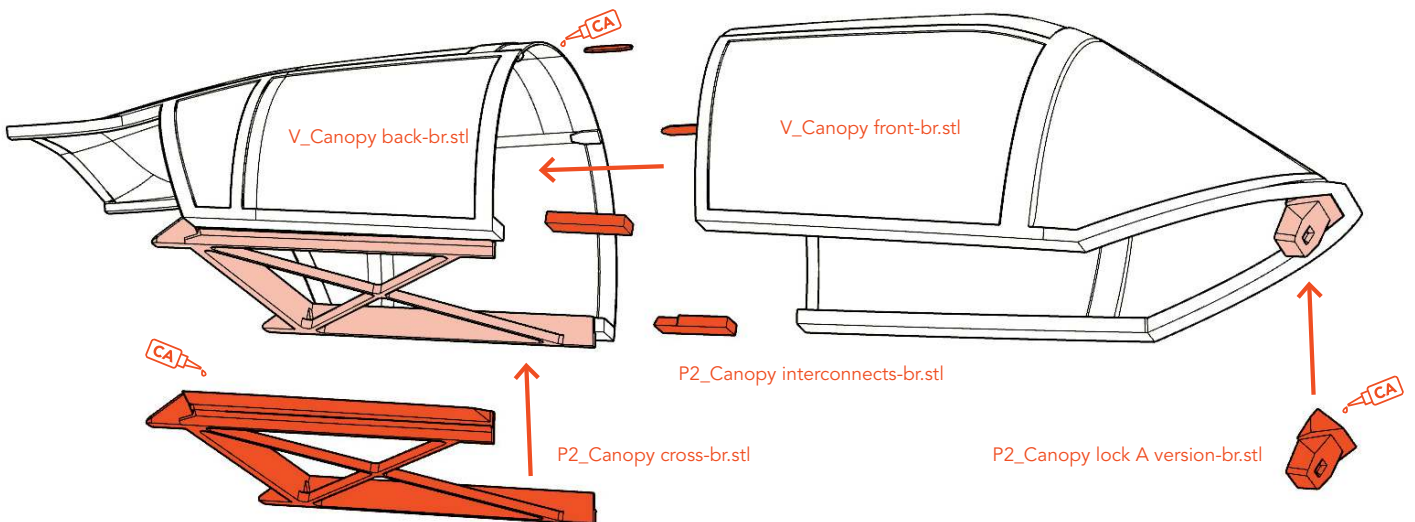
Glue all PLA parts into the fuselage as shown in the picture.



First insert the **carbon tubes** into the **front gear mount** and into the fuselage. Only **then** let thin CA glue run into all gaps to get a **strong bond with the fuselage**.



Canopy



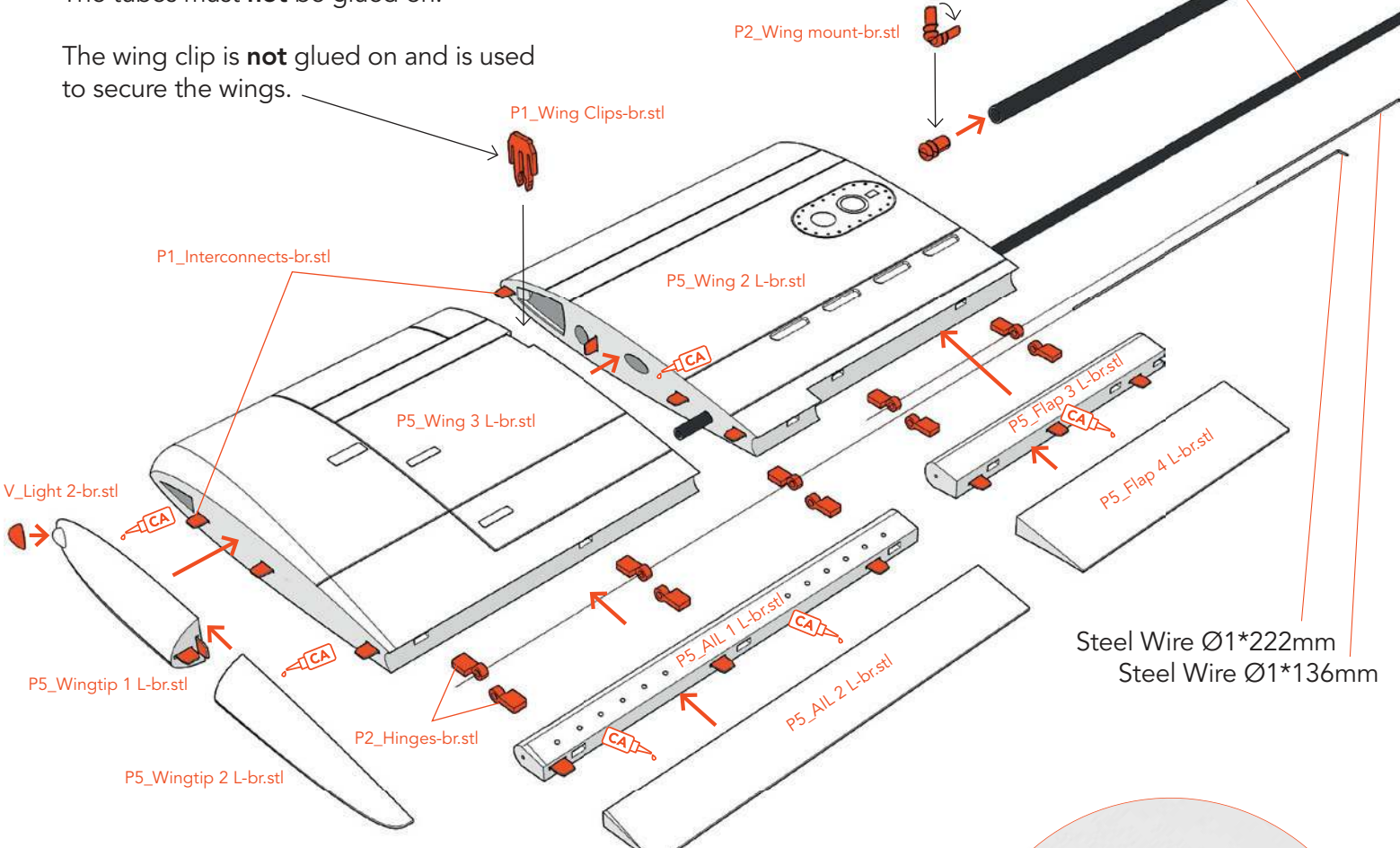
Outer Wing



Carbon Tube $\varnothing 10 \times 1000 \text{mm}$
Carbon Tube $\varnothing 6 \times 1000 \text{mm}$

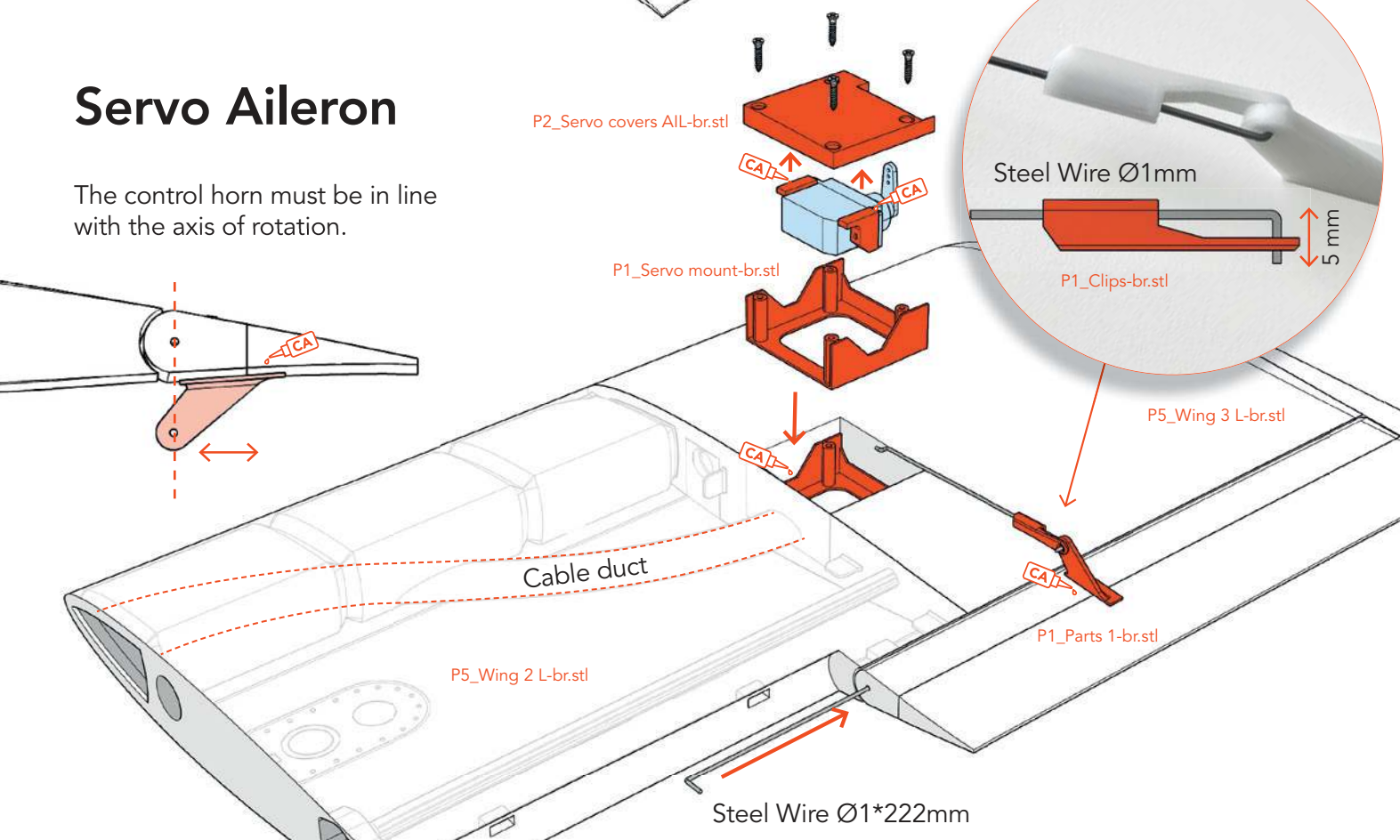
The tubes must **not** be glued on!

The wing clip is **not** glued on and is used to secure the wings.



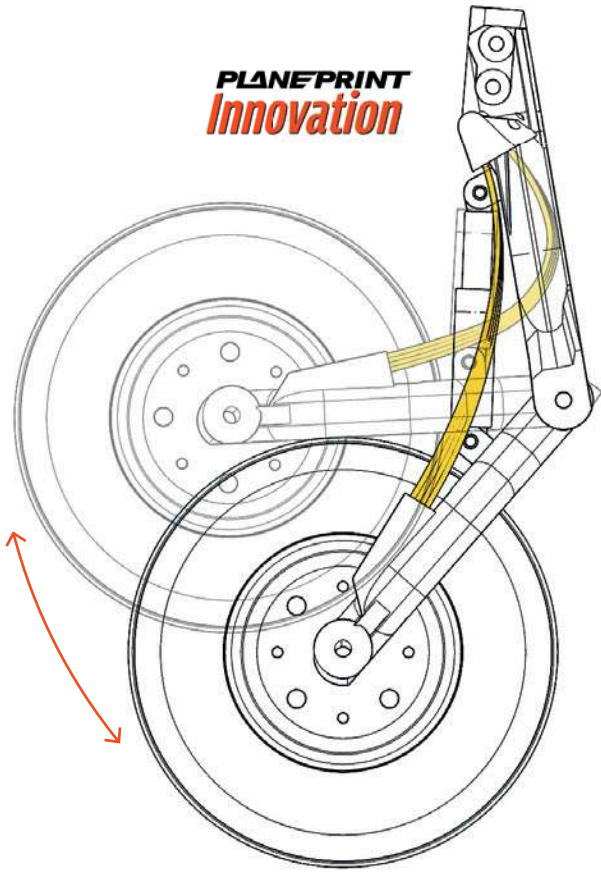
Servo Aileron

The control horn must be in line with the axis of rotation.

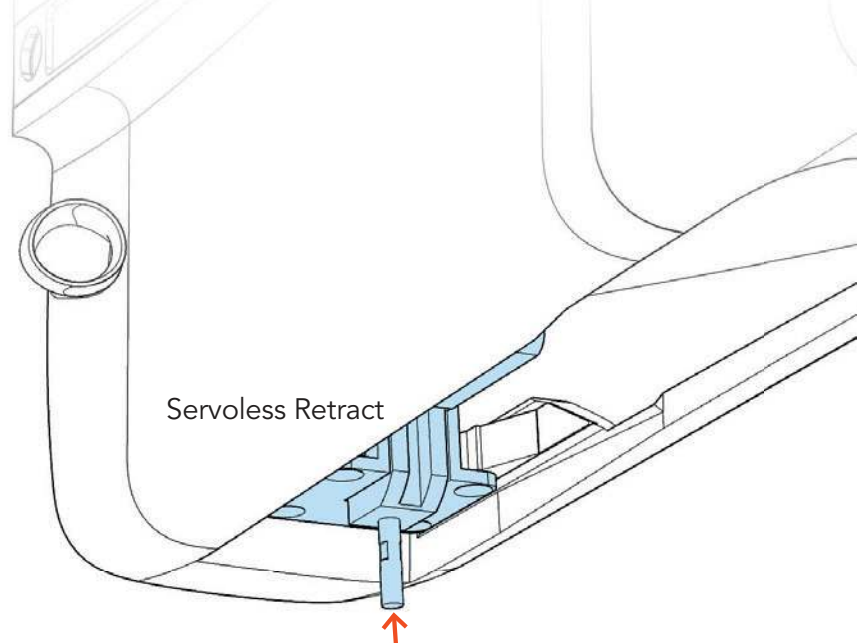


Steel wire suspended Gear

PLANEPRINT
Innovation

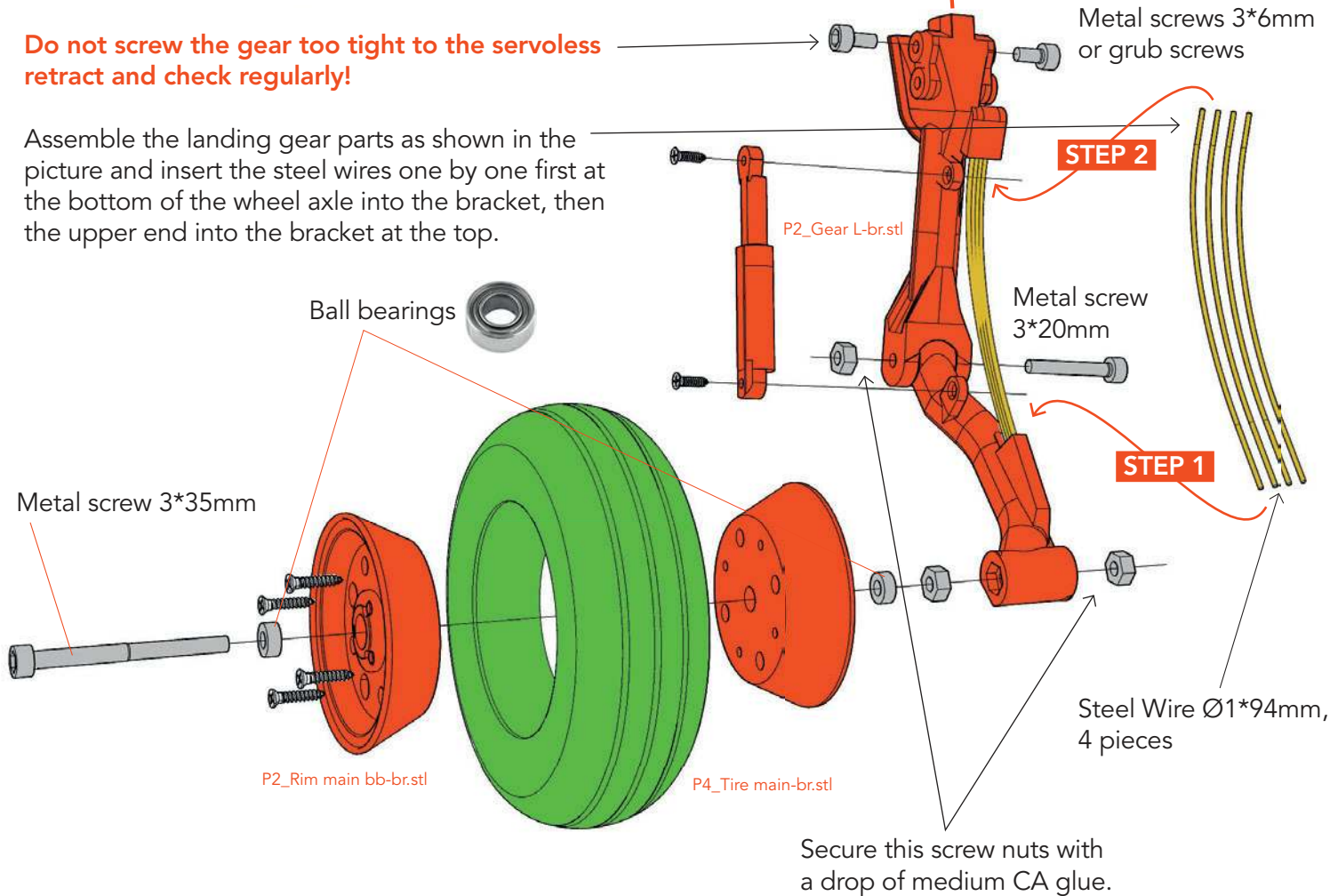


This suspension with simple steel wires is extremely effective and makes it possible to realize fully printed gear legs of this length. You can determine the force of the suspension by the number of wires. If the flying weight is according to our specifications, then 4 wires per side are just right.

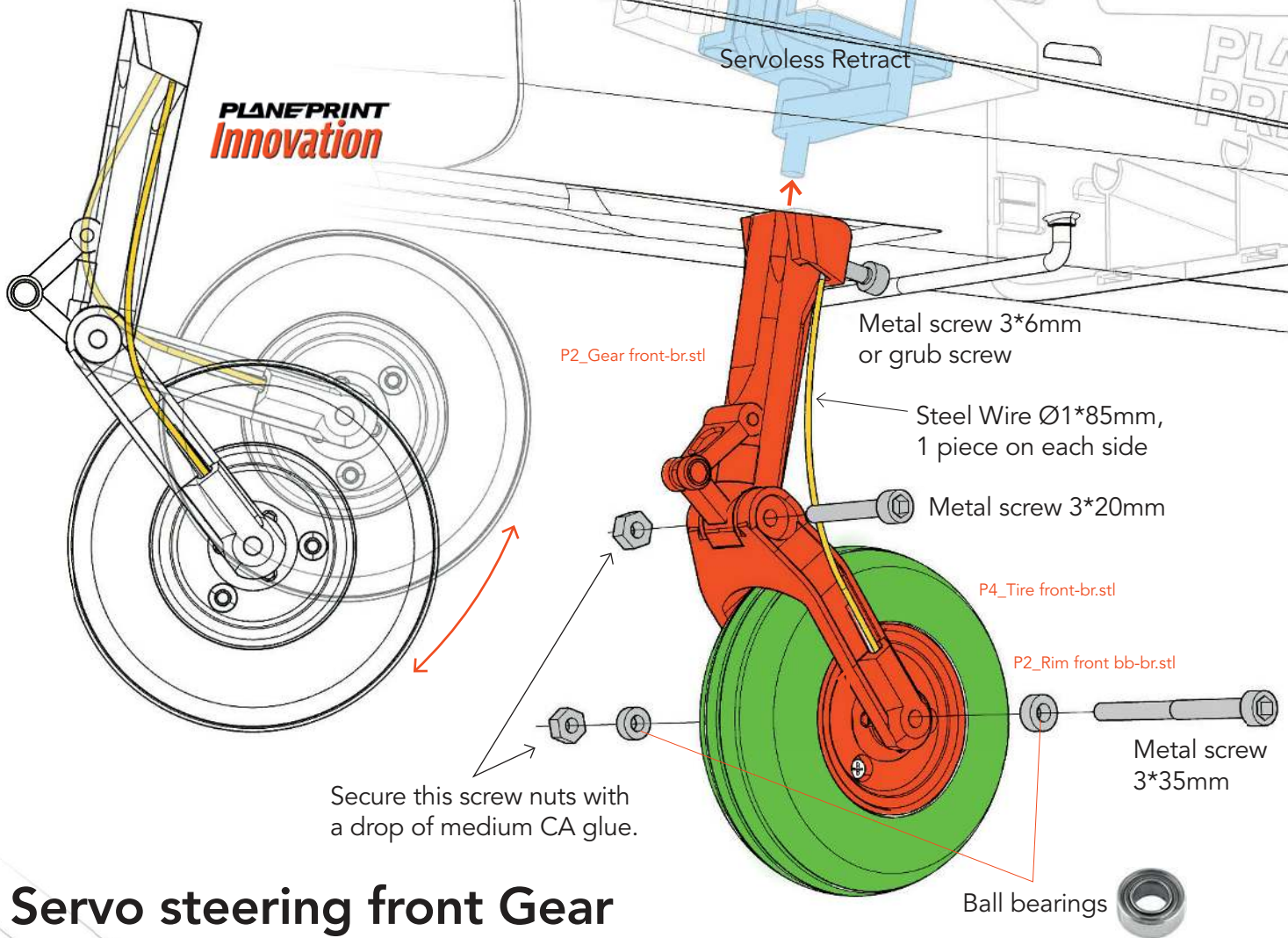


Do not screw the gear too tight to the servoless retract and check regularly!

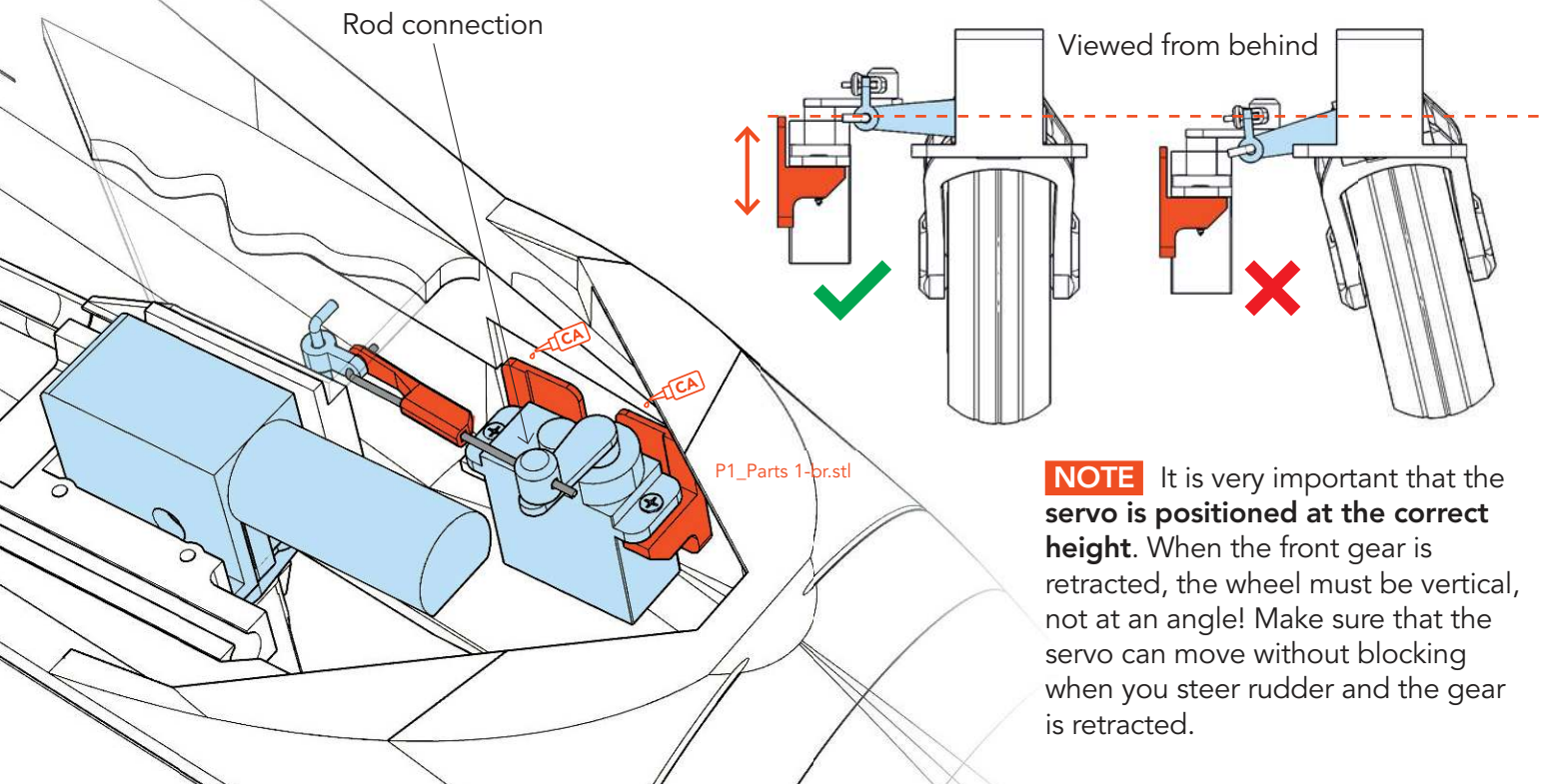
Assemble the landing gear parts as shown in the picture and insert the steel wires one by one first at the bottom of the wheel axle into the bracket, then the upper end into the bracket at the top.



Steel wire suspended Front Gear



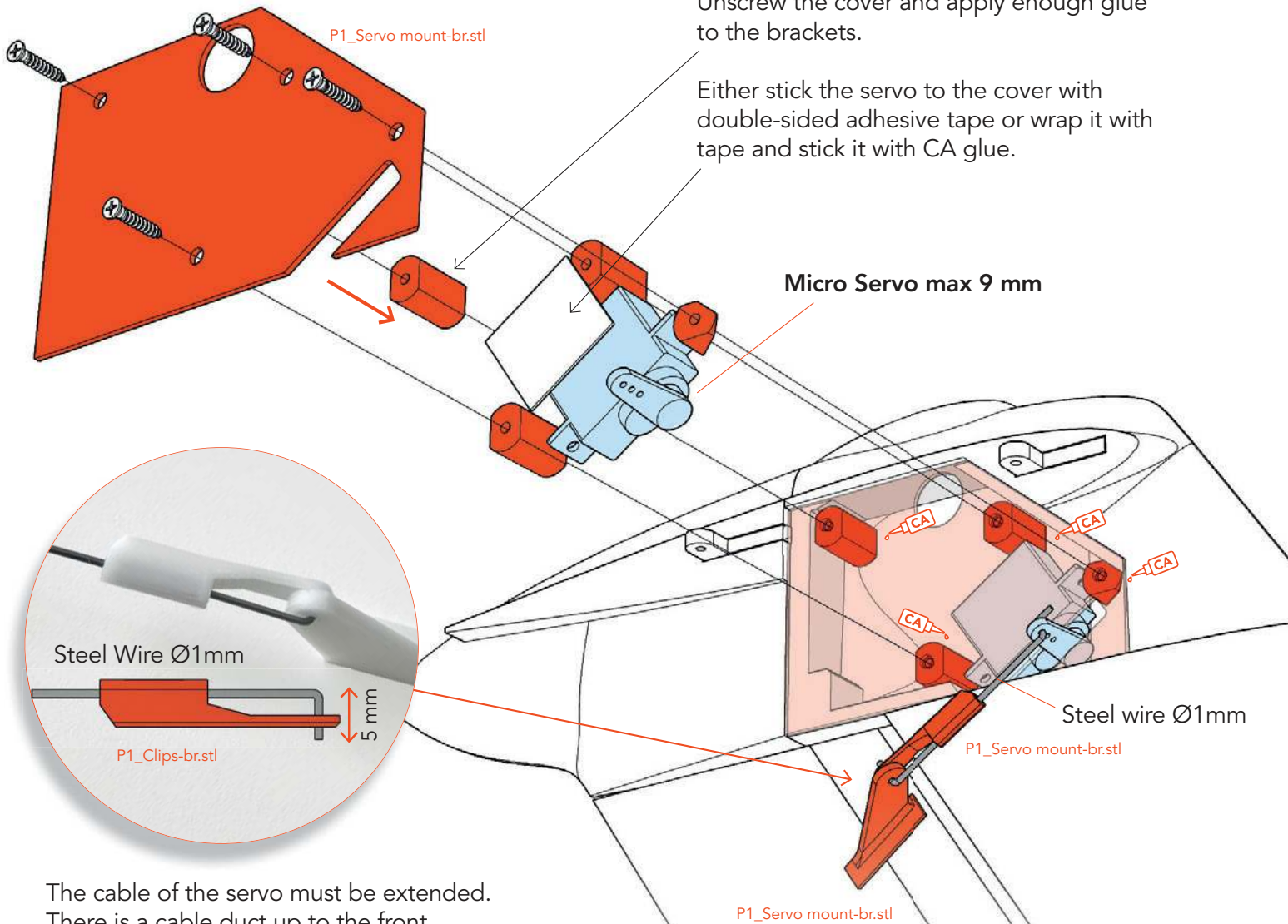
Servo steering front Gear



Servos Rudder

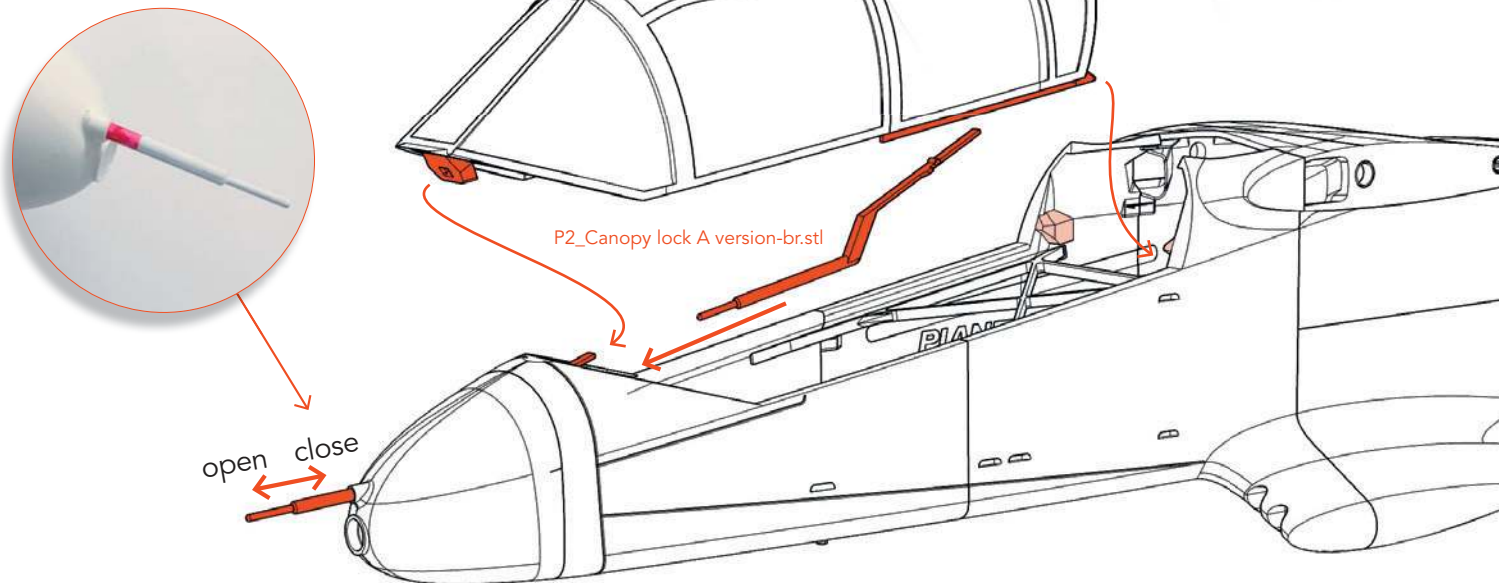
Screw these brackets to the servo cover and glue them to the back of the fuselage. Unscrew the cover and apply enough glue to the brackets.

Either stick the servo to the cover with double-sided adhesive tape or wrap it with tape and stick it with CA glue.

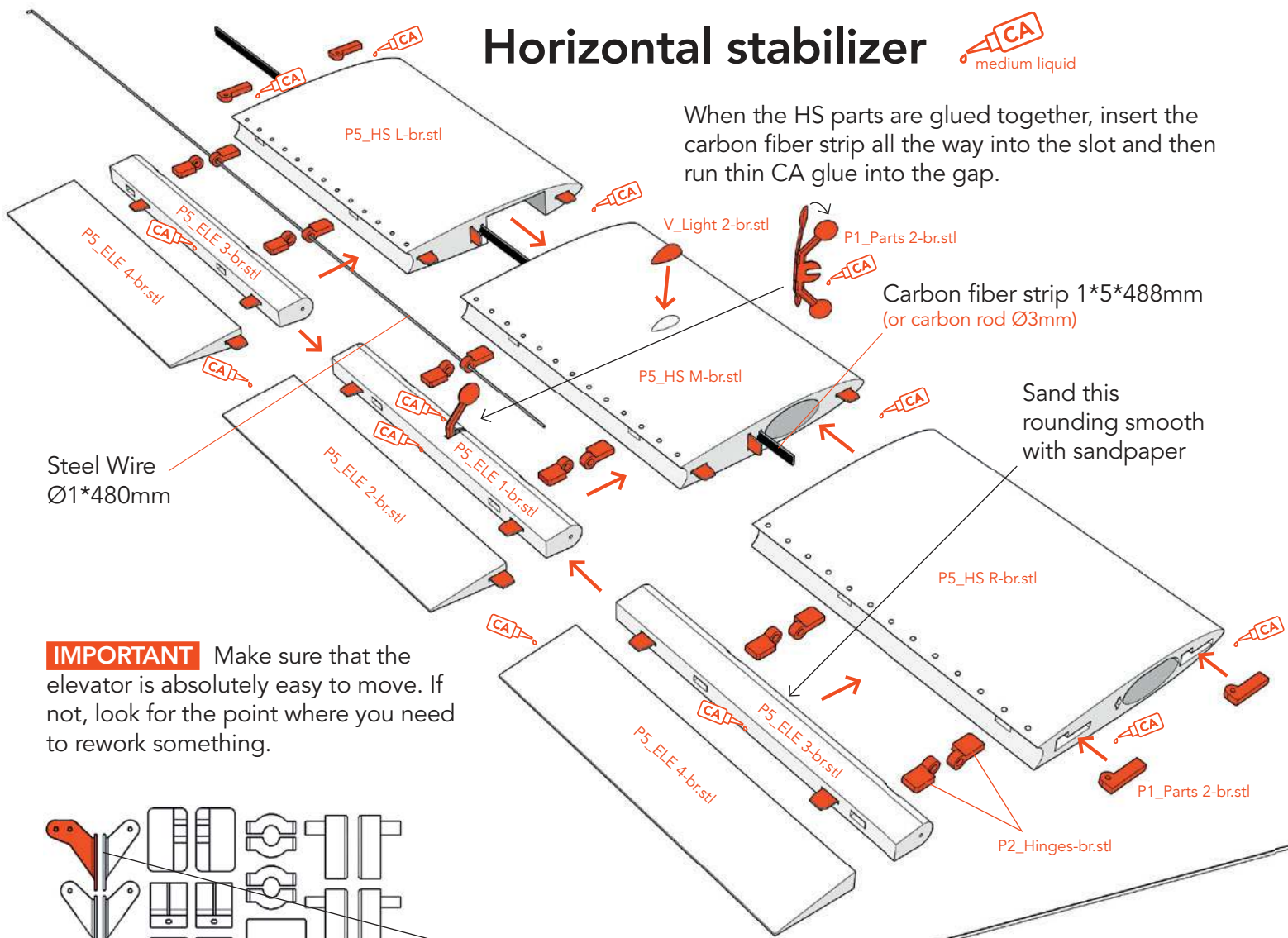


The cable of the servo must be extended. There is a cable duct up to the front.

Paint the rod with signal color so that you can see if it is closed.



Horizontal stabilizer



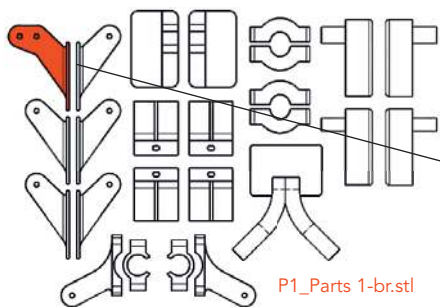
When the HS parts are glued together, insert the carbon fiber strip all the way into the slot and then run thin CA glue into the gap.

Carbon fiber strip 1*5*488mm (or carbon rod Ø3mm)

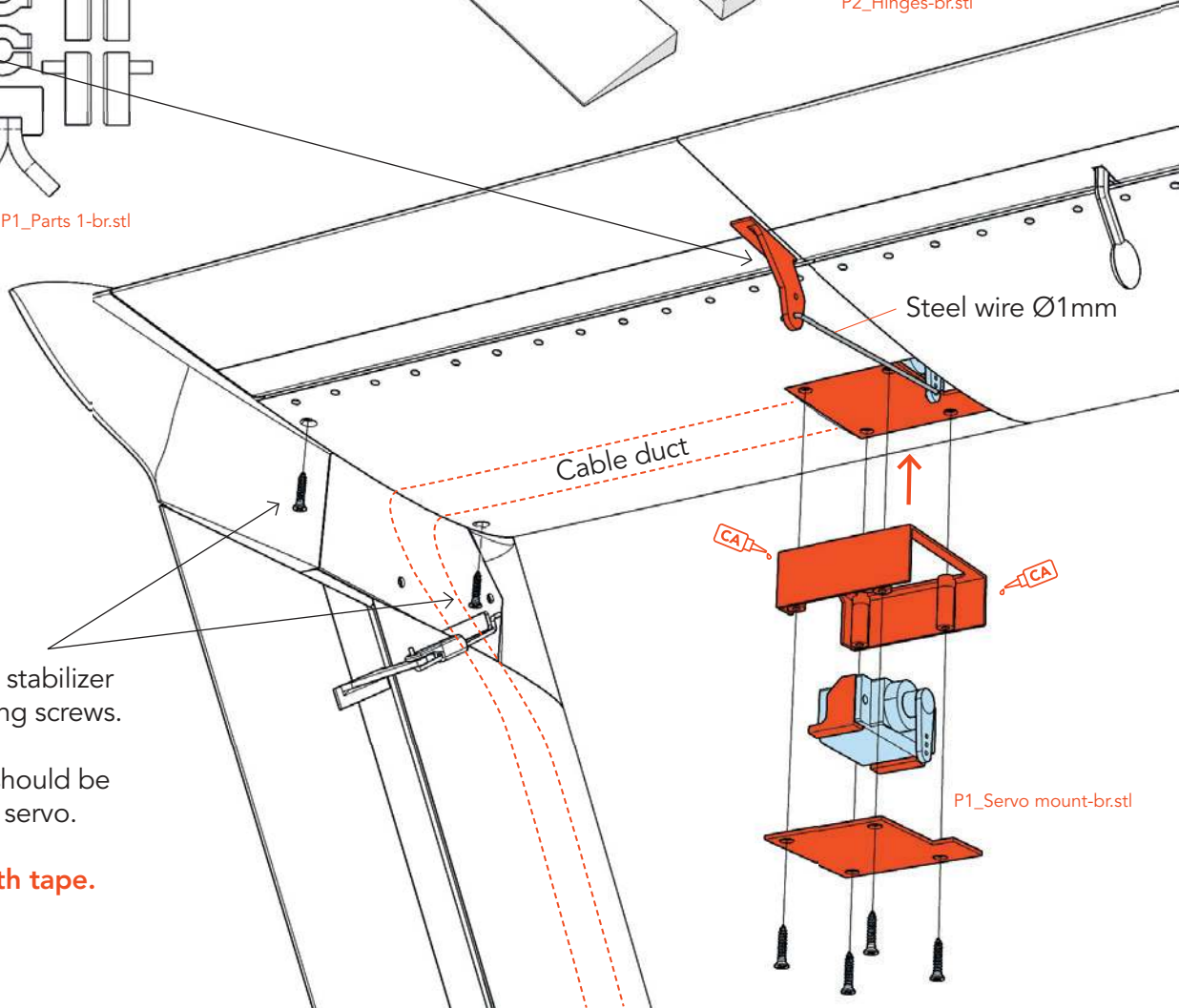
Sand this rounding smooth with sandpaper

Steel Wire Ø1*480mm

IMPORTANT Make sure that the elevator is absolutely easy to move. If not, look for the point where you need to rework something.



P1_Parts 1-br.stl



Steel wire Ø1mm

Cable duct

P1_Servo mount-br.stl

Fasten the horizontal stabilizer with these four tapping screws.

A plug-in extension should be used for the elevator servo.

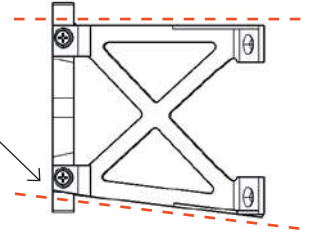
Secure the plugs with tape.

Motor mount

These arrows point upwards and backwards.

Screw the motor mount as shown in the picture and then let thin CA glue run into all the gaps so that everything is stable.

The sloping side is at the bottom



P1_Motormount 42-br.stl

Cable duct

Tapping screws $\text{\O}2*12$

P1_Spinner Plates 6mm-br.stl

P5_Spinner 3B R-br.stl

Metal screws 3*20mm

Motor cross with hole spacing 42 mm

P5_Fus 1 L-br.stl

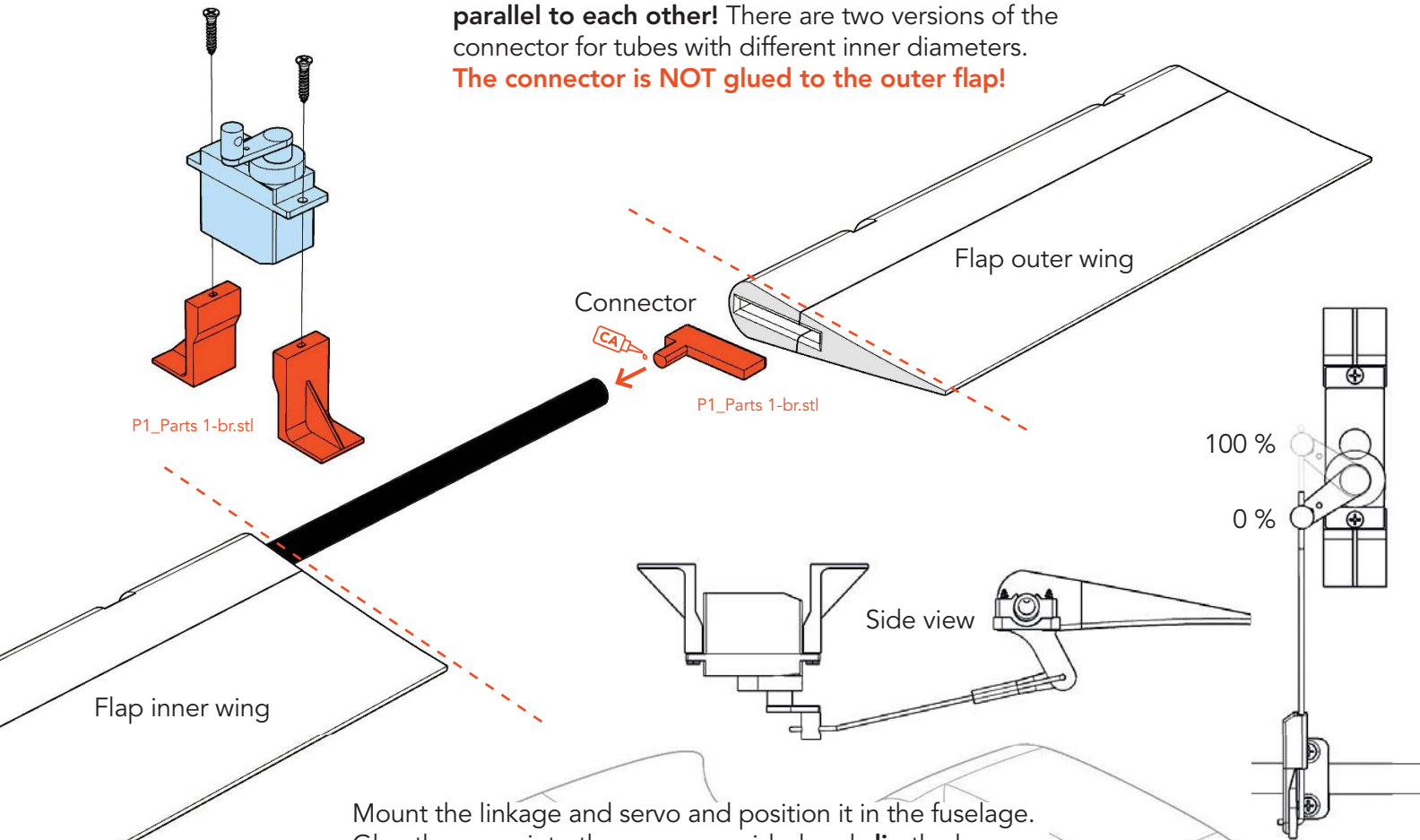
P5_Fus 1 part-br.stl

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

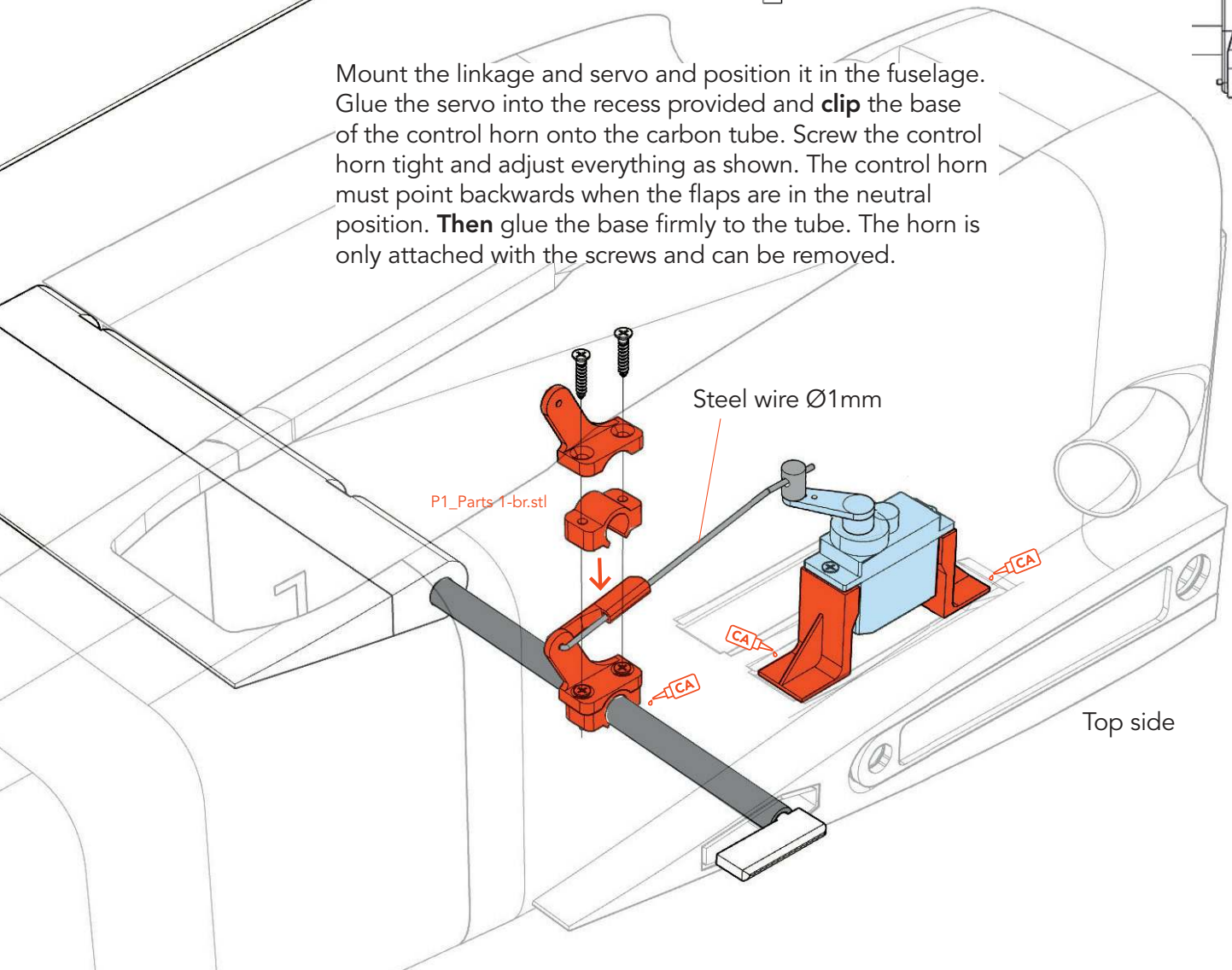
Flap linkage

Glue the connector for the outer flap into the carbon tube of the inner flap. Make sure that the flaps are **absolutely parallel to each other!** There are two versions of the connector for tubes with different inner diameters.

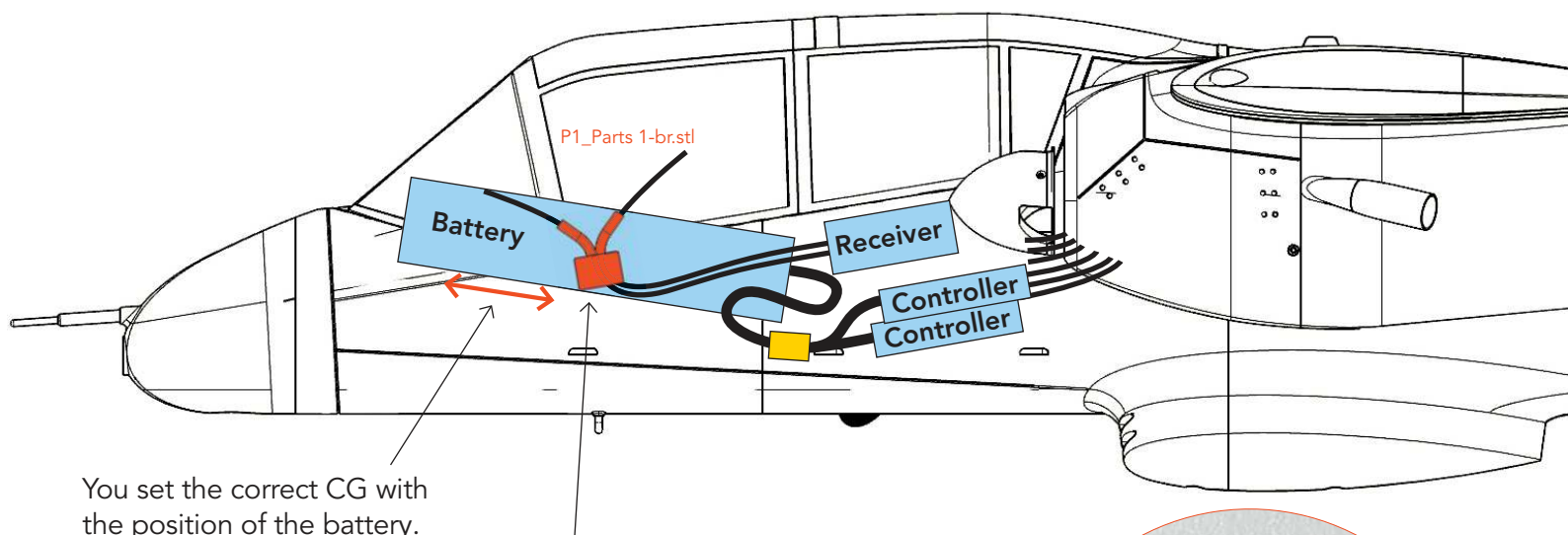
The connector is NOT glued to the outer flap!



Mount the linkage and servo and position it in the fuselage. Glue the servo into the recess provided and **clip** the base of the control horn onto the carbon tube. Screw the control horn tight and adjust everything as shown. The control horn must point backwards when the flaps are in the neutral position. **Then** glue the base firmly to the tube. The horn is only attached with the screws and can be removed.

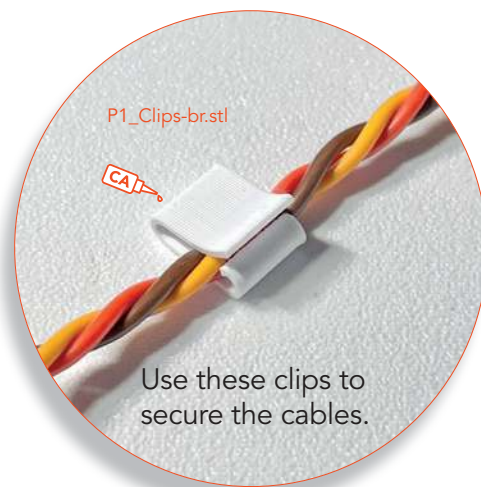


RC Components



You set the correct CG with the position of the battery.

Insert the two antennas of the receiver into this bracket to fix them in an optimal 90° position. Attach the part to the inside of the fuselage with Velcro or CA glue. Search for a vacant position

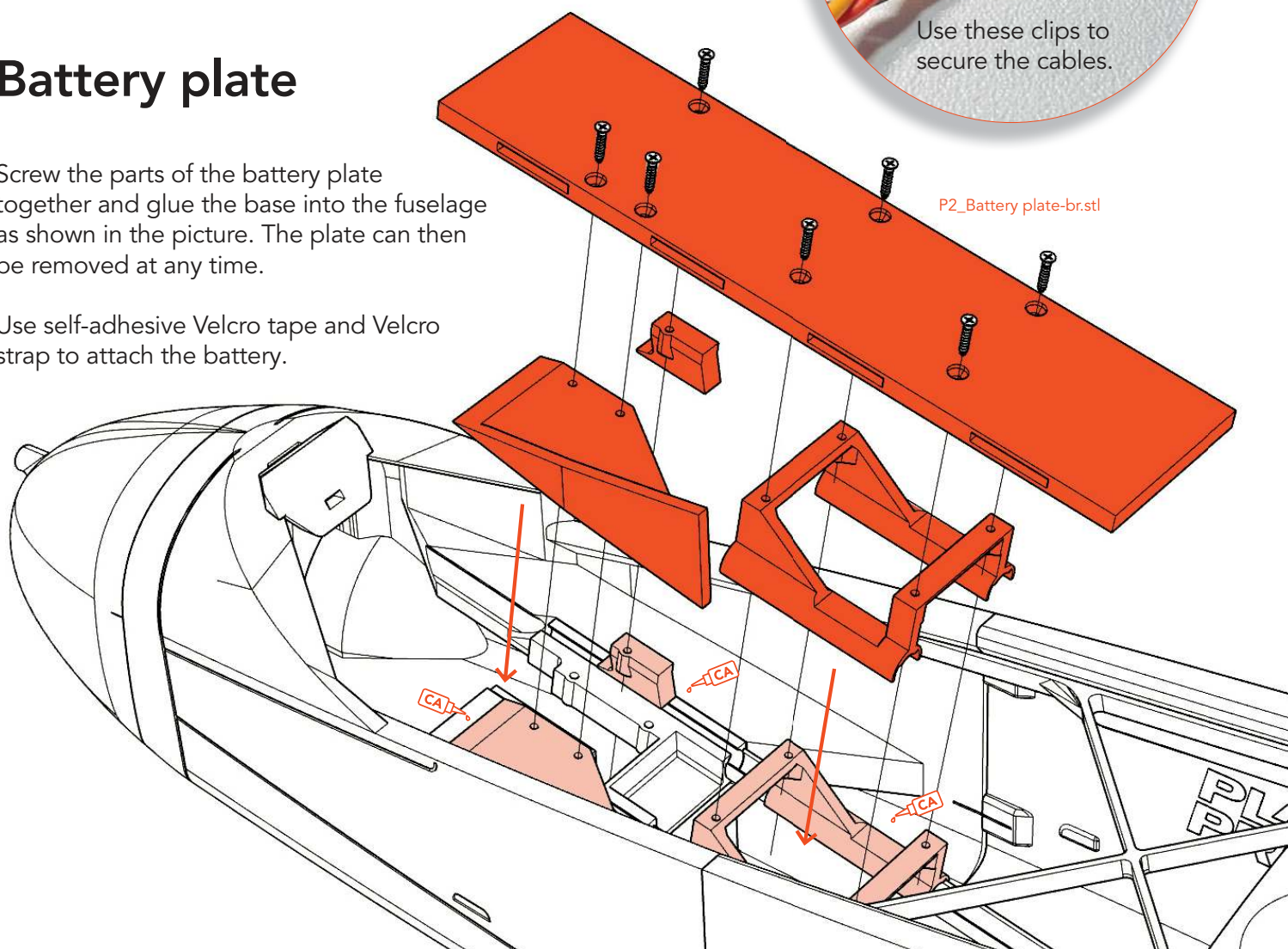


Use these clips to secure the cables.

Battery plate

Screw the parts of the battery plate together and glue the base into the fuselage as shown in the picture. The plate can then be removed at any time.

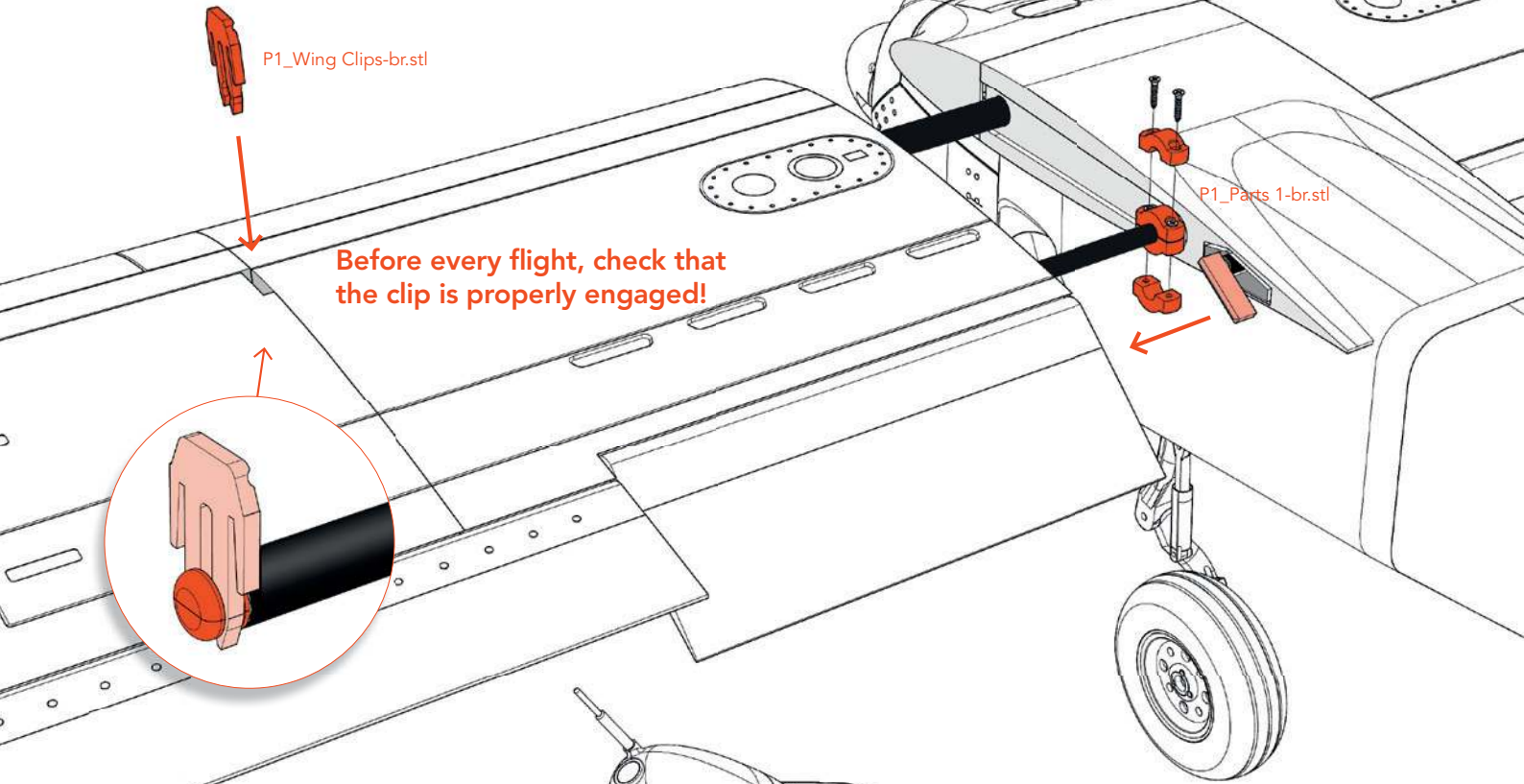
Use self-adhesive Velcro tape and Velcro strap to attach the battery.



Wing fastening

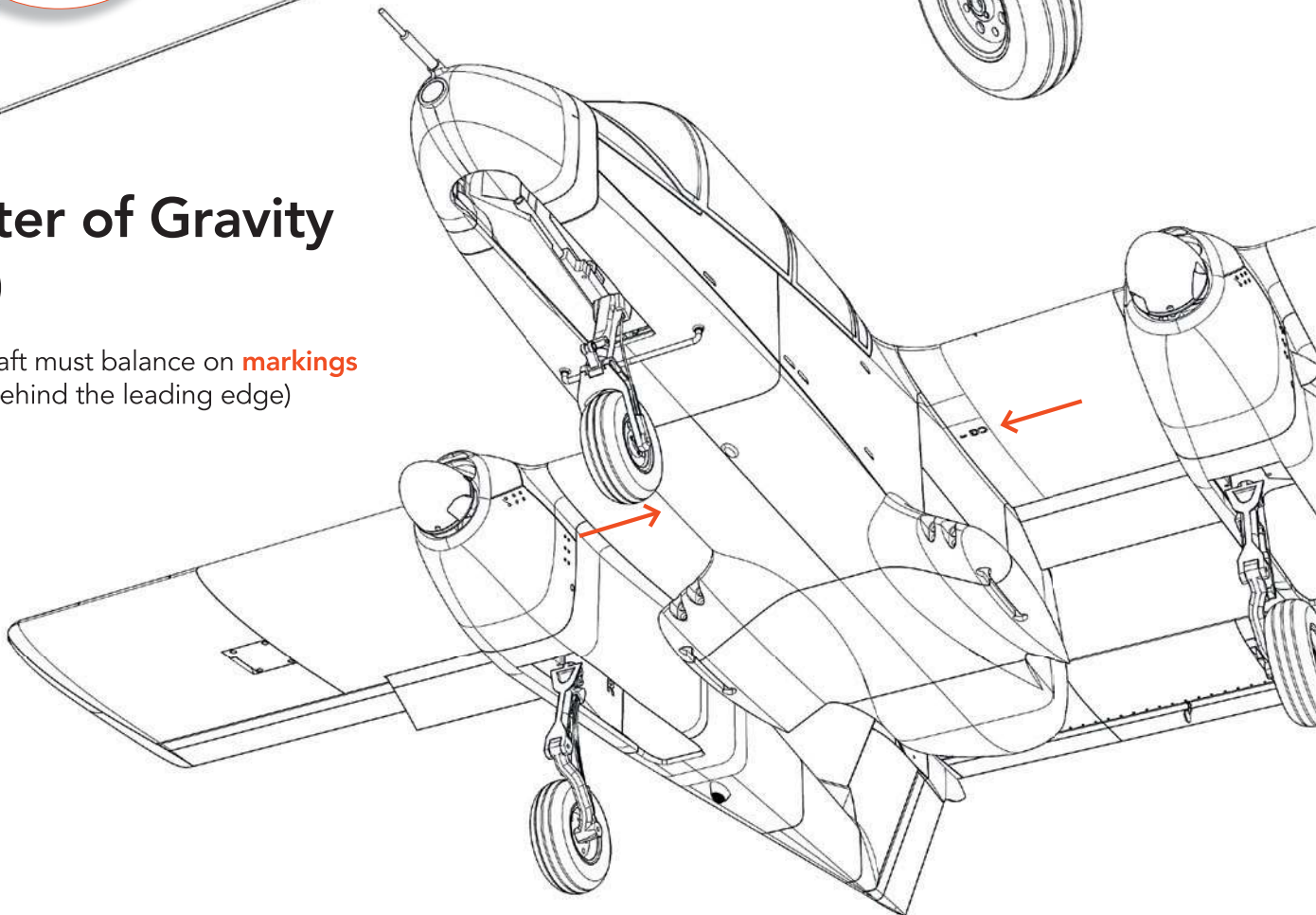
Attach the main fuselage and the outer fuselages to the carbon tubes and secure to the rear (6mm) tube with the clamps and two screws.

When fitting the outer wings, the flap must be attached to the driver. It is held in place by the wing clip, which is clipped into the end piece on the 10 mm carbon tube.



Center of Gravity (CG)

The aircraft must balance on **markings** (80mm behind the leading edge)



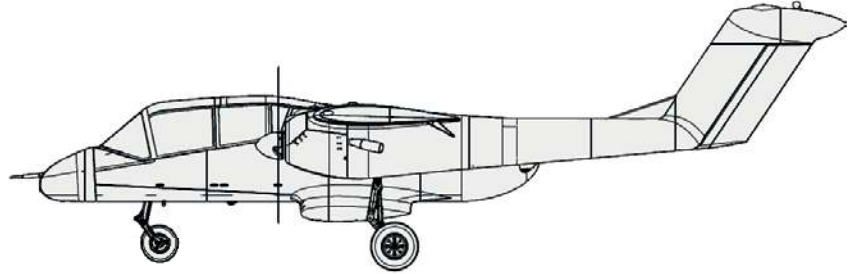
Technical specifications

WINGSPAN 1400 mm/55.1 inches

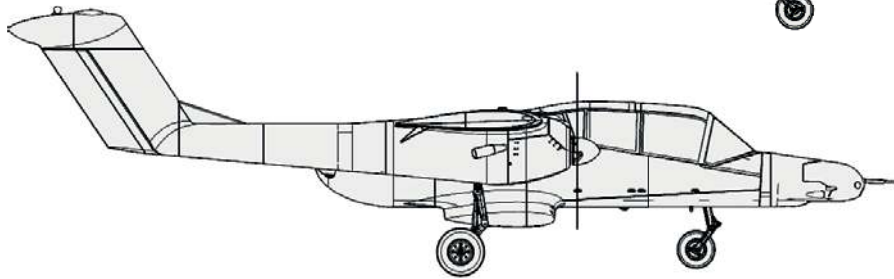
LENGTH 1374 mm/54 inches (A version), 1458 mm/57.4 inches (D version)

FLIGHT WEIGHT 2850 grams

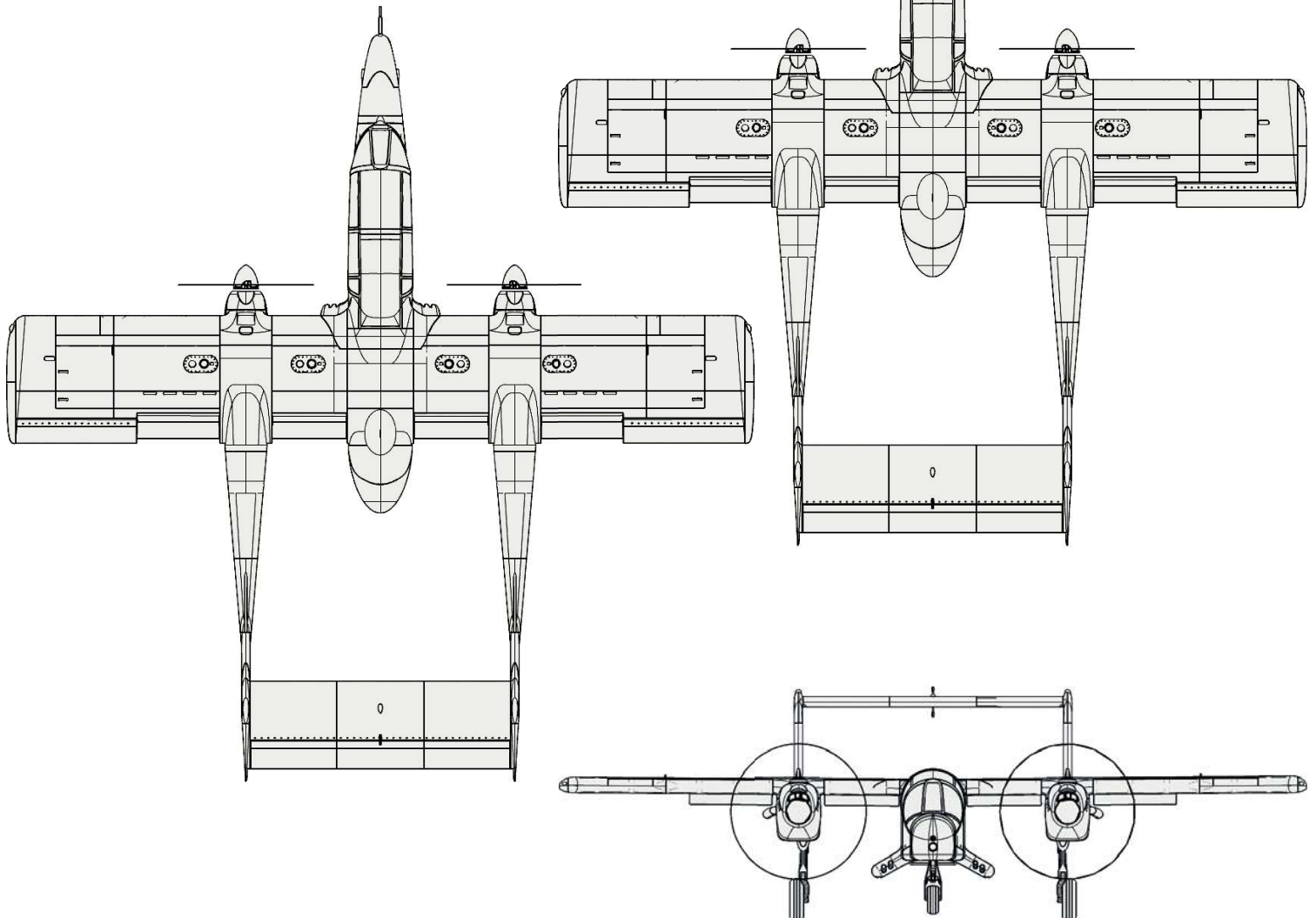
WING LOAD 65 g/dm²



Version A (short nose)



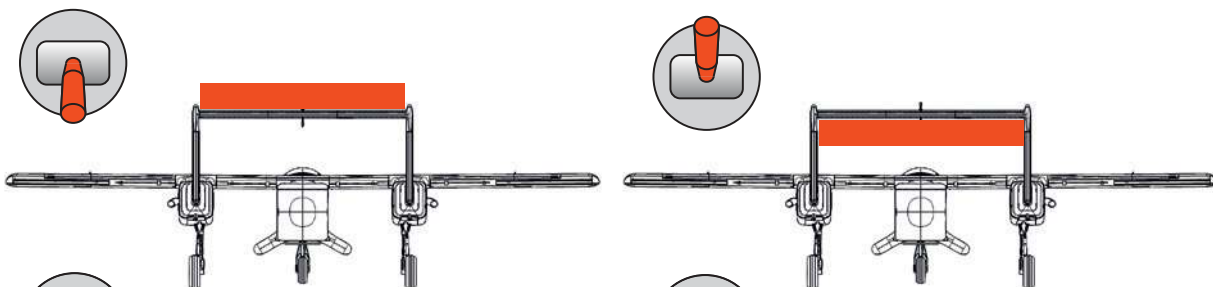
Version D (extended nose)



Control Direction Test Look at the aircraft from behind

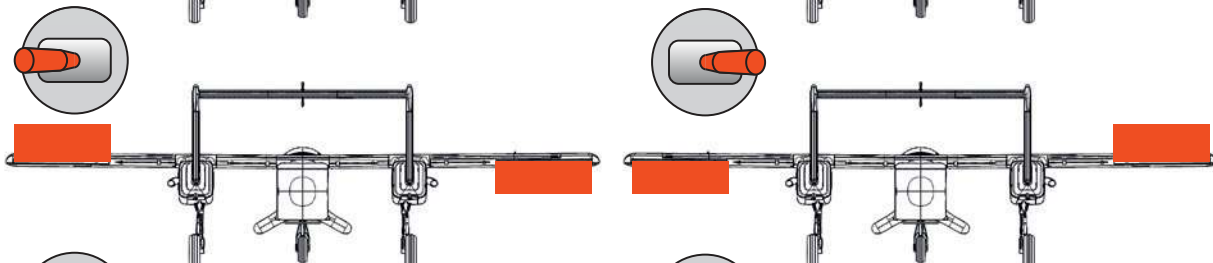
ELEVATOR

20 mm up
20 mm down



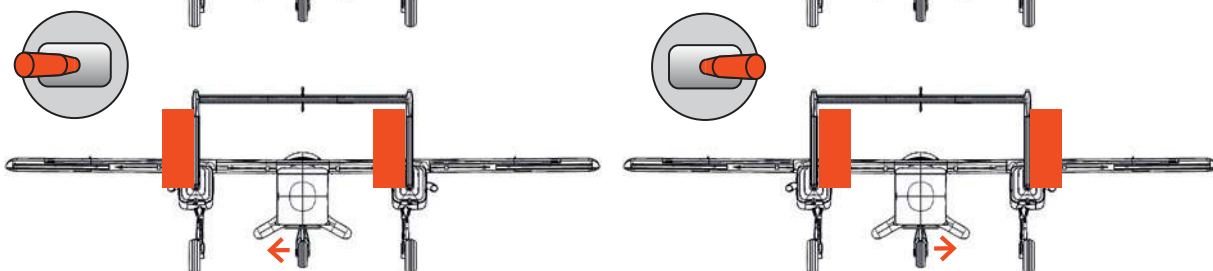
AILERON

18 mm up
15 mm down



RUDDER

20 mm left
20 mm right



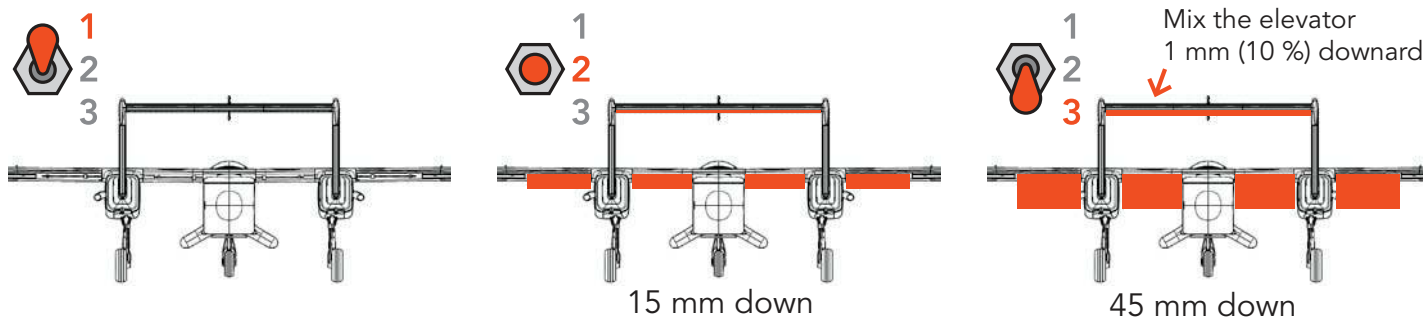
NOTE Mix the front wheel servo to this channel.

FLAPS

Normal

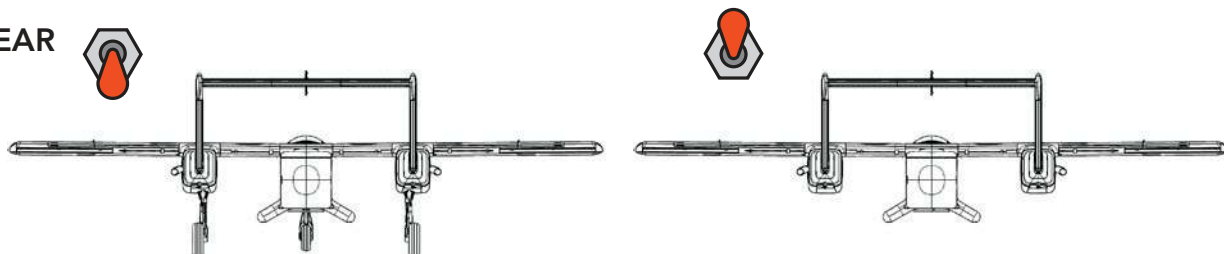
Start, slow flight

Landing



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

LANDING GEAR

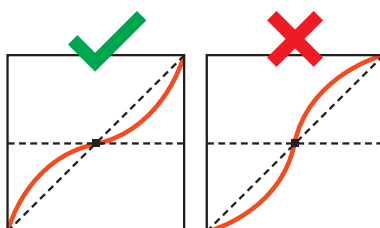


EXPO

ELEVATOR 40 %

AILERON 40 %

RUDDER 30 %



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

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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