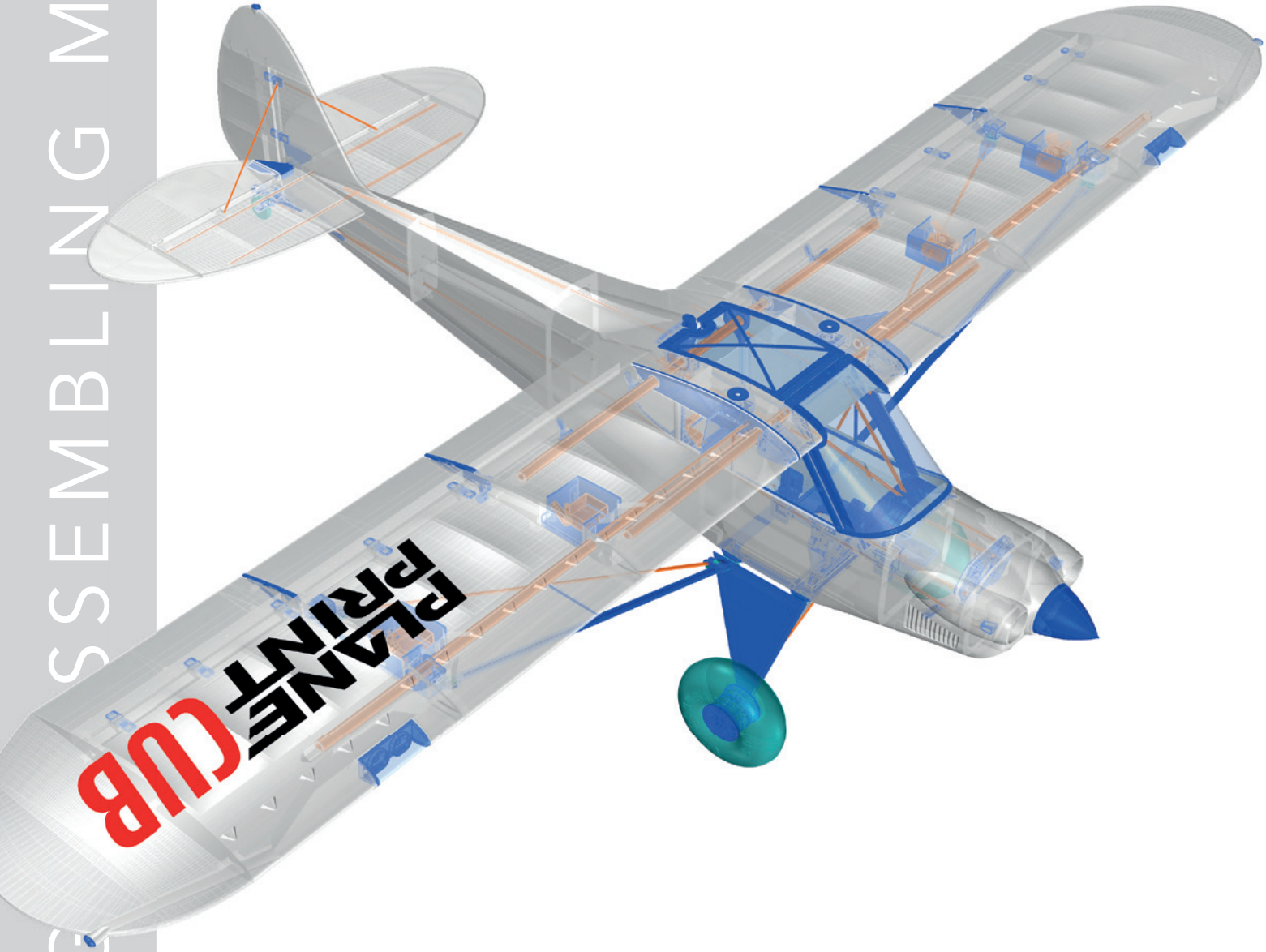
PRINTING ASSEMBLING MANUAL

PLANE PRINT



PLANE PRINT CUB

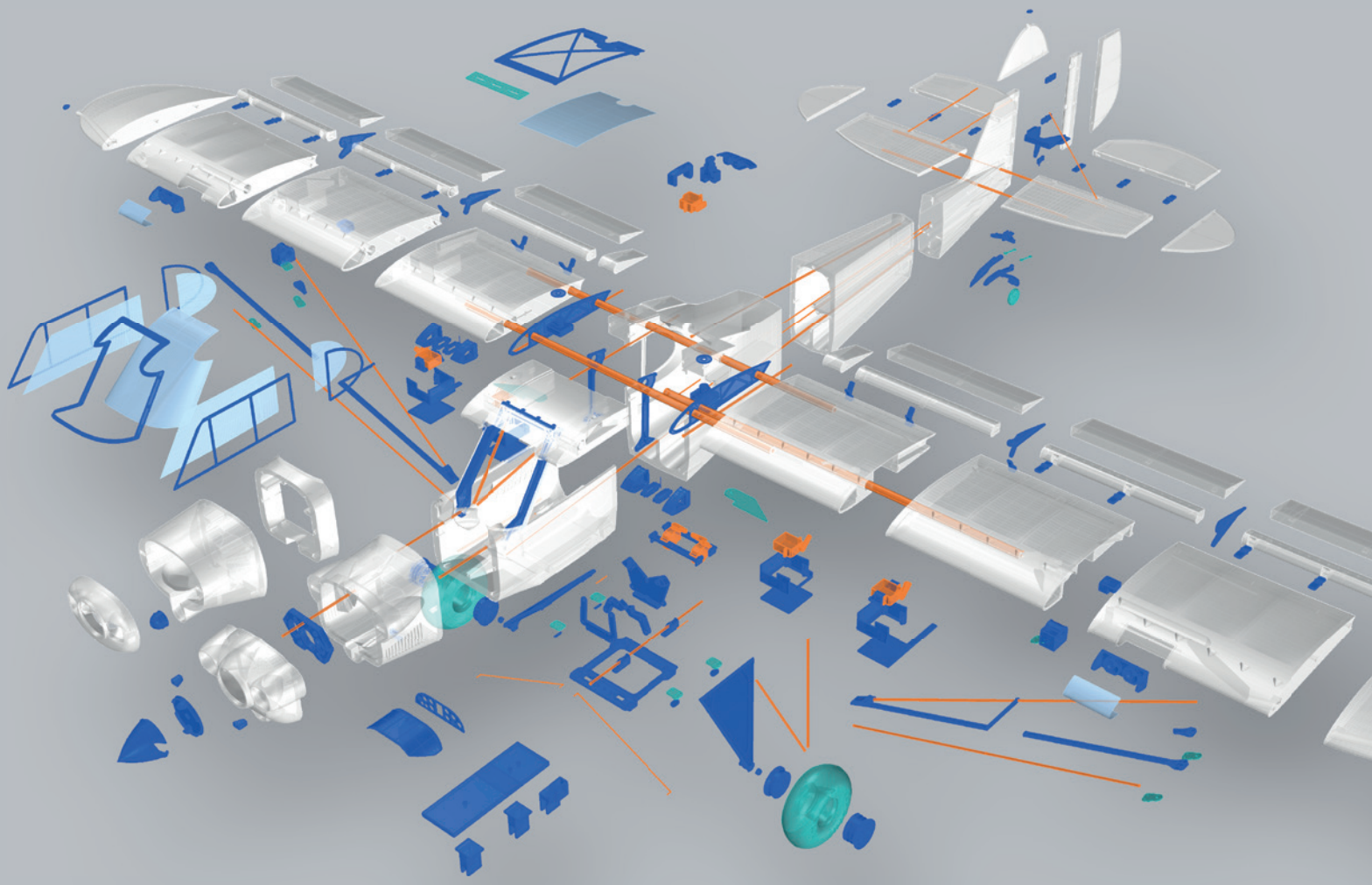
Single-engine, acro-capable RC plane with towing function

NOTE:
Slicing works best with CURA!

FAIR DATA USE

www.planeprint.com
the **ONLY** place where you can get original Planeprint STL files **legally!**

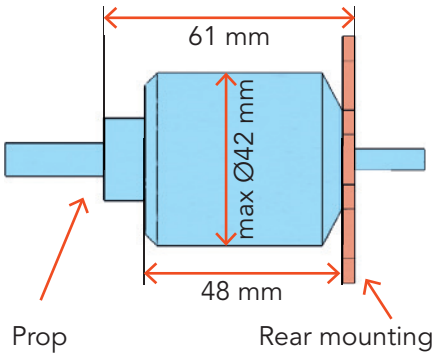
PLANE PRINT CUB

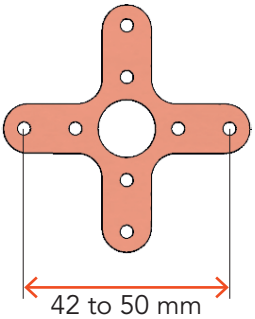


LW-PLA PLA TPU OTHER

RC Components

ENGINE **PROPDRIVE V2 3548 900KV** (HobbyKing) or comparable motors.
You can also use any other motor that fits a 12x6 propeller!





PROP **12x6**, 12x7

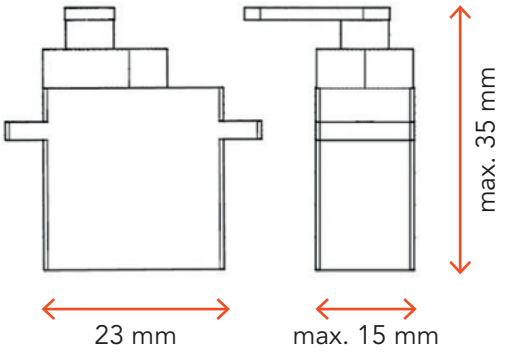
BEC-CONTROLLER **min 70 A** (must fit the engine!)

RECEIVER **7 Channel** (8 with towing function)

BATTERY **4S Lipo, 2600 – 3500 MaH** (The battery should have a weight of 270 to 310 grams)

SERVOS **6 pieces** like **Hitec HS-5055 MG Digi** or **KST Clubman CM509MG** or comparable

Dimensions:



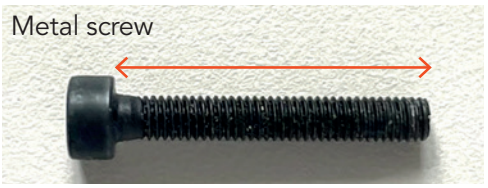
Required accessoires – basic equipment

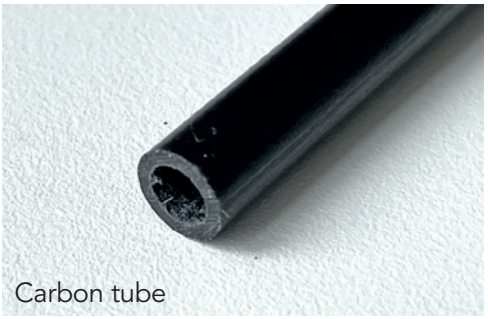
Links to recommended accessories can be found on
www.planeprint.com/cub (scroll down)

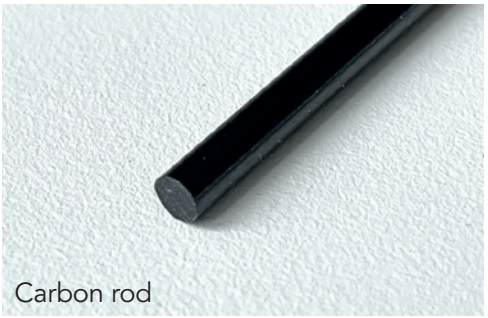
- **LW-PLA** foaming! **(cannot be replaced by PLA!)**, ~900 grams
- **PLA** oder better **Tough PLA**, ~350 grams
- **TPU A95 and LW-TPU Colorfabb VarioShore**, ~100 grams

Tapping screws Ø2mm


Rod connection hole Ø 1 to 2mm


Metal screw


Carbon tube


Carbon rod

Materials

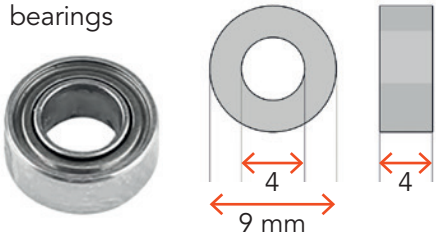
- CA super glue (liquid and liquid medium)
- CA activator
- Contact adhesive like UHU POR
- Sortiment of Tapping screws Ø2mm
- Sortiment of Metal Screws Ø3mm and 4 Washers
- Metal screw Ø4*50mm, 2 pieces
- Carbon tube Ø10mm*1000mm (inside 8mm), **3 pieces strong wing**
  Cut the tubes to the following lengths (mm):
  1 tube = 500, 500
  1 tube = 650
  1 tube = 650

or Carbon tube Ø10mm*1000mm (inside 8mm), **2 pieces light wing**
  Cut the tubes to the following lengths (mm):
  1 tube = 500, 500
  1 tube = 500, 500
- Carbon rod Ø3*1000mm, 7 pieces
  Cut the rods to the following lengths (mm):
  1 rod = 815, 103
  1 rod = 440, 372, 100
  1 rod = 438, 438, 103
  1 rod = 438, 438, 103
  1 rod = 200, 200, 200, 200, 134
  1 rod = 322, 216, 216, 134
  1 rod = 153, 153, 135, 135
- Steel wire Ø1*1000mm, 3 pieces
- Rod connection Hole for Ø1mm steel wire, 2 pieces
- Ball bearings 4x9x4mm, 4 pieces
- Servo extension cable 400mm, 4 pieces and 200mm, 2 pieces
- Neodym Super Magnets 5x5x5 mm, 4 pieces
- Self-adhesive Velcro tape
- Overhead foils or binding covers of scripts
  (~0,2mm, office trade) in DIN A4 format.

Tools

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

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.planeprint.com/print

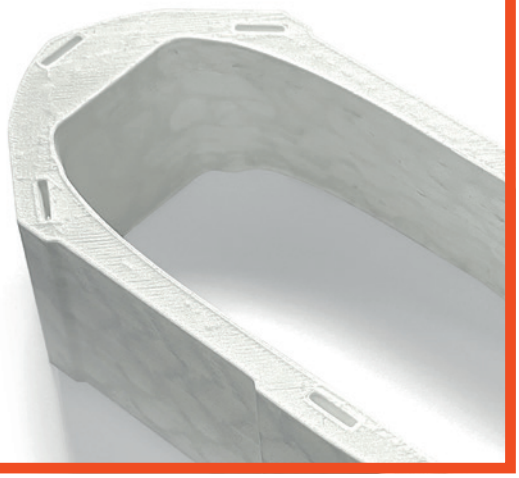
For this model you need the following profiles:

P1 P2 P4 P5

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

PROFILE P5_Gyroid

It is **essential for the necessary stability** of the **LW parts printed with PROFILE_5 are as stable as possible**. Please use a test part to check the strength by fracture tests. It must not break along the layer lines under any circumstances! Also note that the printing temperature for LW-PLA is as low as possible to obtain a wall thickness of 0.4 to 0.6 mm at a flow of 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

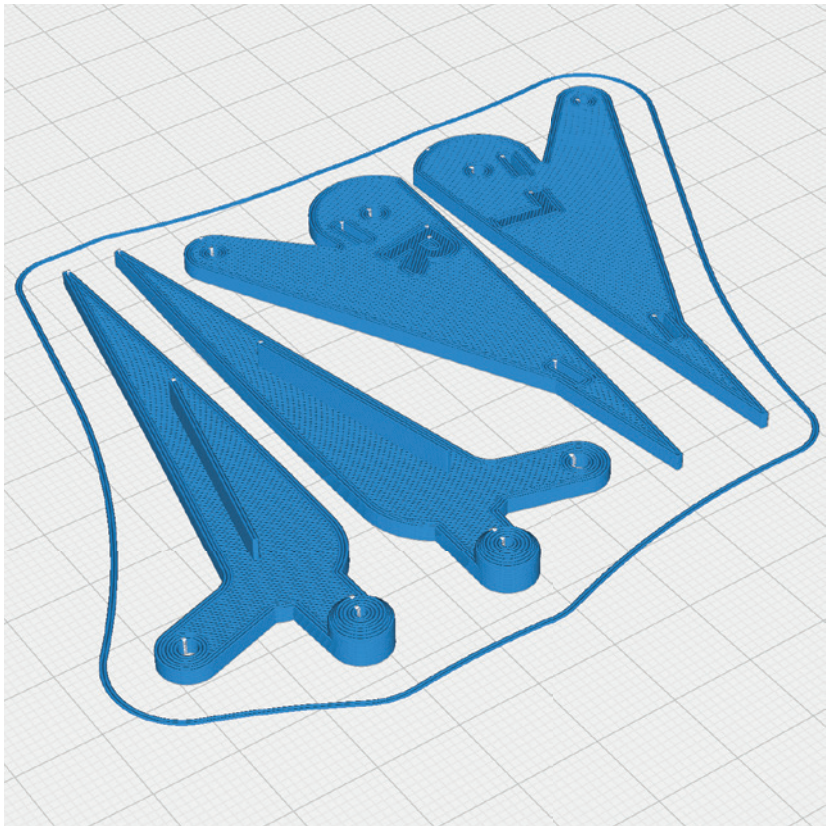
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_AIL Horns_cub.stl

MATERIAL PLA, Weight: ~ 9 g

ADDITIONAL SETTINGS

None required

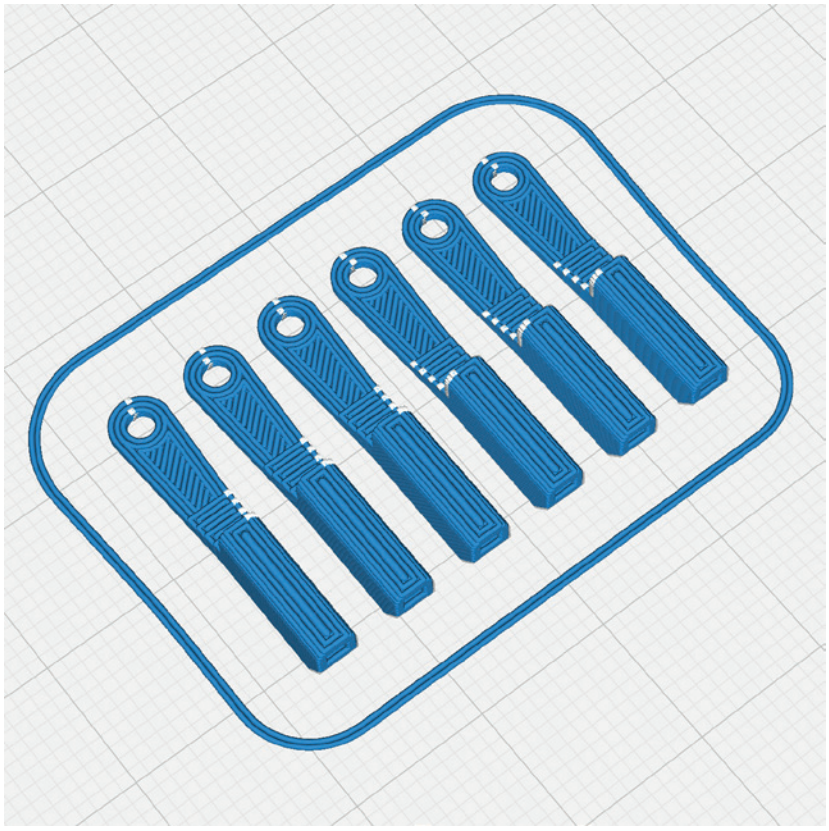


P1_Clips 1mm_cub.stl

MATERIAL PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody Tough PLA or PLA

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

P1_Cockpit_cub.stl

MATERIAL PLA, Weight: ~ 6 g

ADDITIONAL SETTINGS

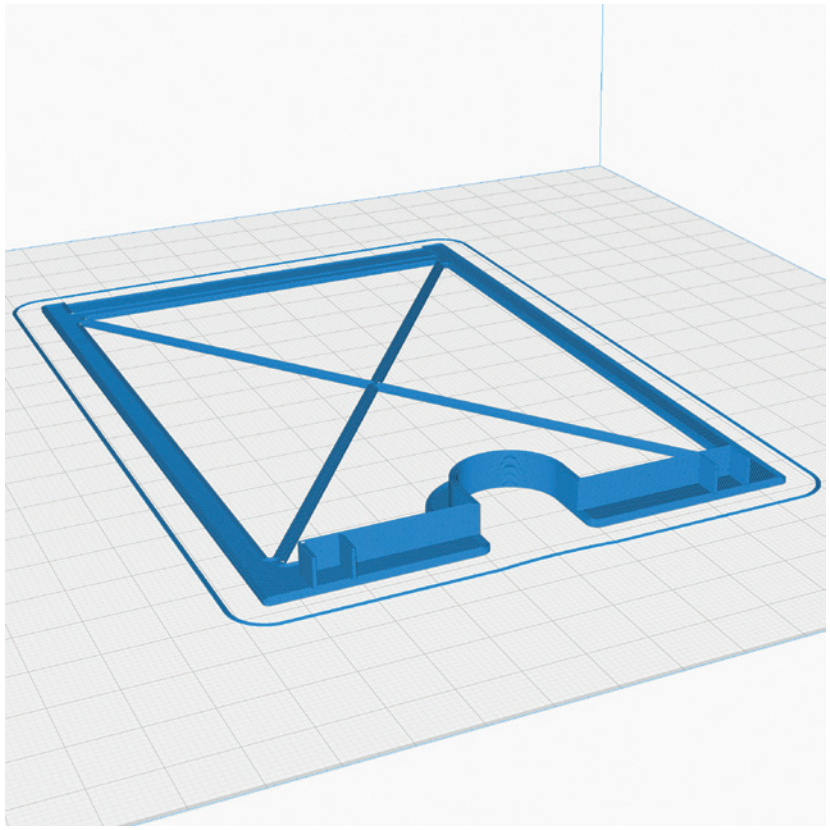
None required

P1_Cover_cub.stl

MATERIAL PLA, Weight: ~ 5 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody Tough PLA or PLA

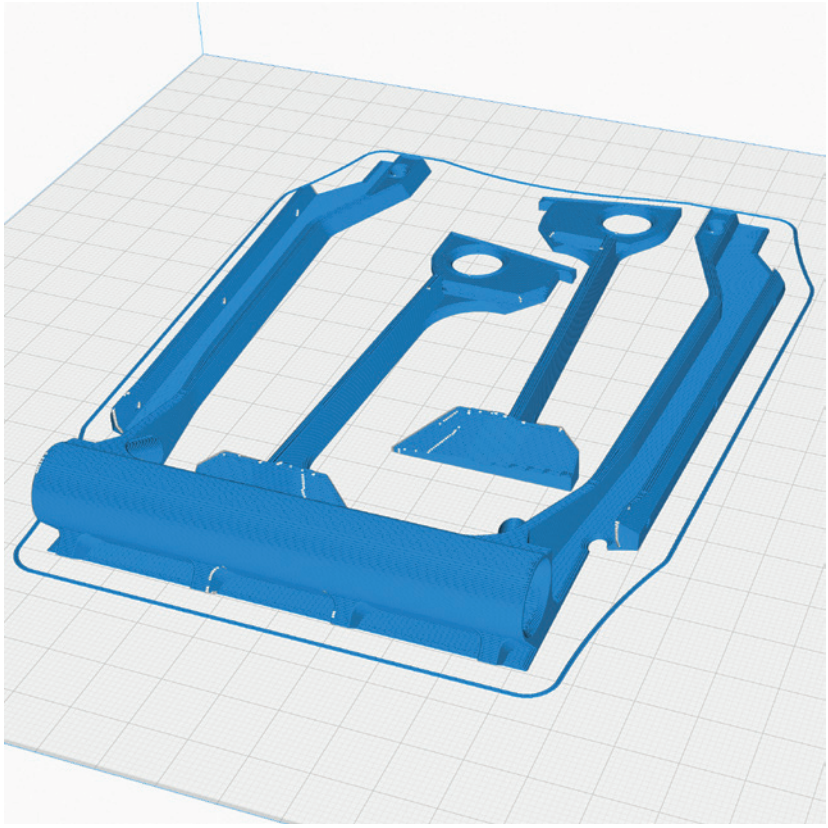
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Frame_cub.stl

MATERIAL PLA, Weight: ~ 27 g

ADDITIONAL SETTINGS

None required

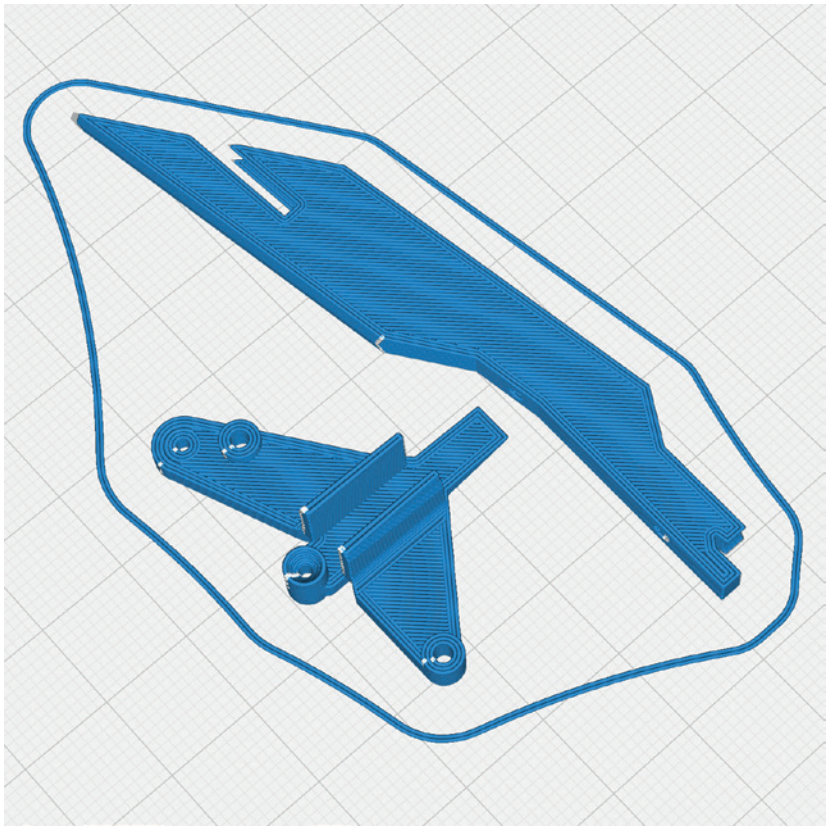


P1_Gear back 1_cub.stl

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_Gear back 2_cub.stl

MATERIAL PLA, Weight: ~ 4 g

ADDITIONAL SETTINGS

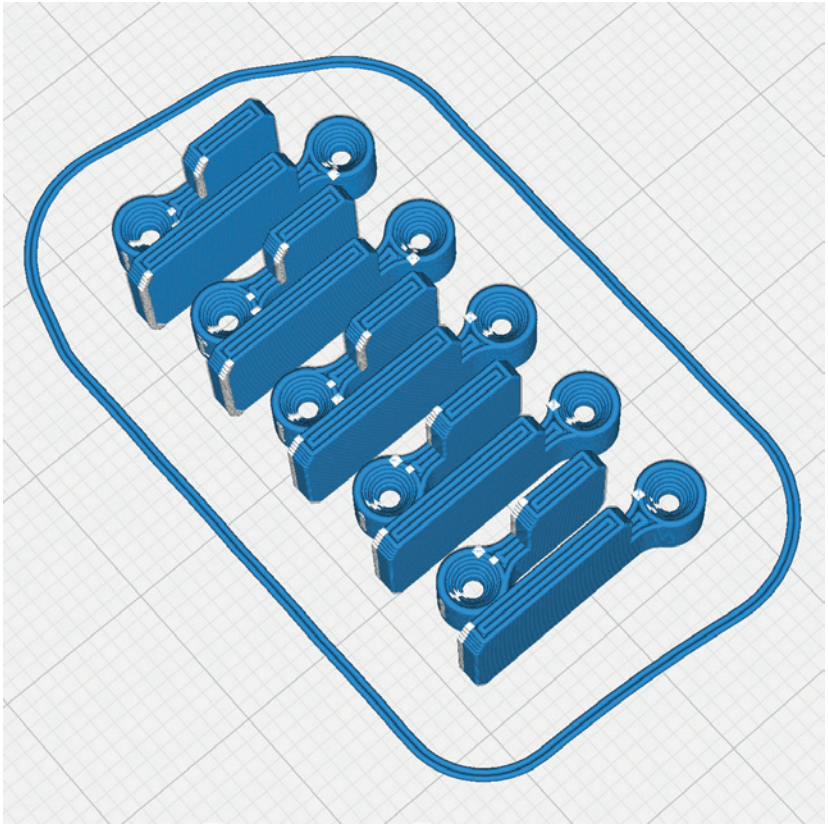
None required

P1_Hinges AIL_cub.stl

MATERIAL PLA, Weight: ~ 2 g

ADDITIONAL SETTINGS

- Print twice



PROFILE P1_Fullbody Tough PLA or PLA

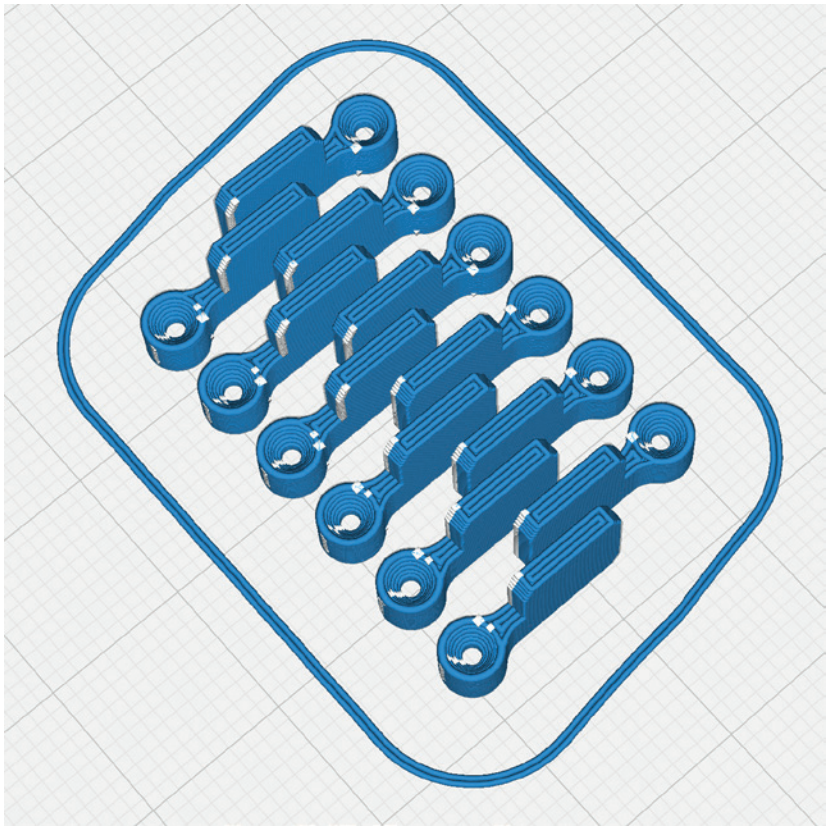
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Hinges ELE_cub.stl

MATERIAL PLA, Weight: ~ 2 g

ADDITIONAL SETTINGS

None required

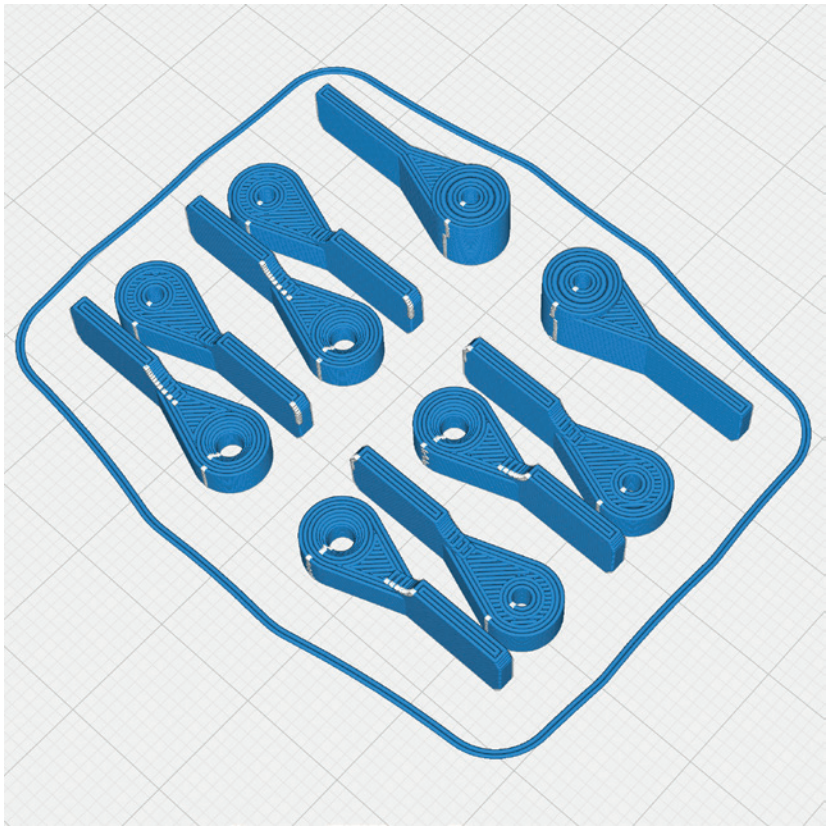


P1_Hinges Flap_cub.stl

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_Hinges RUD_cub.stl

MATERIAL PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

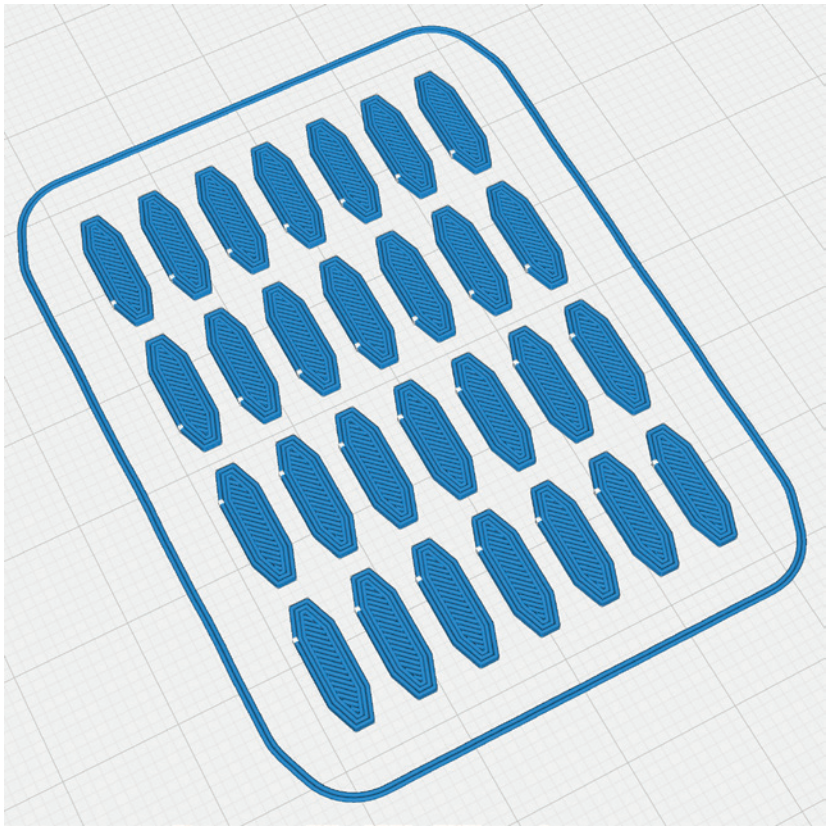
None required

P1_Interconnects small_cub.stl

MATERIAL PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

- Print twice



PROFILE P1_Fullbody Tough PLA or PLA

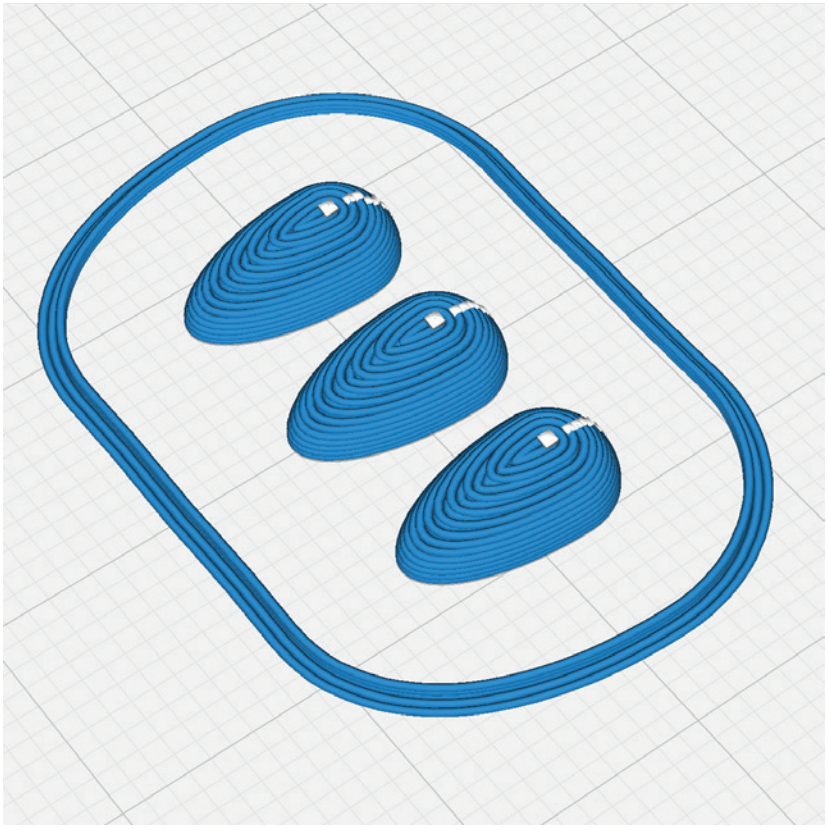
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Lights_cub.stl

MATERIAL PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

- Transparent filament recommended



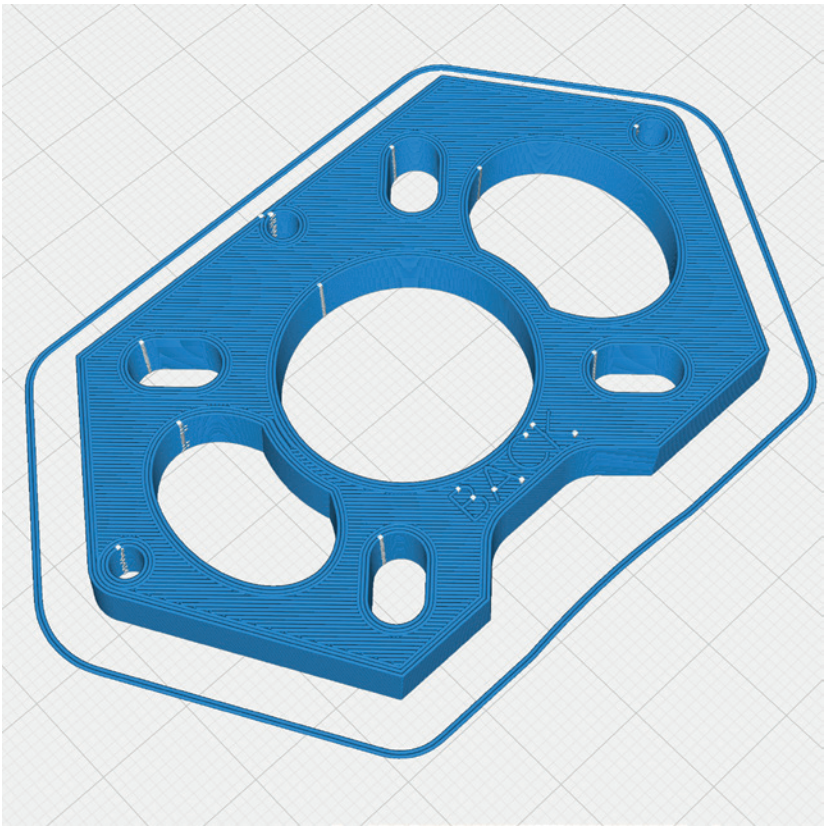
P1_Motor plate_cub.stl

MATERIAL PLA, Weight: ~ 13 g

ADDITIONAL SETTINGS

None required

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



PROFILE P1_Fullbody Tough PLA or PLA

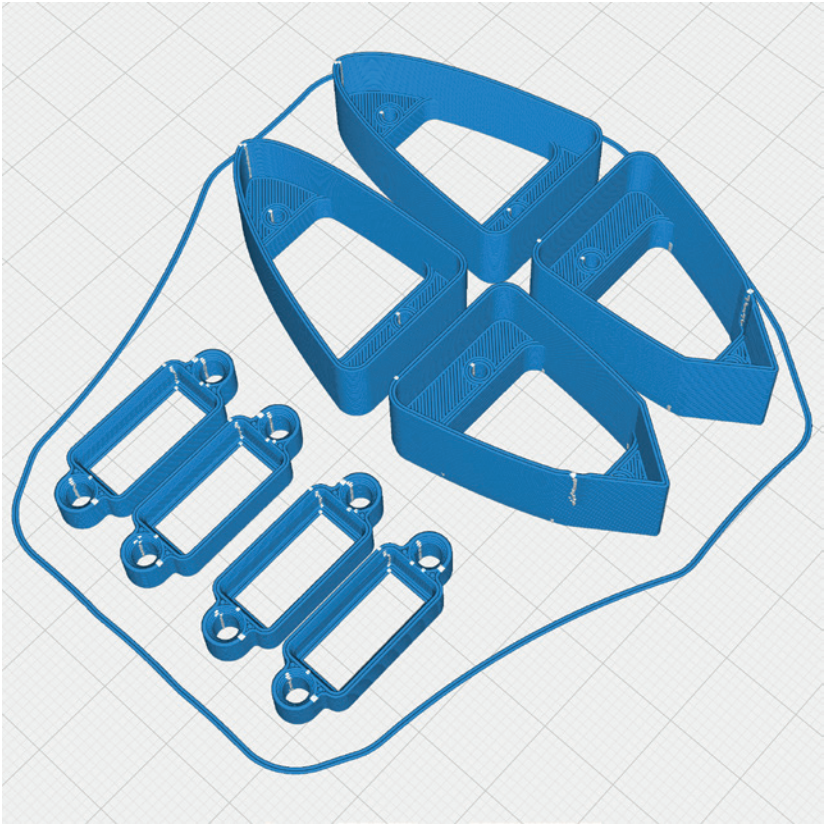
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_MPX plug_cub.stl

MATERIAL PLA, Weight: ~ 10 g

ADDITIONAL SETTINGS

None required

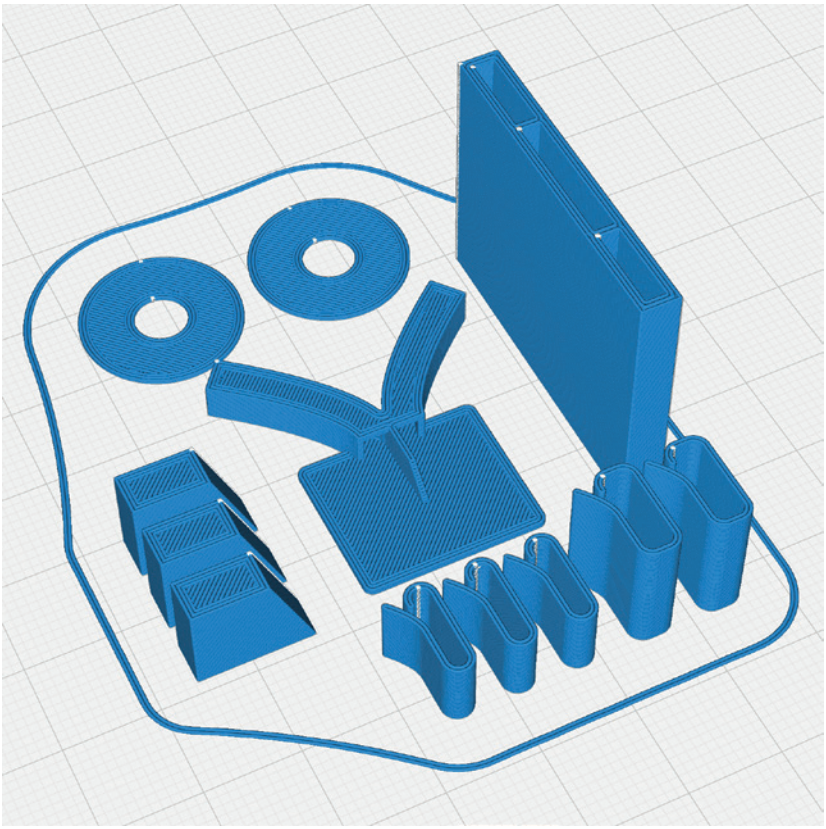


P1_Parts_cub.stl

MATERIAL PLA, Weight: ~ 8 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody Tough PLA or PLA

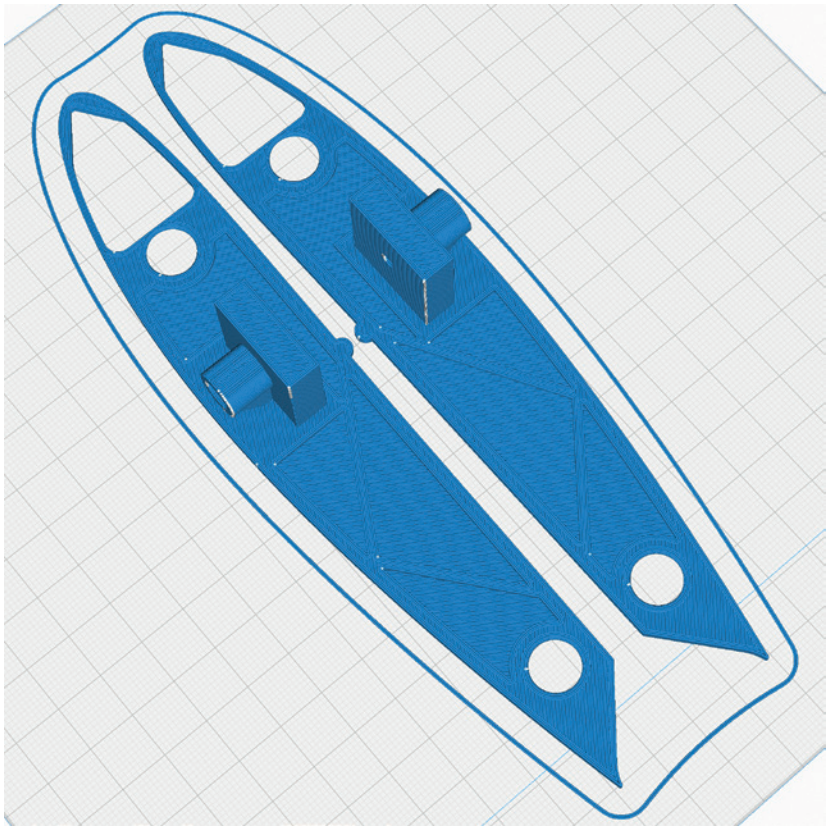
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Protectors_cub.stl

MATERIAL PLA, Weight: ~ 22 g

ADDITIONAL SETTINGS

None required

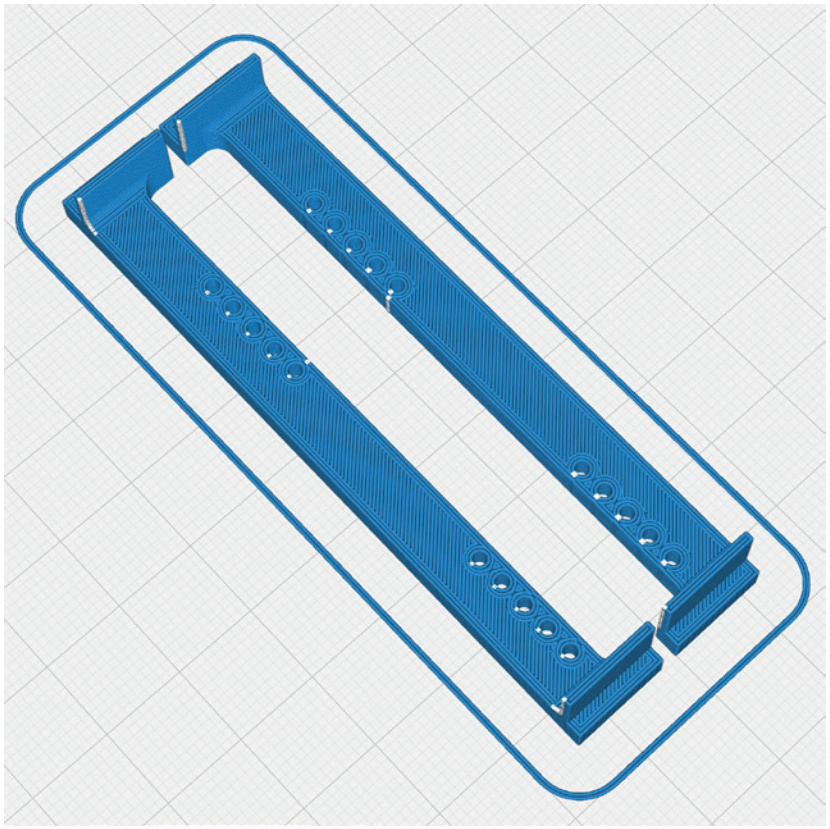


P1_Servo mount_cub.stl

MATERIAL PLA, Weight: ~ 6 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody Tough PLA or PLA

P1

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

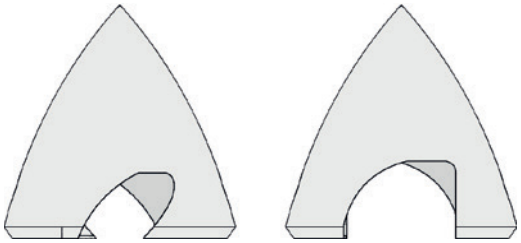
P1_Spinner small *Xmm_cub.stl or P1_Spinner wide *Xmm_cub.stl

MATERIAL PLA, Weight: ~ 10 g

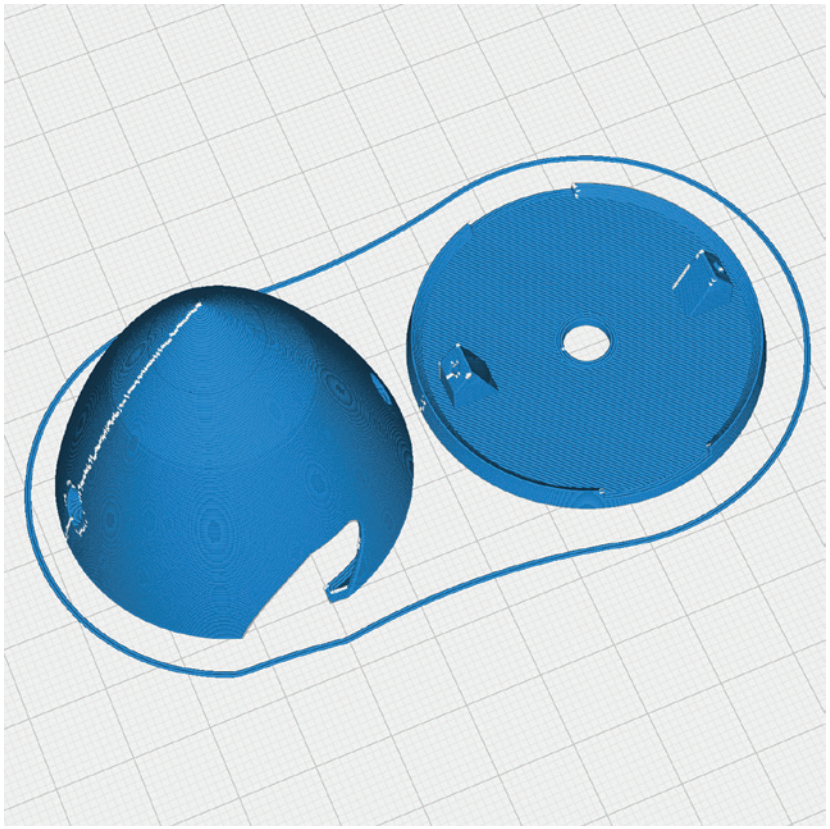
ADDITIONAL SETTINGS

None required

* for 6 or 8 mm motor shaft



small wide

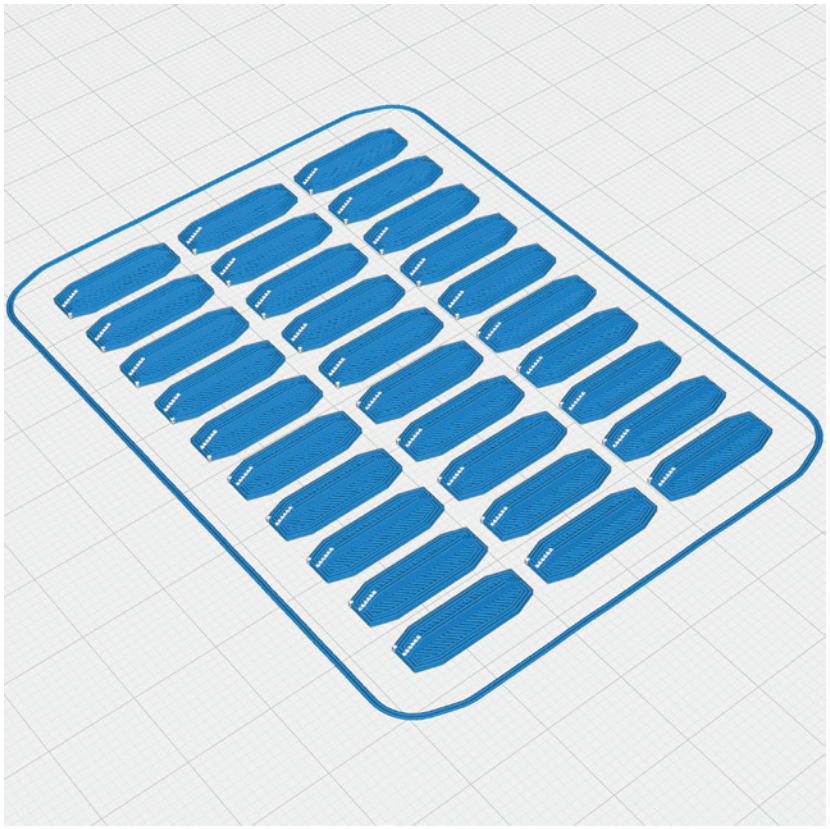


P1_T-connects_cub.stl

MATERIAL PLA, Weight: ~ 3 g

ADDITIONAL SETTINGS

- Print twice



PROFILE P1_Fullbody Tough PLA or PLA

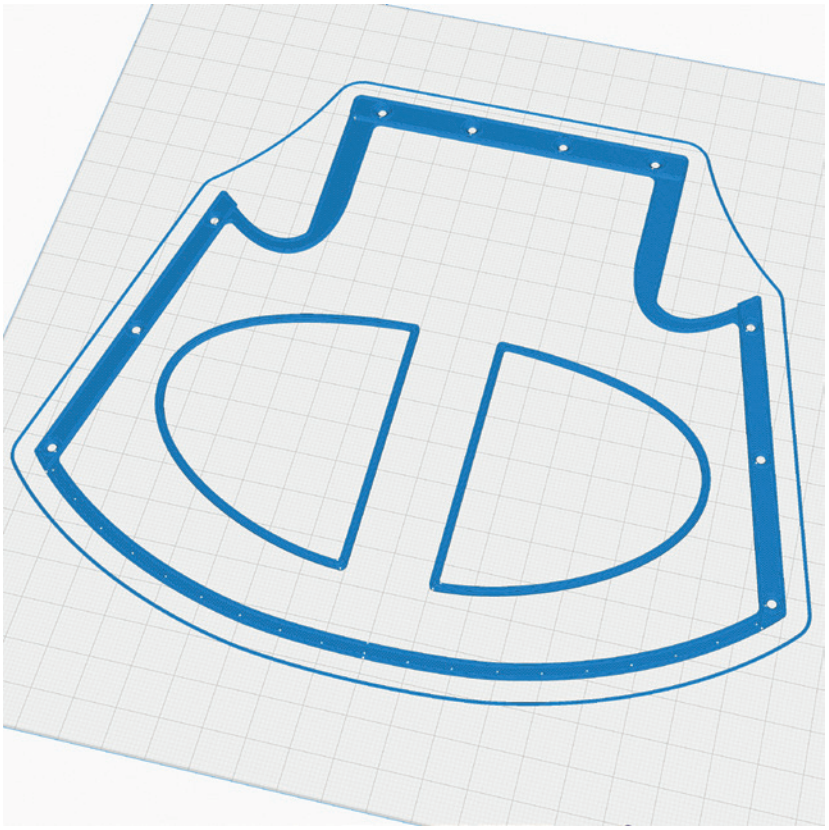
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_Window frame 1_cub.stl

MATERIAL PLA, Weight: ~ 5 g

ADDITIONAL SETTINGS

None required

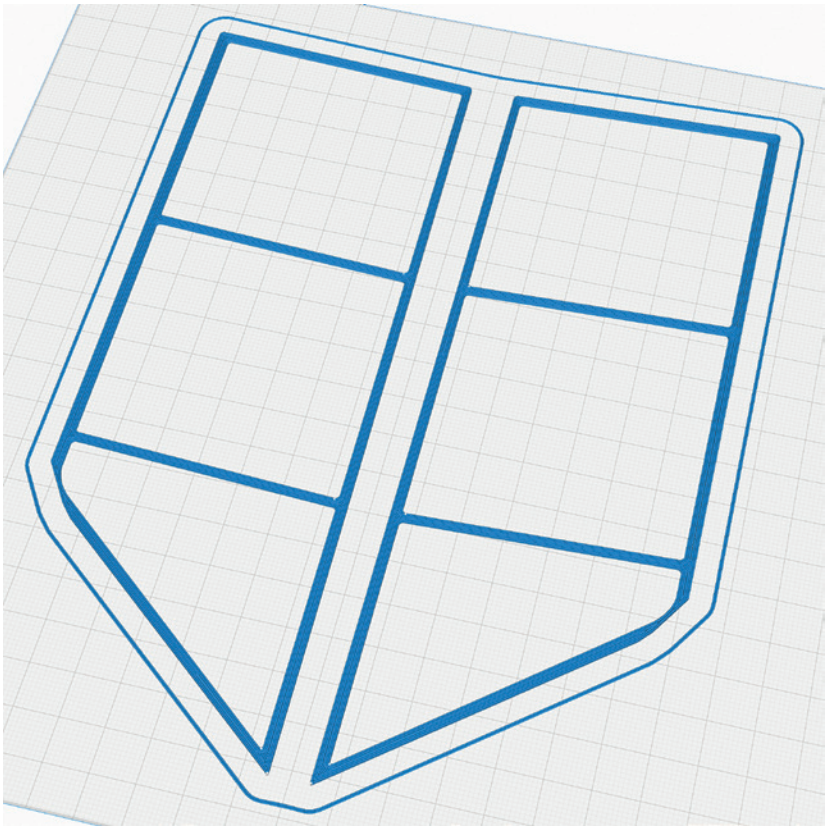


P1_Window frame 2_cub.stl

MATERIAL PLA, Weight: ~ 3 g

ADDITIONAL SETTINGS

None required



PROFILE P1_Fullbody Tough PLA or PLA

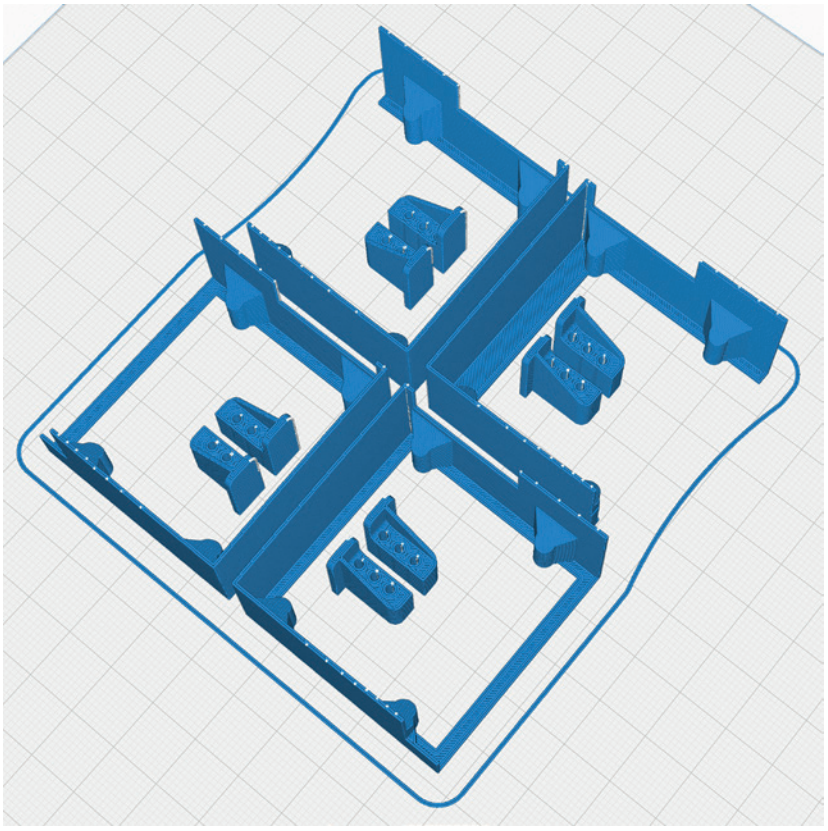
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P1_WINGservo mount_cub.stl

MATERIAL PLA, Weight: ~ 26 g

ADDITIONAL SETTINGS

None required

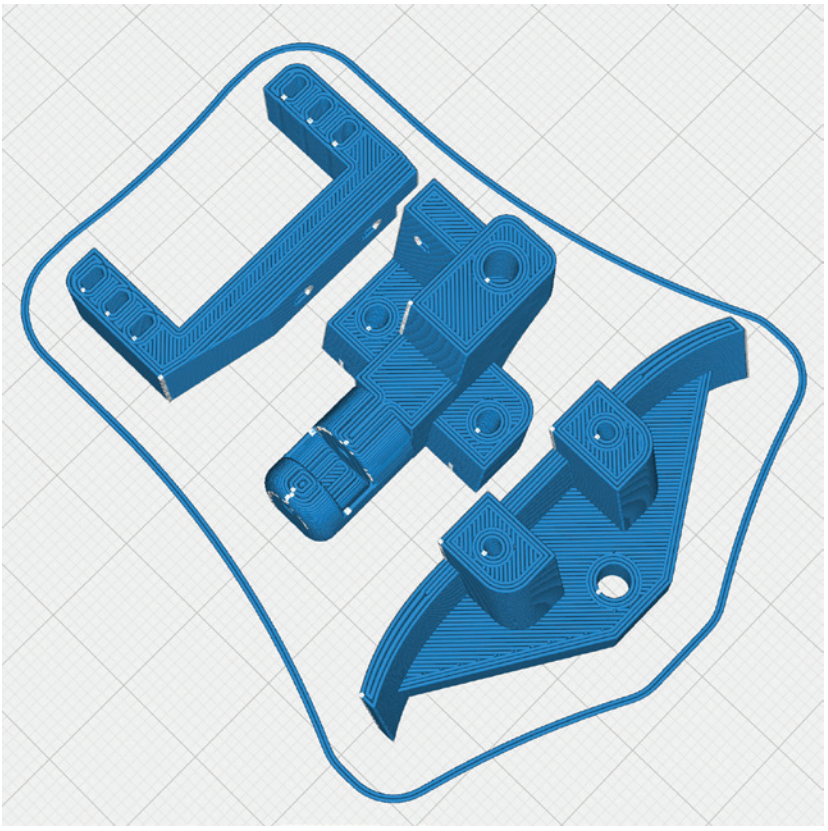


P1_Tow coupling 23mm_cub.stl

MATERIAL PLA, Weight: ~ 13 g

ADDITIONAL SETTINGS

None required



PROFILE P2_Hollowbody Tough PLA or PLA

P2

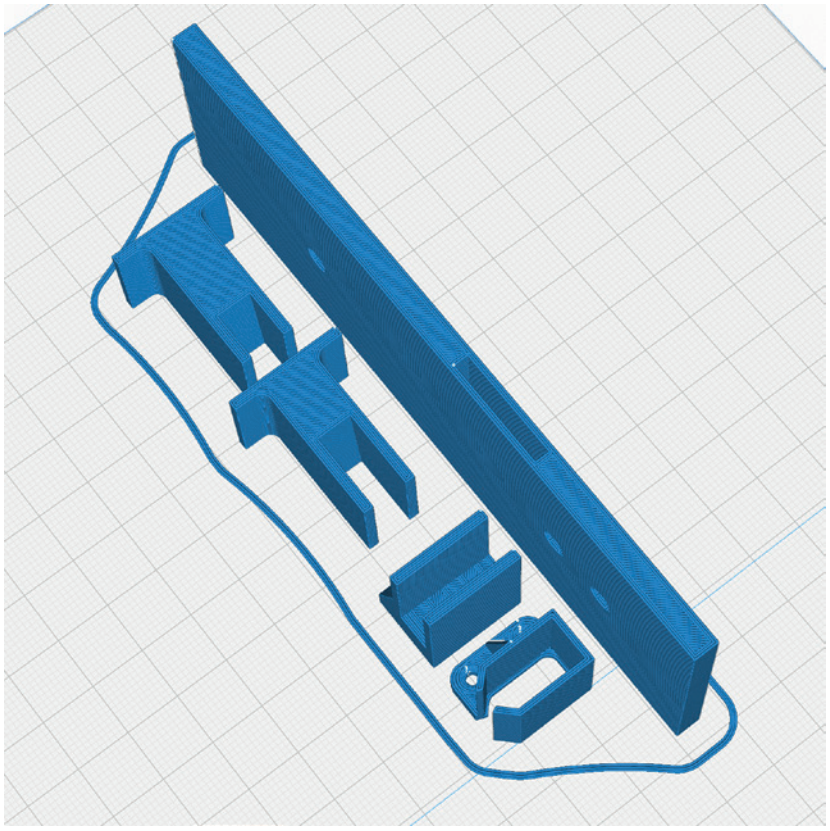
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Battery plate_cub.stl

MATERIAL PLA, Weight: ~ 27 g

ADDITIONAL SETTINGS

None required

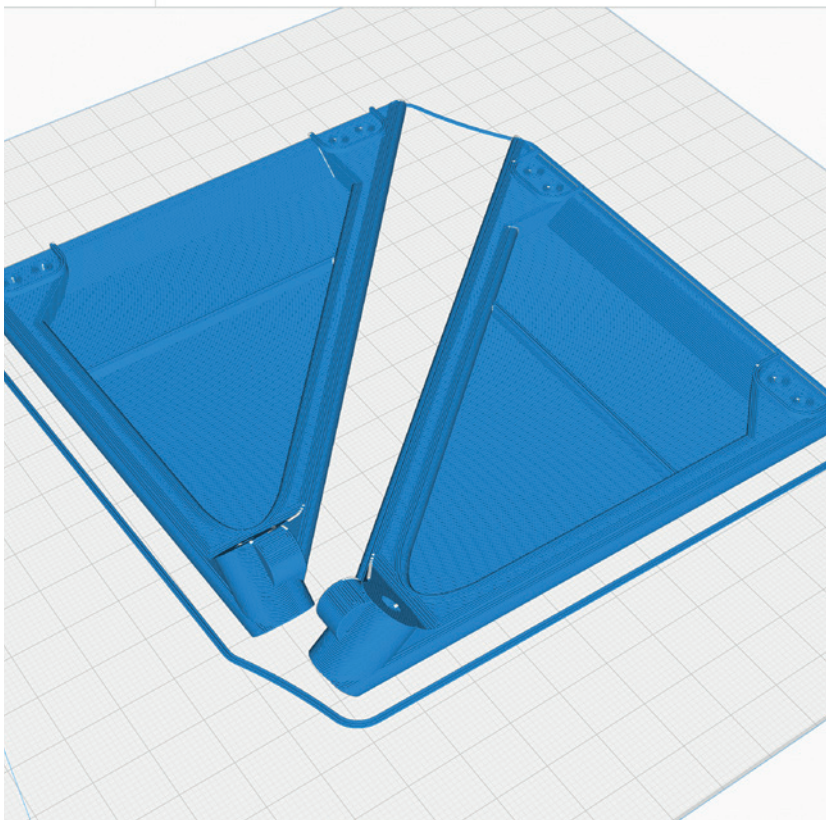


P2_Gear legs_cub.stl

MATERIAL PLA, Weight: ~ 27 g

ADDITIONAL SETTINGS

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



PROFILE P2_Hollowbody Tough PLA or PLA

P2

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

P2_Gear parts_cub.stl

MATERIAL PLA, Weight: ~ 21 g

ADDITIONAL SETTINGS

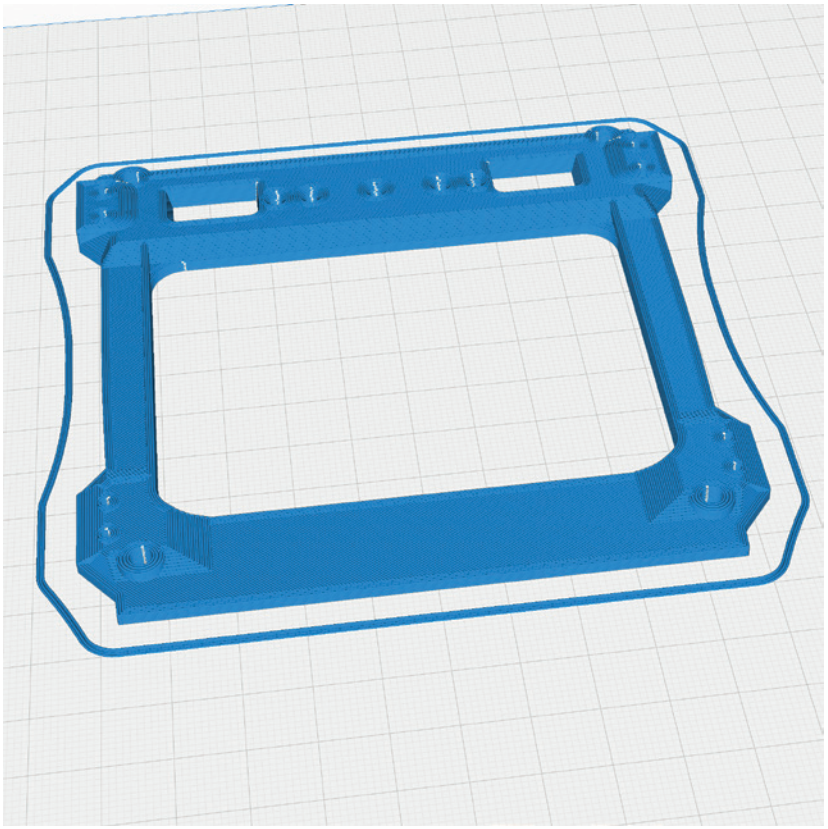
- Wall Line Count/Perimeters: 3
- Top Layers: 3
- Bottom Layers: 3

P2_Gear plate_cub.stl

MATERIAL PLA, Weight: ~ 15 g

ADDITIONAL SETTINGS

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



PROFILE P2_Hollowbody Tough PLA or PLA

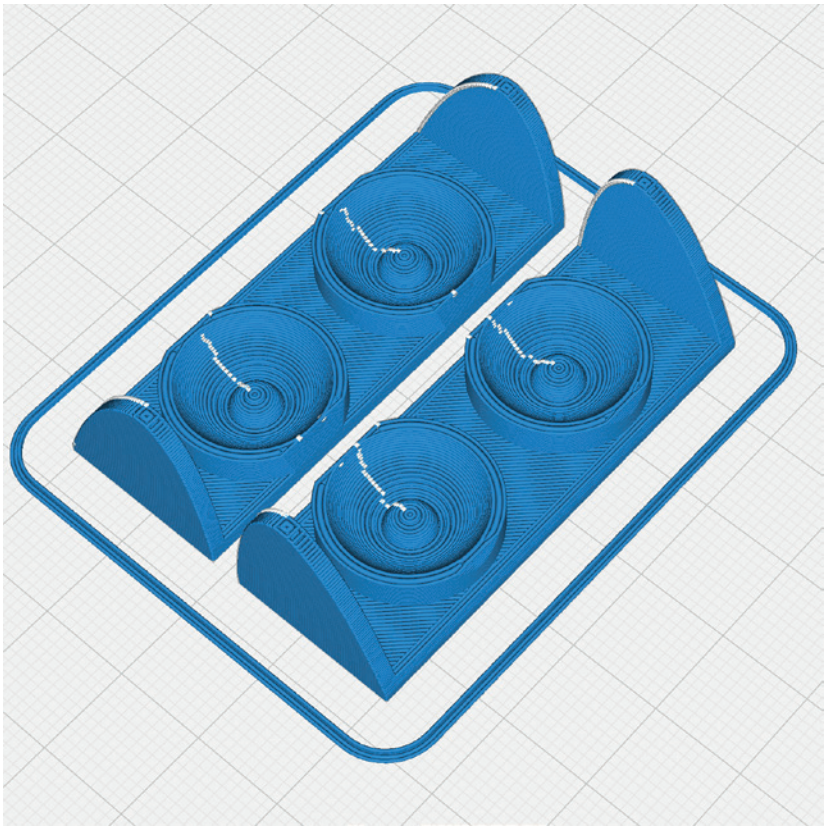
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_Landing Lights_cub.stl

MATERIAL PLA, Weight: ~ 7 g

ADDITIONAL SETTINGS

None required

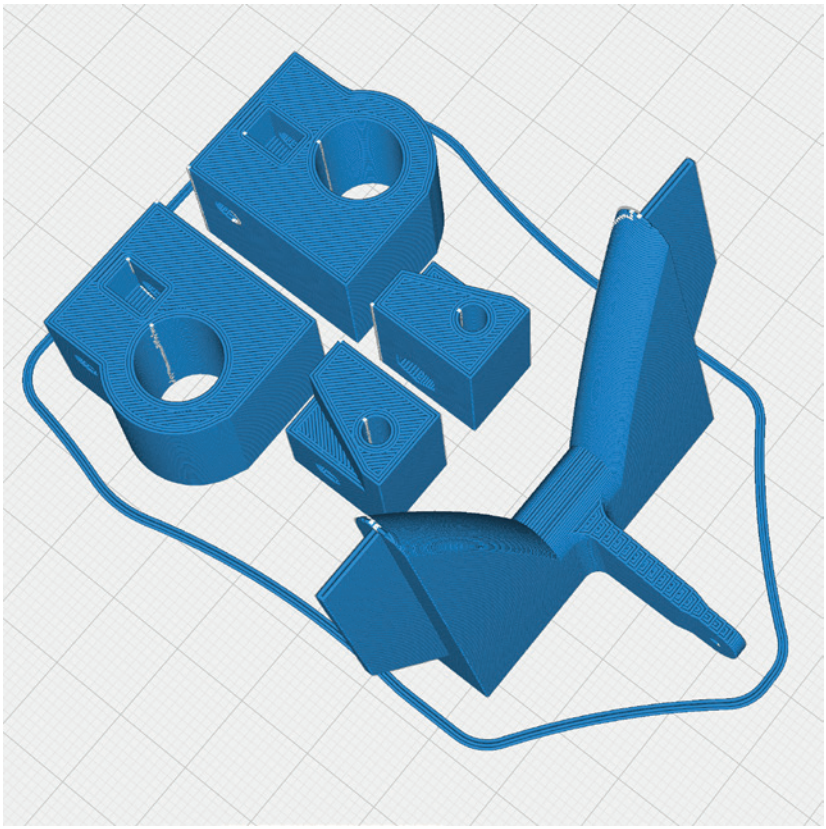


P2_Parts_cub.stl

MATERIAL PLA, Weight: ~ 16 g

ADDITIONAL SETTINGS

None required



PROFILE P2_Hollowbody Tough PLA or PLA

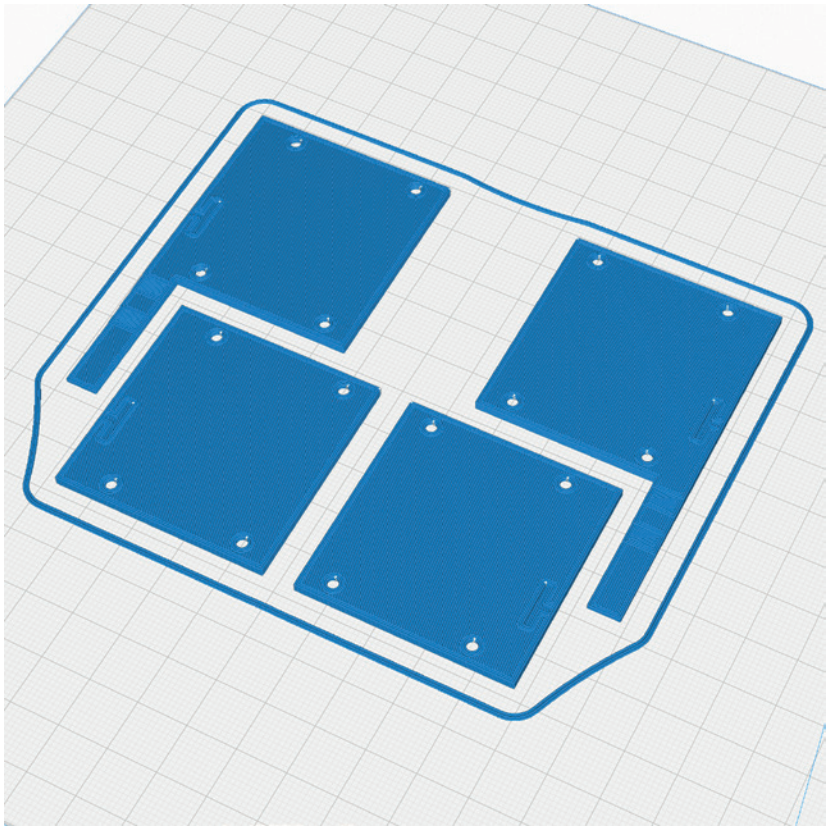
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P2_WINGservo covers_cub.stl

MATERIAL PLA, Weight: ~ 13 g

ADDITIONAL SETTINGS

None required

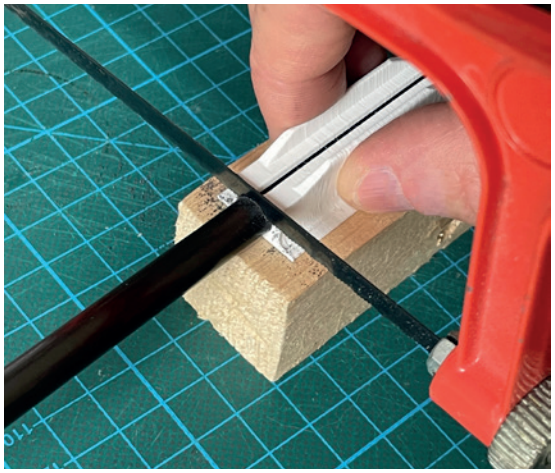


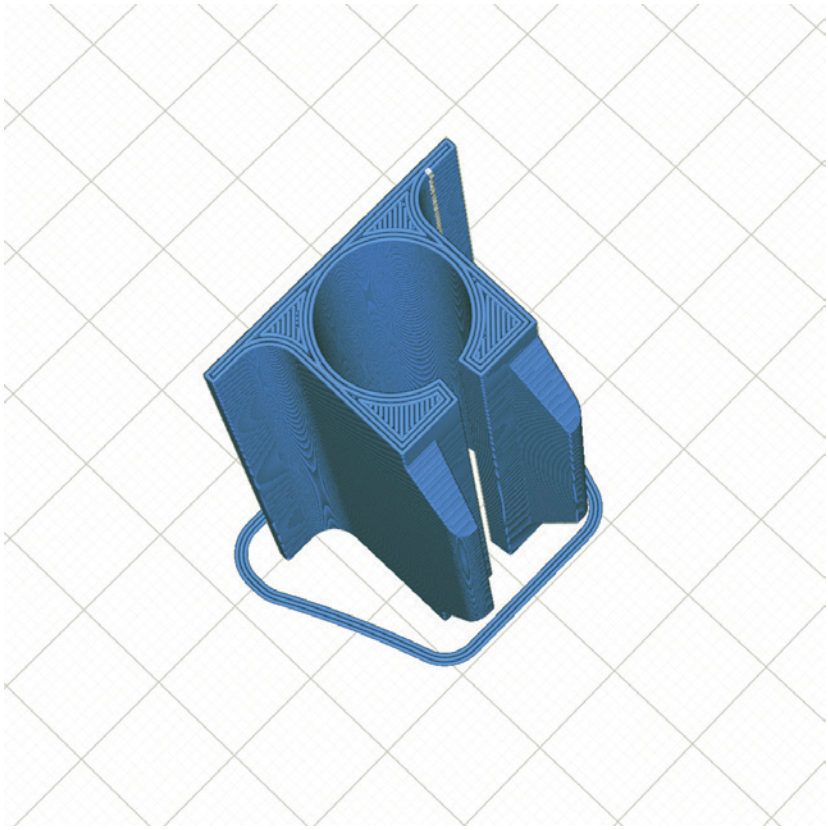
P2_Carbon tool 10mm.stl and

MATERIAL PLA, Weight: ~ 10 g

ADDITIONAL SETTINGS

None required



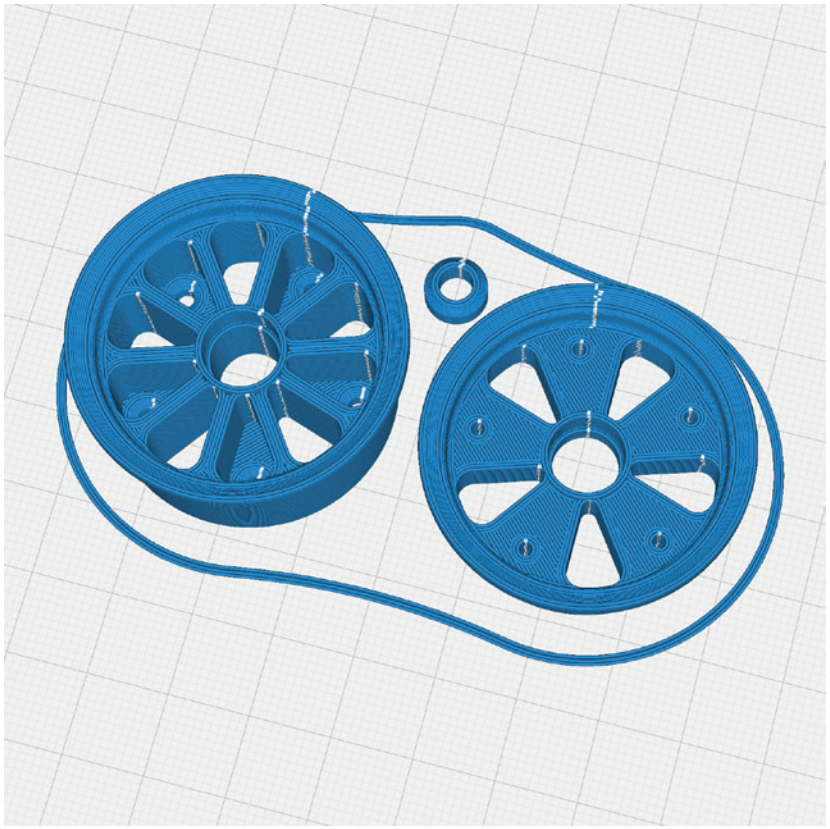


PROFILE P2_Hollowbody Tough PLA or PLA

P2

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

P2_Rim ball bearing_cub.stl or P2_Rim 4mm_cub.stl

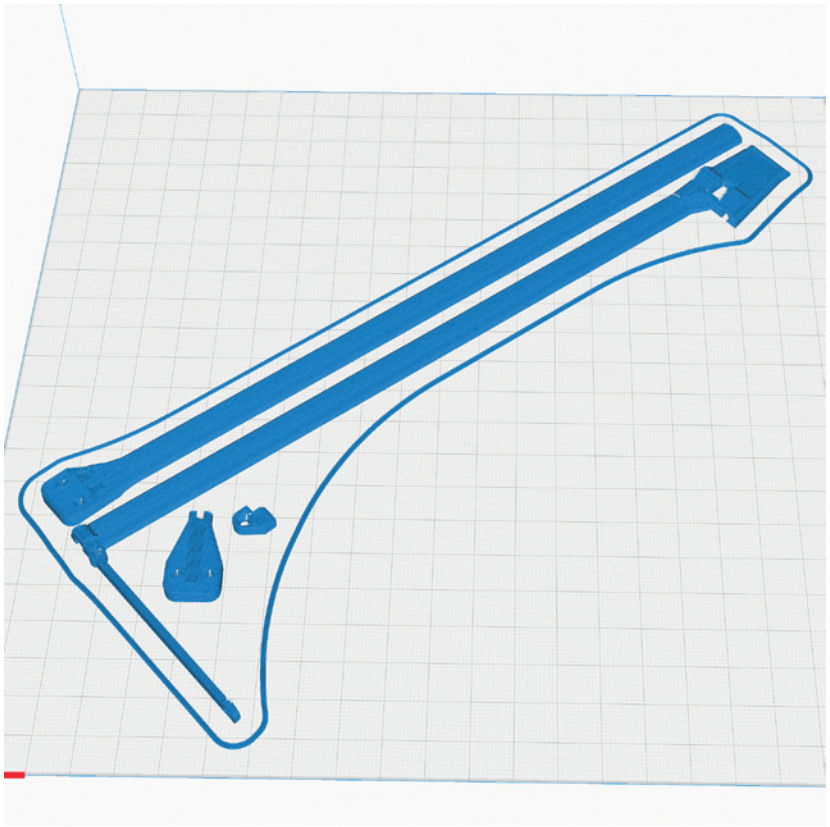


MATERIAL PLA, Weight: ~ 13 g

ADDITIONAL SETTINGS

- Print twice

P2_Strut L_cub.stl and P2_Strut R_cub.stl



MATERIAL PLA, Weight: ~ 10 g

ADDITIONAL SETTINGS

None required

PROFILE P2_Hollowbody Tough PLA or PLA

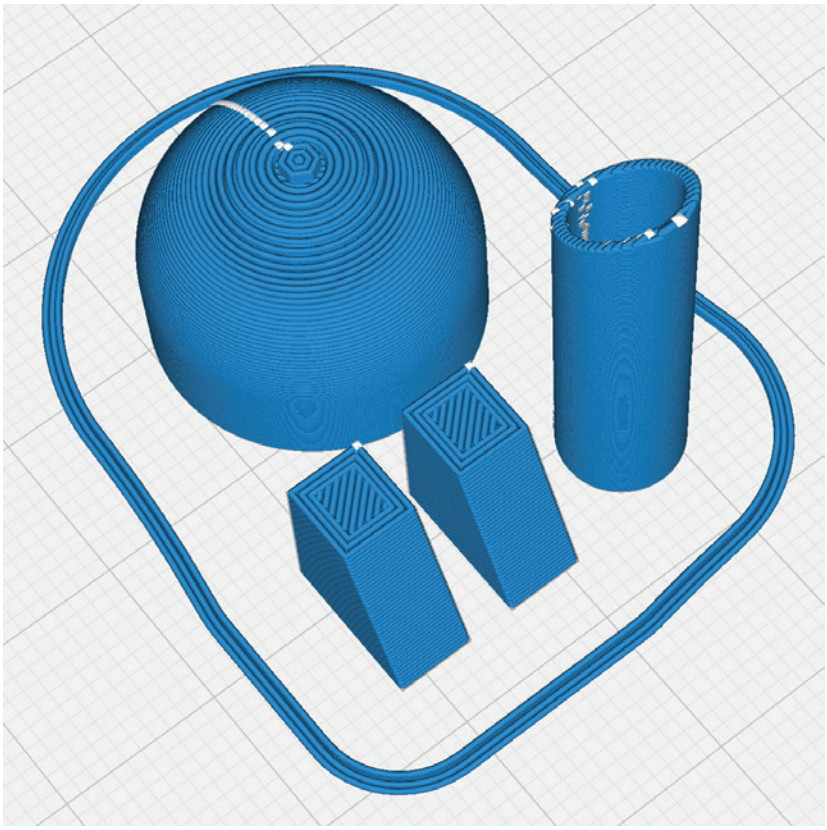
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

V-super P2_Parts_cub.stl

MATERIAL PLA, Weight: ~ 3 g

ADDITIONAL SETTINGS

- Only required for the Super Cub version



PROFILE P4_Flex LW TPU (A95/VarioShore)

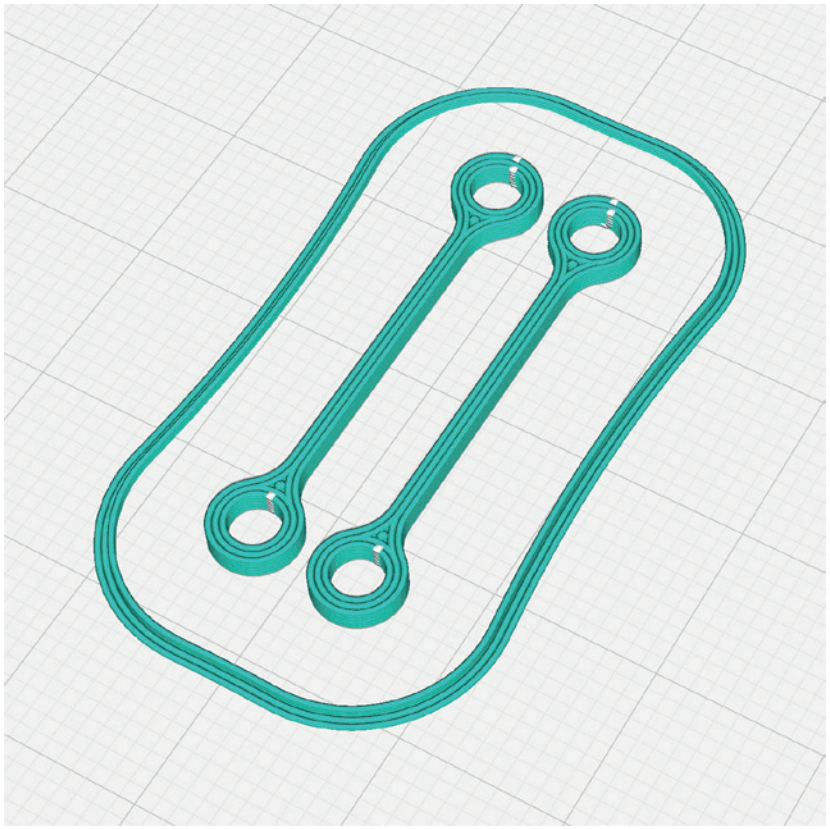
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P4_Gear belts_cub.stl

MATERIAL TPU A95, Weight: ~ 0 g

ADDITIONAL SETTINGS

None required

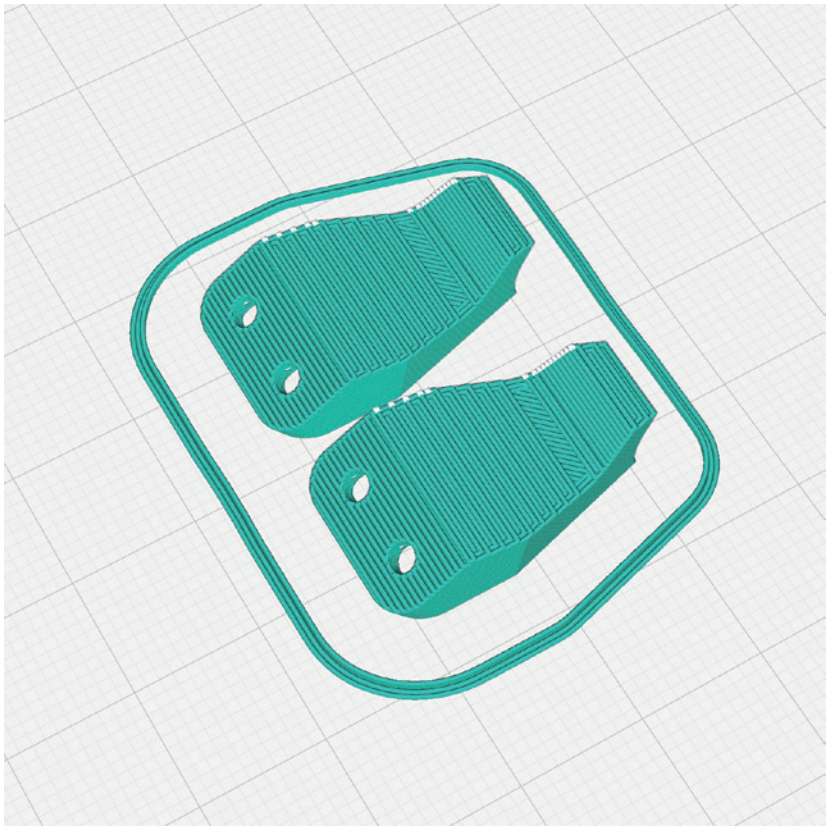


P4_Gear stop.stl

MATERIAL TPU A95, Weight: ~ 2 g

ADDITIONAL SETTINGS

- Infill/Fill: 100 %



PROFILE P4_Flex LW TPU (A95/VarioShore)

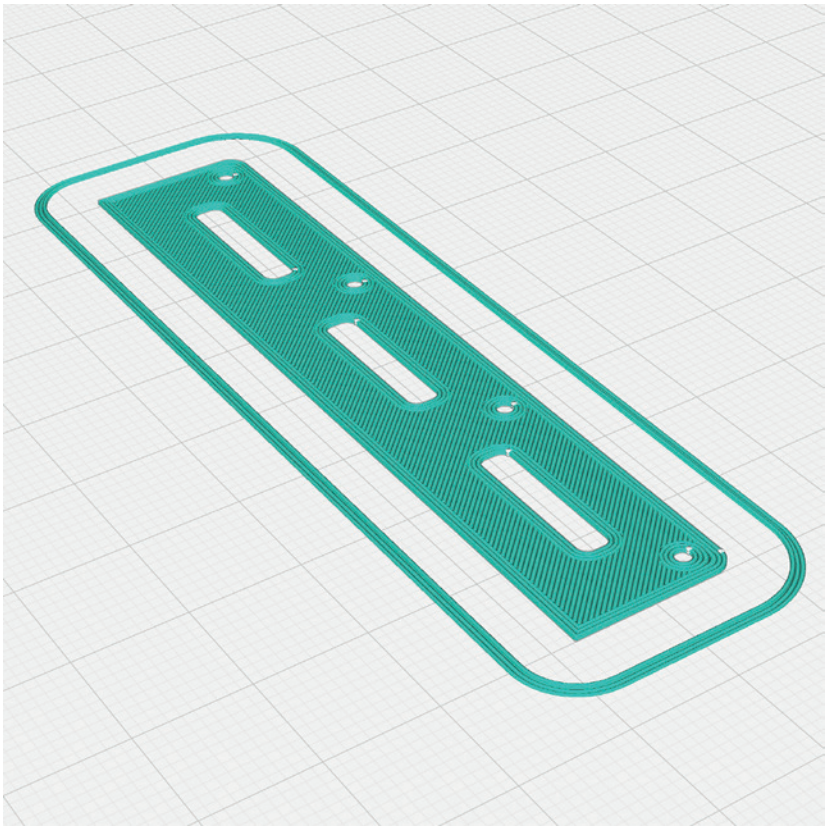
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P4_Hinge Cover_cub.stl

MATERIAL TPU A95, Weight: ~ 1 g

ADDITIONAL SETTINGS

None required

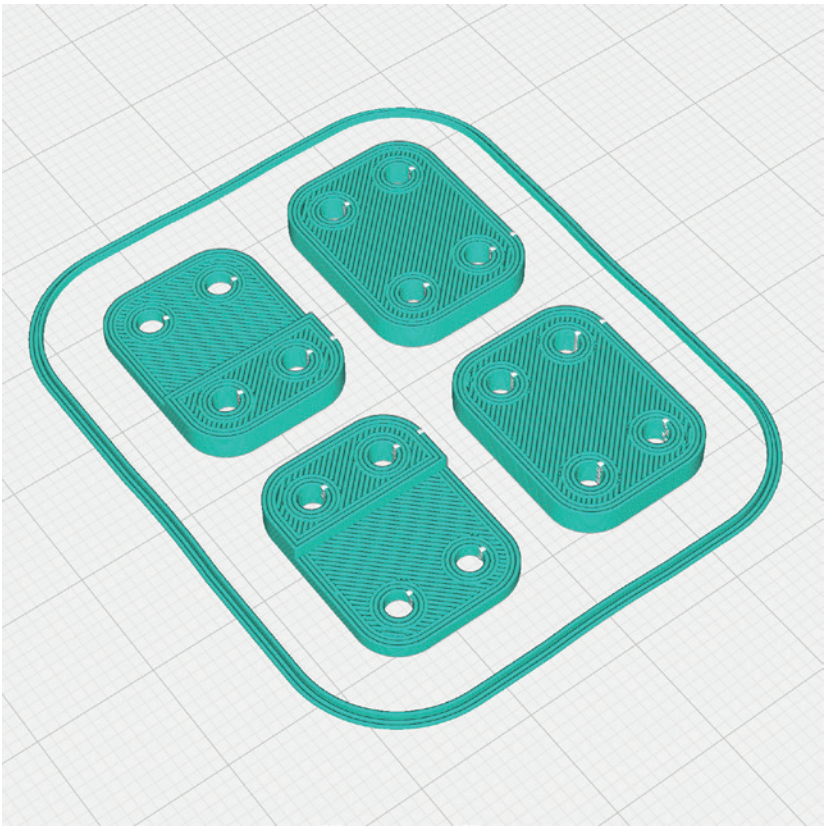


P4_Hinges Gear_cub.stl

MATERIAL TPU A95, Weight: ~ 2 g

ADDITIONAL SETTINGS

- Infill/Fill: 100 %



PROFILE P4_Flex LW TPU (A95/VarioShore)

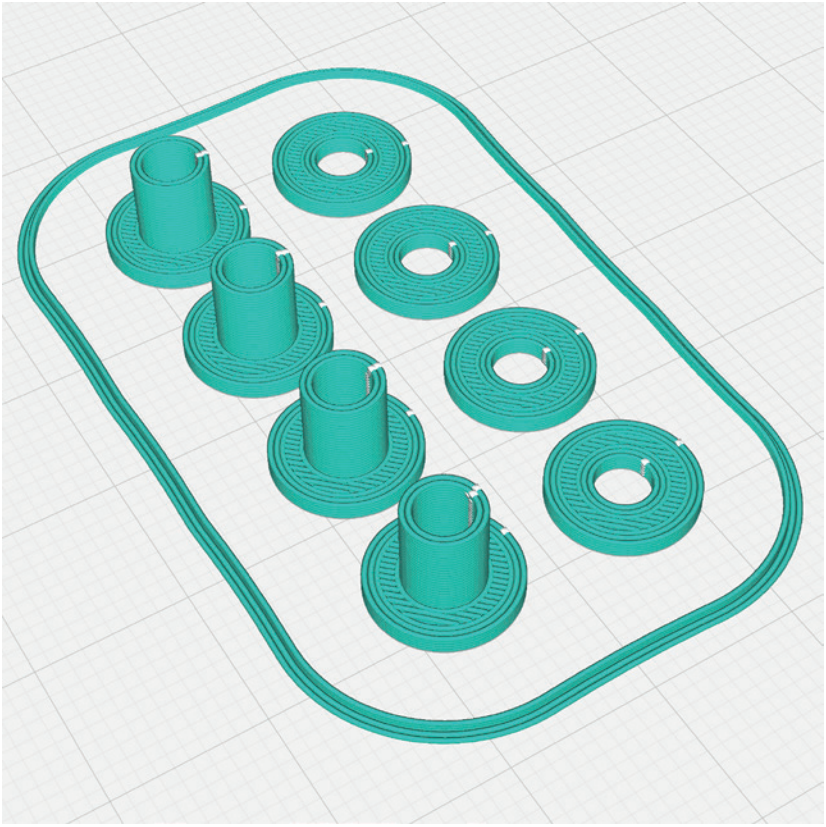
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P4_Motor mount_cub.stl

MATERIAL TPU A95, Weight: ~ 1 g

ADDITIONAL SETTINGS

None required

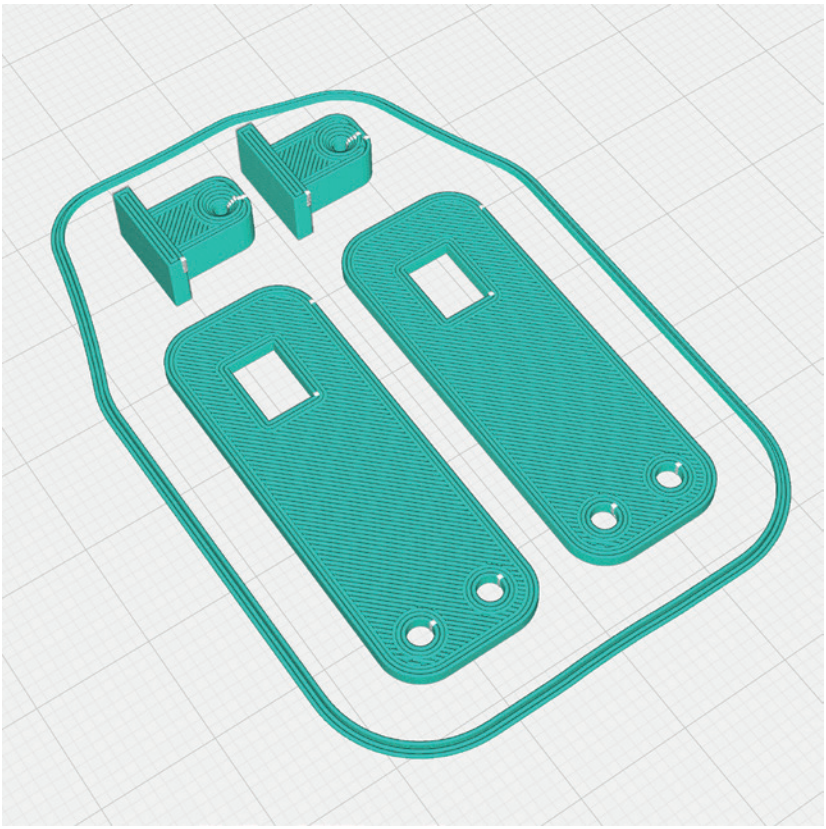


P4_Strut mount 1_cub.stl

MATERIAL TPU A95, Weight: ~ 2 g

ADDITIONAL SETTINGS

- Infill/Fill: 100 %



PROFILE P4_Flex LW TPU (A95/VarioShore)

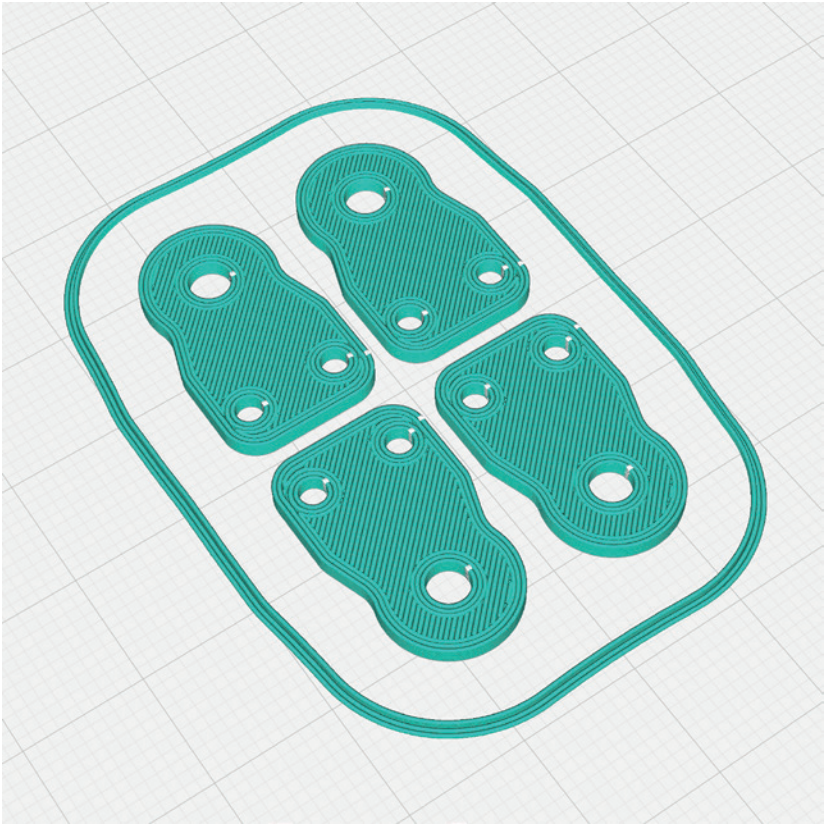
The information about the basic settings you can find on our website at PRINT.
Please note the additional settings for the individual parts!

P4_Strut mount 2_cub.stl

MATERIAL TPU A95, Weight: ~ 2 g

ADDITIONAL SETTINGS

- Infill/Fill: 100 %

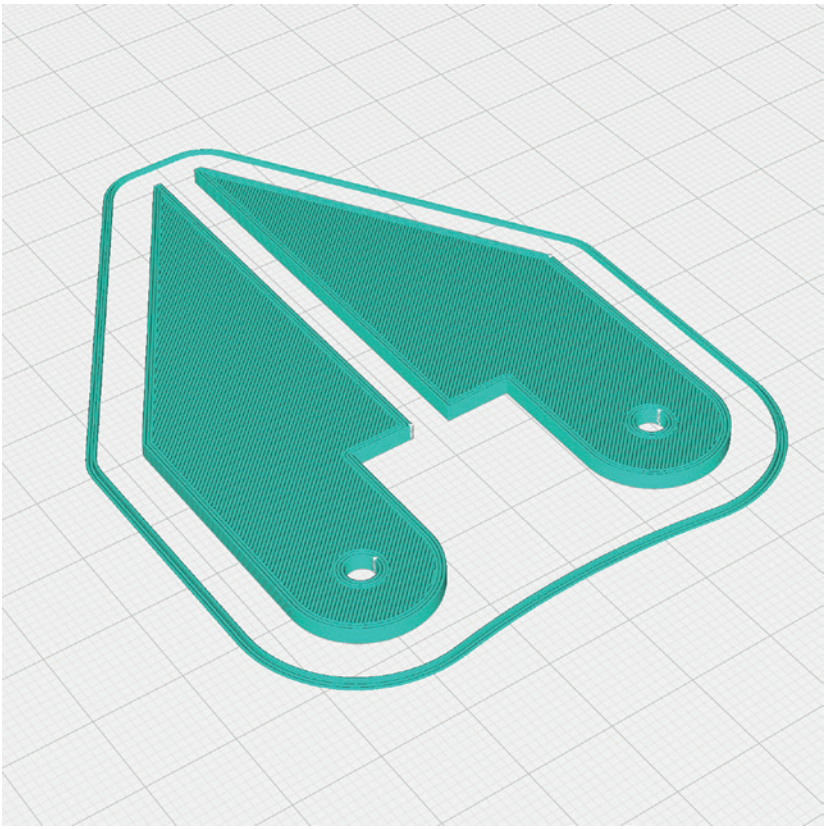


P4_WING mount_cub.stl

MATERIAL TPU A95, Weight: ~ 6 g

ADDITIONAL SETTINGS

- Infill/Fill: 100 %



PROFILE P4_Flex LW TPU (A95/VarioShore)

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

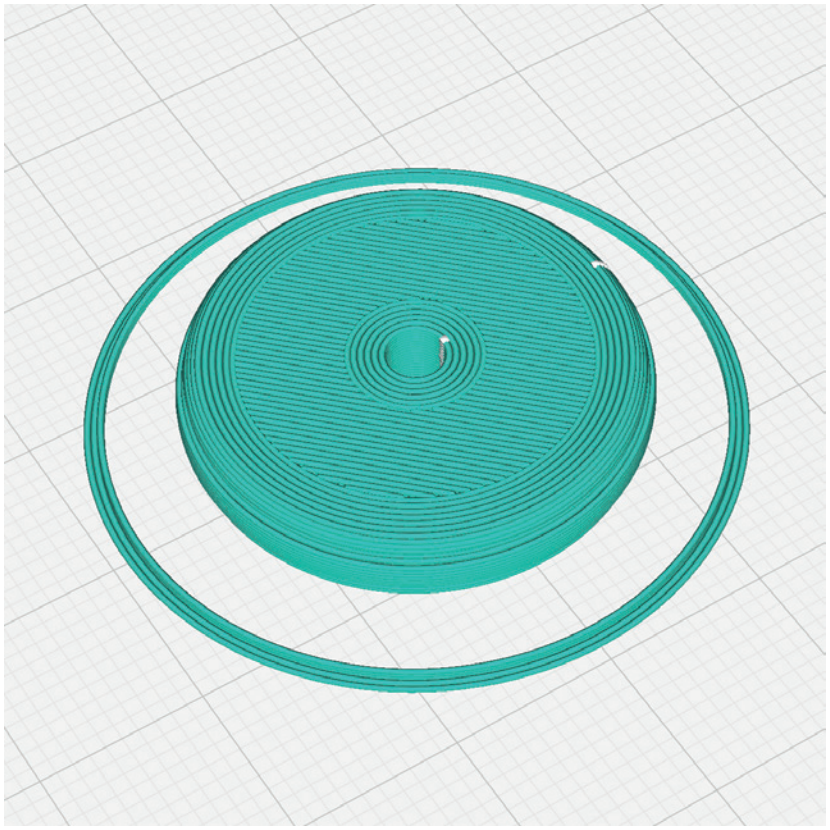
P4_Tire back_cub.stl

MATERIAL VarioShore or TPU A95

ADDITIONAL SETTINGS

VarioShore with Flow 70 %:
- Wall Line Count: 5
- Top Layers: 5
- Bottom Layers: 5
- Infill Density: 6 %
- Infill Pattern: Gyroid

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



P4_Tire_cub.stl

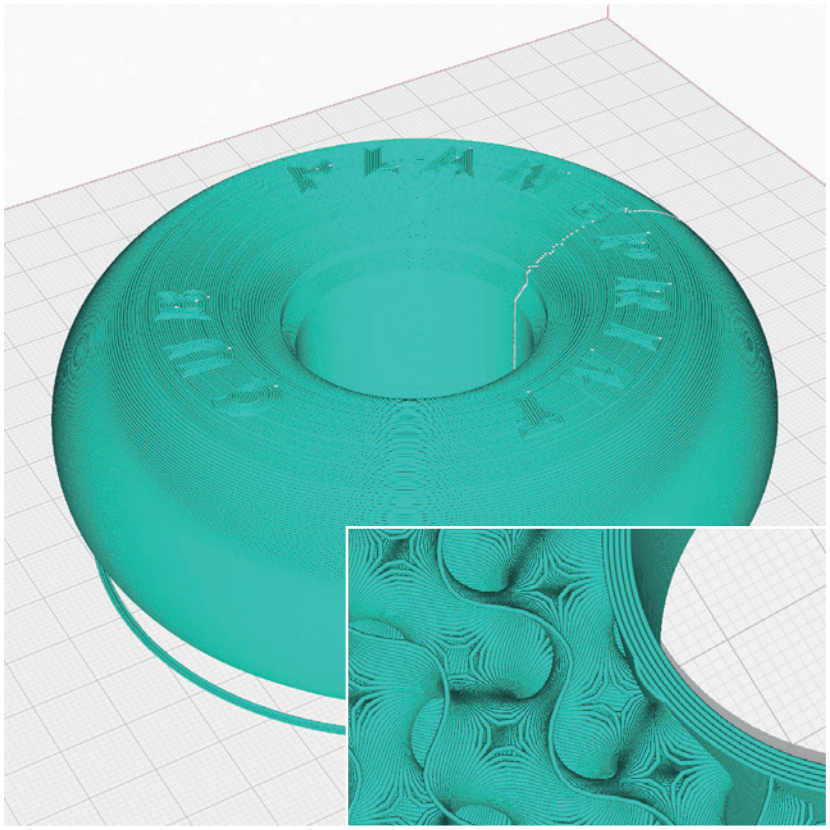
MATERIAL LW-TPU (recommended),
Weight: ~ 30 g (VarioShore)

ADDITIONAL SETTINGS

- Print twice

VarioShore with Flow 70 %:
- Wall Line Count: 5
- Top Layers: 5
- Bottom Layers: 5
- Infill Density: 6 %
- Infill Pattern: Gyroid

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



PROFILE P5_Gyroid LW-PLA (foaming)!

P5

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

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

P5_Ail L 1_cub.stl and P5_Ail R 1_cub.stl

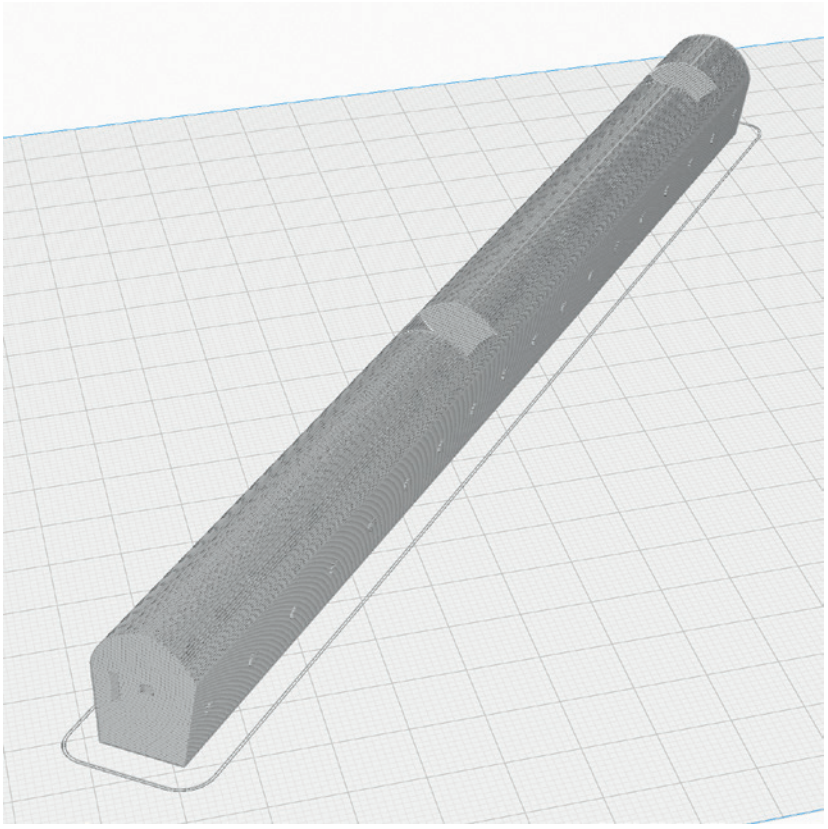
MATERIAL LW PLA, Weight: ~ 7 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required

TIP Label the Aileron parts so that you don't mix them up later!



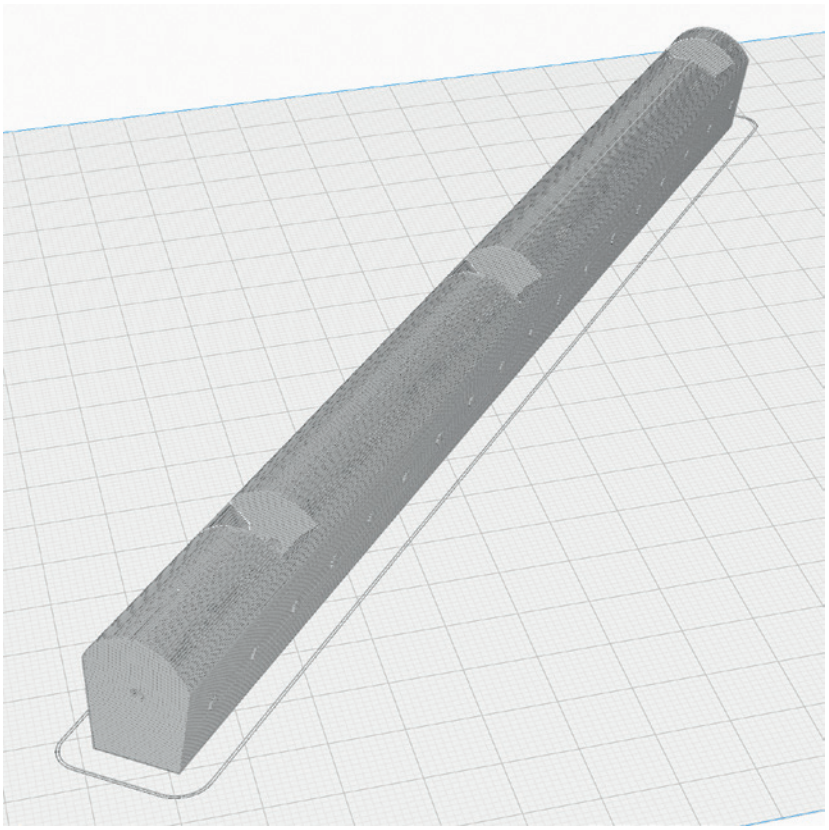
P5_Ail L 2_cub.stl and P5_Ail R 2_cub.stl

MATERIAL LW PLA, Weight: ~ 7 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

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

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

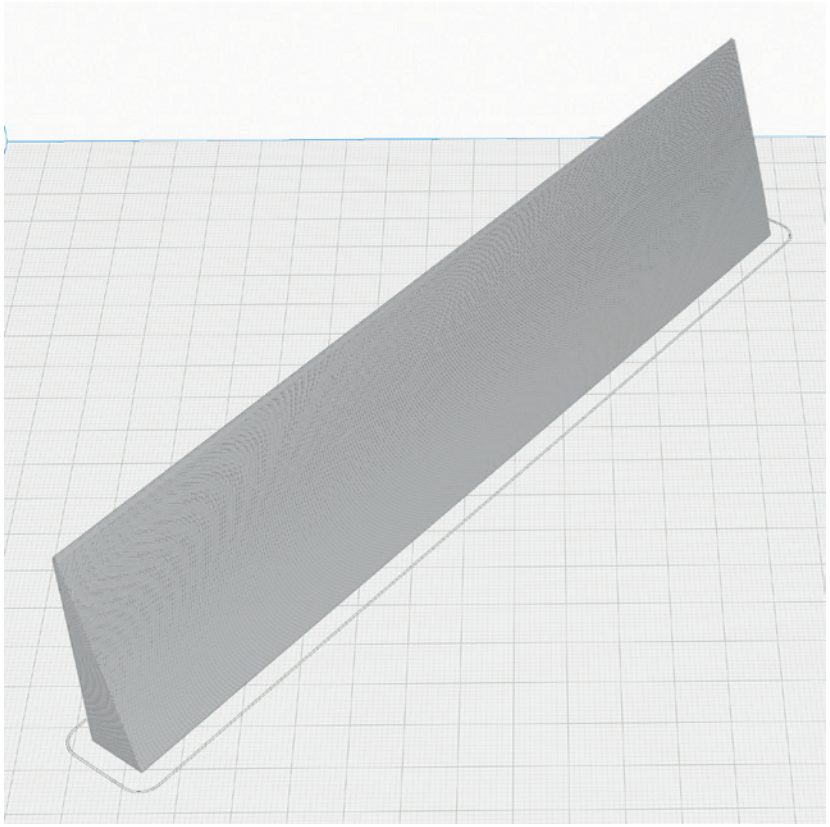
P5_Ail L 3_cub.stl and P5_Ail R 3_cub.stl

MATERIAL LW PLA, Weight: ~ 8 g

TIME ~ 1 hour 20 minutes

ADDITIONAL SETTINGS

None required



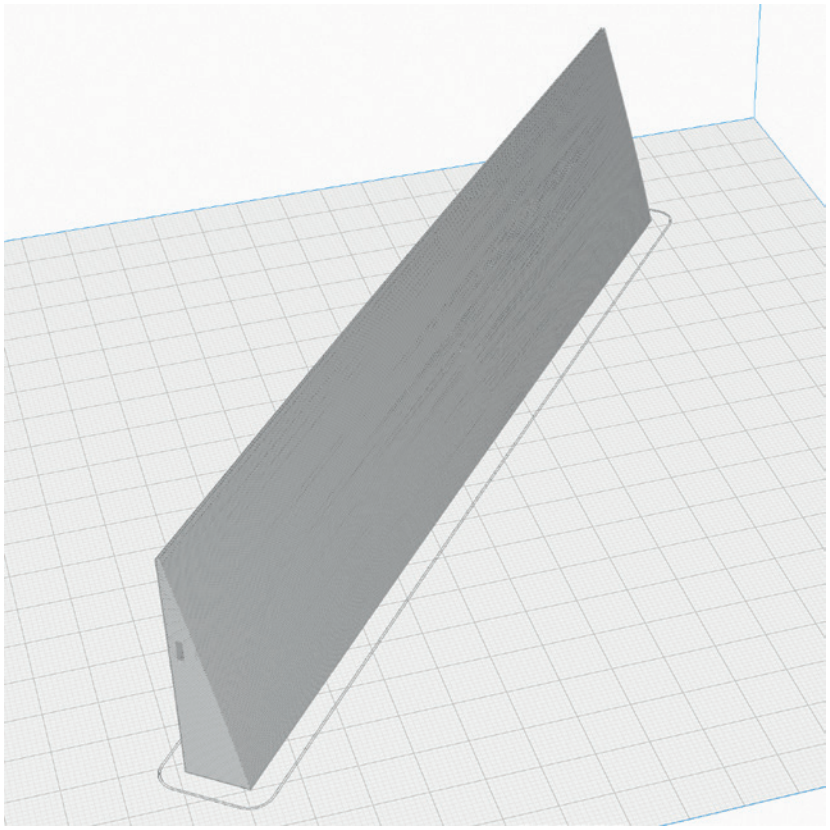
P5_Ail L 4_cub.stl and P5_Ail R 4_cub.stl

MATERIAL LW PLA, Weight: ~ 9 g

TIME ~ 1 hour 30 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

P5

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

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

P5_Cowling_cub.stl

MATERIAL LW PLA, Weight: ~ 19 g

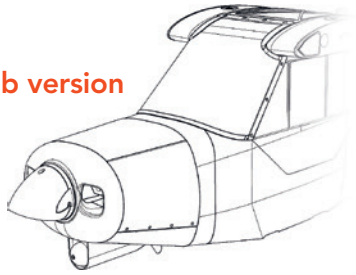
TIME ~ 3 hours 40 minutes

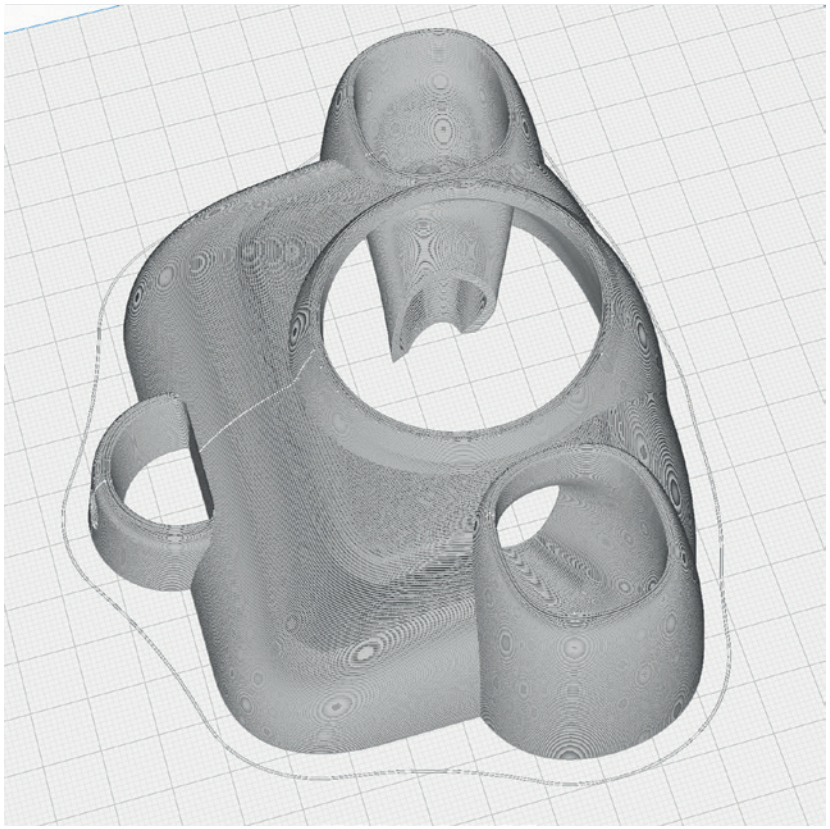
ADDITIONAL SETTINGS

- Layer Height: 0.2mm

- This part is not required if you want to build the Super Cub version!

Super Cub version





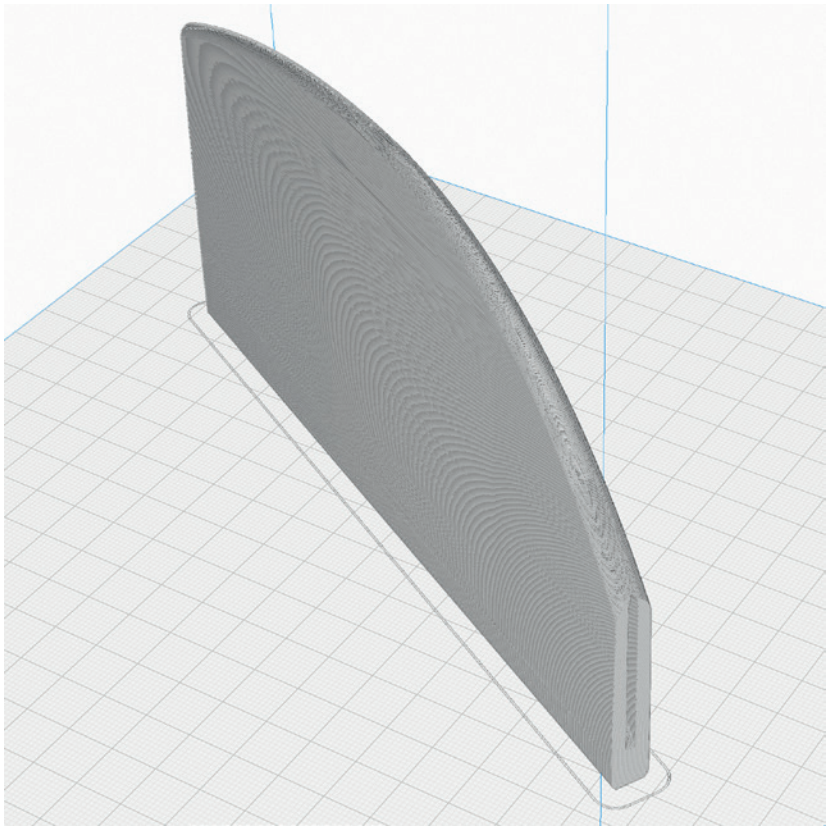
P5_ELE 1 L_cub.stl and P5_ELE 1 R_cub.stl

MATERIAL LW PLA, Weight: ~ 12 g

TIME ~ 2 hours 10 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

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

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

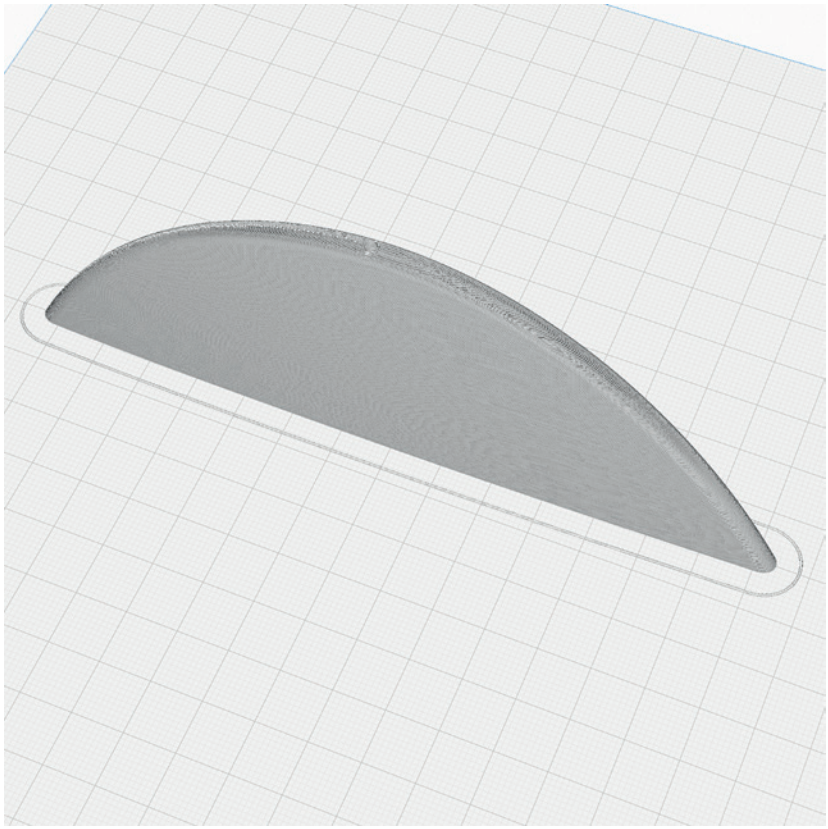
P5_ELE 2_cub.stl

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

- Print twice



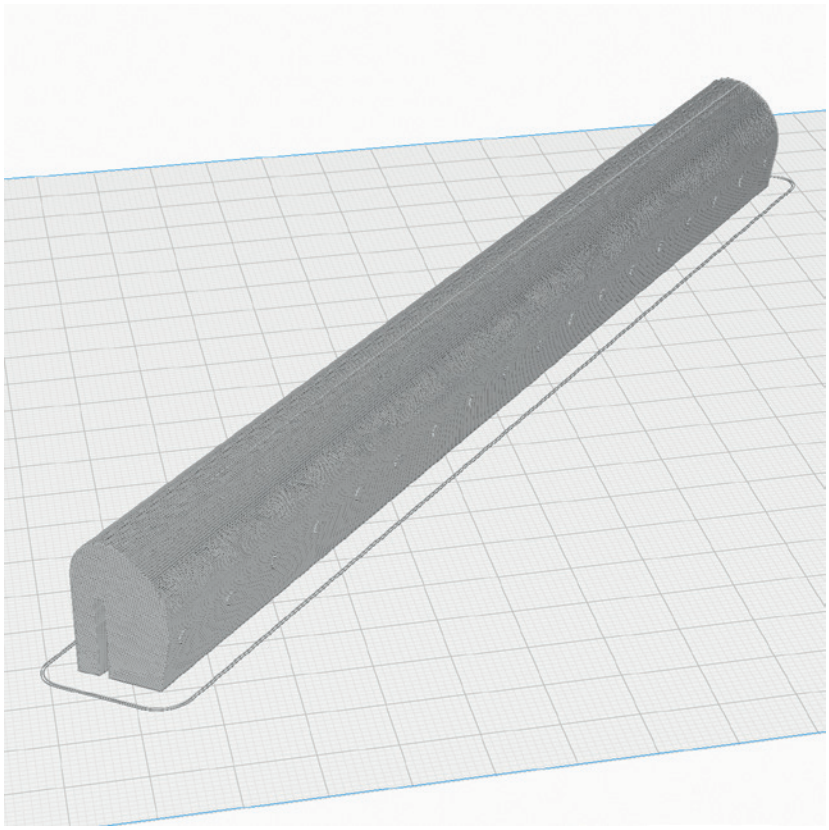
P5_Flap L 1_cub.stl and P5_Flap R 1_cub.stl

MATERIAL LW PLA, Weight: ~ 6 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

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

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

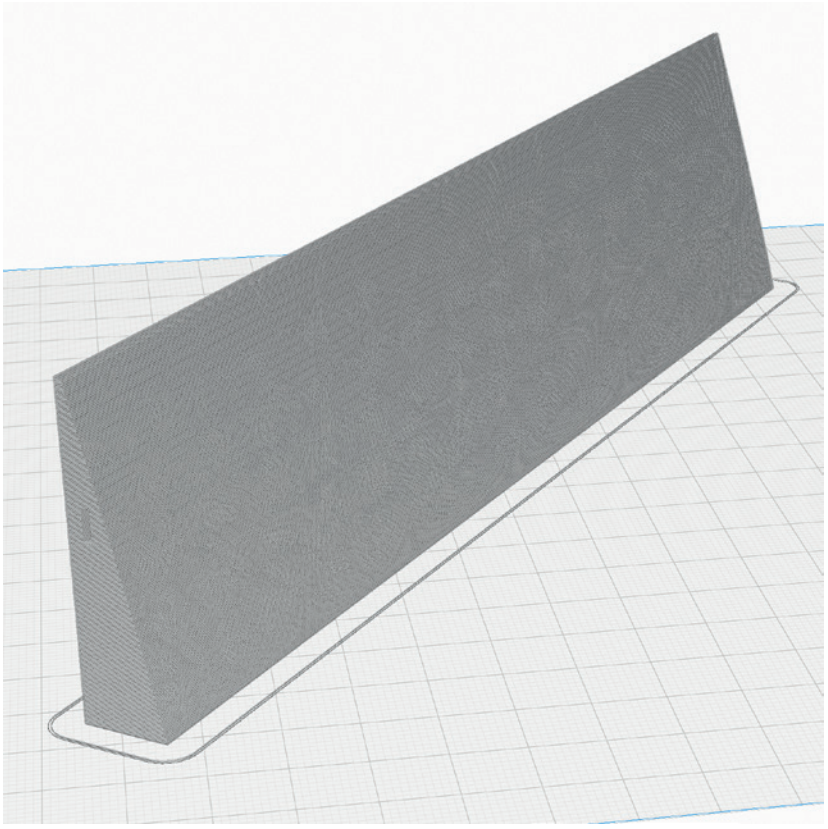
P5_Flap L 2_cub.stl and P5_Flap R 2_cub.stl

MATERIAL LW PLA, Weight: ~ 8 g

TIME ~ 1 hour 20 minutes

ADDITIONAL SETTINGS

None required



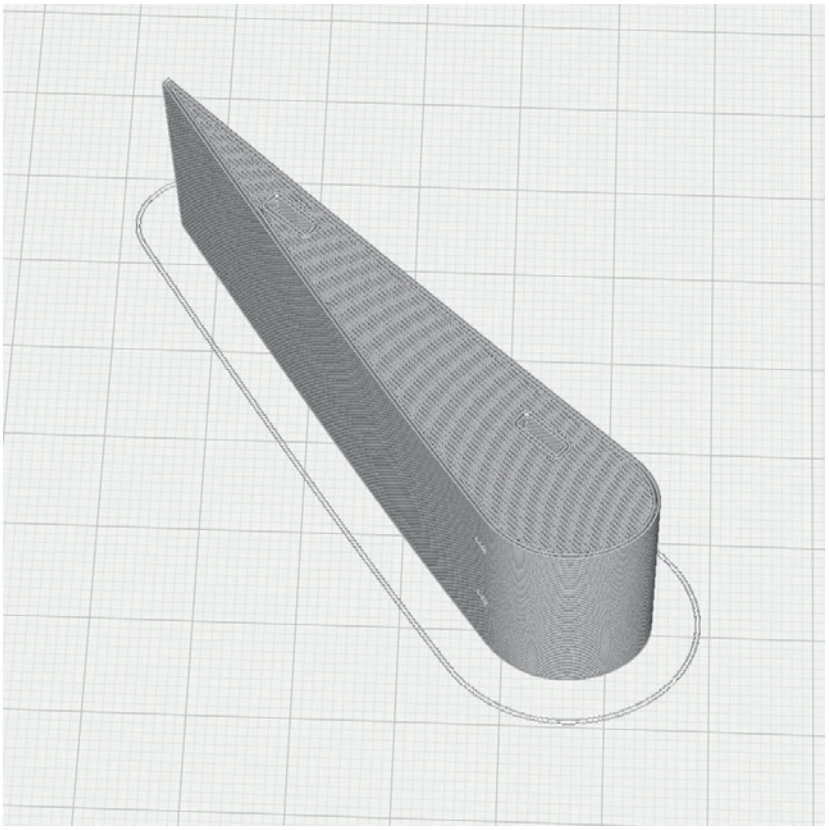
P5_Flap L 3_cub.stl and P5_Flap R 3_cub.stl

MATERIAL LW PLA, Weight: ~ 2 g

TIME ~ 20 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

P5

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

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

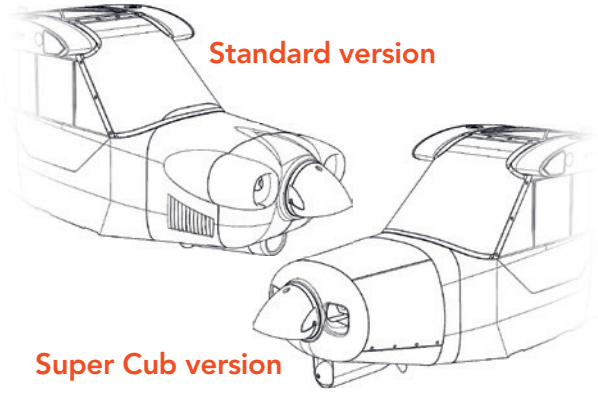
P5_FUS 1_cub.stl

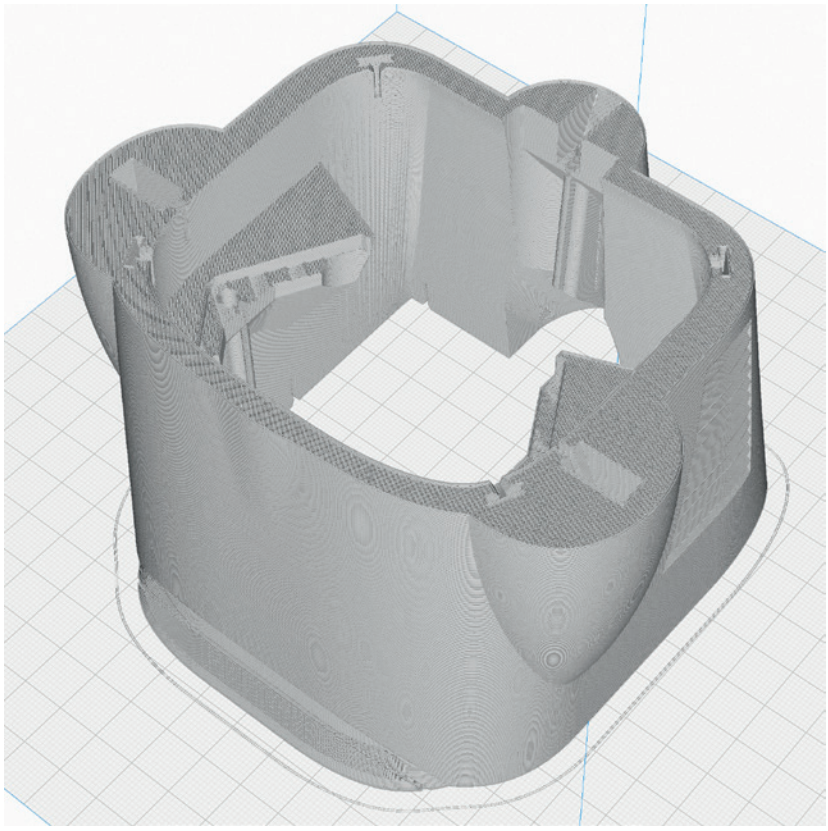
MATERIAL LW PLA, Weight: ~ 35 g

TIME ~ 6 hours

ADDITIONAL SETTINGS

- This part is not required if you want to build the Super Cub version!





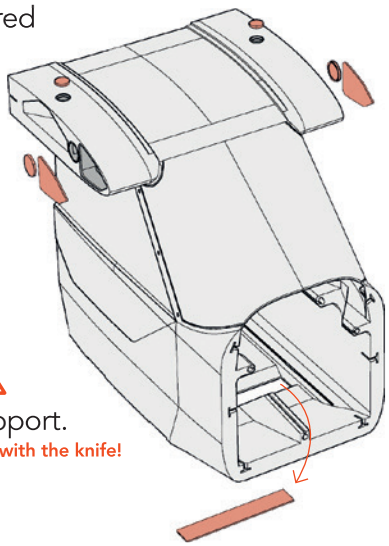
P5_FUS 2_cub.stl

MATERIAL LW PLA, Weight: ~ 100 g

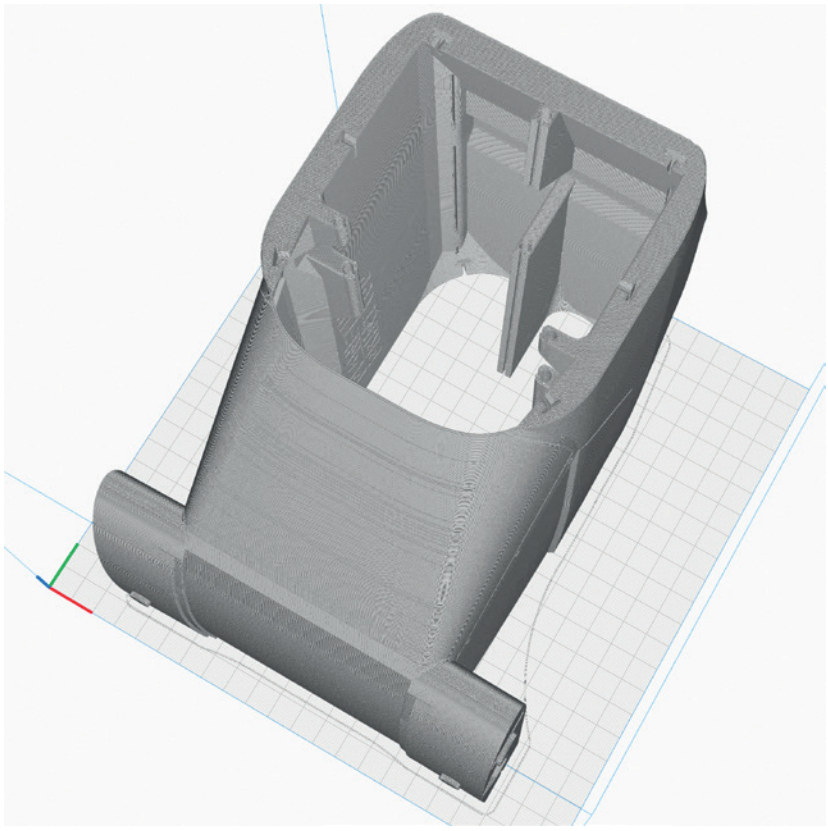
TIME ~ 20 hours

ADDITIONAL SETTINGS

None required



Remove support.
Please be careful with the knife!



PROFILE P5_Gyroid LW-PLA (foaming)!

P5

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

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

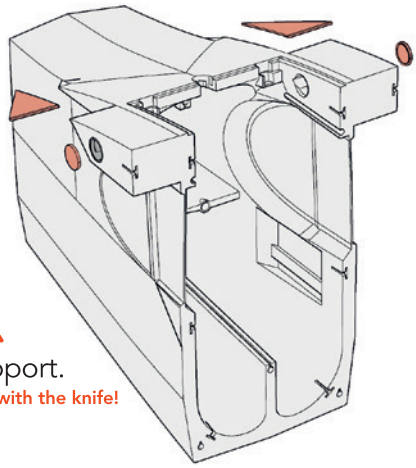
P5_FUS 3_cub.stl

MATERIAL LW PLA, Weight: ~ 90 g

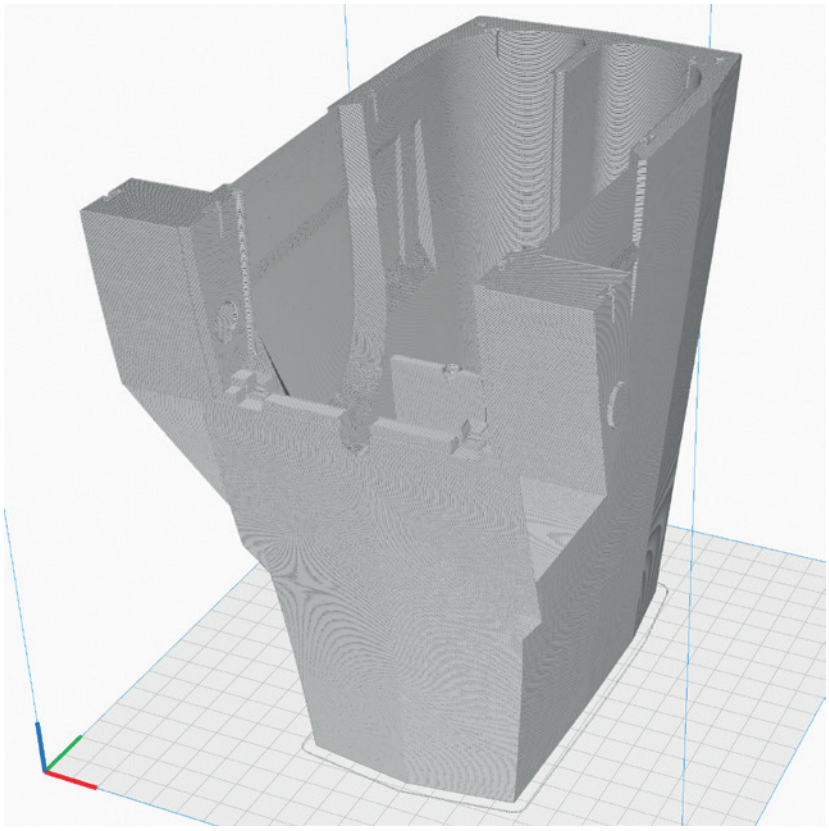
TIME ~ 18 hours

ADDITIONAL SETTINGS

None required



Remove support.
Please be careful with the knife!



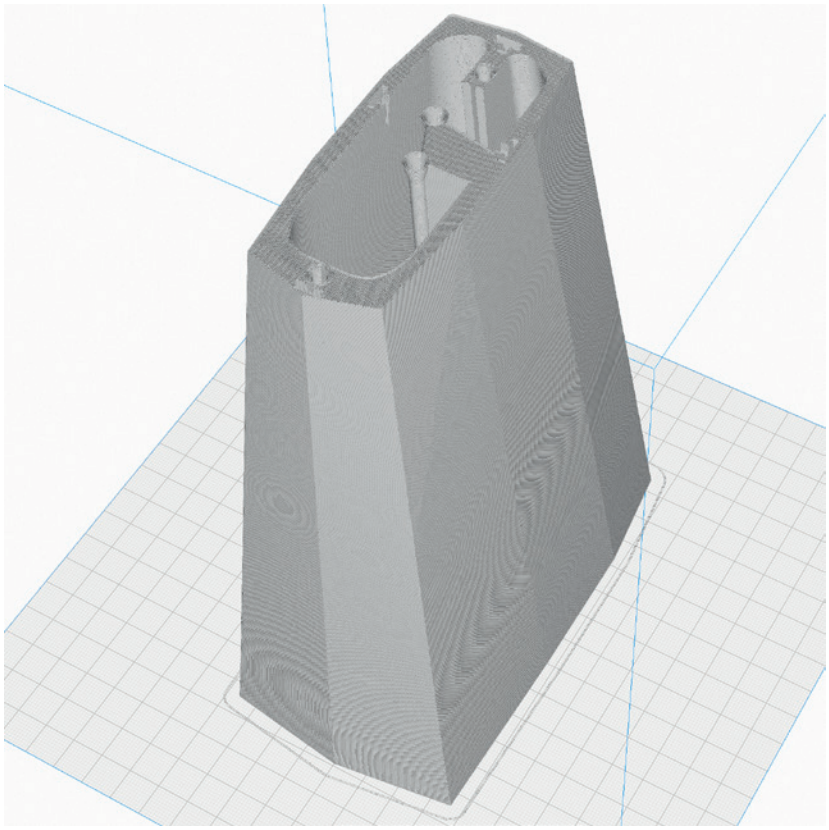
P5_FUS 4_cub.stl

MATERIAL LW PLA, Weight: ~ 60 g

TIME ~ 11 hours

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

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

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

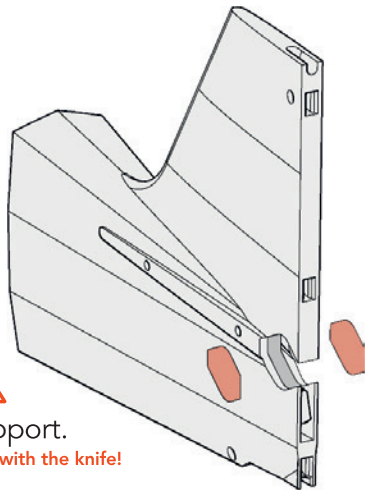
P5_FUS 5_cub.stl

MATERIAL LW PLA, Weight: ~ 30 g

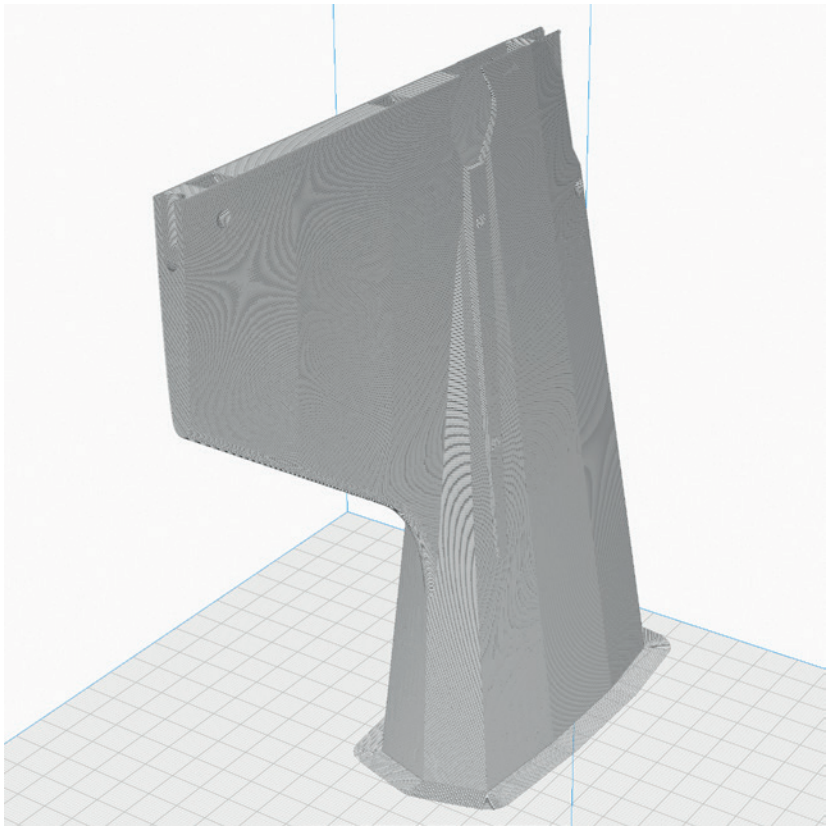
TIME ~ 7 hours

ADDITIONAL SETTINGS

- Set brim



Remove support.
Please be careful with the knife!



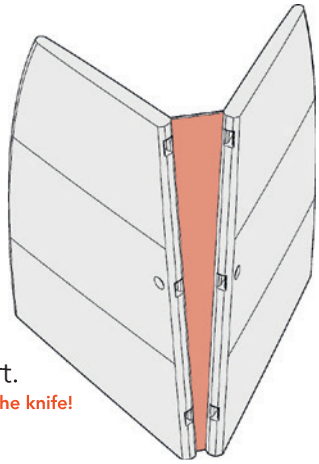
P5_HS_cub.stl

MATERIAL LW PLA, Weight: ~ 32 g

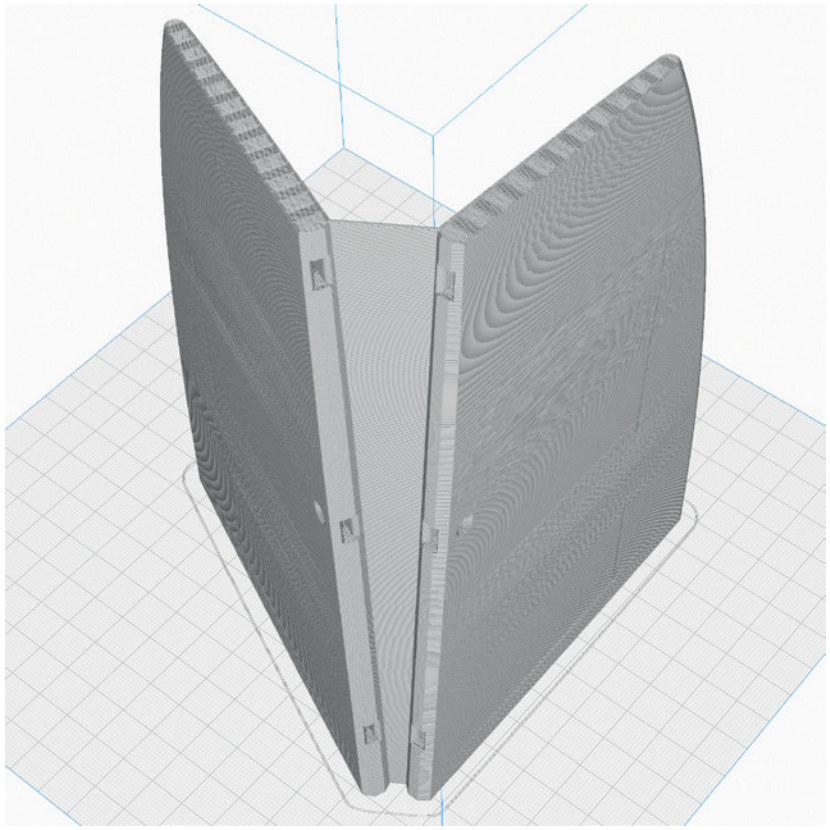
TIME ~ 7 hours

ADDITIONAL SETTINGS

None required



Remove support.
Please be careful with the knife!



PROFILE P5_Gyroid LW-PLA (foaming)!

P5

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

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

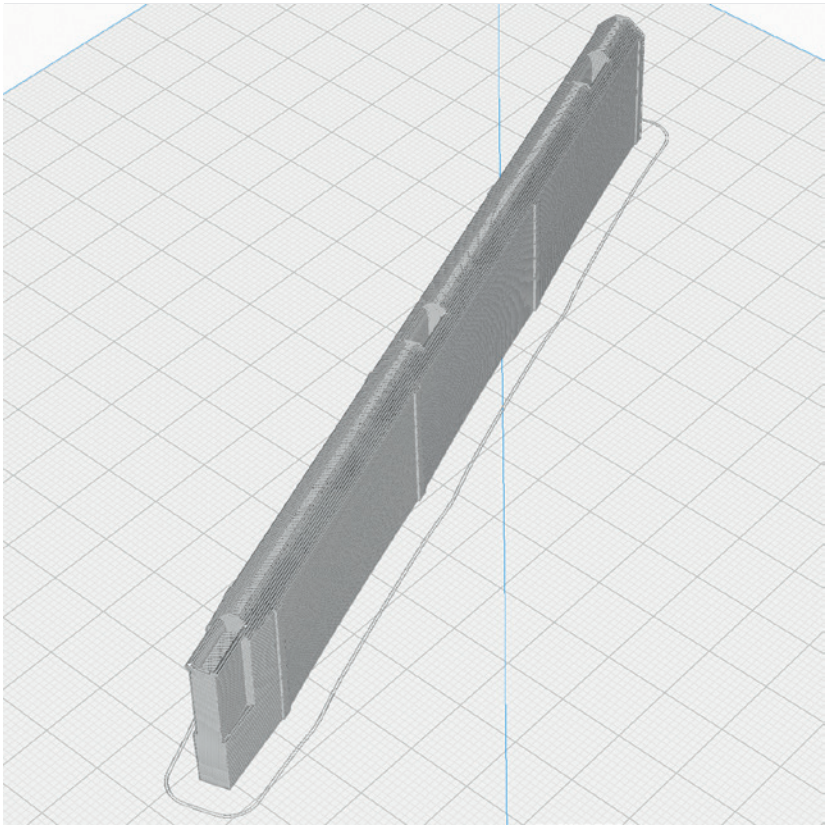
P5_RUD 1_cub.stl

MATERIAL LW PLA, Weight: ~ 4 g

TIME ~ 40 minutes

ADDITIONAL SETTINGS

None required



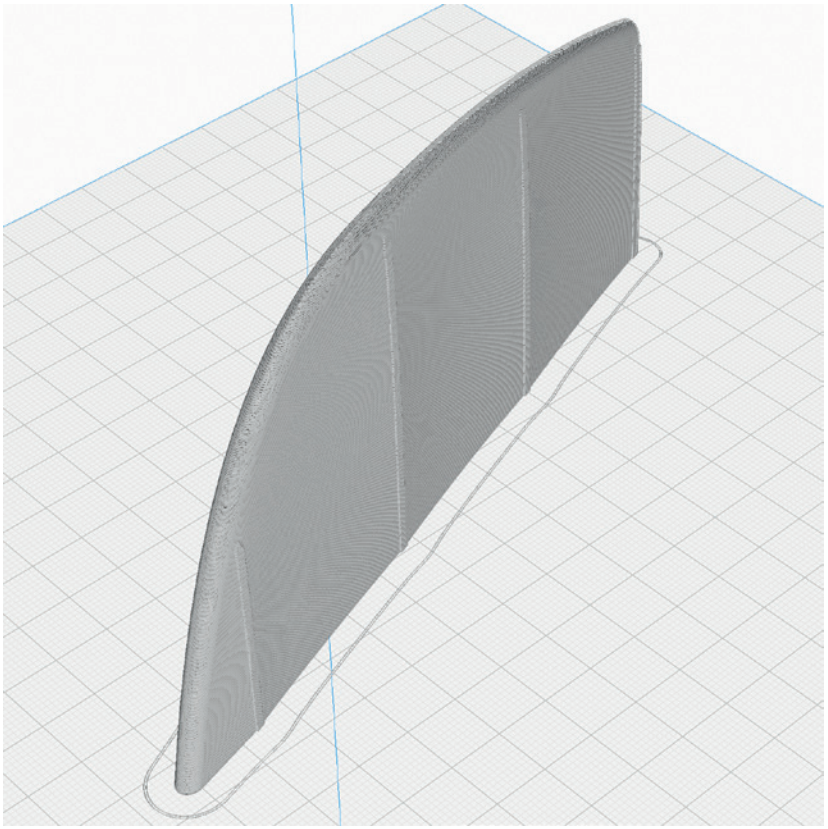
P5_RUD 2_cub.stl

MATERIAL LW PLA, Weight: ~ 8 g

TIME ~ 1 hour 20 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

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

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

P5_RUD top_cub.stl

MATERIAL LW PLA, Weight: ~ 4 g

TIME ~ 1 hour

ADDITIONAL SETTINGS

None required

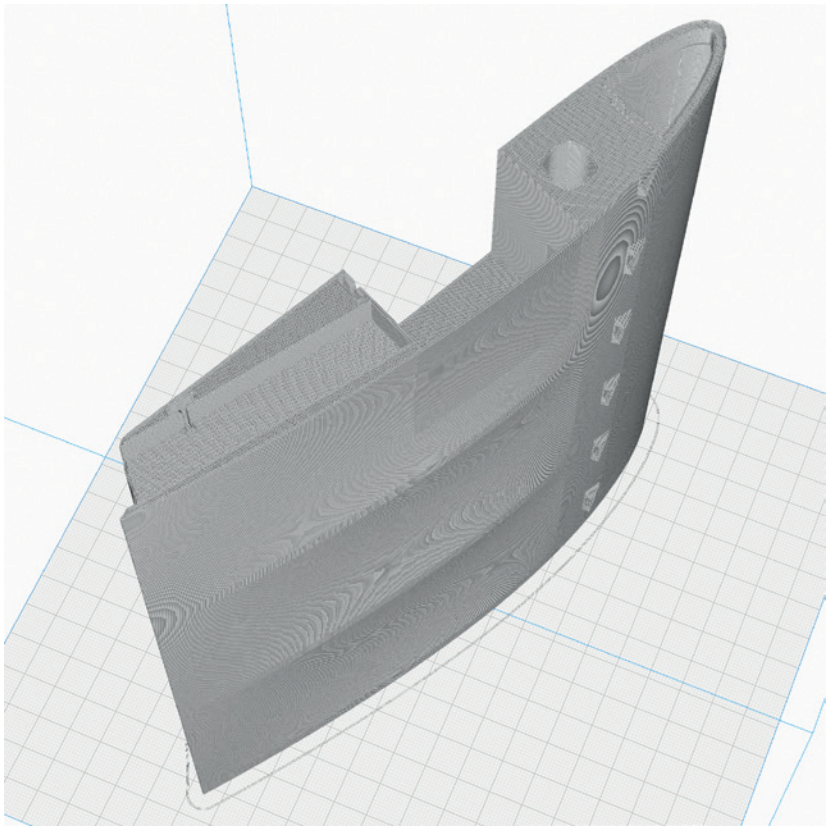
P5_WING L 1_cub.stl and P5_WING R 1_cub.stl

MATERIAL LW PLA, Weight: ~ 60 g

TIME ~ 9 hours 30 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

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

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

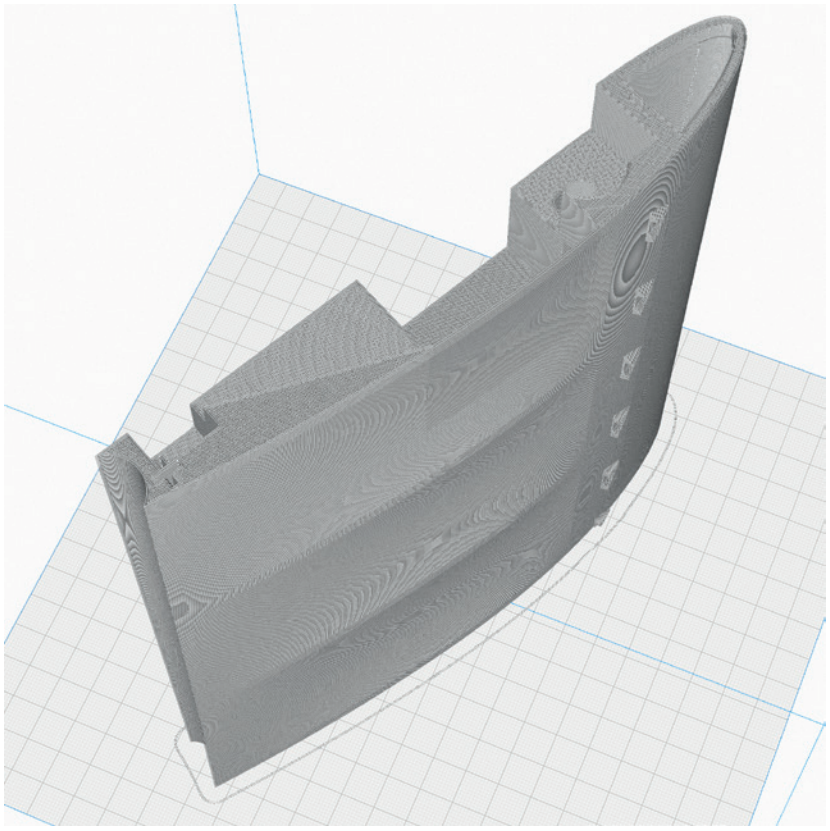
P5_WING L 2_cub.stl and P5_WING R 2_cub.stl

MATERIAL LW PLA, Weight: ~ 55 g

TIME ~ 8 hours 30 minutes

ADDITIONAL SETTINGS

None required



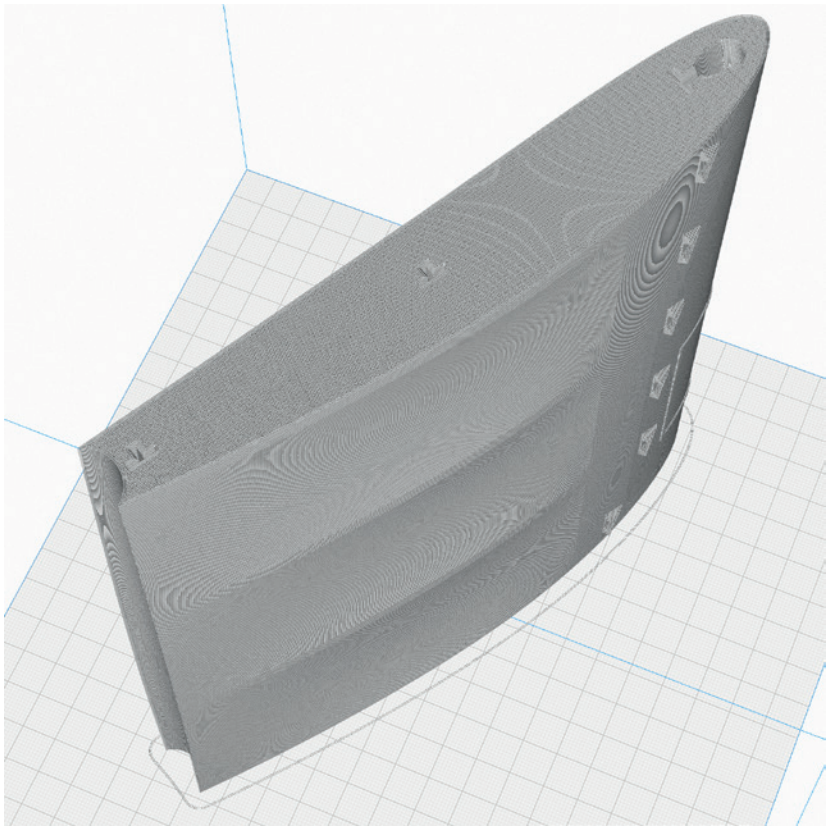
P5_WING L 3_cub.stl and P5_WING R 3_cub.stl

MATERIAL LW PLA, Weight: ~ 57 g

TIME ~ 8 hours 30 minutes

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

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

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

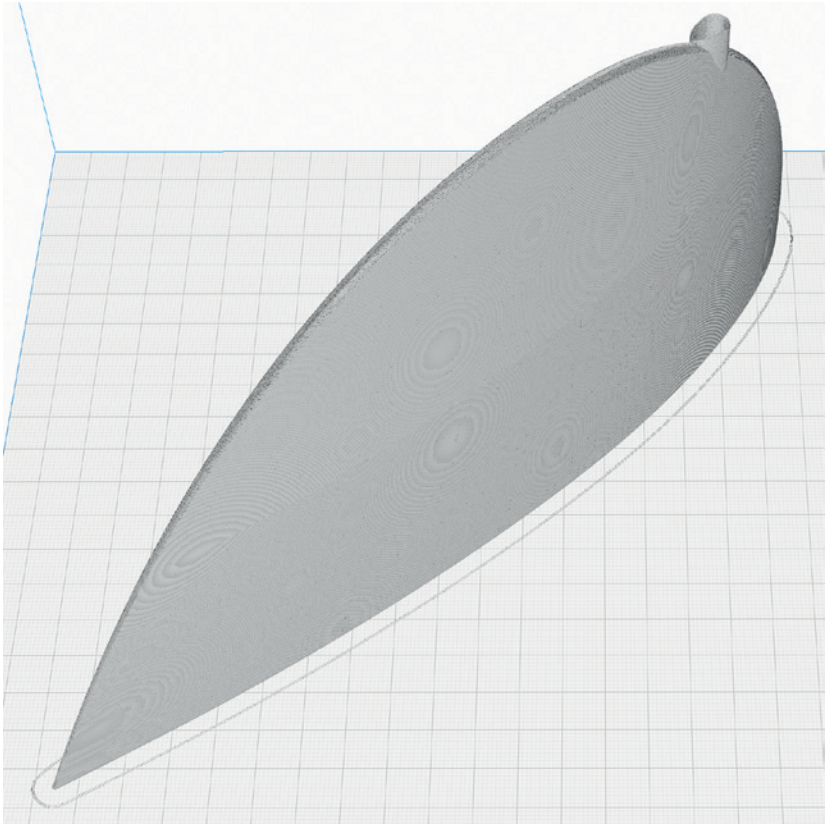
P5_WINGtip L_cub.stl and P5_WINGtip R_cub.stl

MATERIAL LW PLA, Weight: ~ 25 g

TIME ~ 4 hours

ADDITIONAL SETTINGS

None required



PROFILE P5_Gyroid LW-PLA (foaming)!

P5

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

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

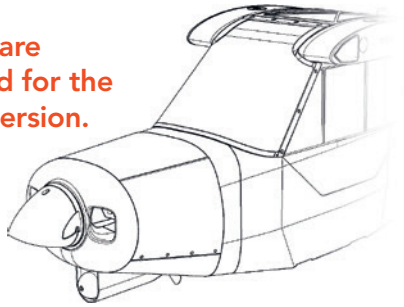
V-super P5_cooling L_cub.stl and V-super P5_cooling R_cub.stl

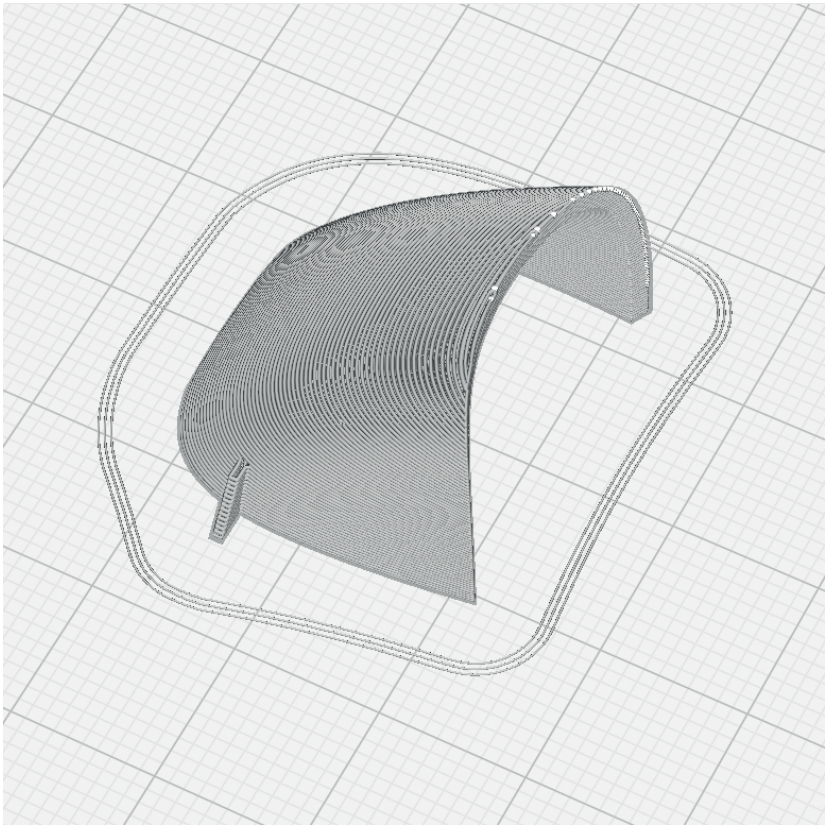
MATERIAL LW PLA, Weight: ~ 1 g

ADDITIONAL SETTINGS

None required

These parts are only required for the Super Cub version.





V-super P5_Cowling_cub.stl

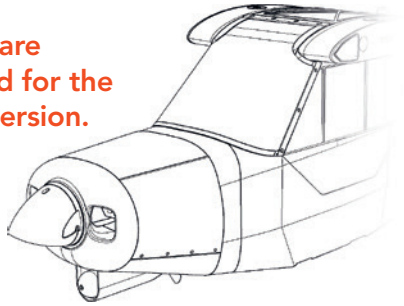
MATERIAL LW PLA, Weight: ~ 9 g

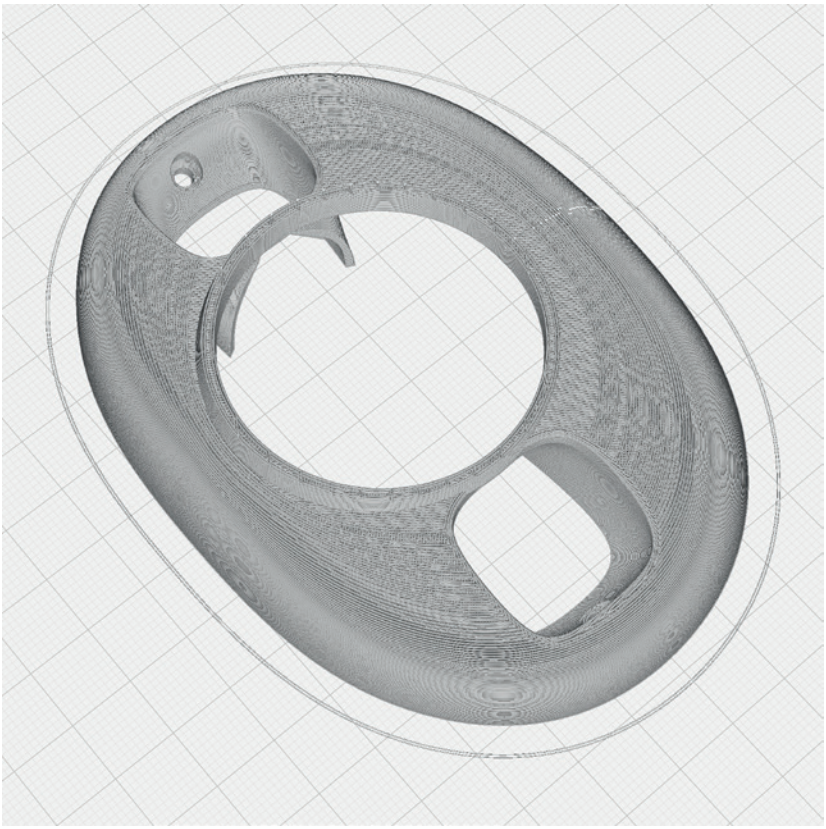
TIME ~ 1 hour

ADDITIONAL SETTINGS

- Layer Height: 0.2mm

These parts are only required for the Super Cub version.





PROFILE P5_Gyroid LW-PLA (foaming)!

P5

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

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

V-super P5_FUS 1a_cub.stl

MATERIAL LW PLA, Weight: ~ 10 g

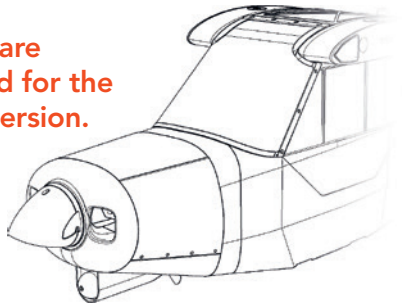
TIME ~ 2 hours

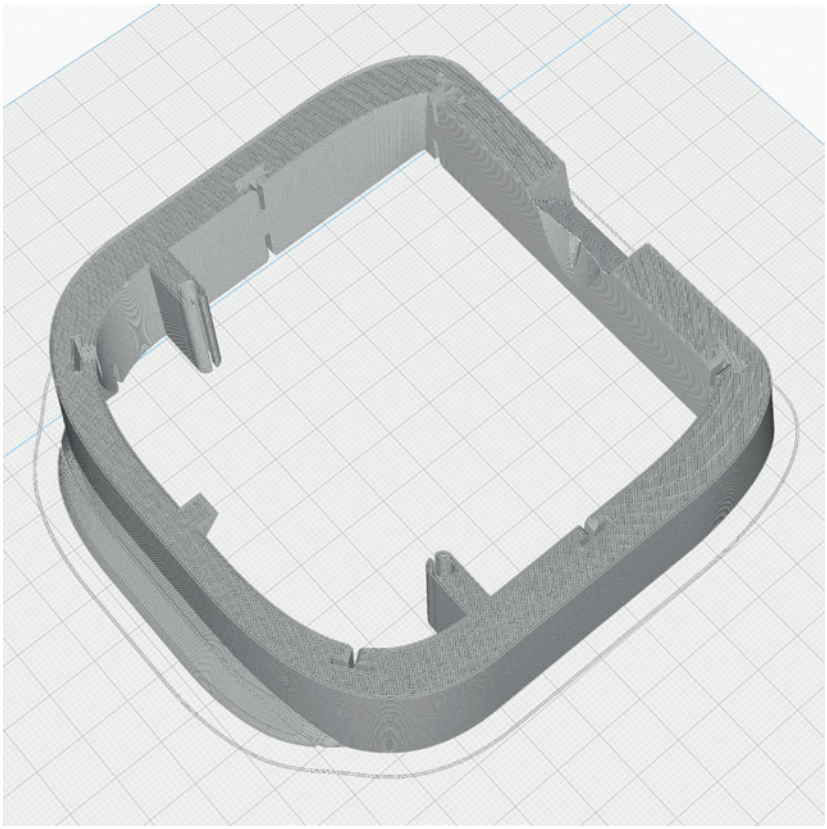
ADDITIONAL SETTINGS

None required

NOTE If your printer has a larger build space, there is a combined STL:
V-super P5_FUS 1a+2_cub.stl

These parts are only required for the Super Cub version.





V-super P5_FUS 1b_cub.stl

MATERIAL LW PLA, Weight: ~ 30 g

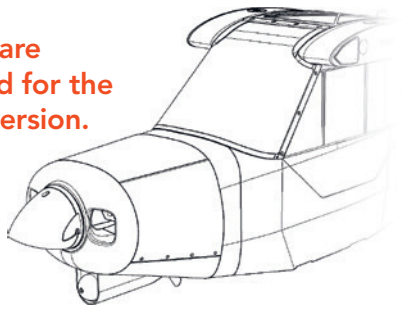
TIME ~ 6 hours

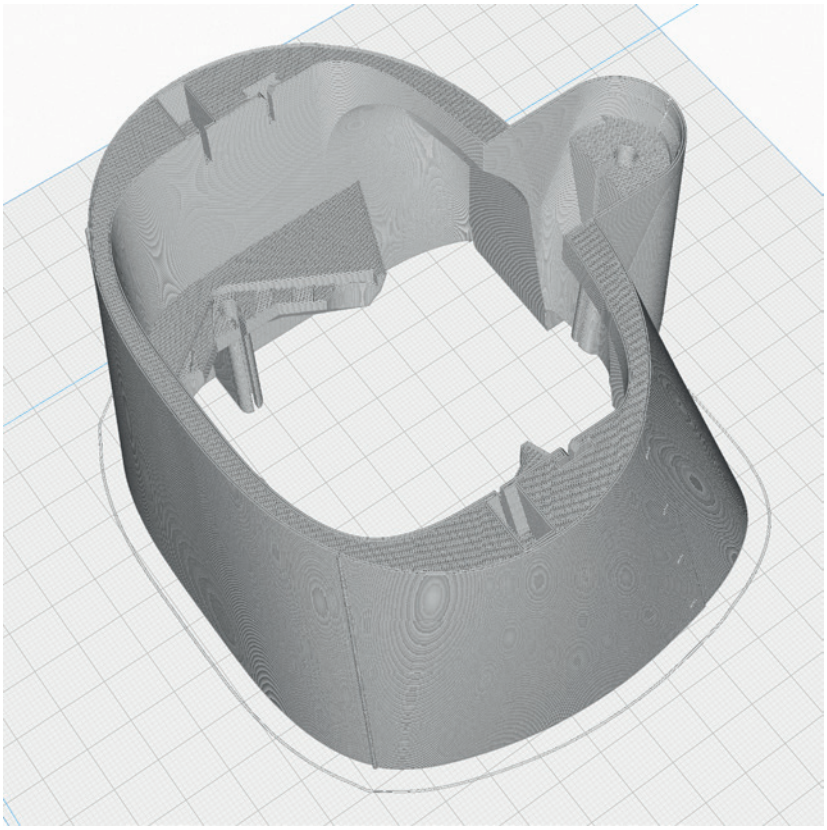
ADDITIONAL SETTINGS

None required

NOTE If your printer has a larger build space, there is a combined STL:
V-super P5_FUS 1a+2_cub.stl

These parts are only required for the Super Cub version.





P5

Gluing the parts printed with PROFILE P5

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

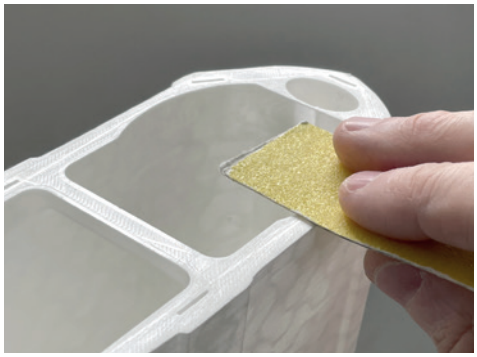
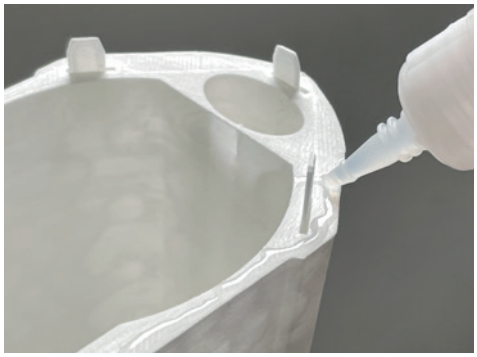
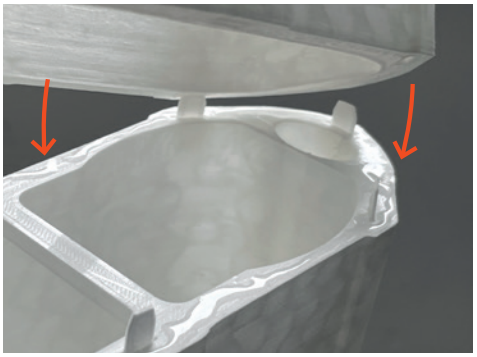
STEP 2 Insert the **interconnects into the slots** provided on one side.

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

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

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

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

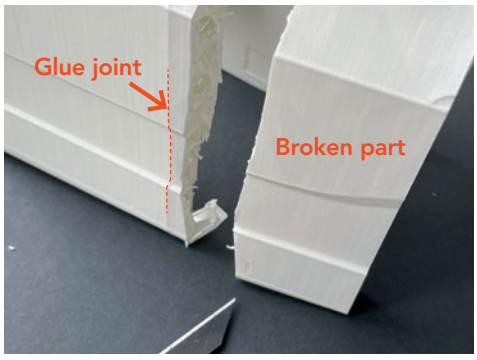




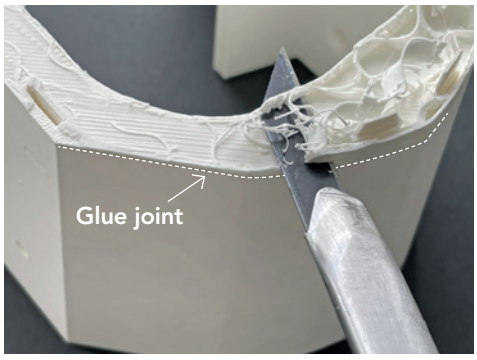
PROFILES 5 parts are easy to repair

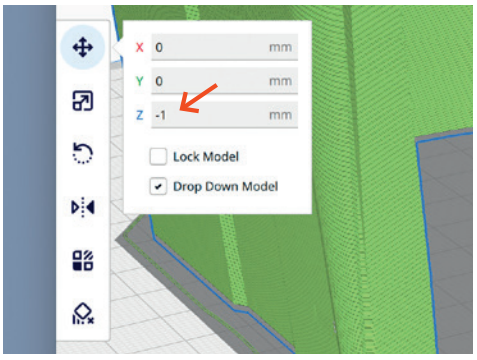
STEP 1 Using the knife, carefully remove the damaged part about 3 mm from the glue joint between two parts.

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

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





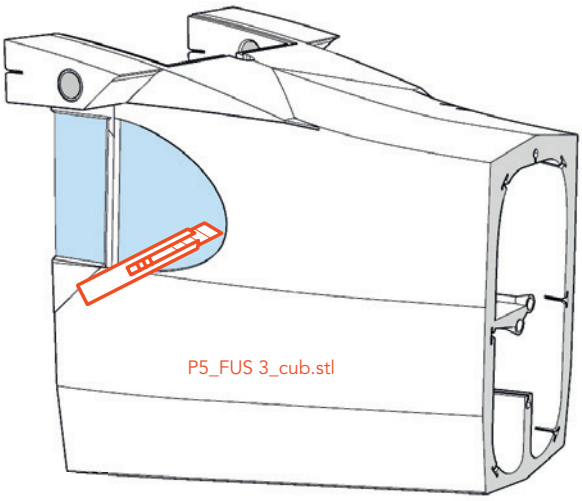


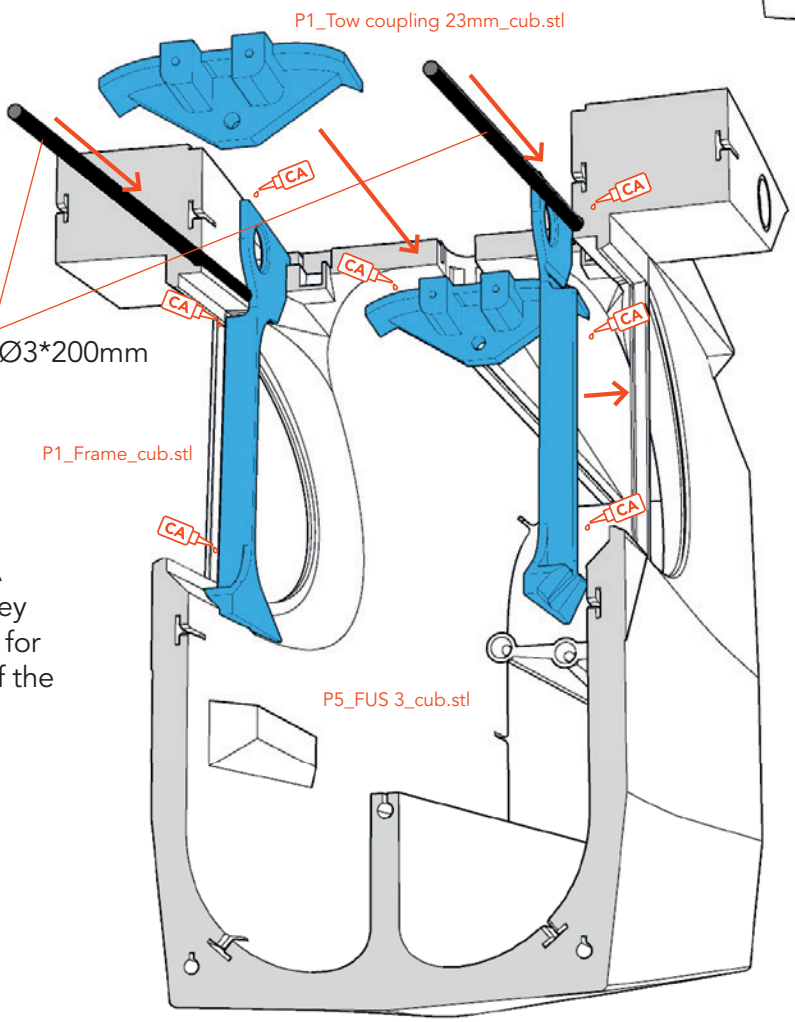
Fuselage assembly

CA medium liquid

If you want to build the PLANEPRINT Cub **with transparent foil windows**, first carefully cut out the windows at FUS 3 with a sharp pointed knife. This works best if you cut over the same edge very often with little pressure until the window falls out.

You can also leave the windows closed and paint them blue.



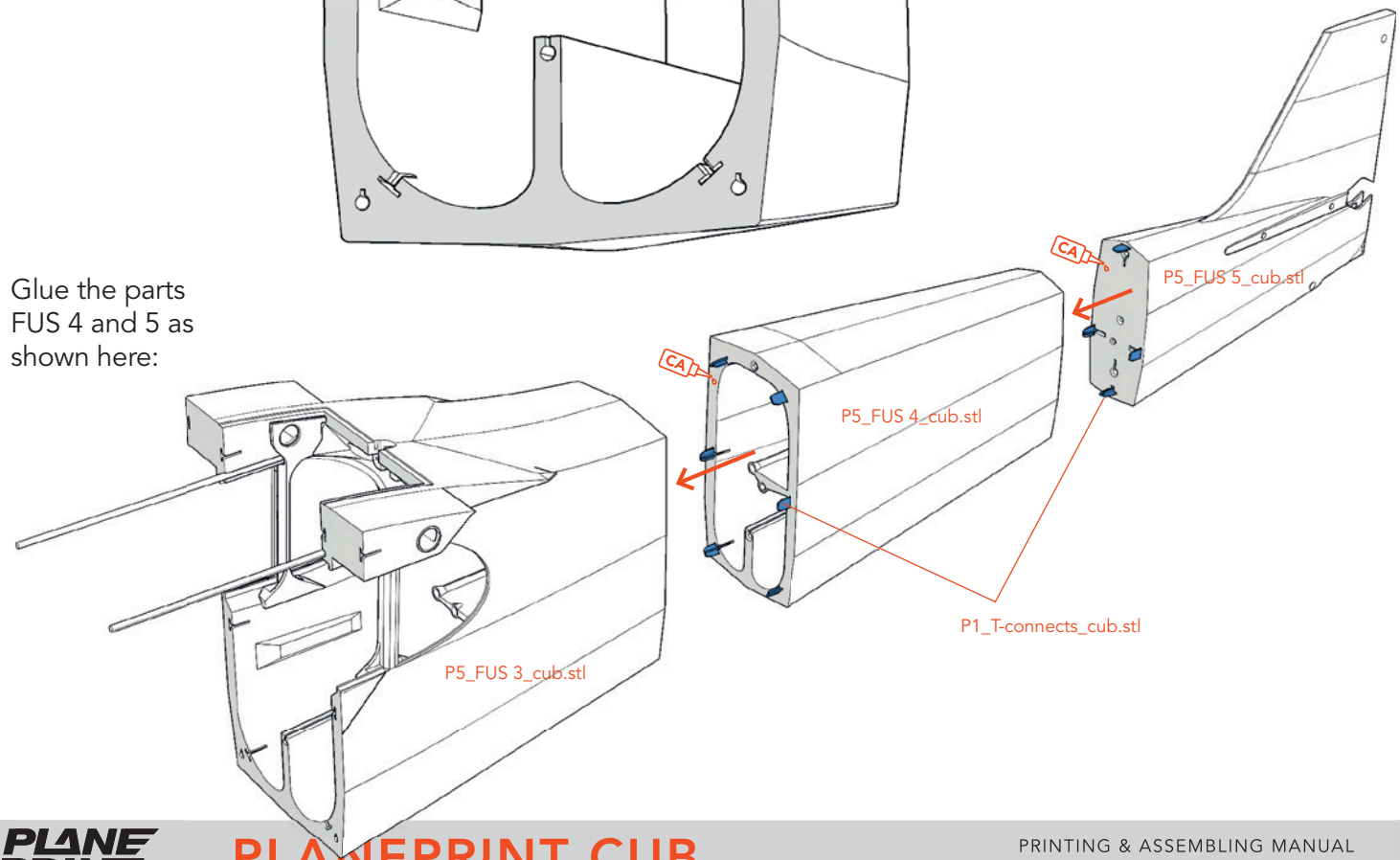


Carbon rods Ø3*200mm

Glue the PLA parts well, they are important for the stability of the fuselage!

NOTE The carbon rods must be well connected to the fuselage over the entire length. Allow some **thin** CA glue to run into the joint.

Glue the parts FUS 4 and 5 as shown here:



Fuselage assembly

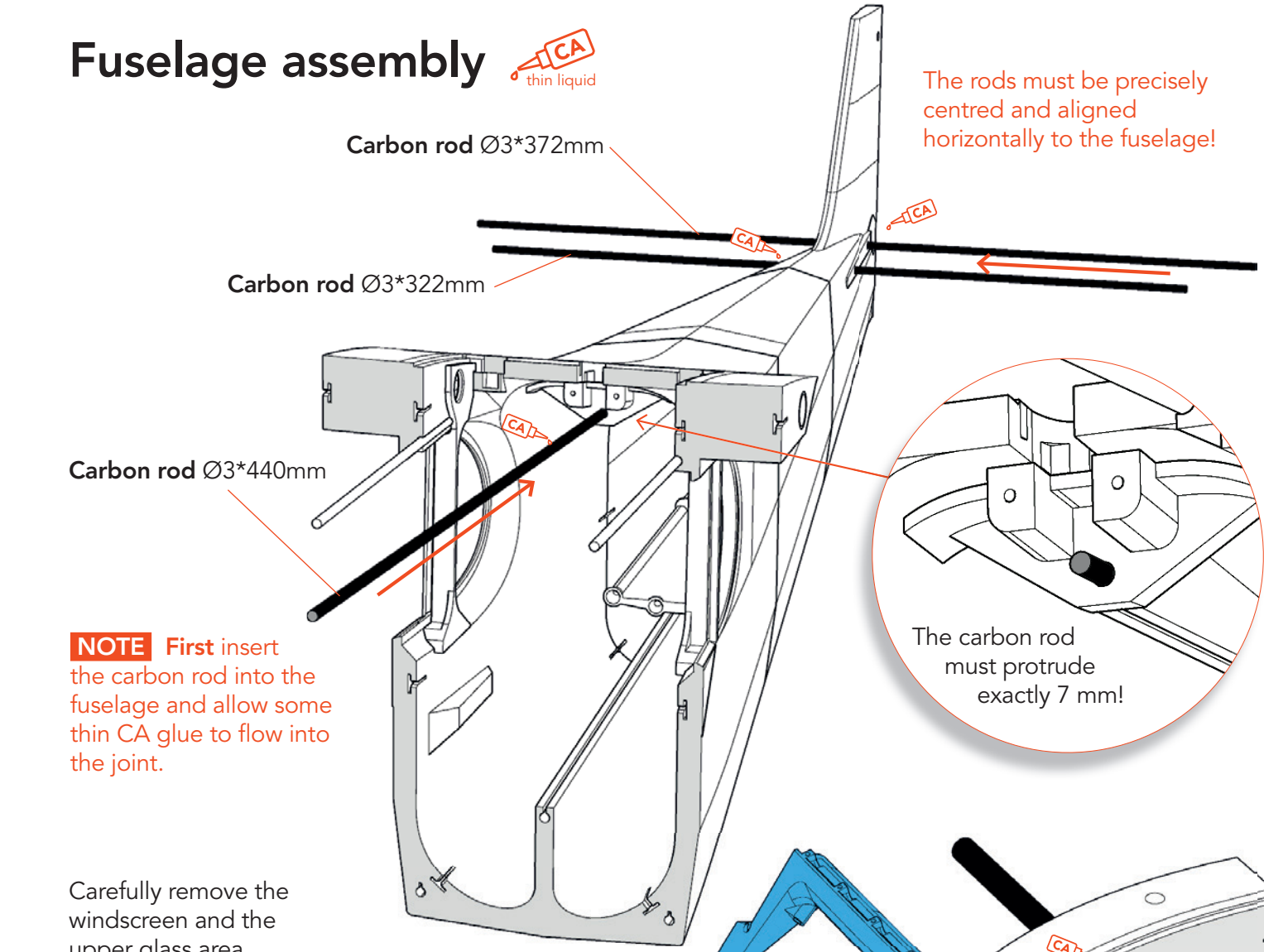
CA thin liquid

The rods must be precisely centred and aligned horizontally to the fuselage!

Carbon rod Ø3*372mm

Carbon rod Ø3*322mm

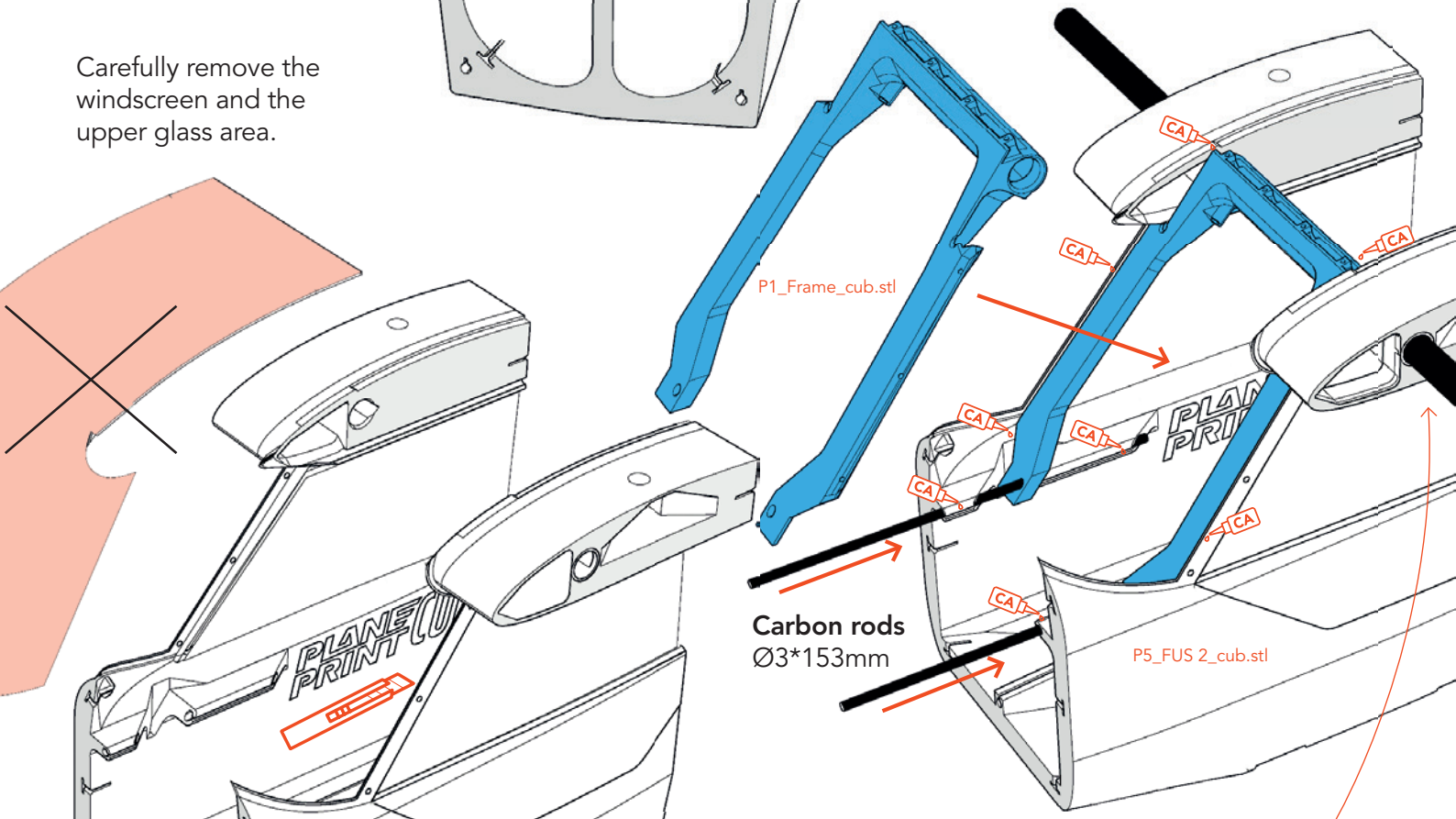
Carbon rod Ø3*440mm



The carbon rod must protrude exactly 7 mm!

NOTE **First** insert the carbon rod into the fuselage and allow some thin CA glue to flow into the joint.

Carefully remove the windscreen and the upper glass area.



Carbon rods Ø3*153mm

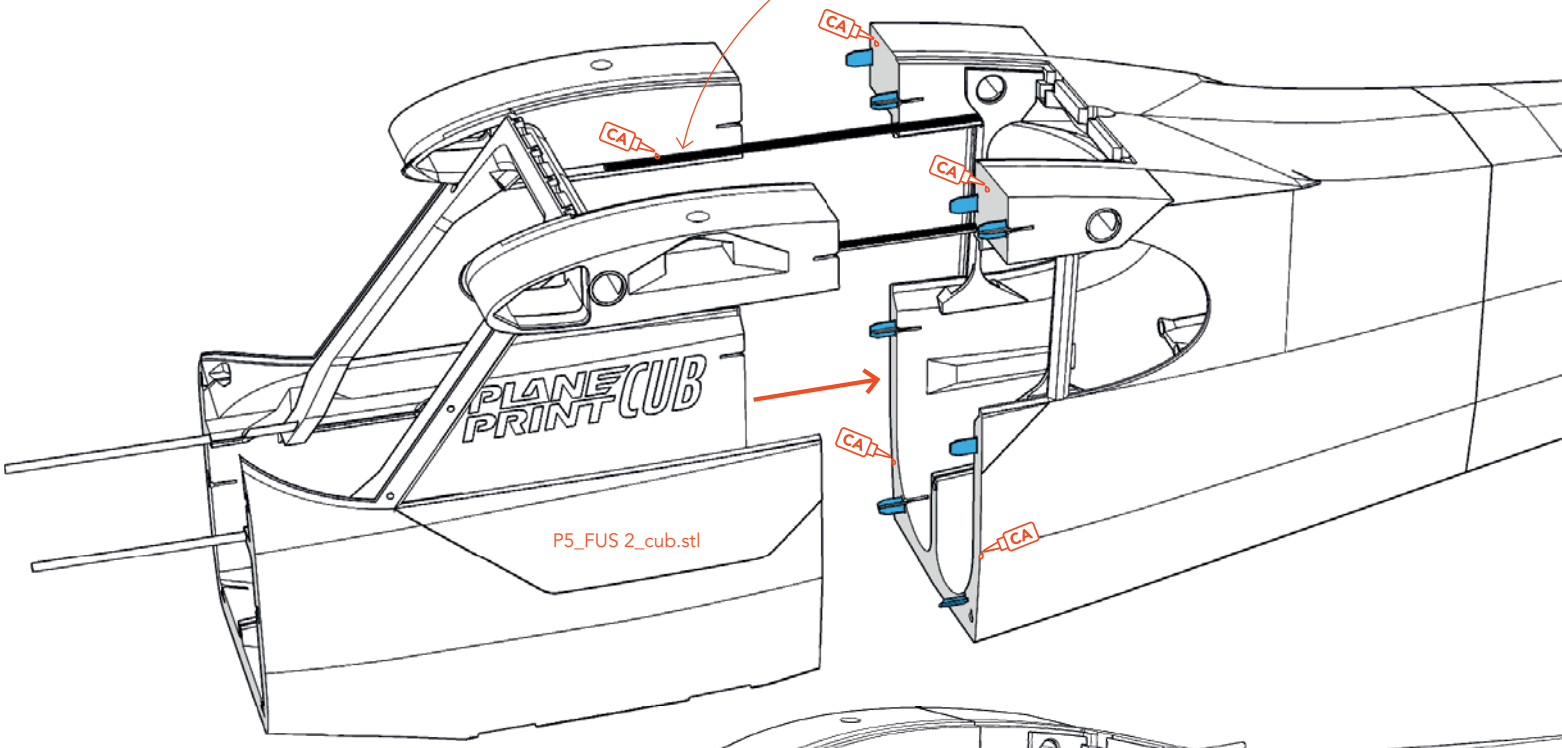
Glue the frame into the fuselage and use the Ø10mm carbon tube for alignment (do not glue the tube!)

Now also remove the side windows.

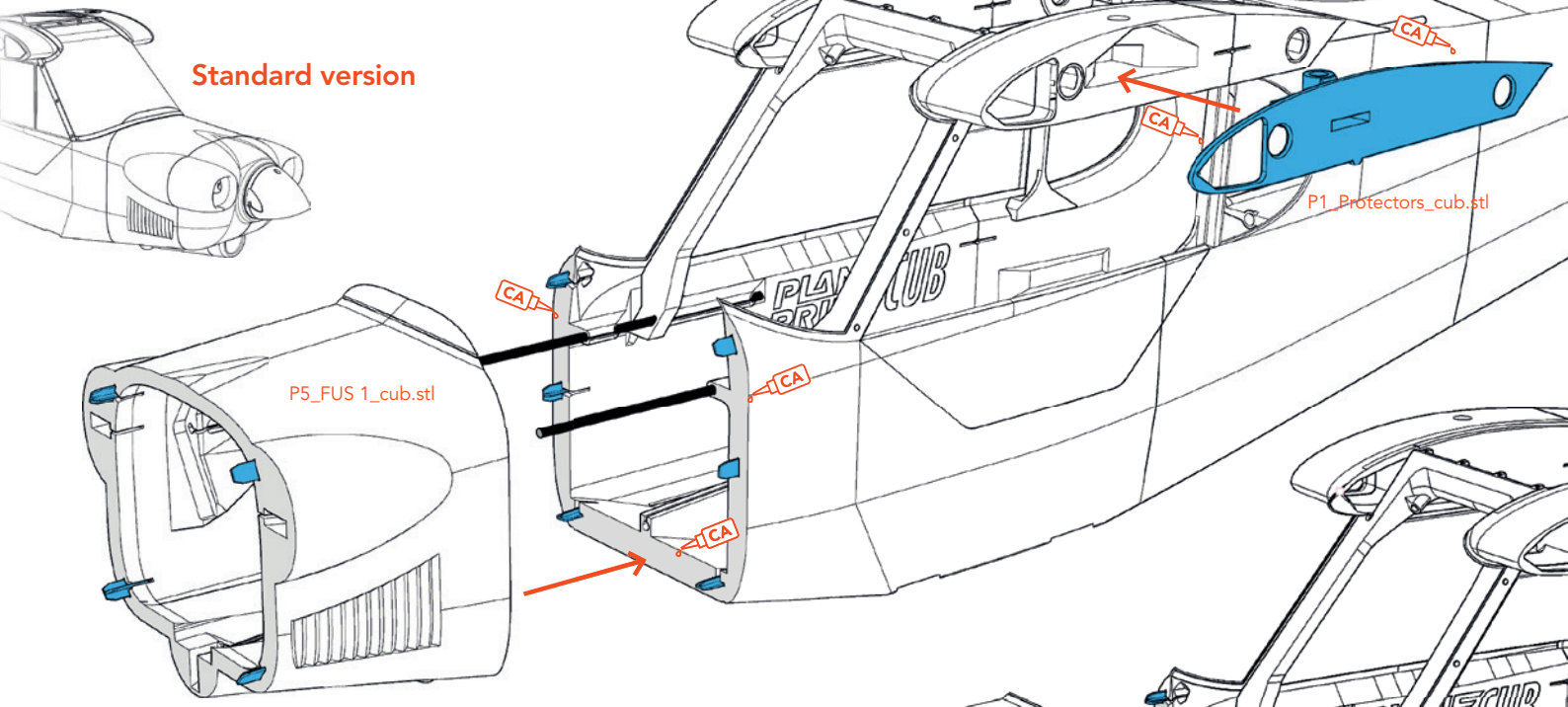
Fuselage assembly

CA medium liquid

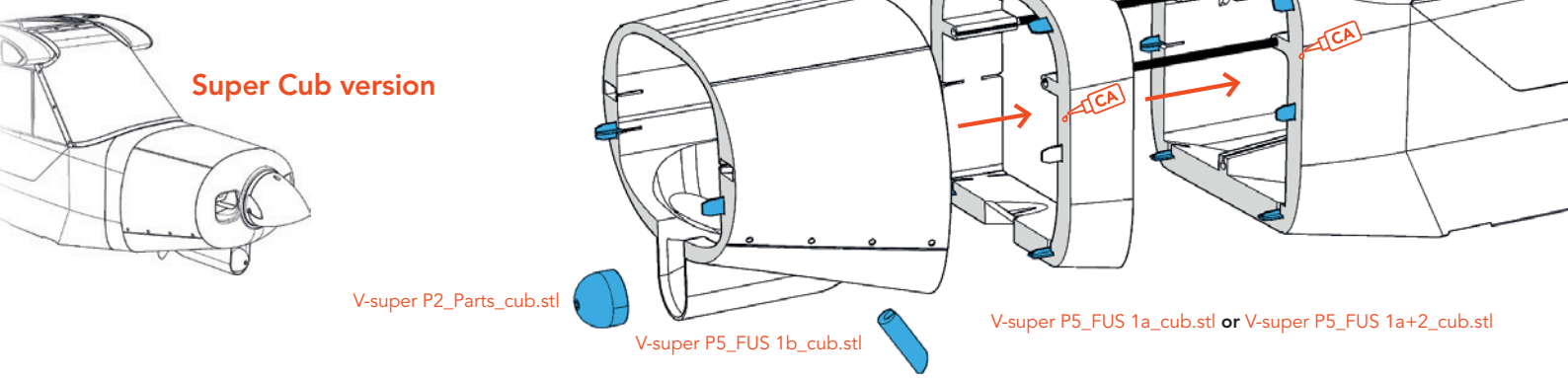
After assembling the fuselage parts, glue the carbon rods well with F2 using thin CA glue.

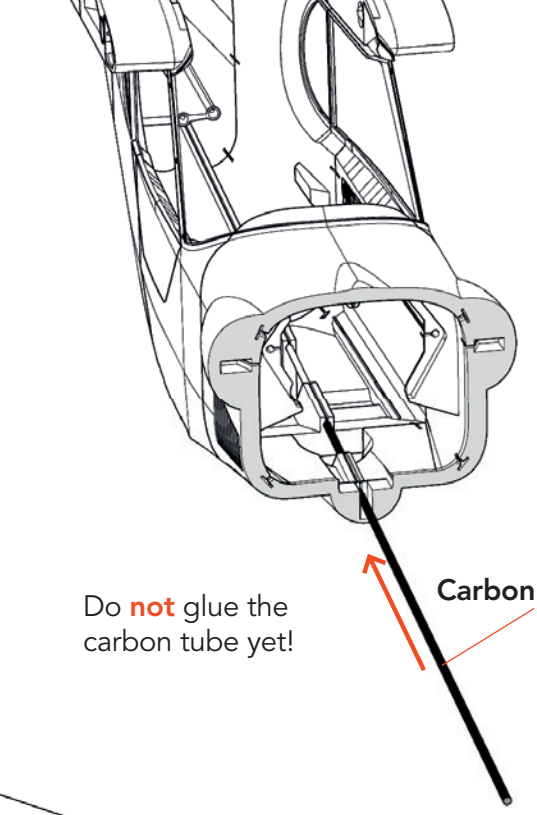


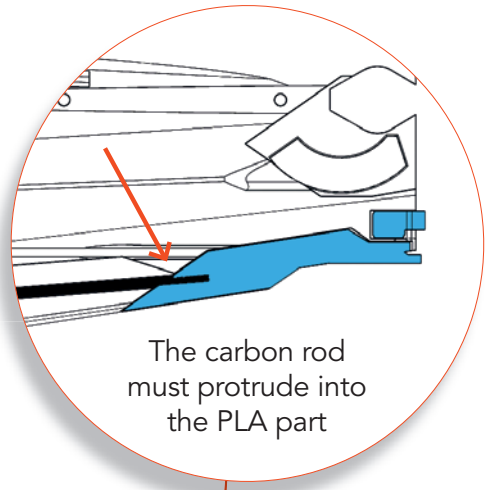
Standard version



Super Cub version







The carbon rod must protrude into the PLA part

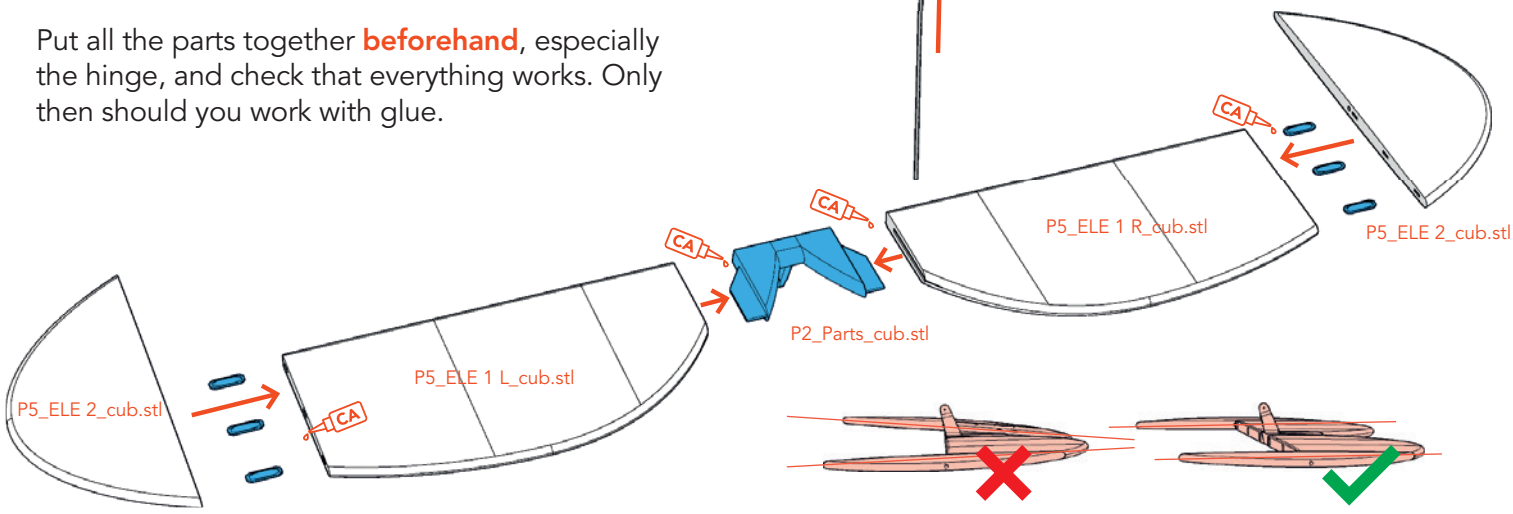
LIGHTING If you want to equip your Cub with lighting, there are cable ducts.

Do **not** glue the carbon tube yet!

Carbon rod Ø3*815mm

Steel Wire Ø1*150mm

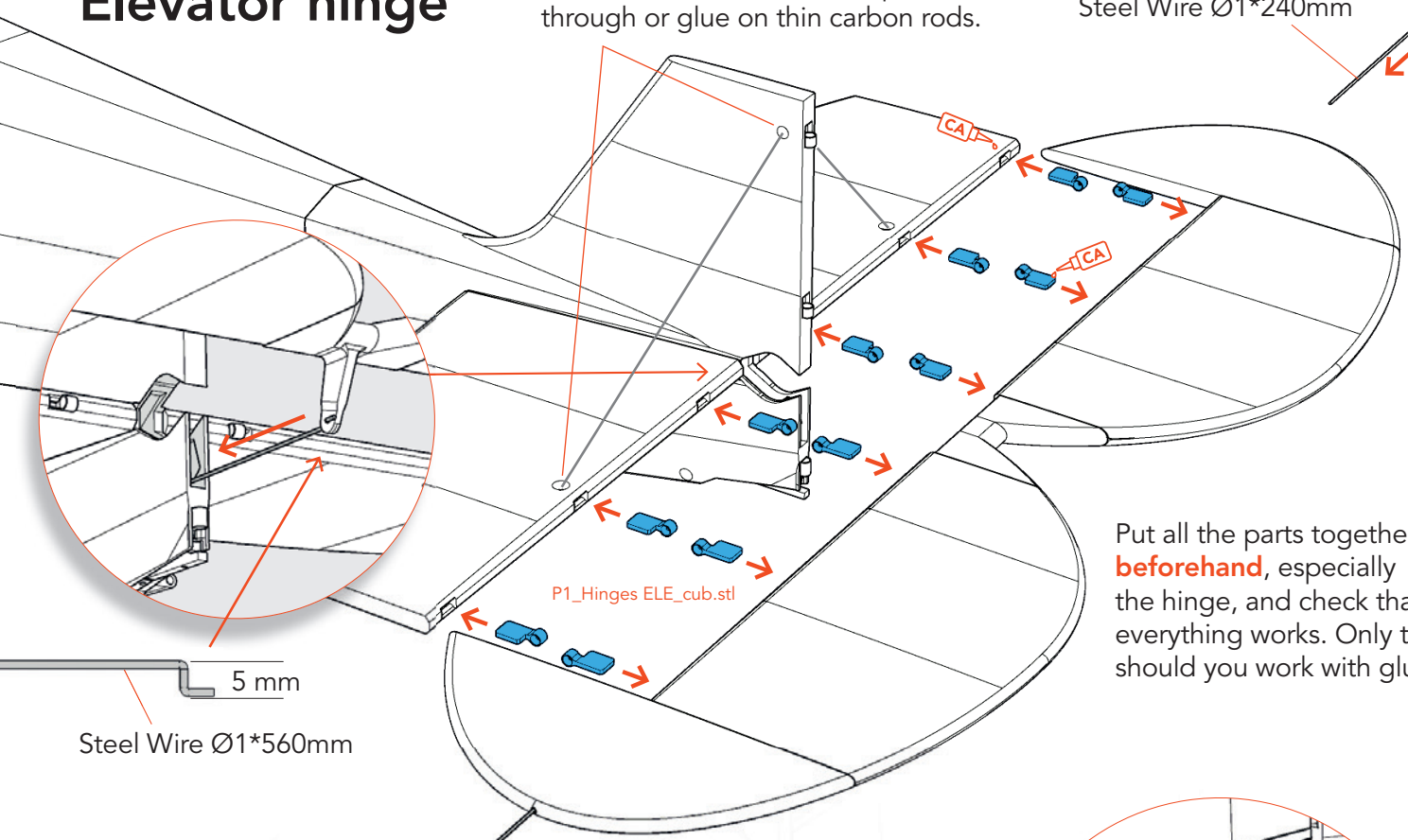
Put all the parts together **beforehand**, especially the hinge, and check that everything works. Only then should you work with glue.



Elevator hinge

You can drill holes here and pull a line through or glue on thin carbon rods.

Steel Wire Ø1*240mm

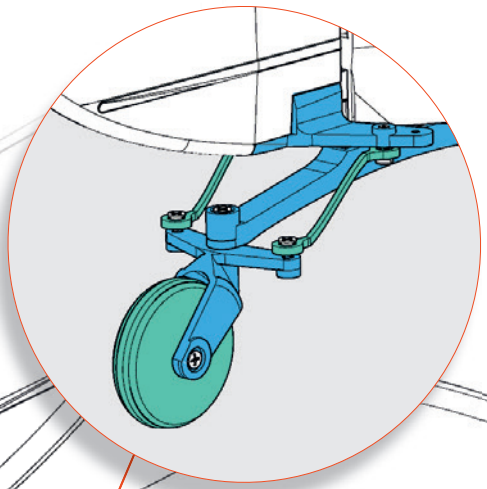


Steel Wire Ø1*560mm

Put all the parts together **beforehand**, especially the hinge, and check that everything works. Only then should you work with glue.

Steel Wire Ø1*240mm

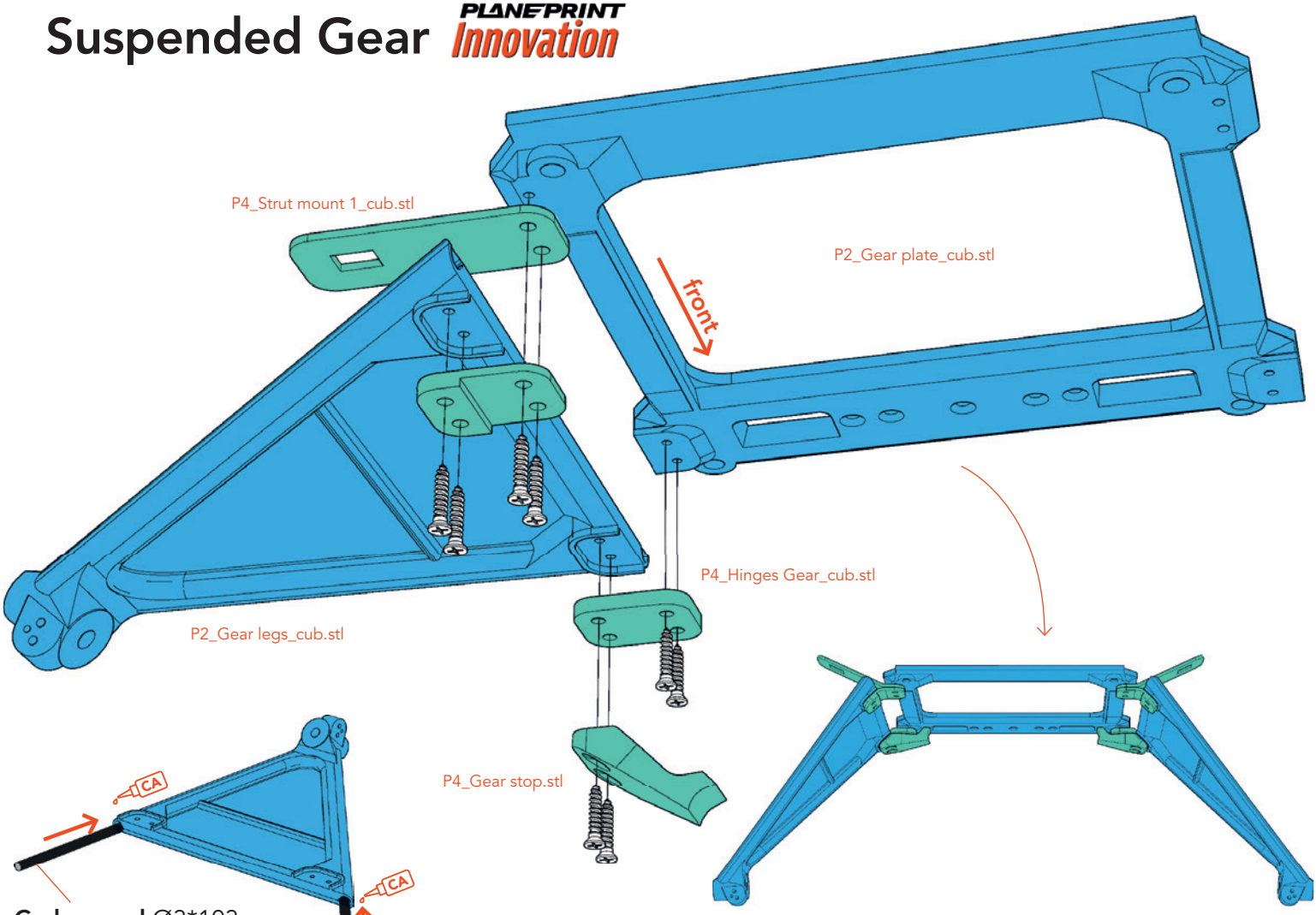
Gear back



Do not tighten the Tapping screws too tightly, everything should move easily.

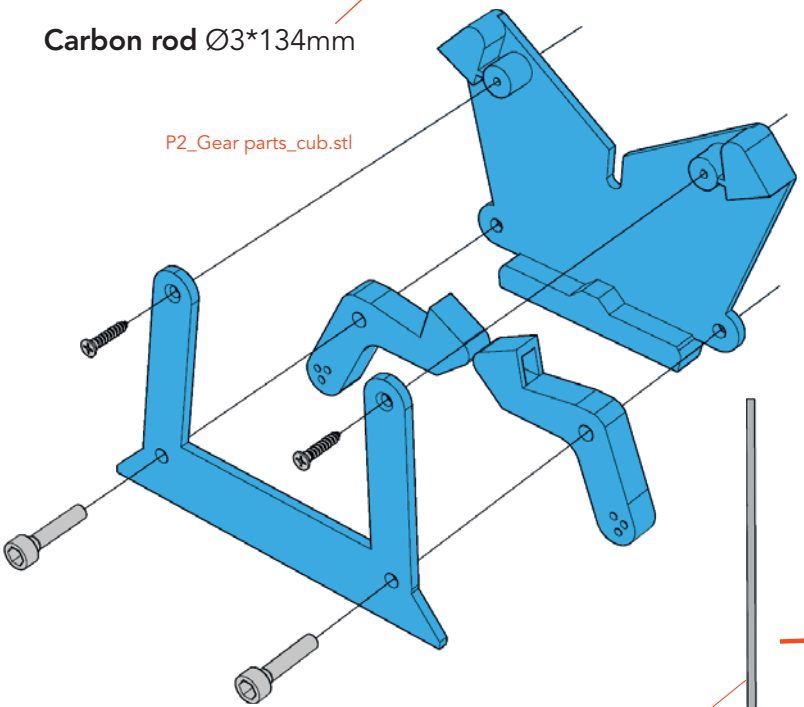
Suspended Gear

PLANEPRINT Innovation

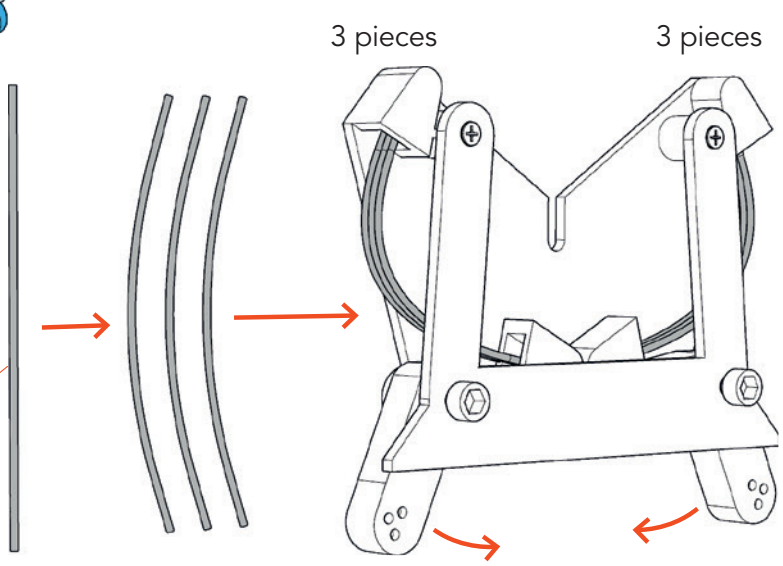


Carbon rod Ø3*103mm

Carbon rod Ø3*134mm

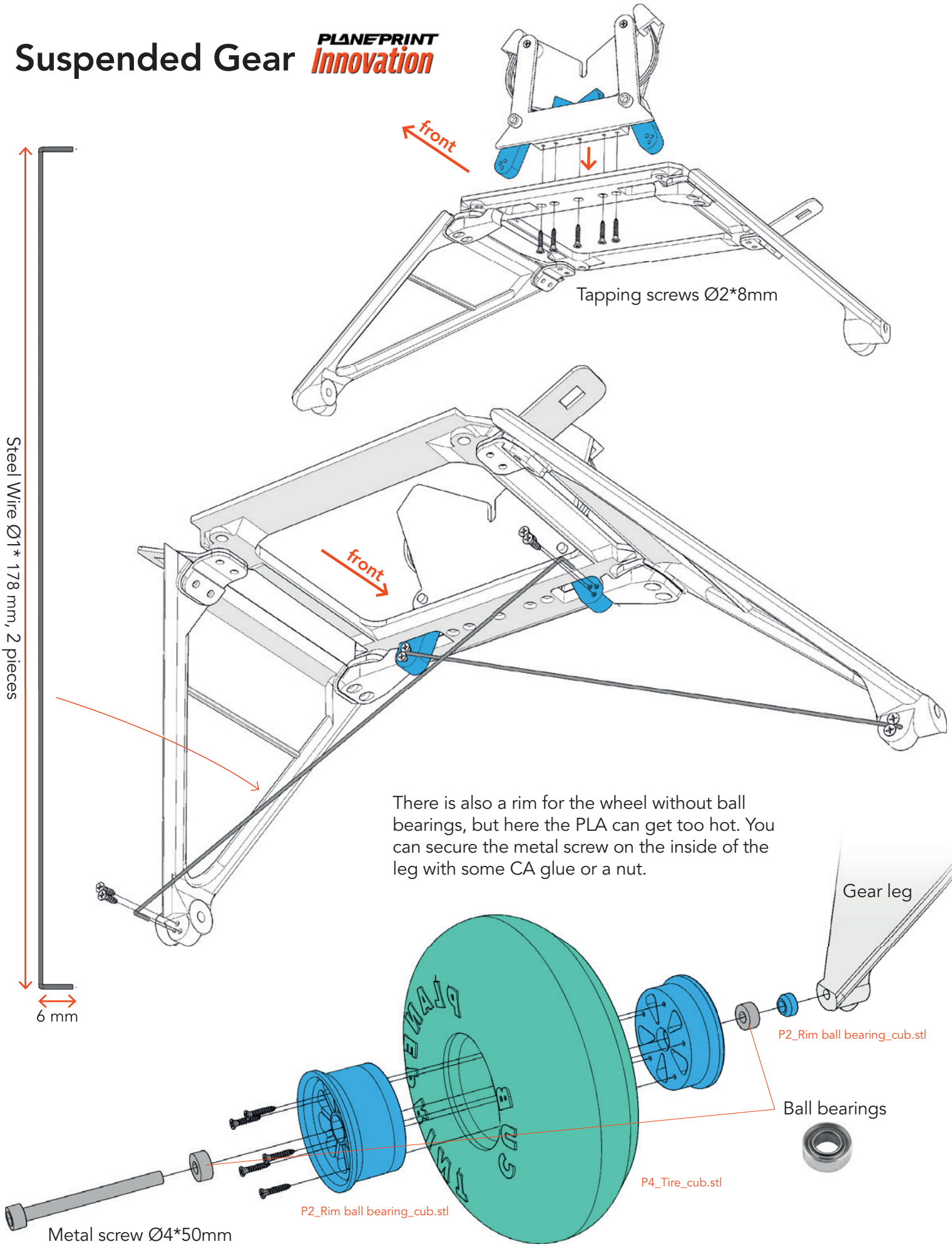


Mount the spring box as shown here on the left. Bend 6 steel wires as shown in the picture and tension 3 on each side in the box. If you want to spring the gear harder, you can use 4 wires each.



Steel Wire Ø1*60mm
6 pieces

Suspended Gear



Gear mount

CA
thin liquid

Metal screws Ø3*12mm

STEP 3

Insert the 4 brackets into the fuselage and then the two carbon rods from the front. The rods must be guided through the brackets. When everything is correctly seated, let thin CA glue run into all gaps.

This glue joint must be very good!

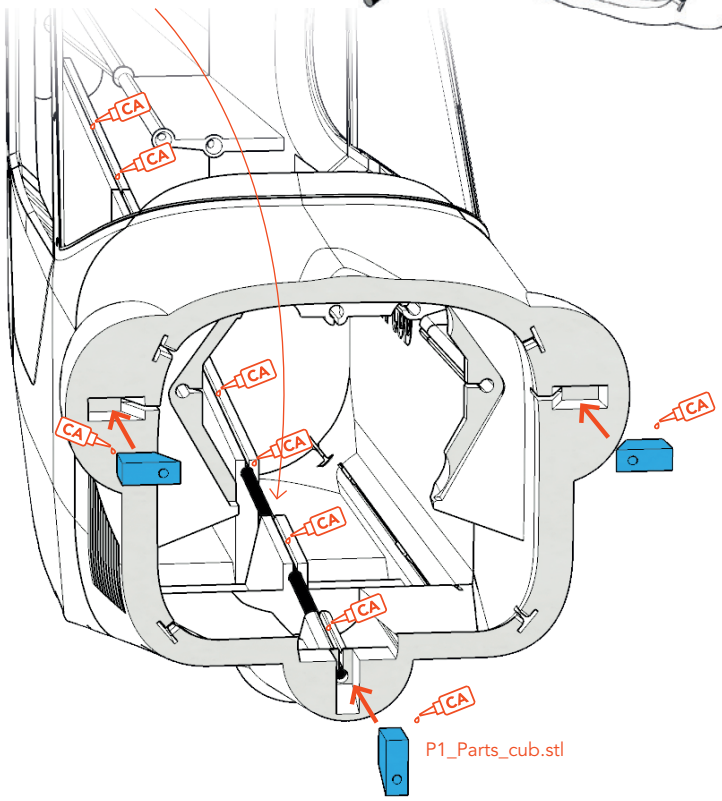
P2_Gear parts_cub.stl

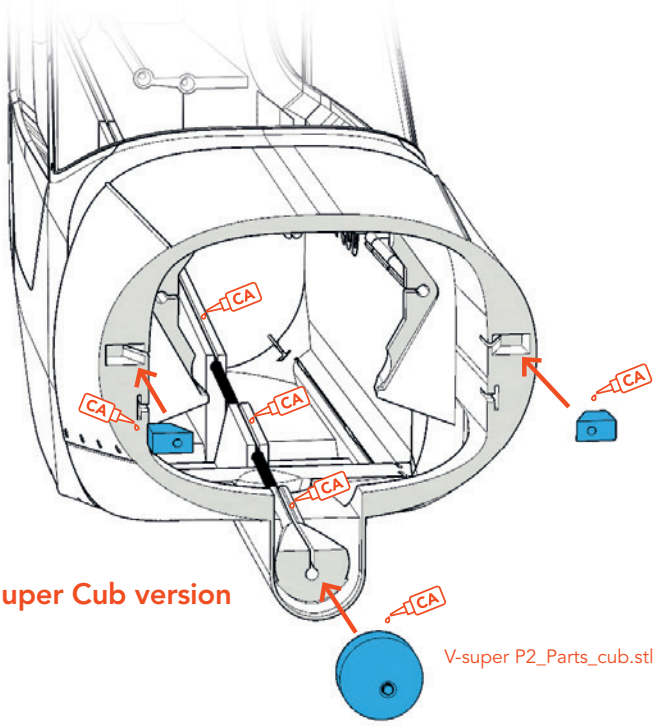
STEP 1

STEP 2

Carbon rods Ø3*216mm

Now glue the lower carbon rod in place with thin CA glue.



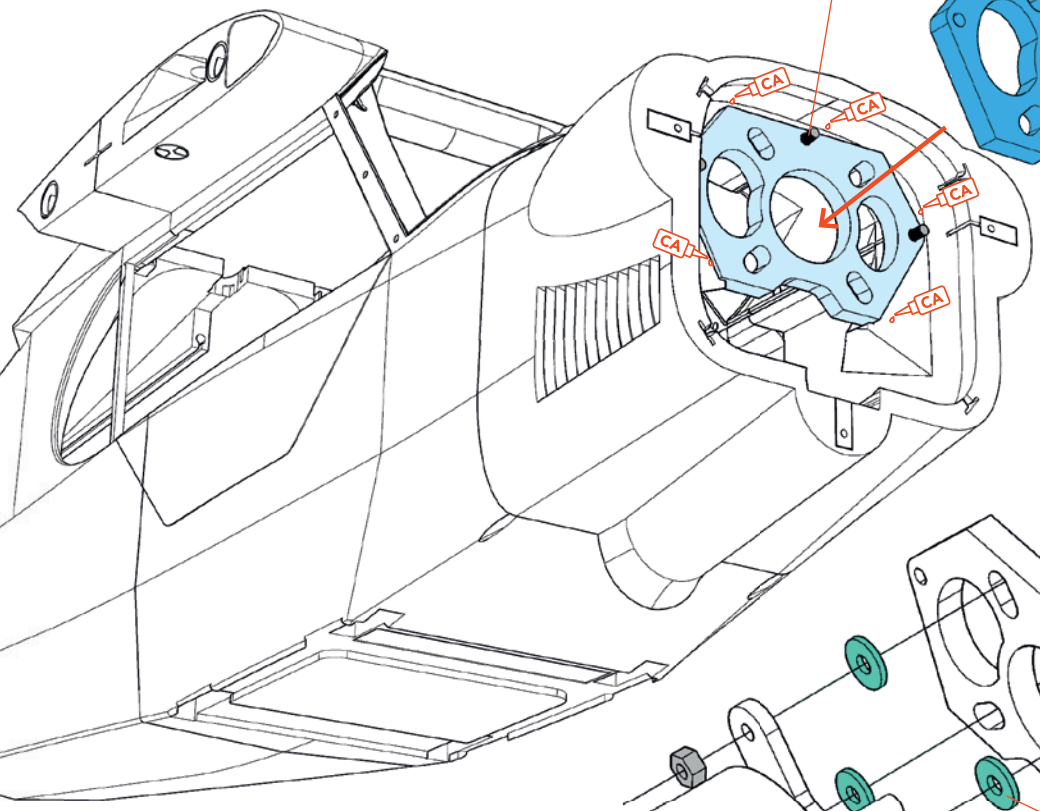


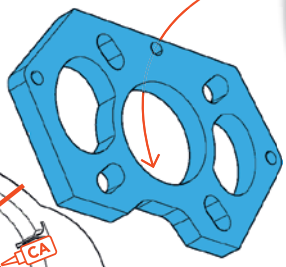
Super Cub version

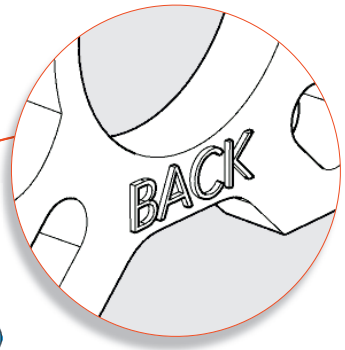
Motor mount

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

Carbon rod
Ø3*101mm





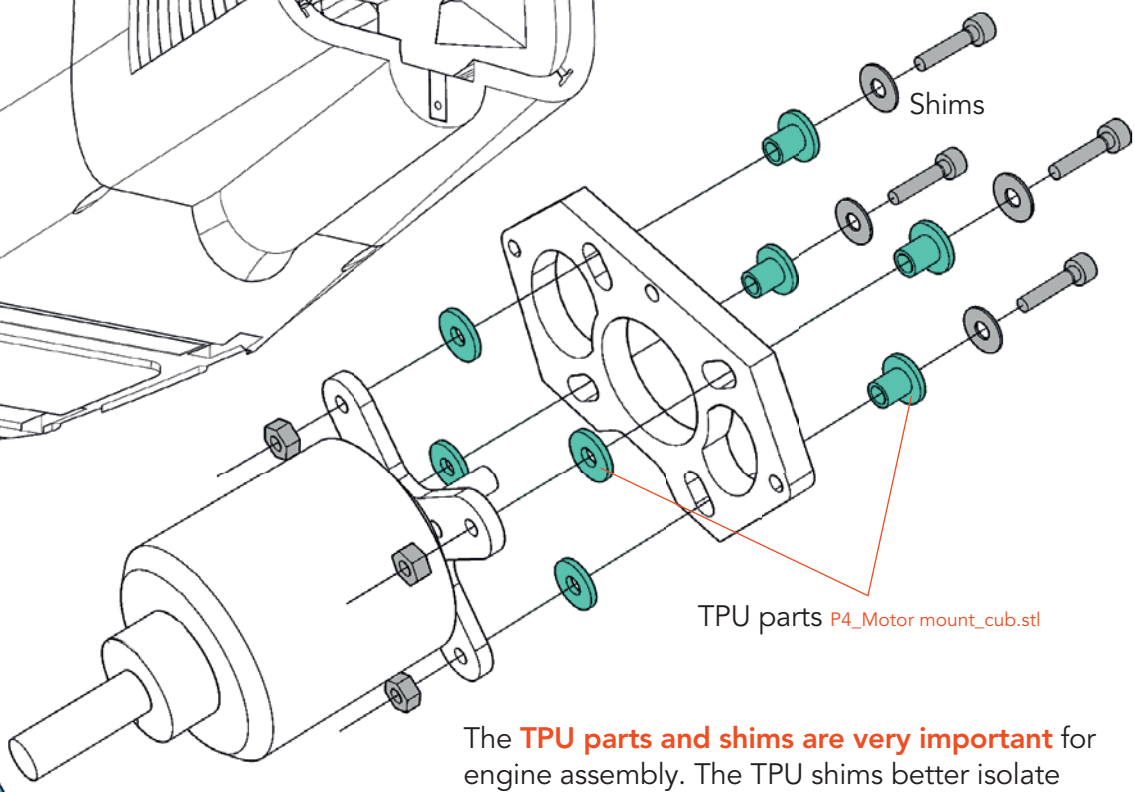


Pay attention to the correct alignment!

P1_Motor plate_cub.stl

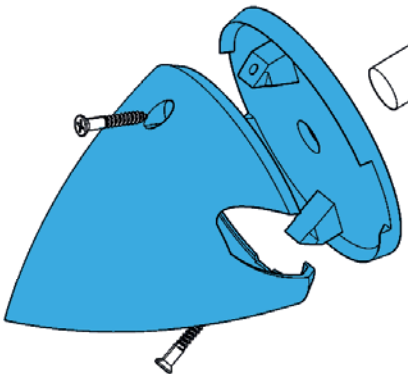
Metal screws Ø3*20mm

Shims



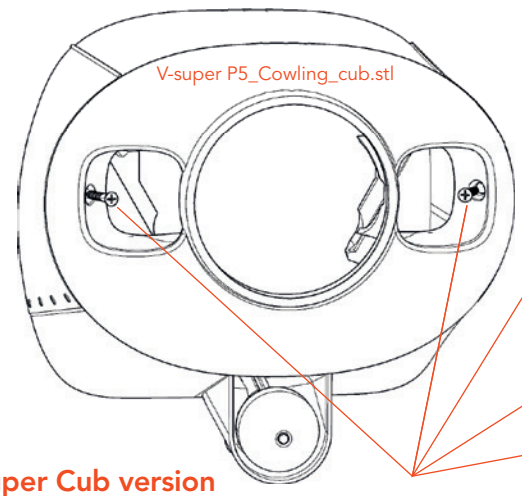
TPU parts P4_Motor mount_cub.stl

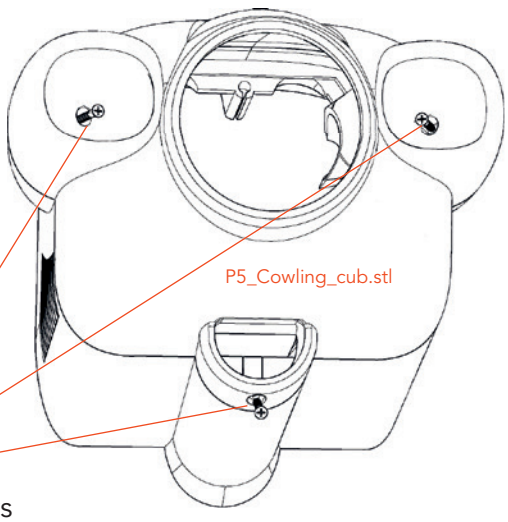
P1_Spinner small 6mm_cub.stl



The **TPU parts and shims are very important** for engine assembly. The TPU shims better isolate the heat of the engine from the motor plate.

V-super P5_Cowling_cub.stl

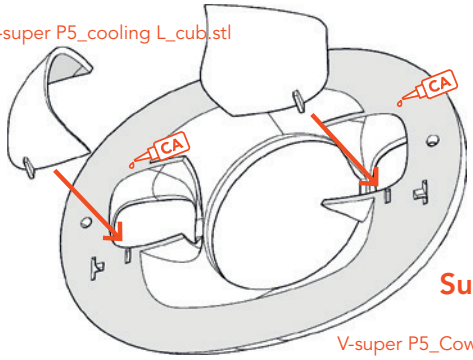




P5_Cowling_cub.stl

V-super P5_cooling R_cub.stl

V-super P5_cooling L_cub.stl

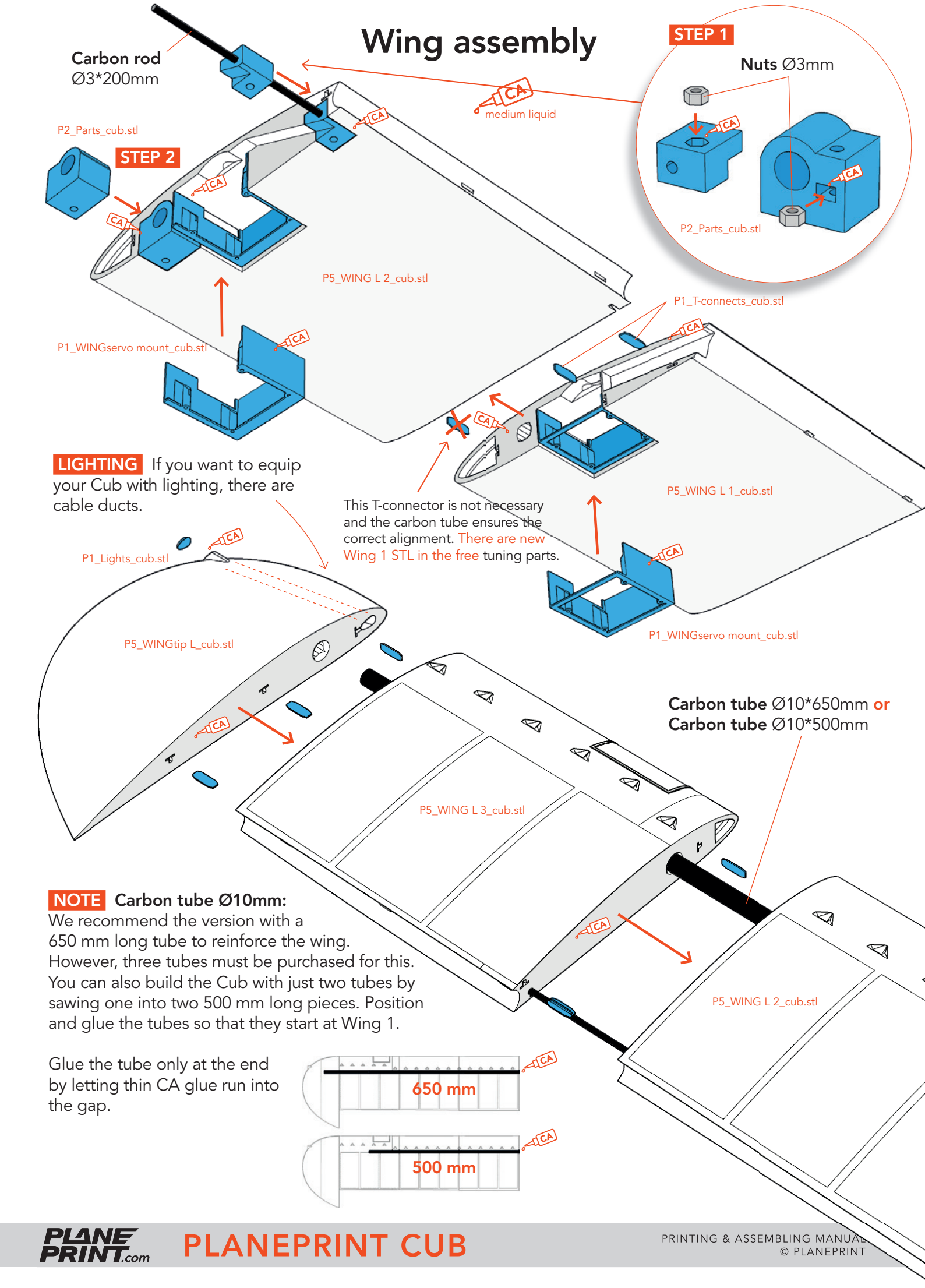


Super Cub version

V-super P5_Cowling_cub.stl

Tapping screws

Wing assembly

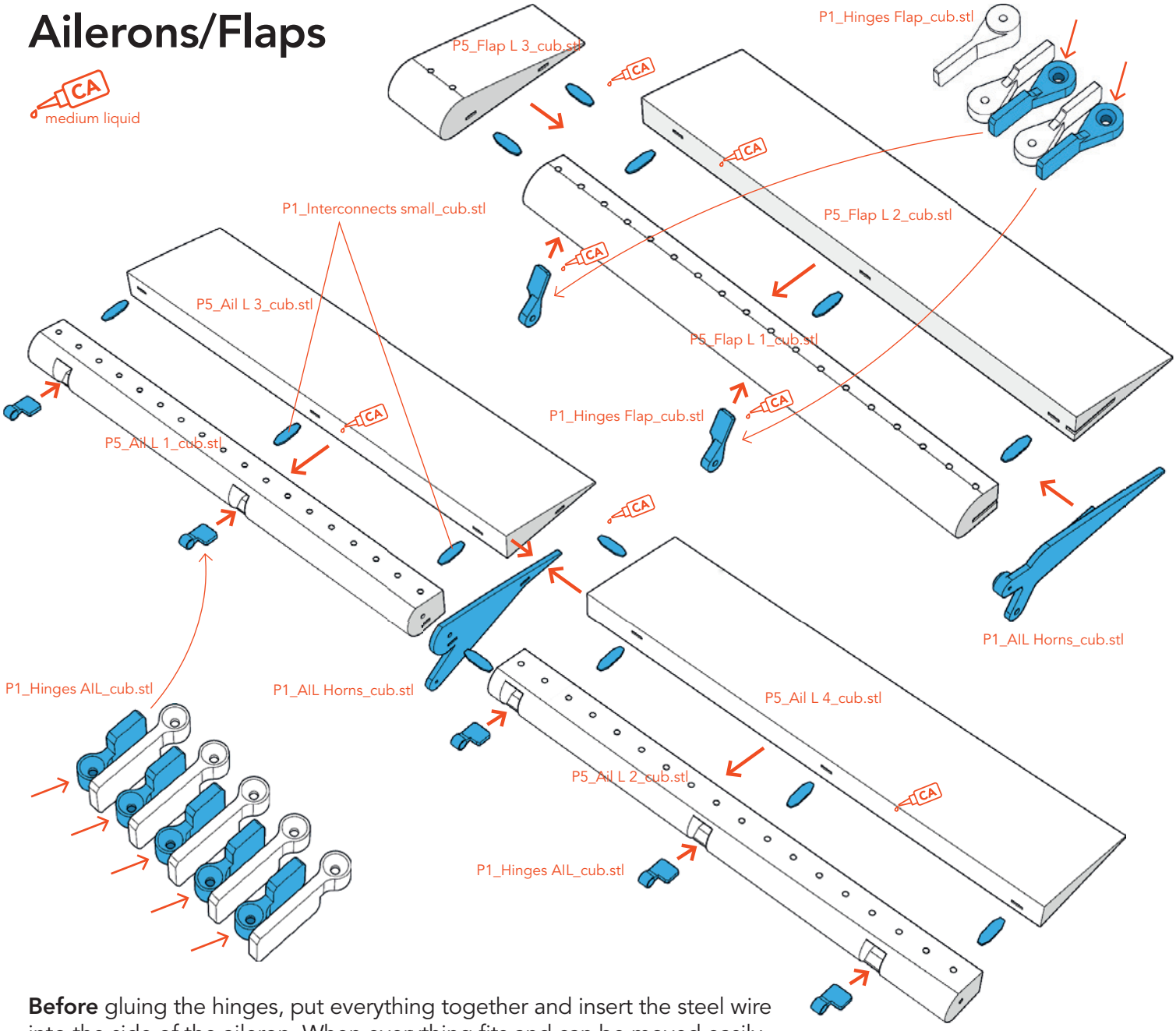


NOTE **Carbon tube Ø10mm:**
We recommend the version with a 650 mm long tube to reinforce the wing. However, three tubes must be purchased for this. You can also build the Cub with just two tubes by sawing one into two 500 mm long pieces. Position and glue the tubes so that they start at Wing 1.

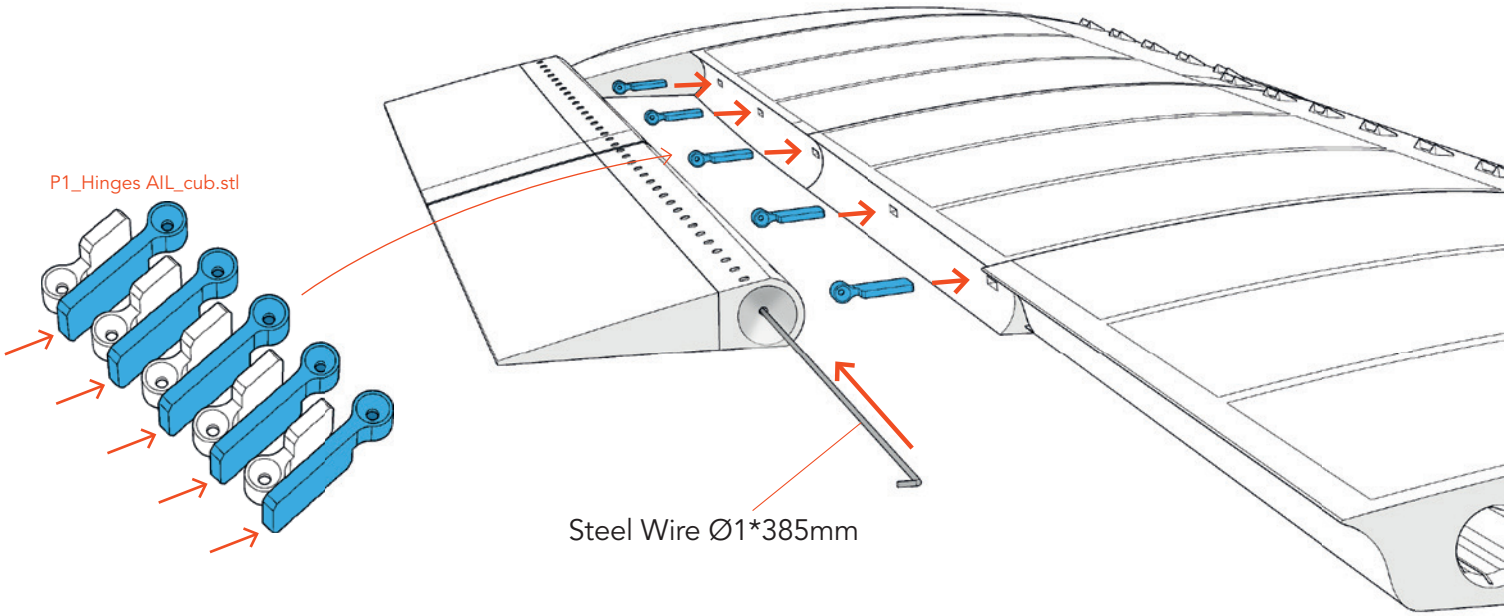
Glue the tube only at the end by letting thin CA glue run into the gap.

Ailerons/Flaps

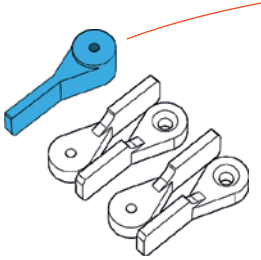
CA
medium liquid



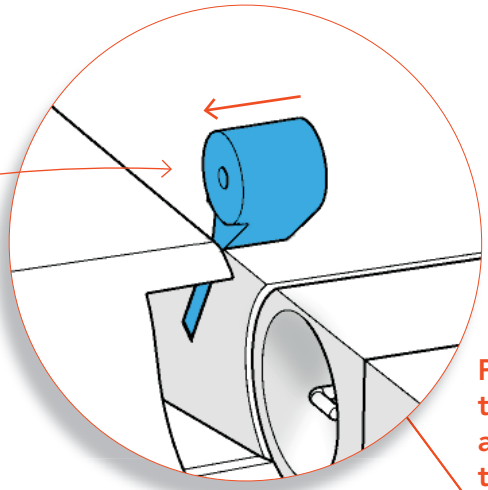
Before gluing the hinges, put everything together and insert the steel wire into the side of the aileron. When everything fits and can be moved easily, pull the wire out again and put a small drop of thin CA glue on each hinge. **Make sure that the holes for the wire remain open!**

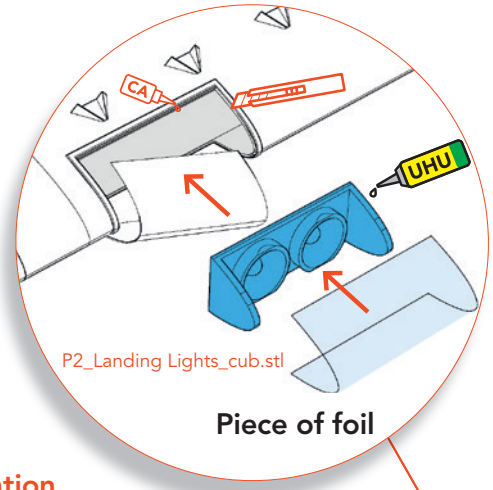


Flaps



P1_Hinges Flap_cub.stl

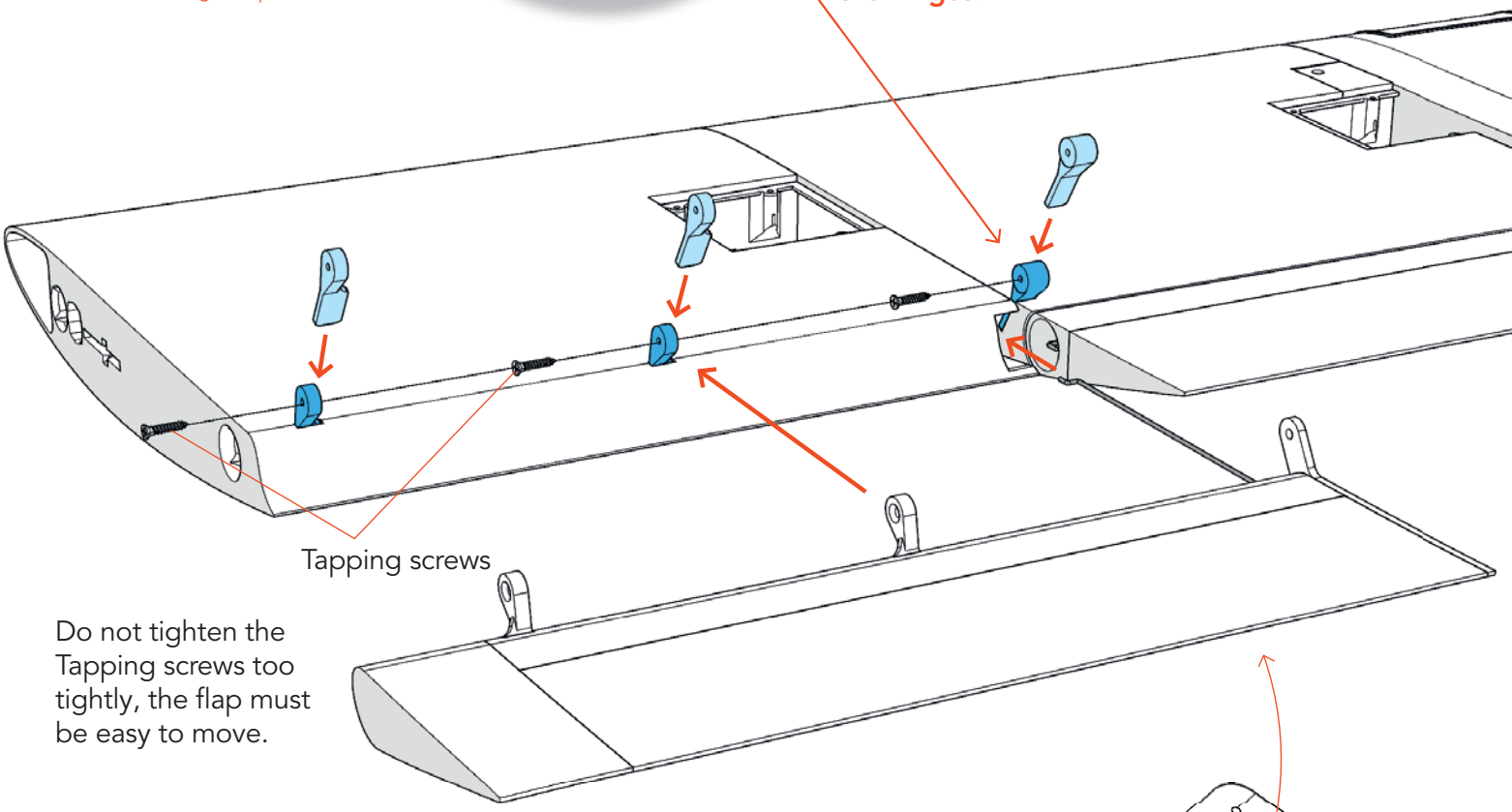




P2_Landing Lights_cub.stl

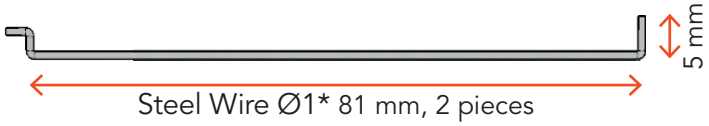
Piece of foil

Pay attention to the exact alignment of the hinges!



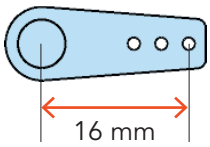
Tapping screws

Do not tighten the Tapping screws too tightly, the flap must be easy to move.

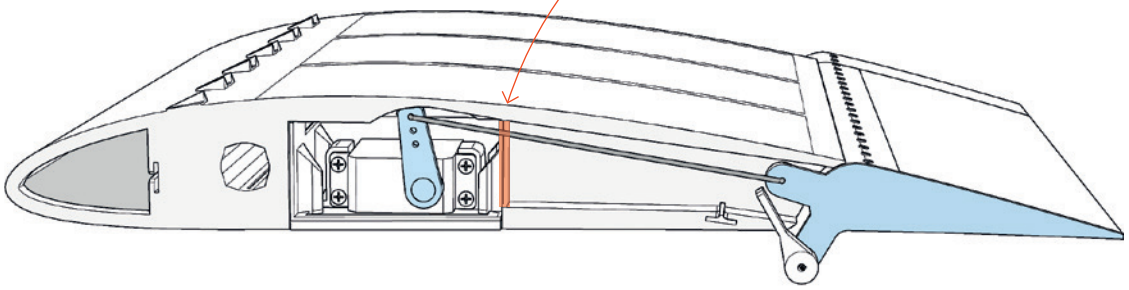


Steel Wire Ø1* 81 mm, 2 pieces

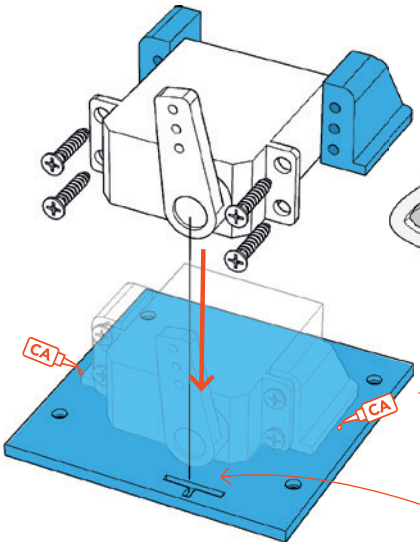
Servo Flap



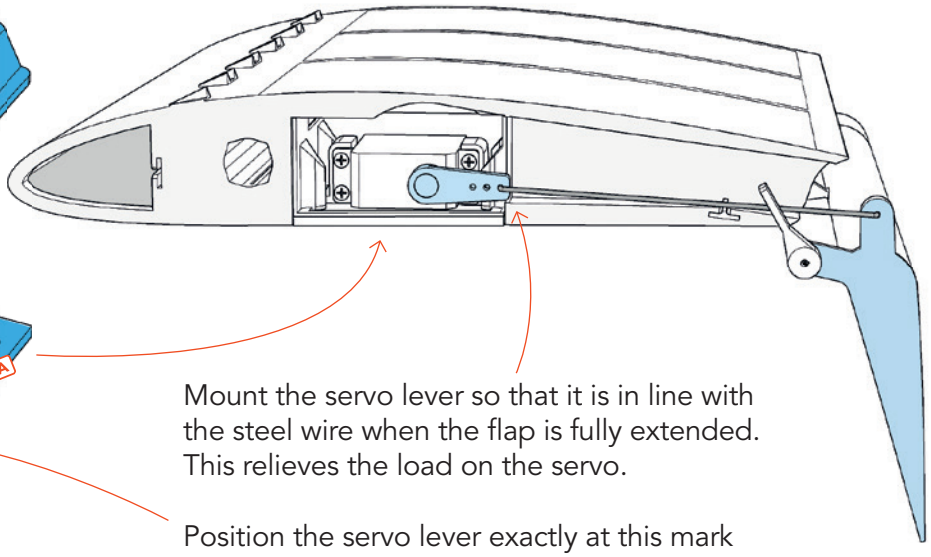
Remove support.
Please be careful with the knife!



P1_WINGservo mount_cub.stl



P2_WINGservo covers_cub.stl

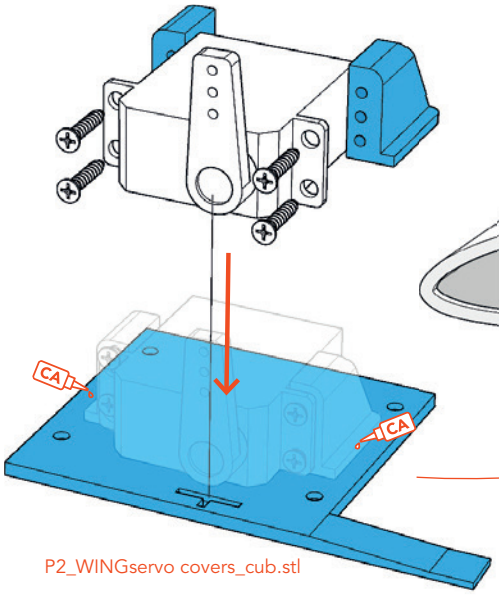


Mount the servo lever so that it is in line with the steel wire when the flap is fully extended. This relieves the load on the servo.

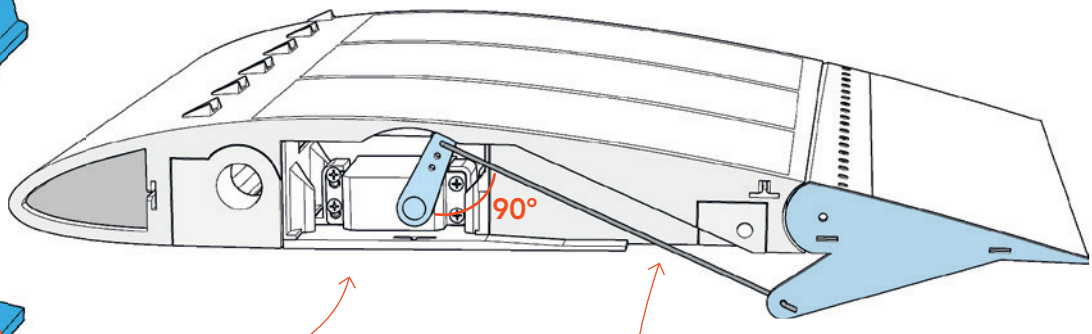
Position the servo lever exactly at this mark (seen from above)

Servo Aileron

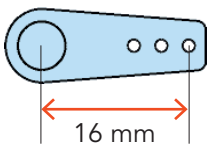
P1_WINGservo mount_cub.stl



P2_WINGservo covers_cub.stl



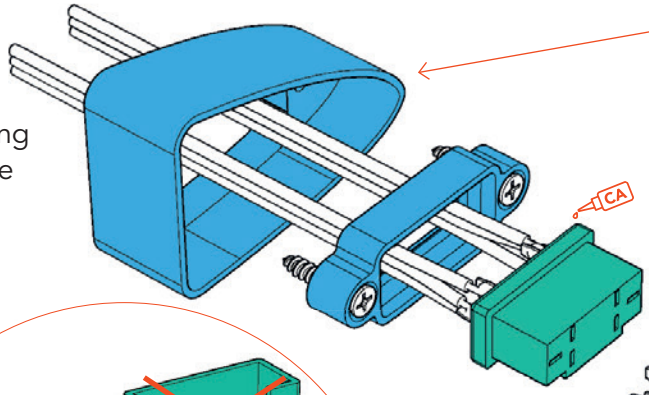
Steel Wire Ø1* 83 mm, 2 pieces

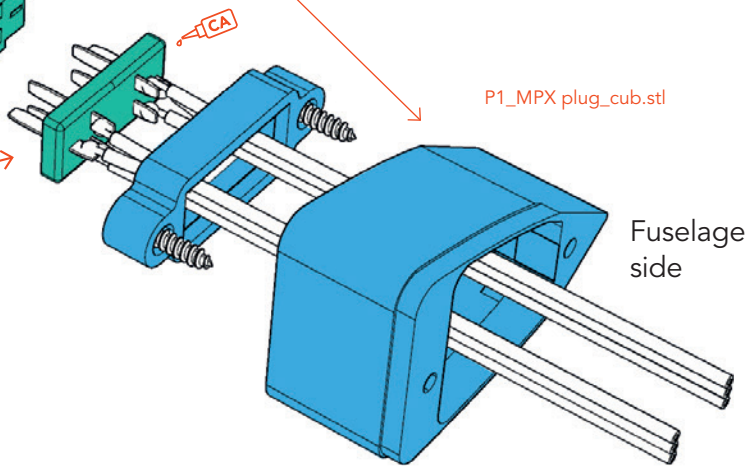


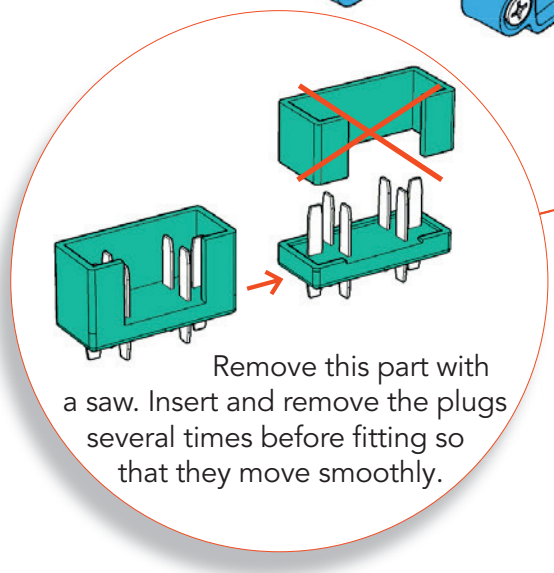
MPX Plugs – Ailerons and Flaps

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

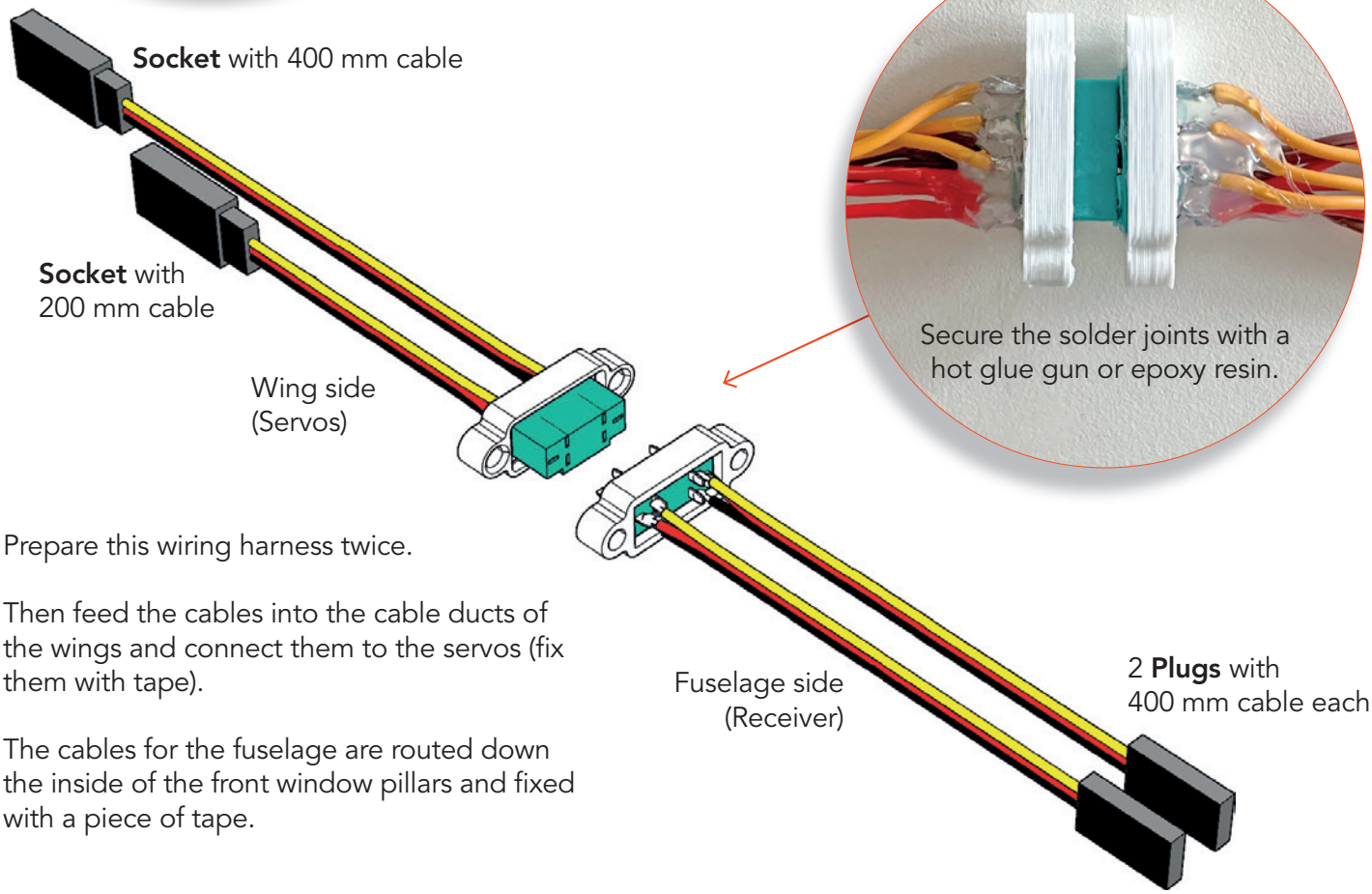
Glue these two brackets into the fuselage and the wing so that they are flush with the outer edge. Check that the screwed-in connectors have sufficient contact when the wing is assembled **before** you glue everything in place!







Remove this part with a saw. Insert and remove the plugs several times before fitting so that they move smoothly.



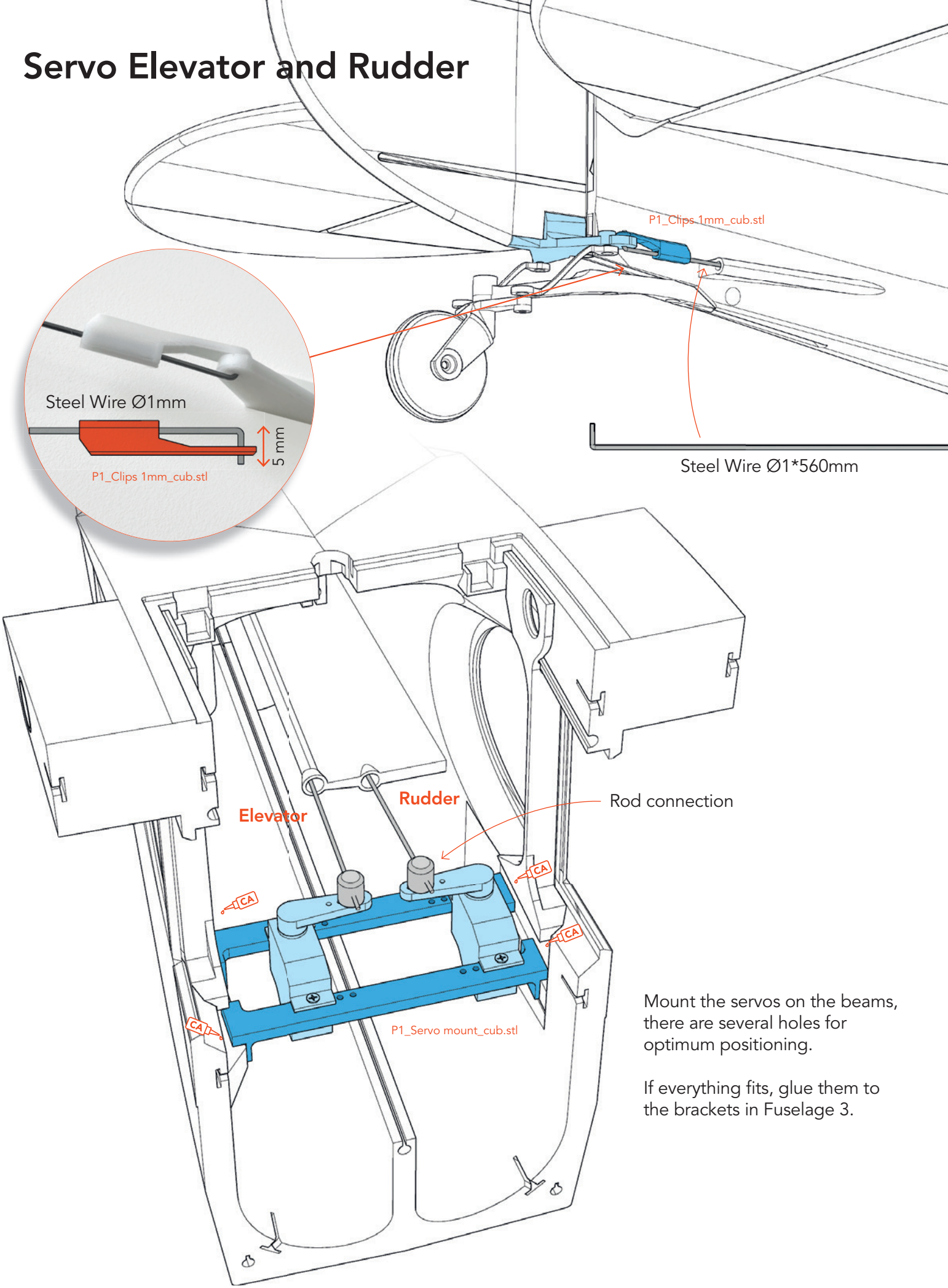
Secure the solder joints with a hot glue gun or epoxy resin.

Prepare this wiring harness twice.

Then feed the cables into the cable ducts of the wings and connect them to the servos (fix them with tape).

The cables for the fuselage are routed down the inside of the front window pillars and fixed with a piece of tape.

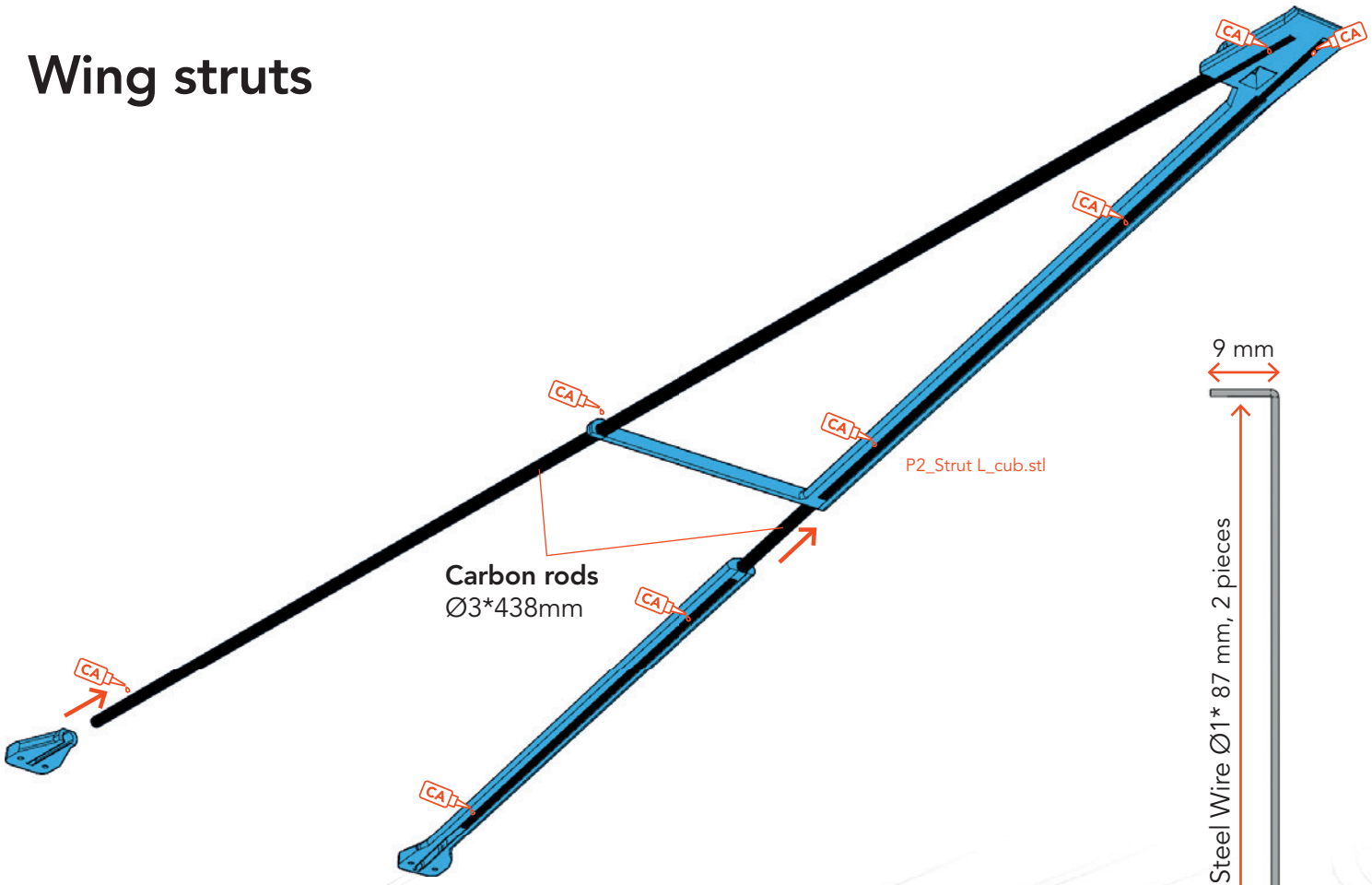
Servo Elevator and Rudder

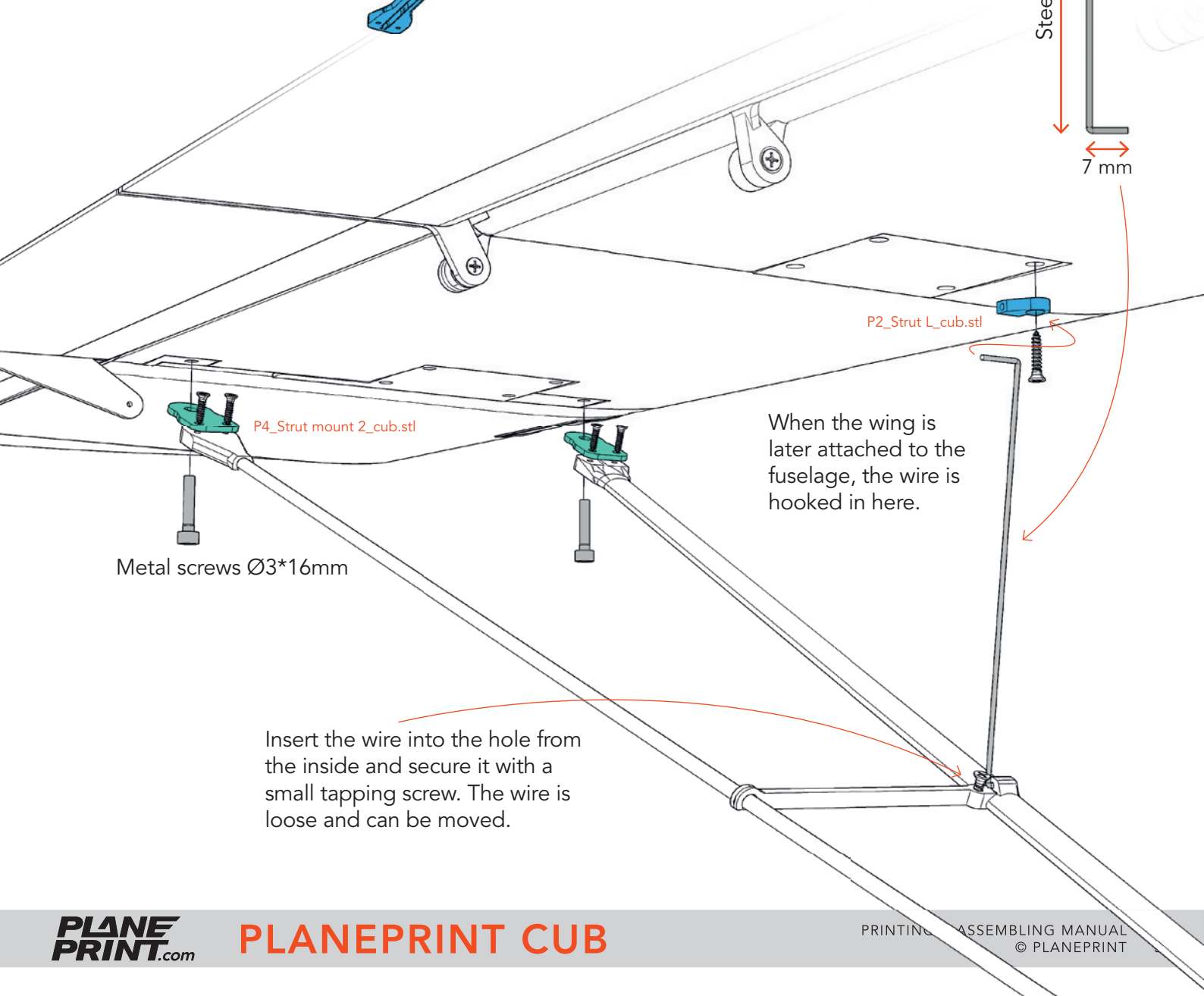


Mount the servos on the beams, there are several holes for optimum positioning.

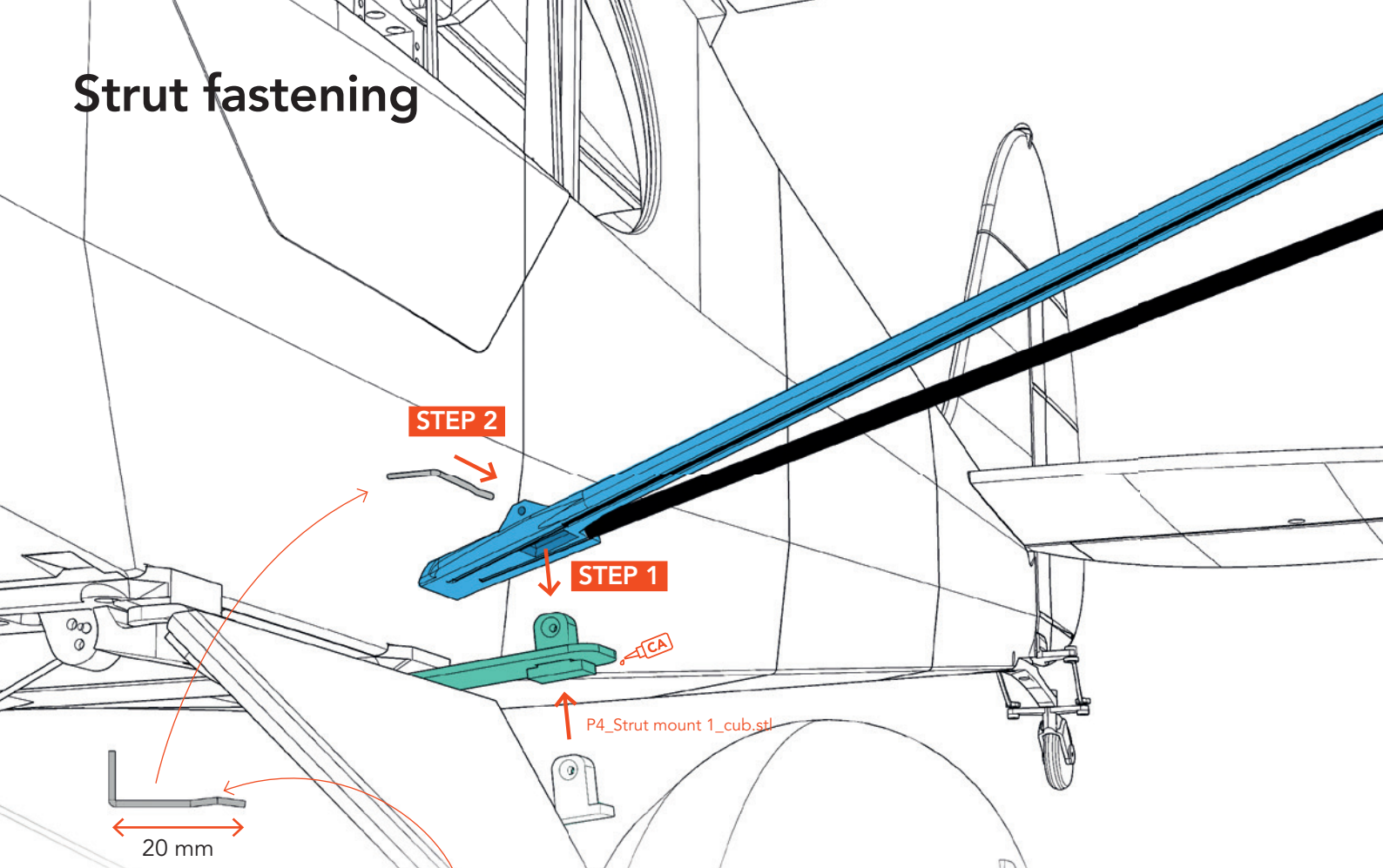
If everything fits, glue them to the brackets in Fuselage 3.

Wing struts





Strut fastening



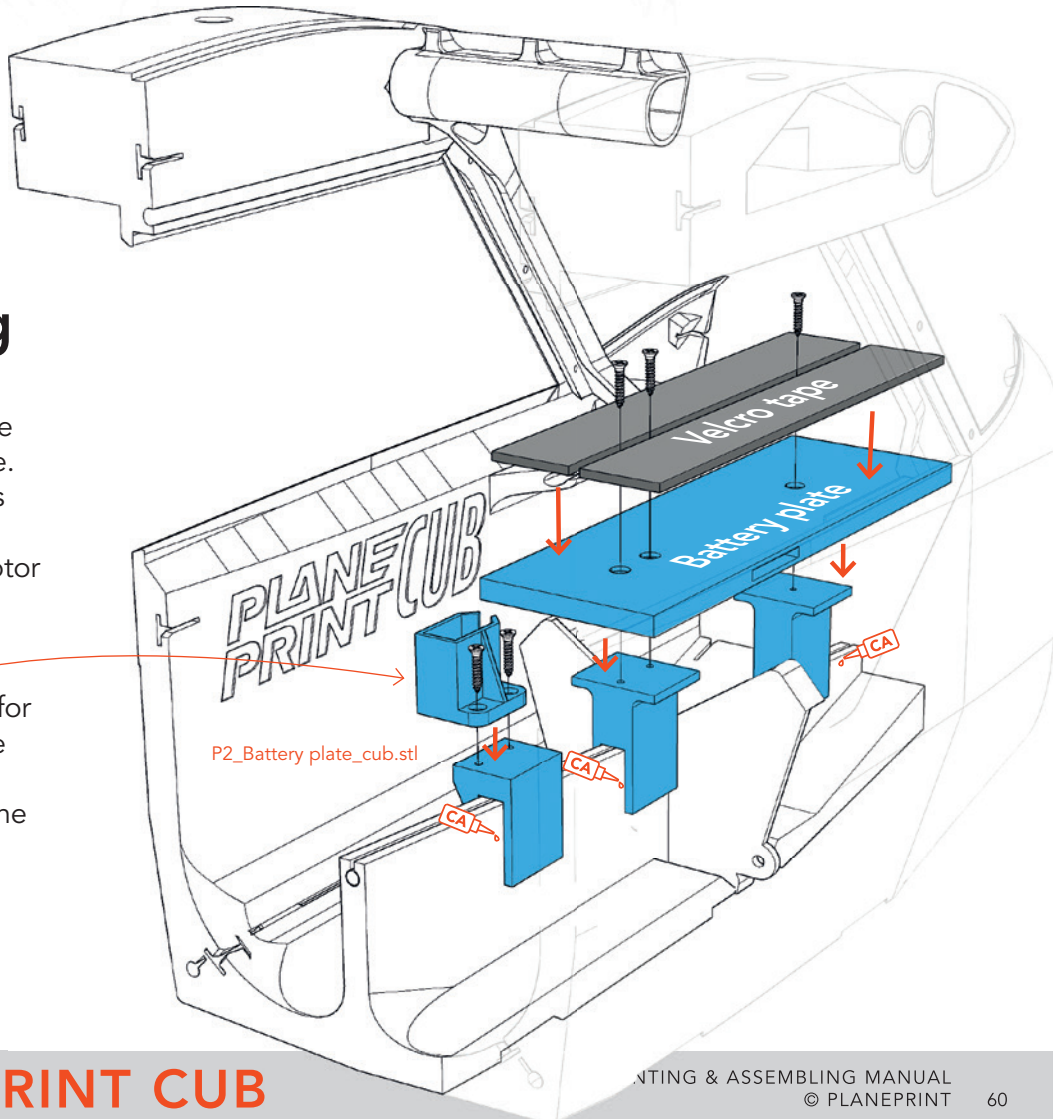
When you attach the wings to the fuselage, secure the struts at the bottom with an L-shaped piece of steel wire.

Bend a small wave into the wire so that it does not fall out.

Battery fastening

Stick two strips of velcro tape on the battery plate and screw on the base. Then glue the sockets into FUS 2 as shown in the picture. Remove the battery plate again to install the motor and controller (located at the front under the plate).

The socket with the **plug holder** is for the **T-60** plug of the controller. Glue this into the holder and the socket on FUS 2 so that you can connect the battery with one hand.



Foil Windows

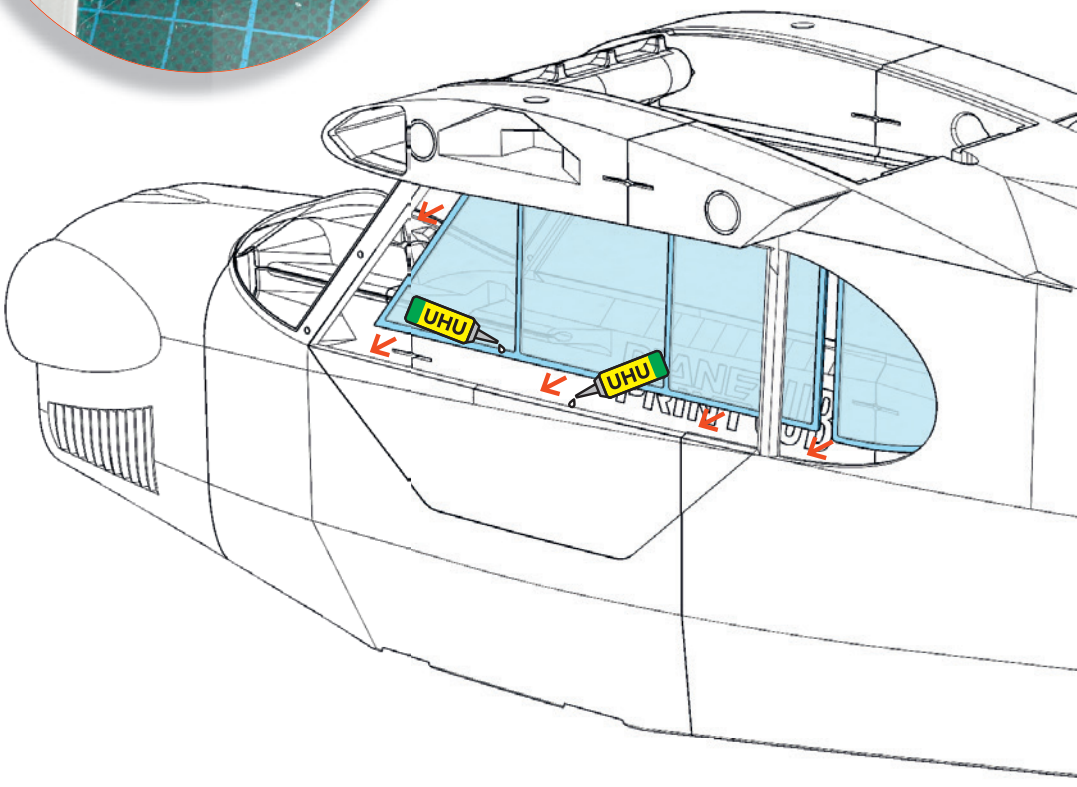
Glue the window frames to the film with a Contact adhesive and wait until the glue is dry. Then cut off the film at the outer edges.

Drill the holes with a piece of hot steel wire.

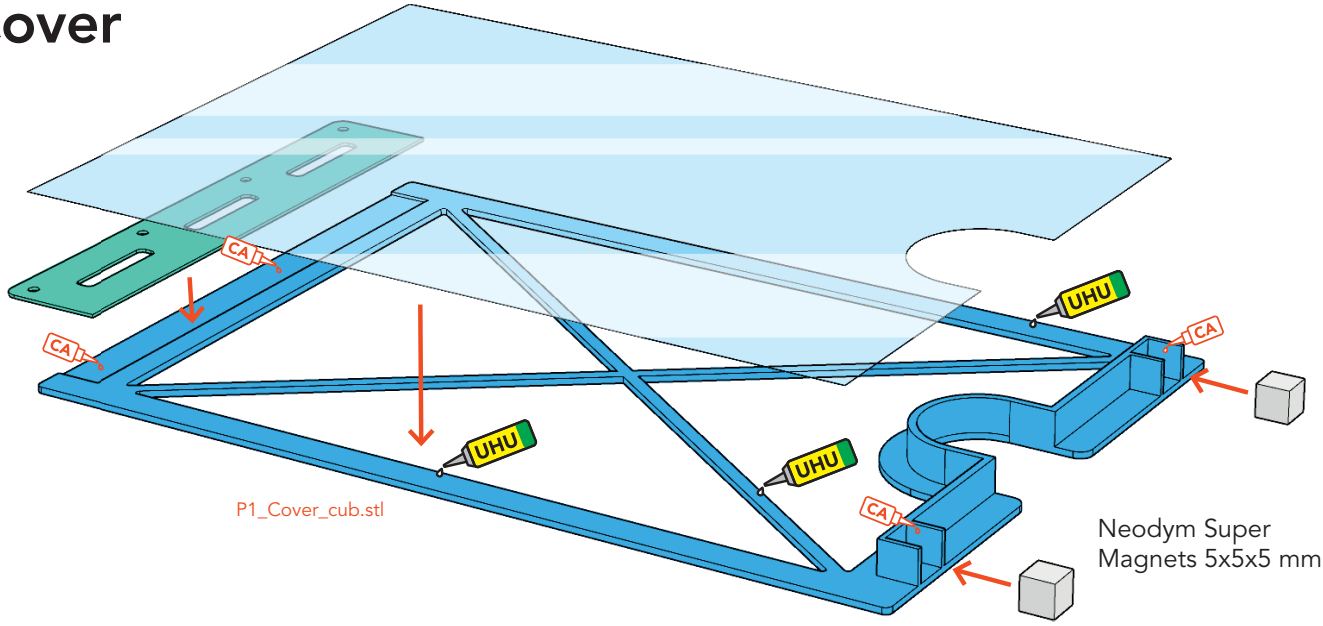
The windows are glued into the window frames of the fuselage from the inside with the film side facing outwards. This works best with a contact adhesive.

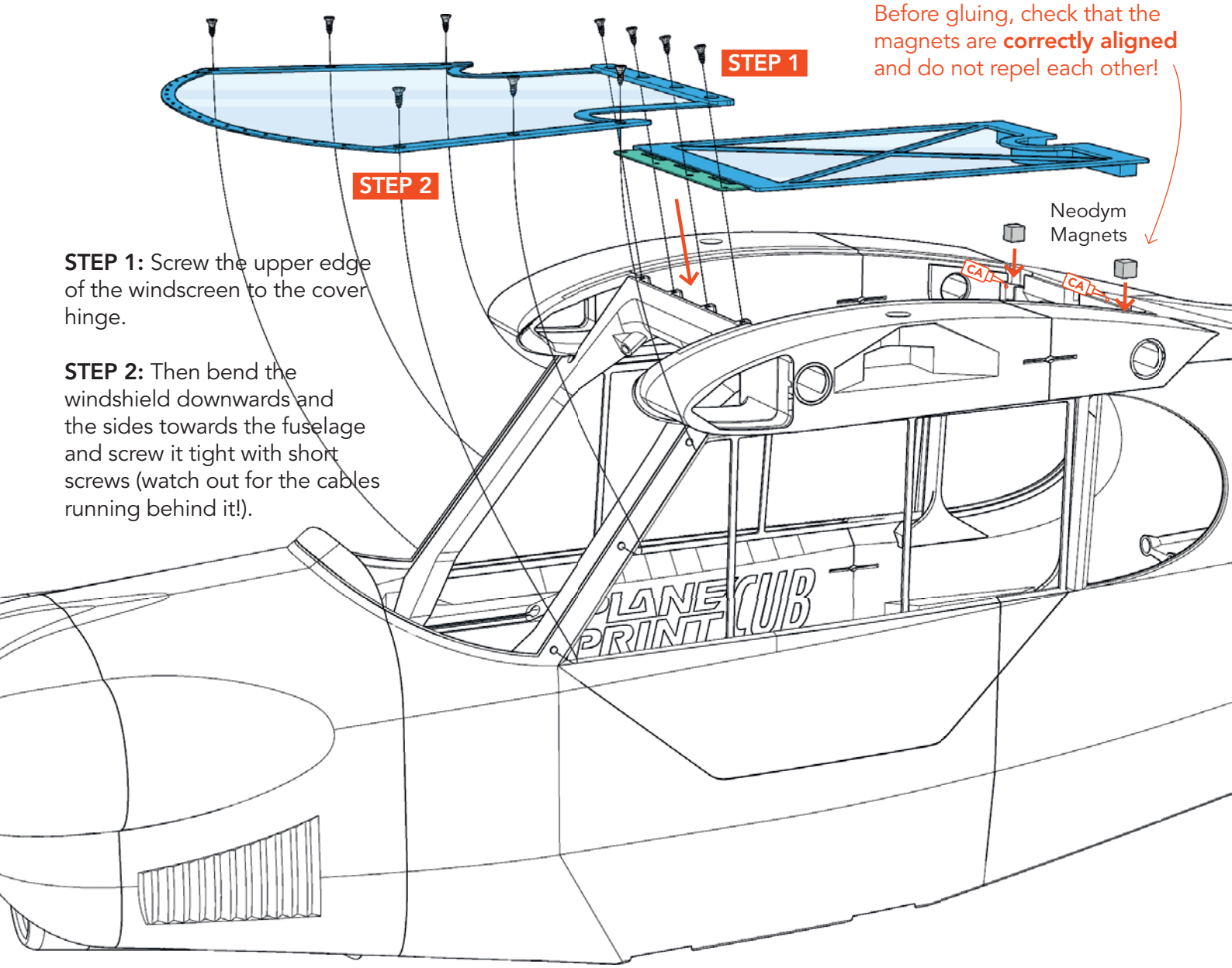
Coat both sides (fuselage and film) beforehand and allow the adhesive to dry.

Then insert the windows exactly from the inside.



Cover

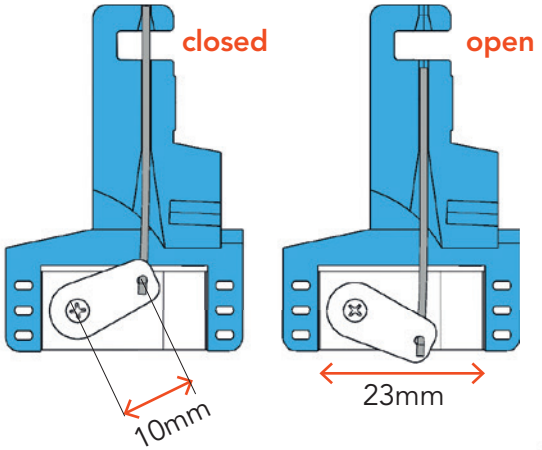


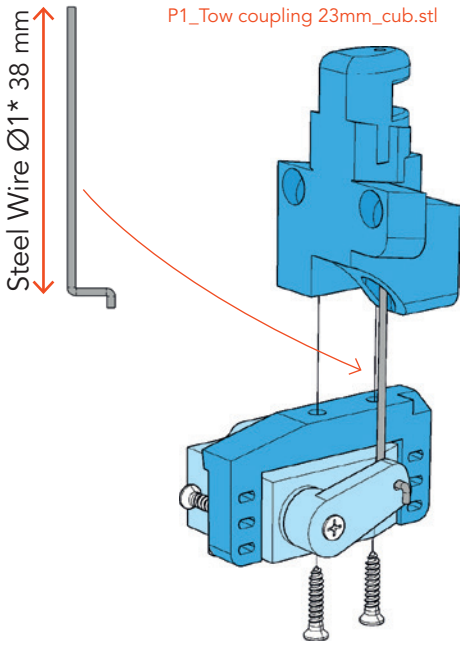


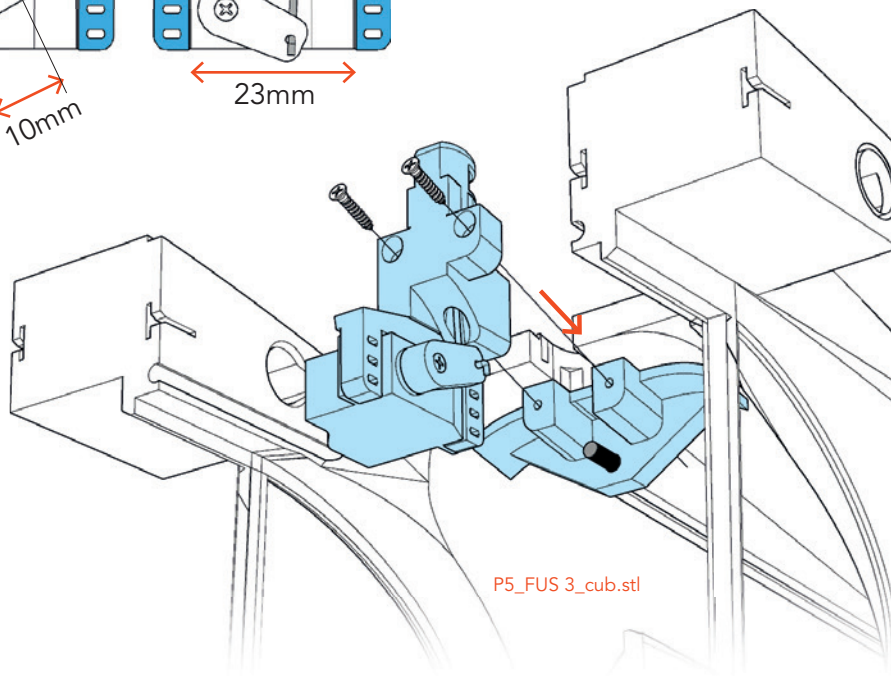
STEP 1: Screw the upper edge of the windscreen to the cover hinge.

STEP 2: Then bend the windshield downwards and the sides towards the fuselage and screw it tight with short screws (watch out for the cables running behind it!).

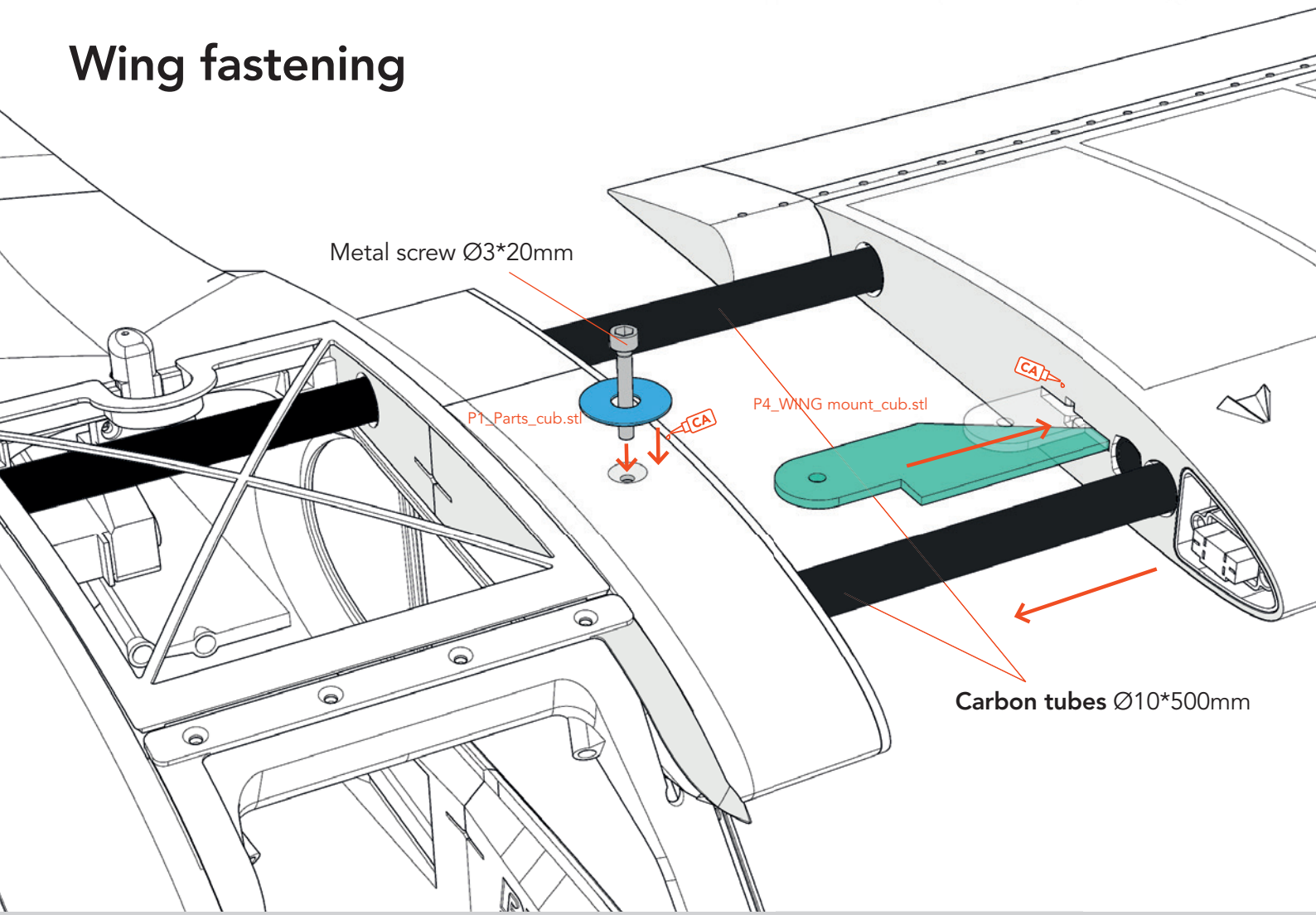
Tow coupling





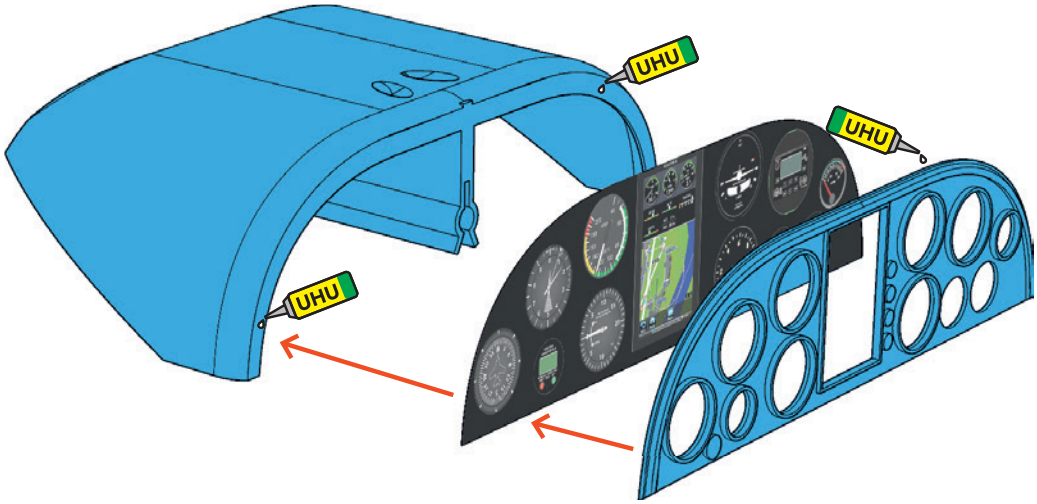


Wing fastening

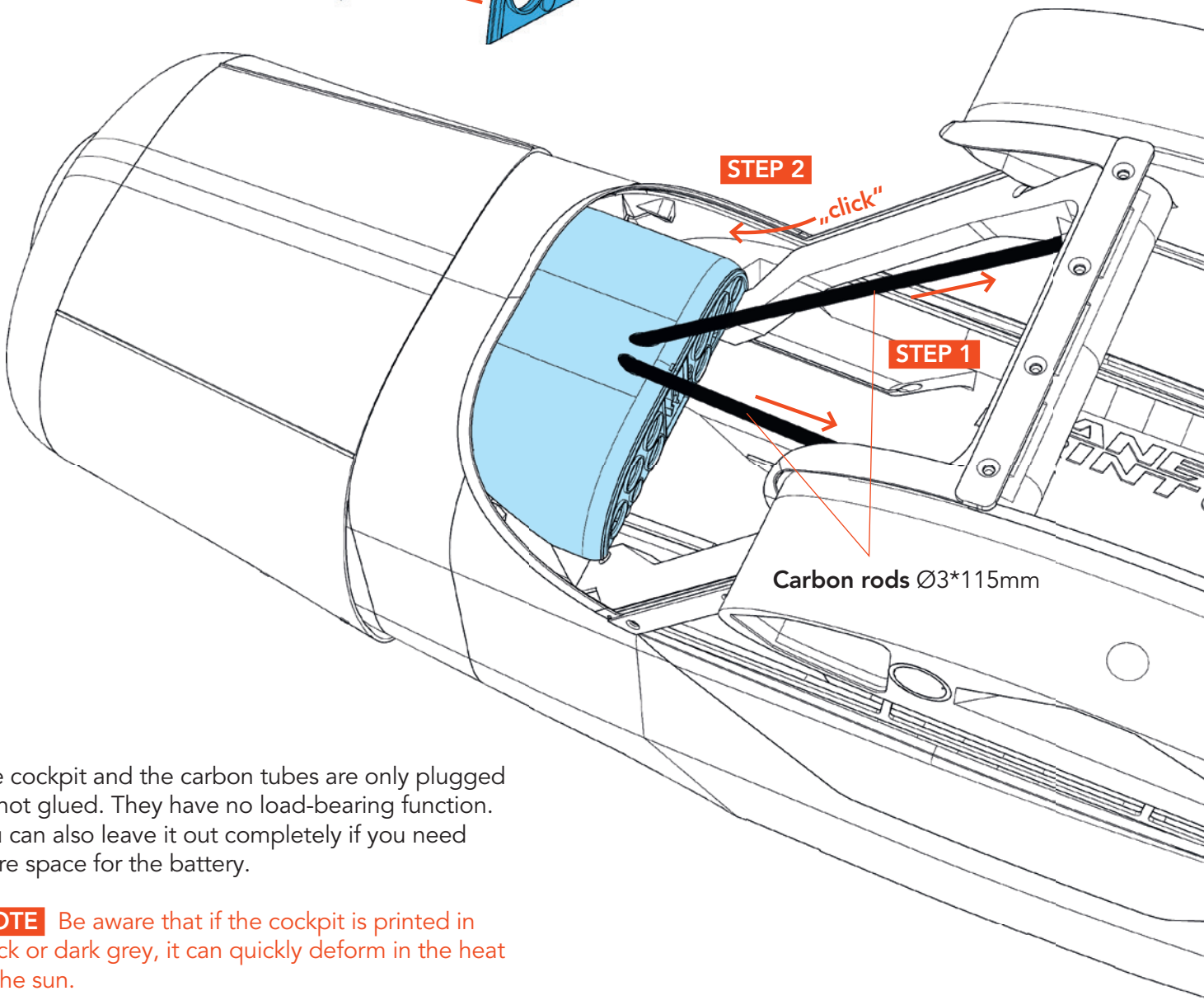


Cockpit

Print this page at 100% size
and cut out the image.



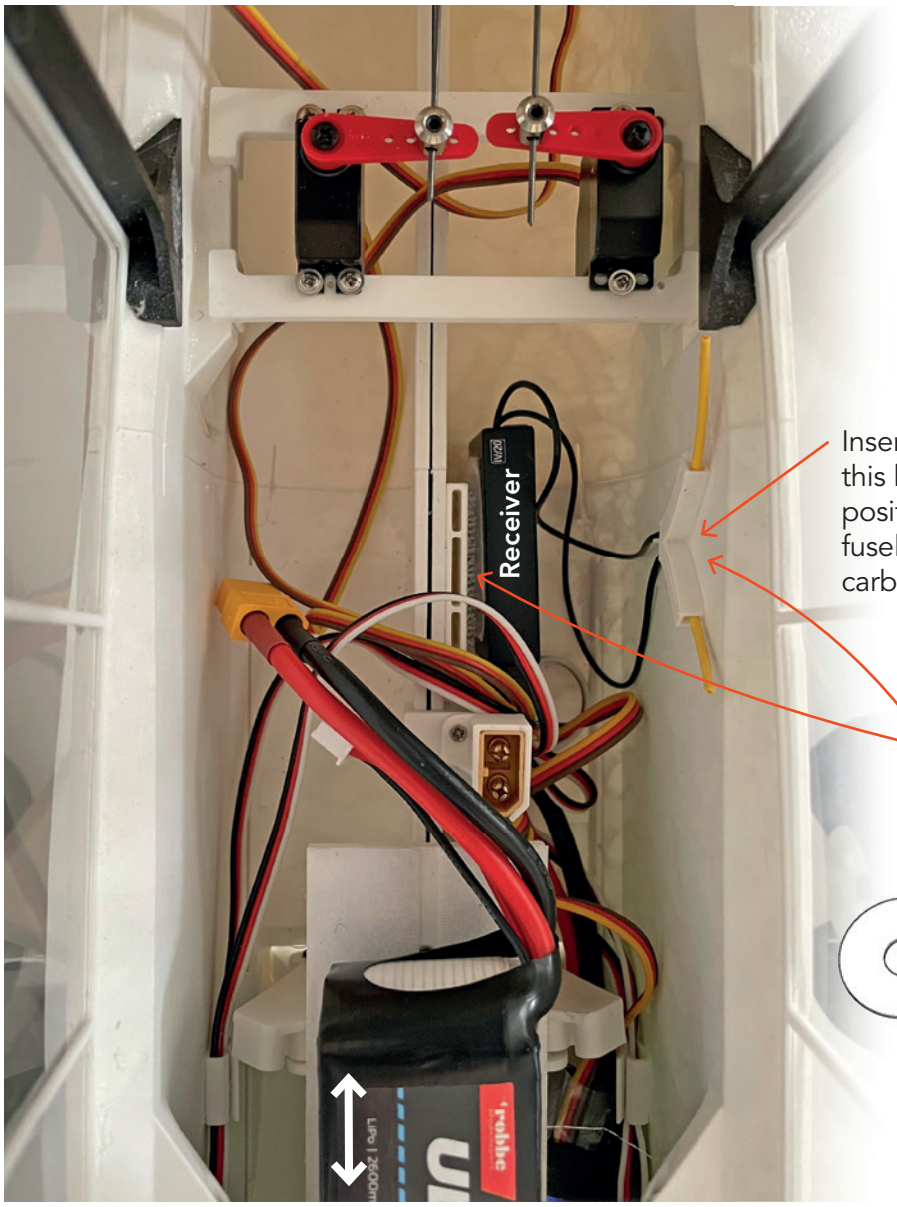
P1_Cockpit_cub.stl

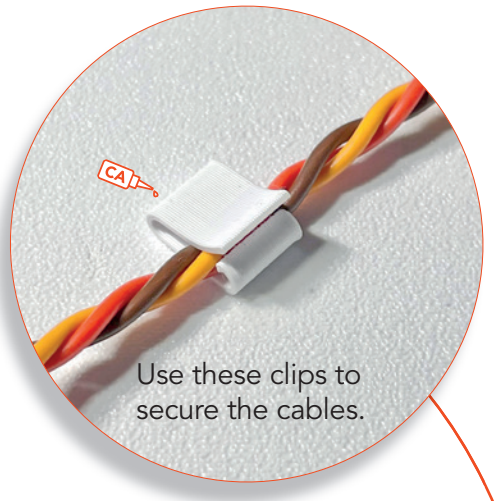


The cockpit and the carbon tubes are only plugged in, not glued. They have no load-bearing function. You can also leave it out completely if you need more space for the battery.

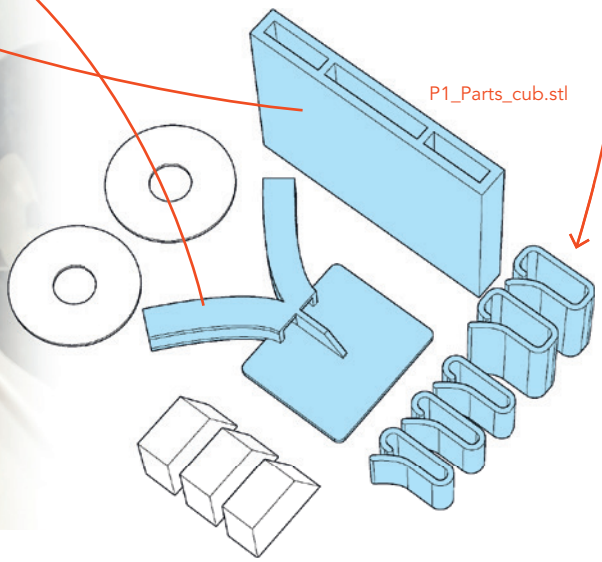
NOTE Be aware that if the cockpit is printed in black or dark grey, it can quickly deform in the heat of the sun.

RC Components





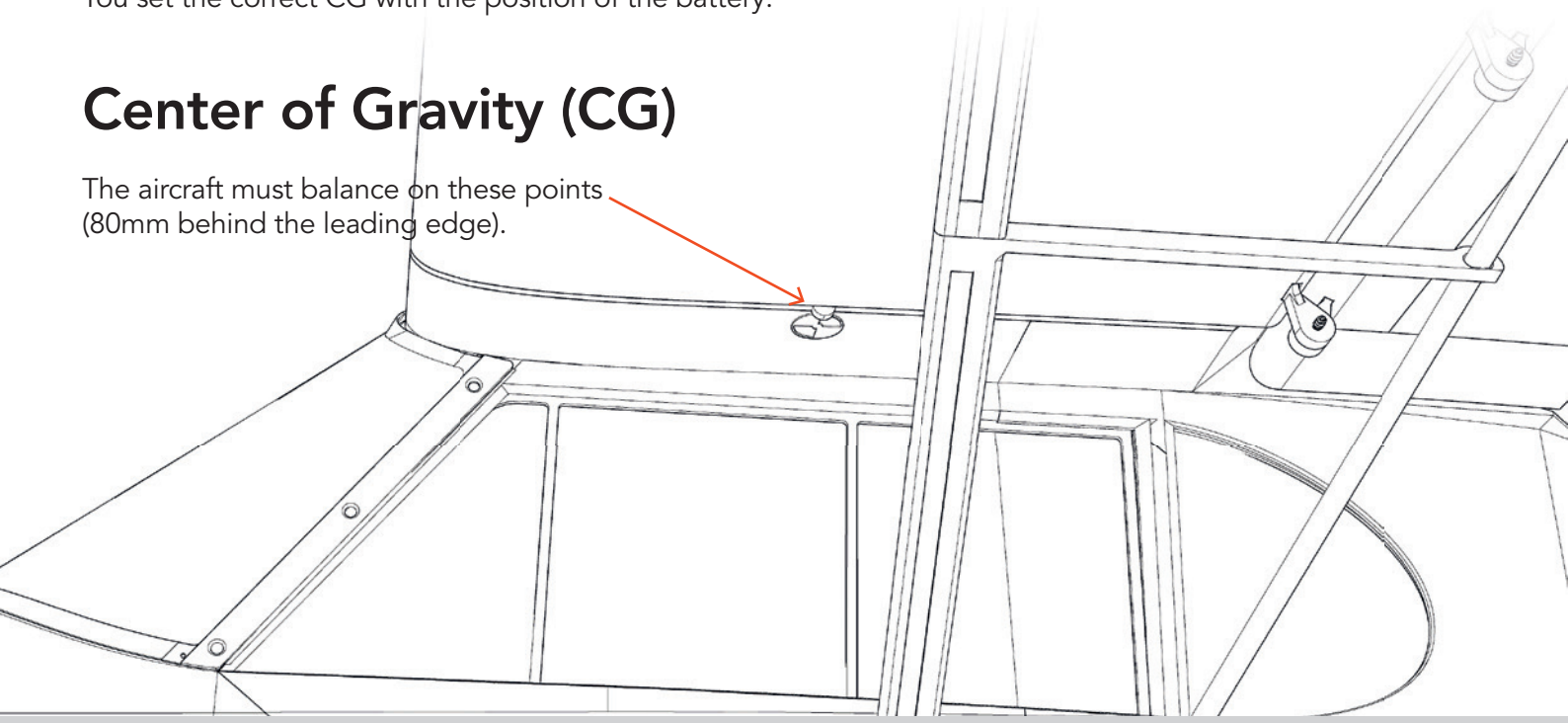
Insert the two antennas of the receiver into this bracket to fix them in an optimal 90° position. Attach the part to the inside of the fuselage with Velcro or CA glue (not near carbon!).



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

Center of Gravity (CG)

The aircraft must balance on these points (80mm behind the leading edge).



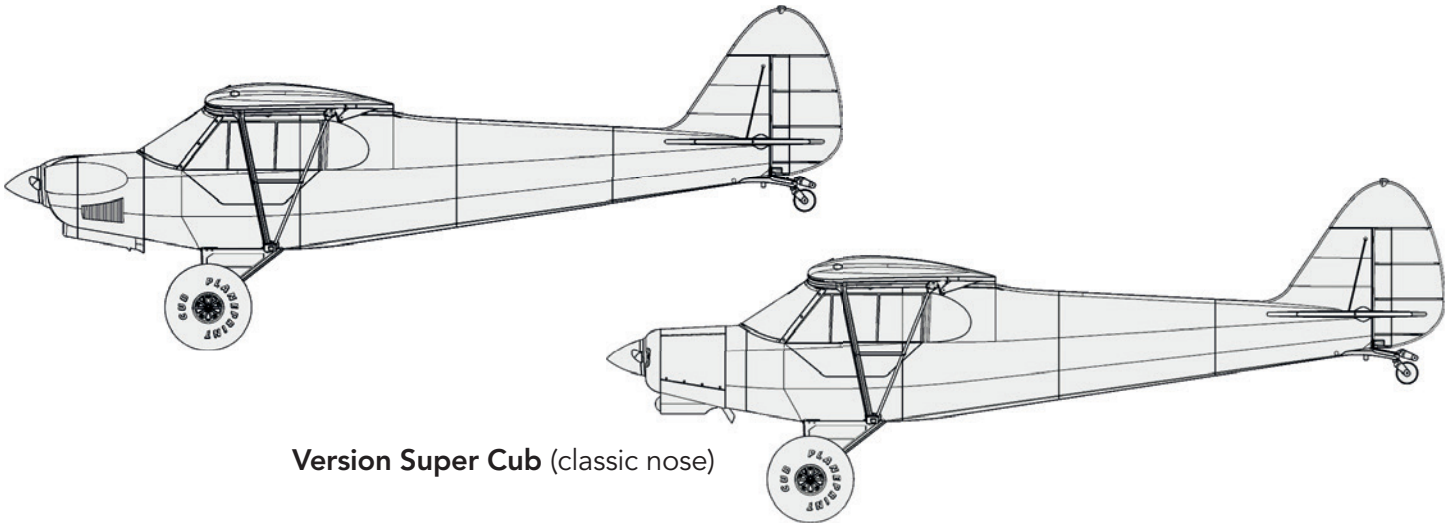
Technical specifications

WINGSPAN 1600 mm/63 inches

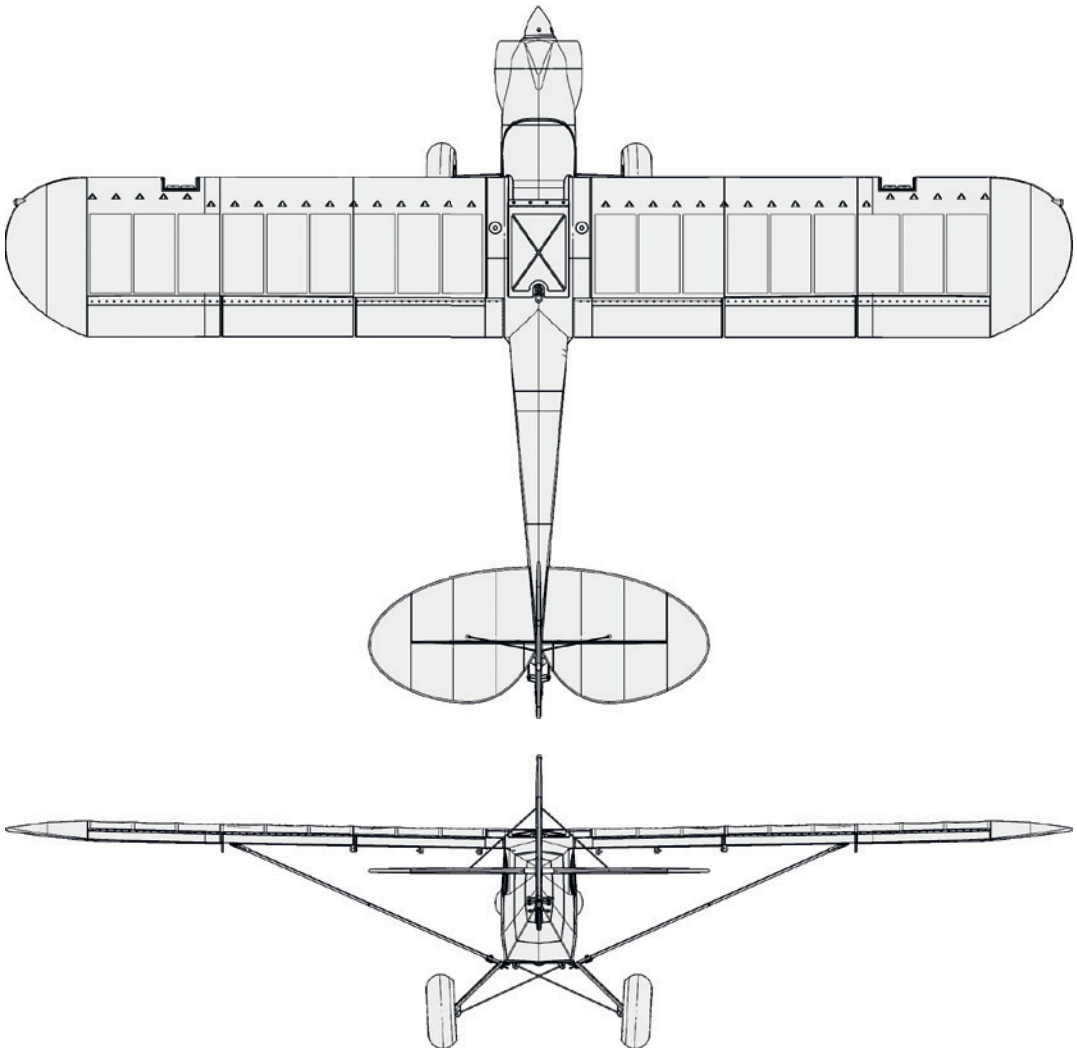
LENGTH 1100 mm/43 inches

FLIGHT WEIGHT 2400 grams

WING LOAD 56 g/dm^2



Version Super Cub (classic nose)

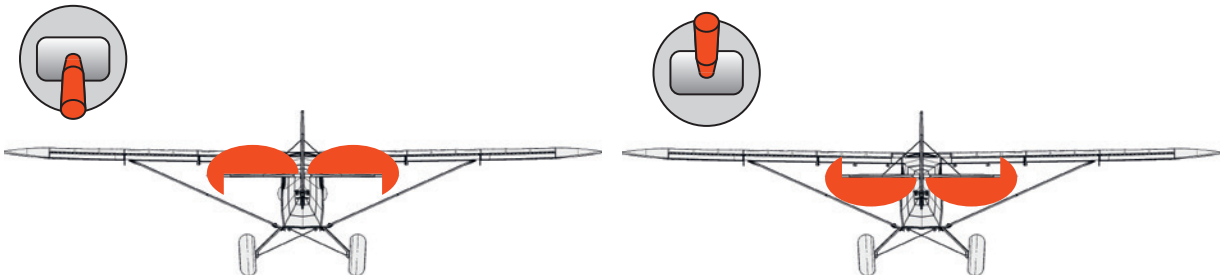


Control Direction Test

Look at the aircraft from behind

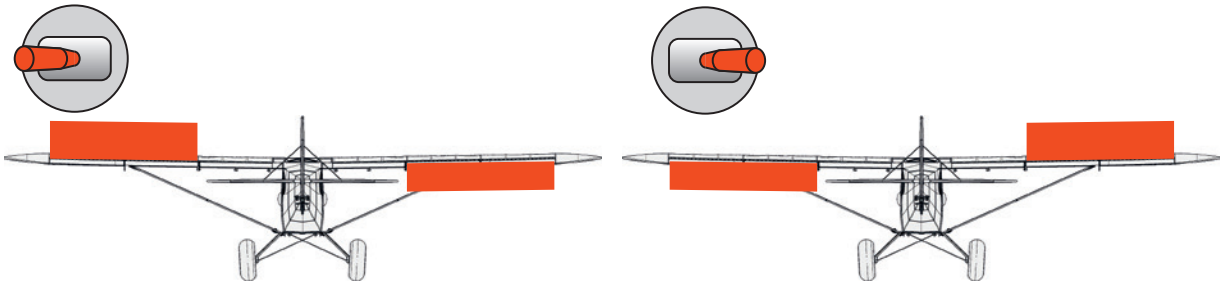
ELEVATOR

40 mm up
40 mm down



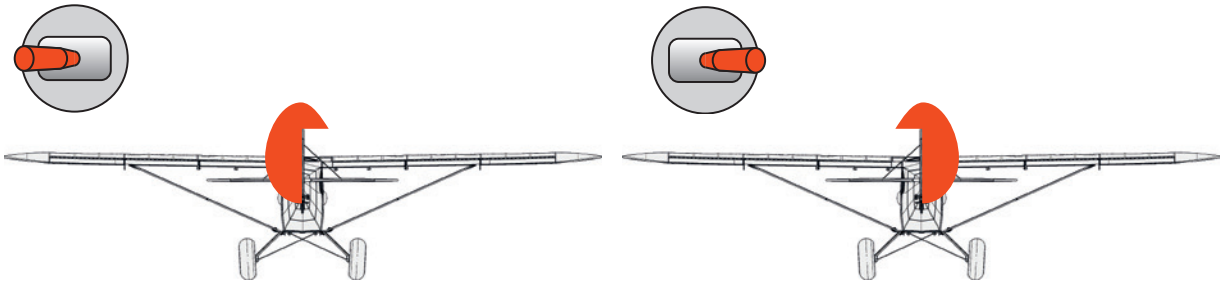
AILERON

27 mm up
18 mm down



RUDDER

50 mm left
50 mm right



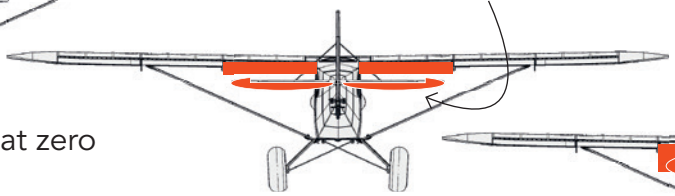
FLAPS

Normal

Aileron and elevator at zero

Start, slow flight

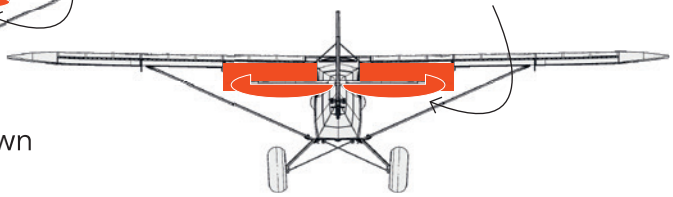
Mix the elevator
2 mm downwards



Flap 15 mm down

Landing

Mix the elevator
10 mm downwards



Flap 55 mm down

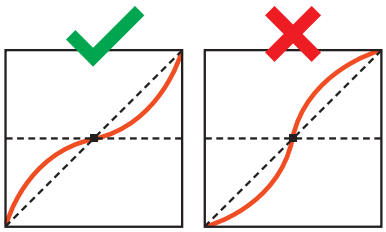
NOTE The flaps must be aligned exactly the same in every position, otherwise the aircraft will not fly straight!

EXPO

ELEVATOR 25 %

AILERON 40 %

RUDDER 50 %



(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!

PLANE PRINT