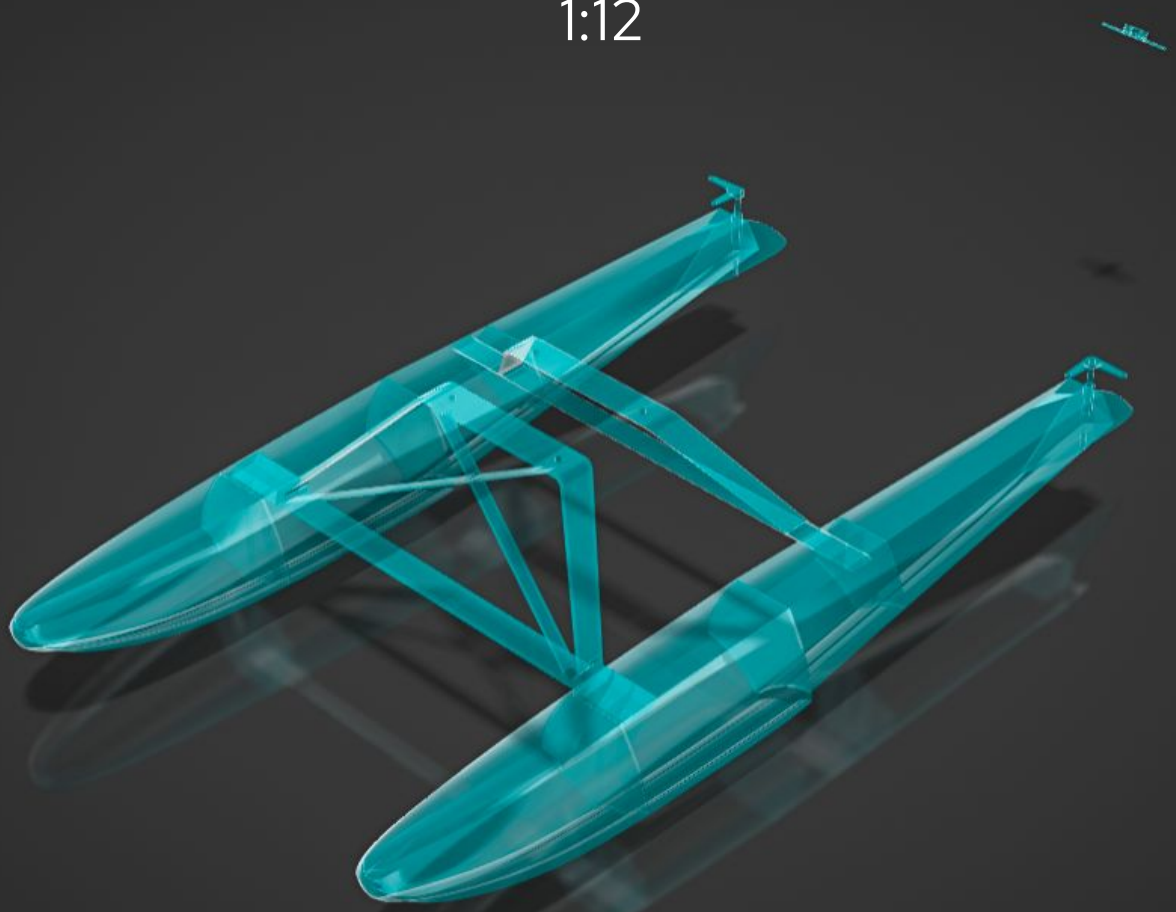
de Havilland Canada

DHC-2 Beaver

Floats and Skis

3D printed RC model

1:12



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STEVEN FRANK

DHC-2 Beaver
Floats and Skis

3D printable landing gear system for the DHC-2 Beaver.

Step-by-step guide, parts list, print setting are below.

Enables versatile RC bush plane operations on water, or snow. Highly recommended for builders seeking multi-season capability.

Lightweight, durable, scale-accurate, easy to print and assemble—perfect upgrade for the DHC-2 Beaver.

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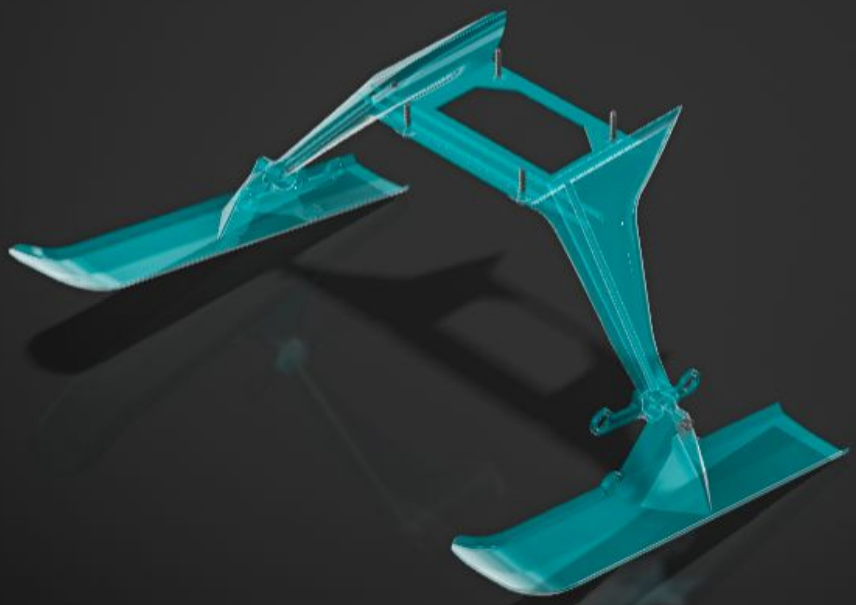

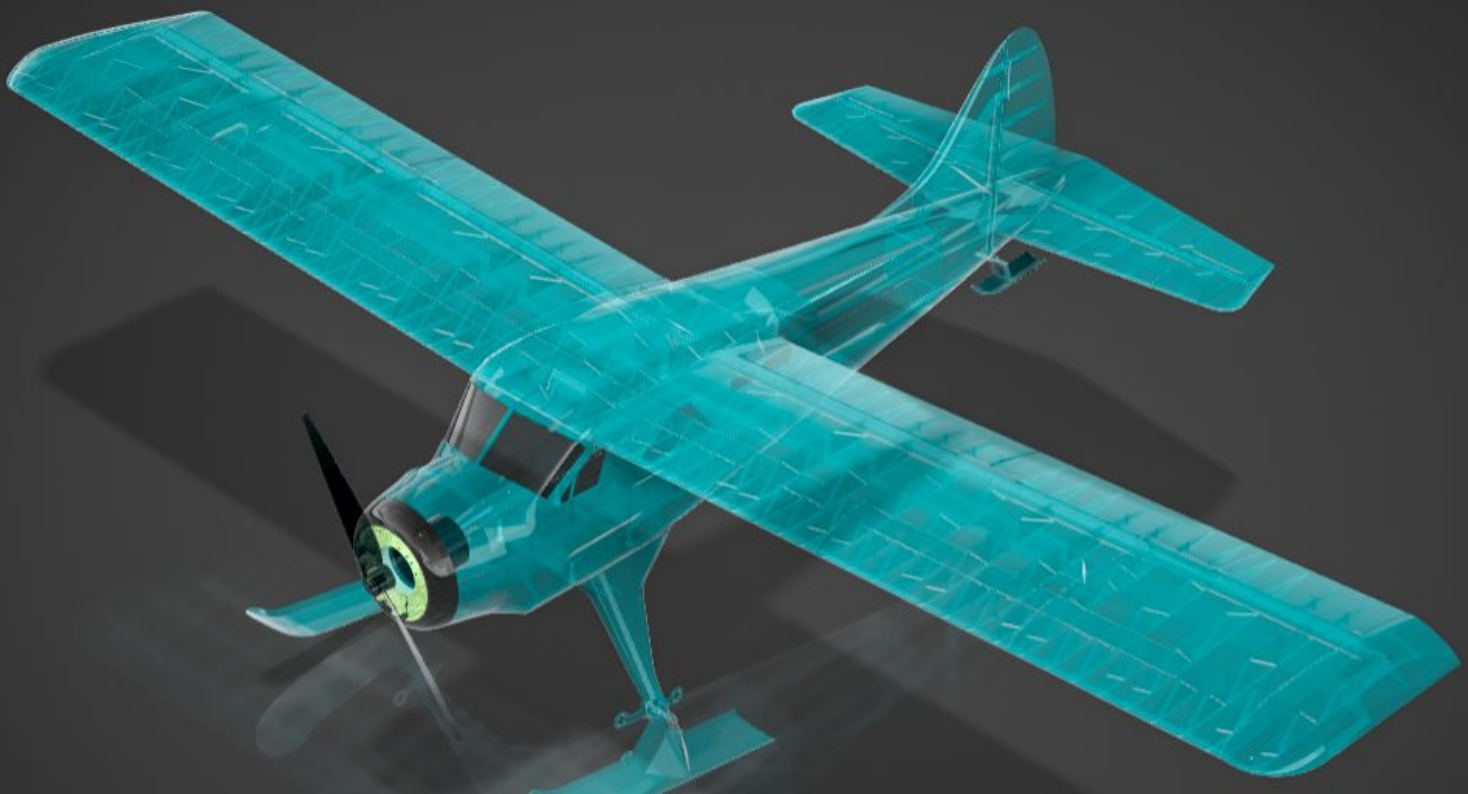

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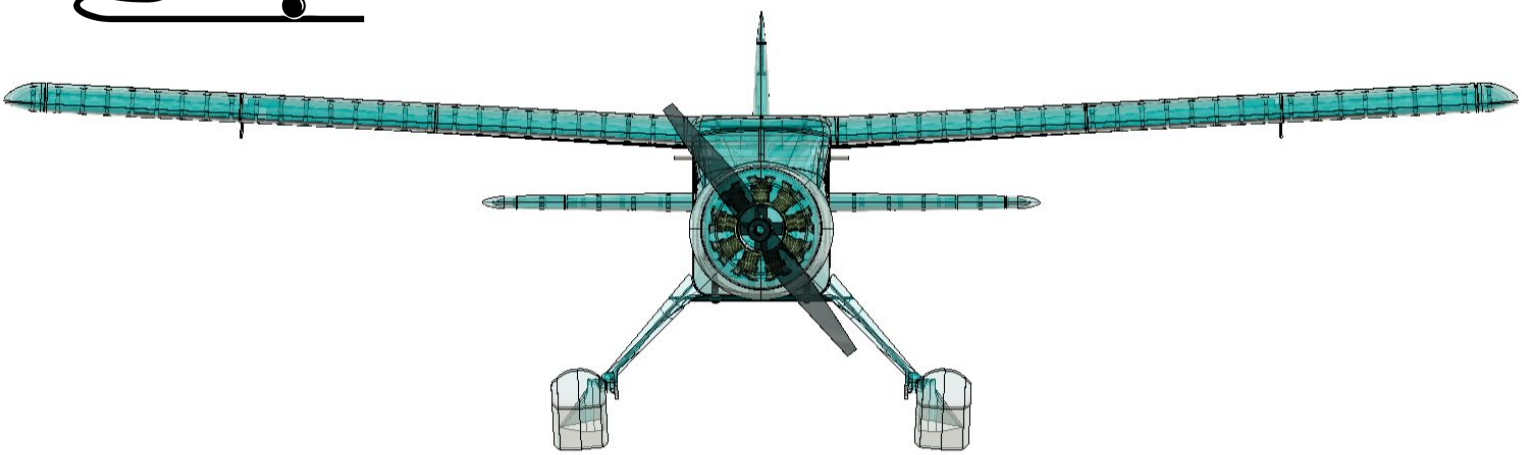
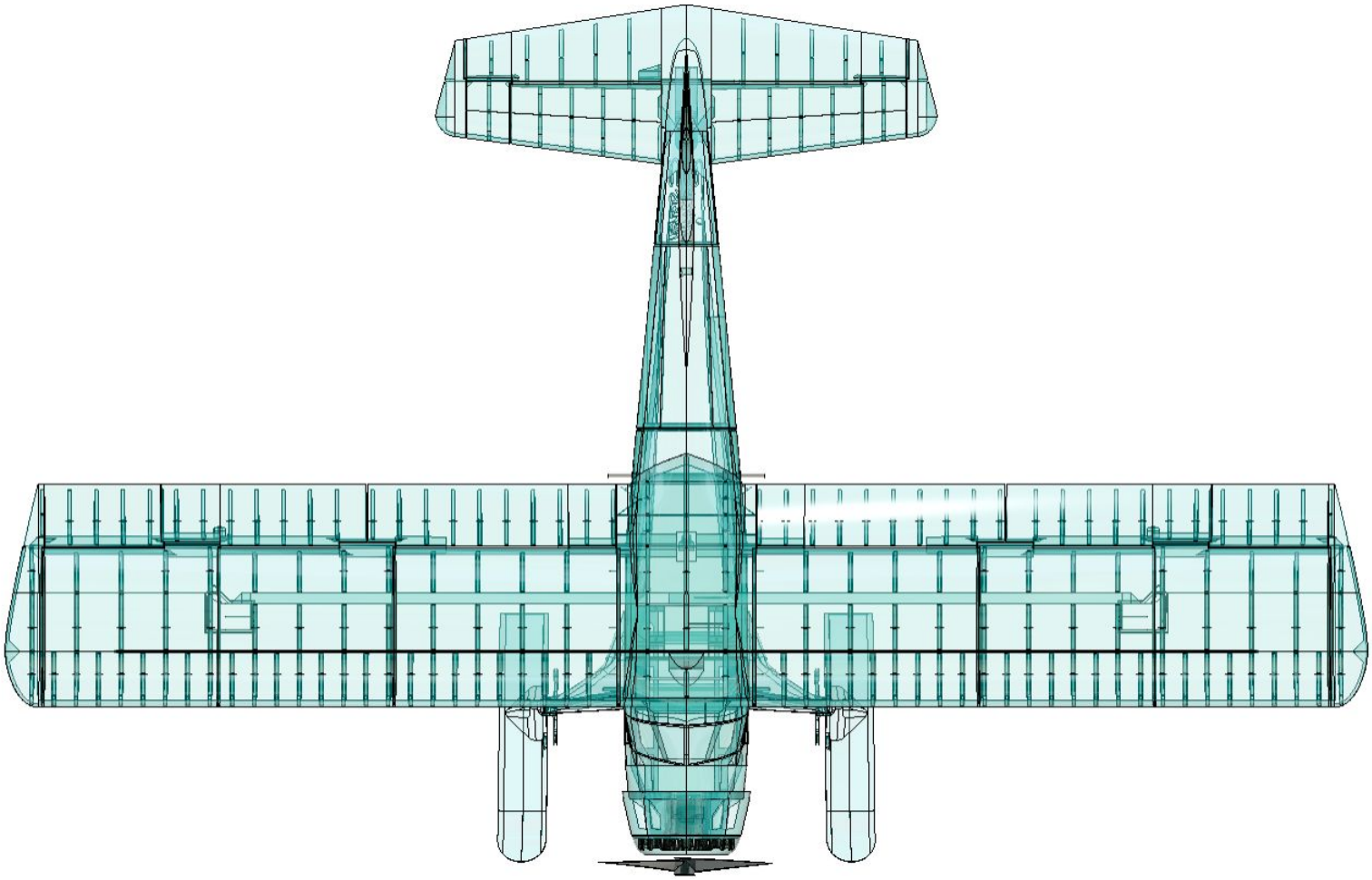
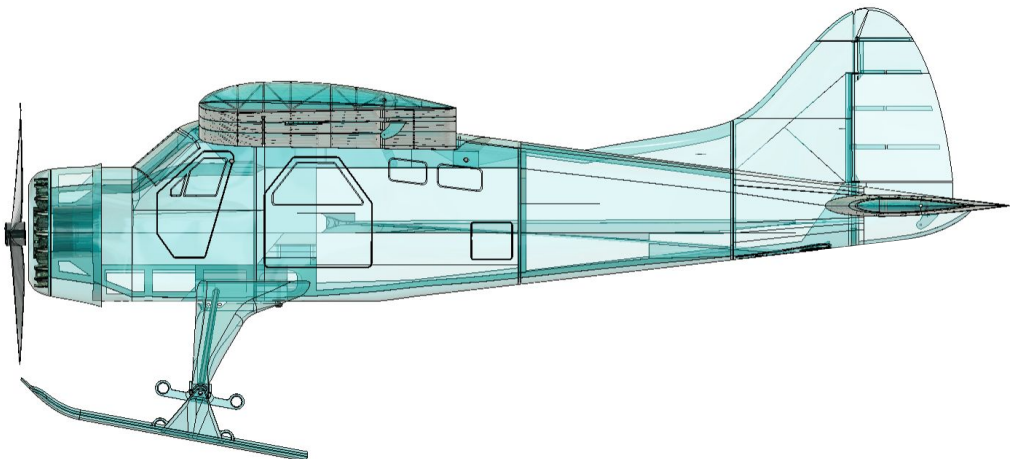
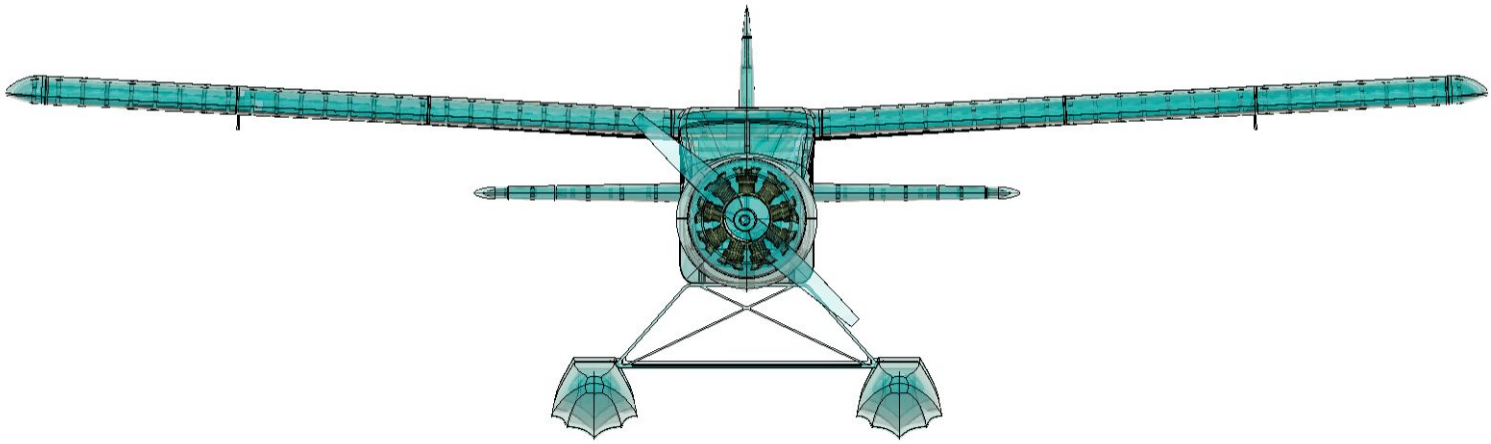
Skis

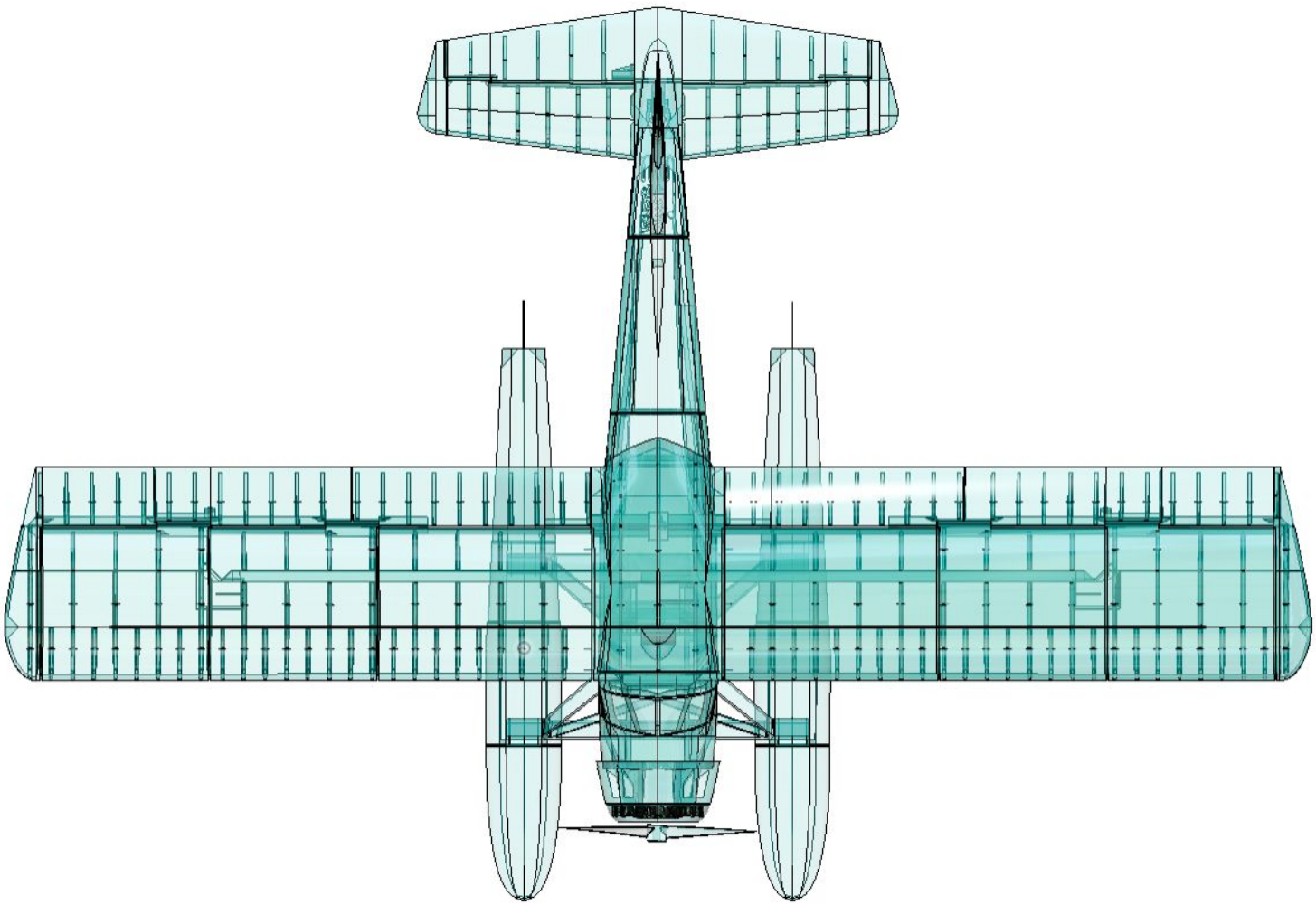


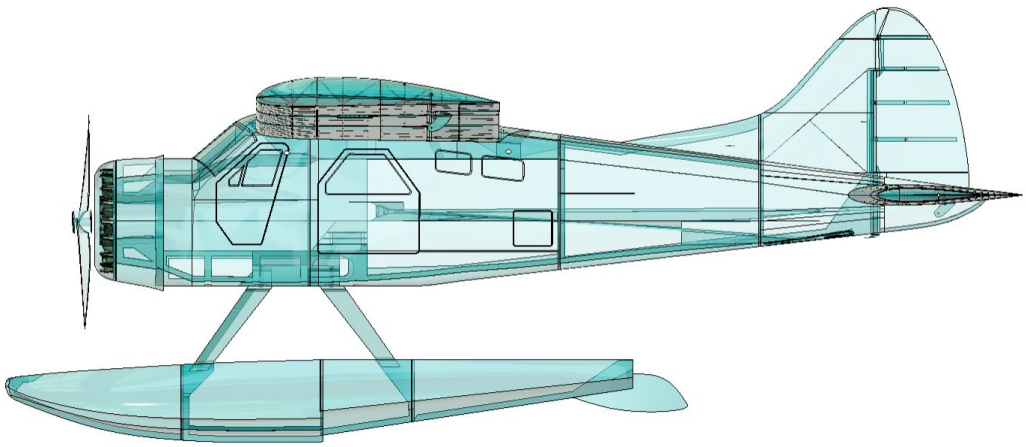




Floats







You will need

1 mm wire - 30 cm
fishing line or similar
100g LW-PLA
100 g PETG
Acrylic Spray

Recommended Filaments

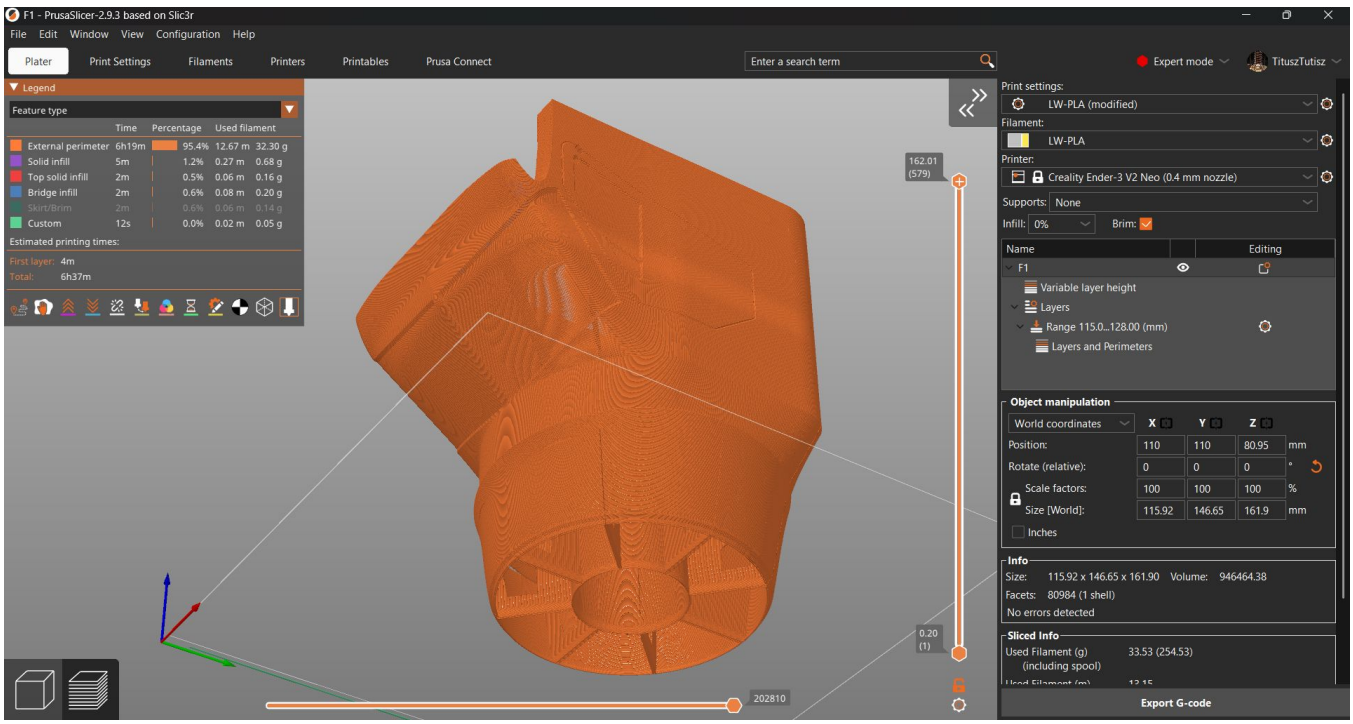
Minimum print area for this airplane: 220x220x220 mm

Recommended to use **LW-PLA**, this airplane is designed for LW-PLA.

After downloading the plans. You will find folders containing all the parts (print files).

*Open these .3mf files in **PrusaSlicer**.*

In each part's file, all print parameters are preset and ready to print!
(just do the test print first, see next page)



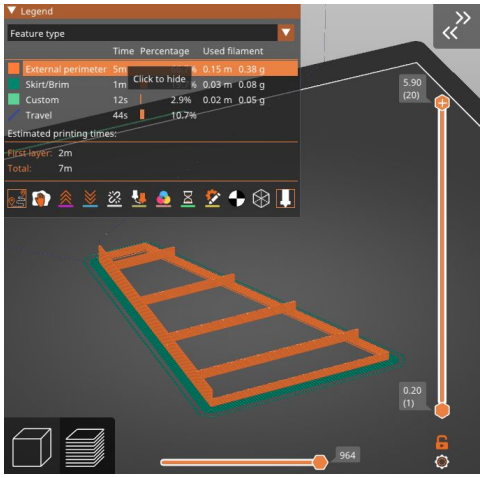
OR

You can use other slicers (.STL files included, just open .3mf in other slicers) and you must set the print settings yourself by referencing ours in PrusaSlicer. Most parts simply print in "vase mode". Some parts require bottom layers or different layer heights.

But we recommend to try PrusaSlicer. You can find many custom printer presets online. If you have a widely used printer, you'll find custom printer presets for it. You can easily import them and start printing. Or you can setup your own printer's preset manually in PrusaSlicer.

LW-PLA filament test print

*240-250 Celsius nozzle temperature and 0.5 flow rate works for most LW-PLA filaments. But it is **highly recommended** to run the test print **PRINT_TEST_FOR_LW-PLA.3mf** first.*



- Open the file named **PRINT_TEST_FOR_LW-PLA.3mf**
- Then select your own printer
- Export gcode & print

This test print allows you to verify that the extrusion multiplier and nozzle temperature are set correctly for your specific LW-PLA filament, and it also checks bridging performance.

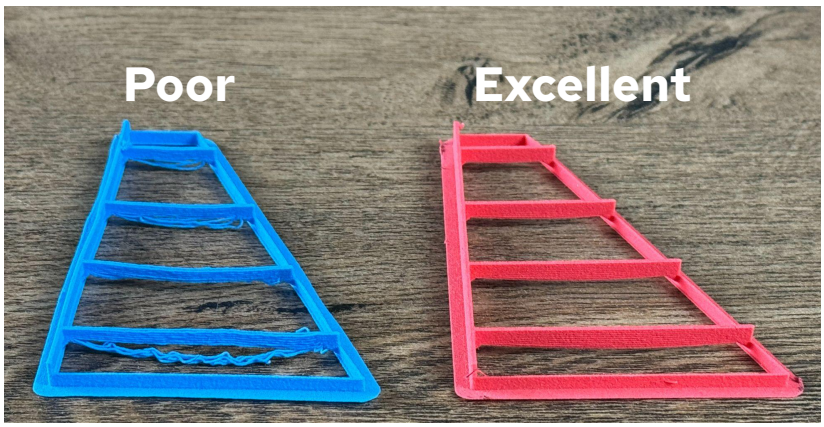
After printing, measure the wall thickness with a caliper.
One wall thickness should be between **0.55 mm and 0.65 mm**, and **bridging also has to work.**
If the measured wall thickness is outside the 0.55–0.65 mm range, adjust as follows:

Wall thickness depends on both “nozzle temperature” and “extrusion multiplier”
- If under-extruded (too thin): increase “nozzle temperature” first.
- If over-extruded (too thick): decrease the extrusion multiplier.

Reprint the test after each change.

Also monitor bridging performance:
- Too high temperature can worsen bridging.
- If bridging fails, lower the temperature

(and may increase the extrusion multiplier slightly to compensate, only if necessary or you can play with “Bridge Flow Ratio”.)



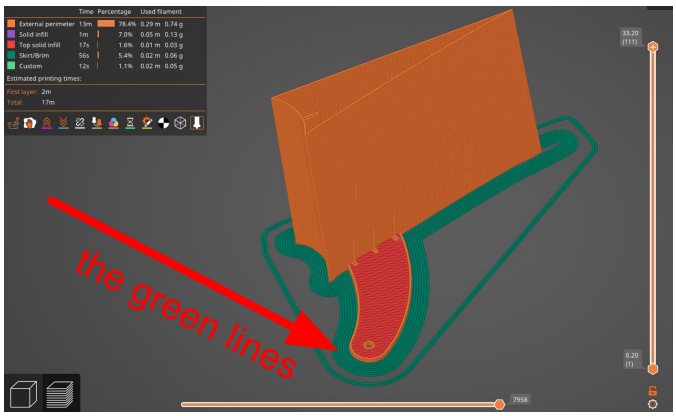
Once you find the correct settings for your own LW-PLA, save them as your custom filament profile!

After the test print. You can confidently proceed to export the gcodes and print all the parts.

Each part is in its own separate .3mf file, **all other print settings are already prepared in every .3mf file!** (walls, layers, layer heights, etc.)

Tip:
For good **LW-PLA bed adhesion**, it's excellent to print on **PEI sheets** or **plain glass** plates **coated with strong hairspray**.

The default setting has **brim enabled** to help with bed adhesion for thin walls. This ensures the print doesn't come off during printing. It can be easily cut off after printing with a scalpel. (*However you can disable it in the slicer, if you find it unnecessary.)*



Tip:
You can **print multiple small parts at once** with the same material on one bed to speed up the process. Ensure they fit and enable separate (sequential) printing:

In Prusa Slicer: Load multiple parts on the bed. Go to Print Settings → Output options. Enable Complete individual objects (sequential printing). Then Arrange (A key).

For printing standard materials like PLA and PETG, please refer to online guides.

Other Slicer programs

Any slicer program can be used.

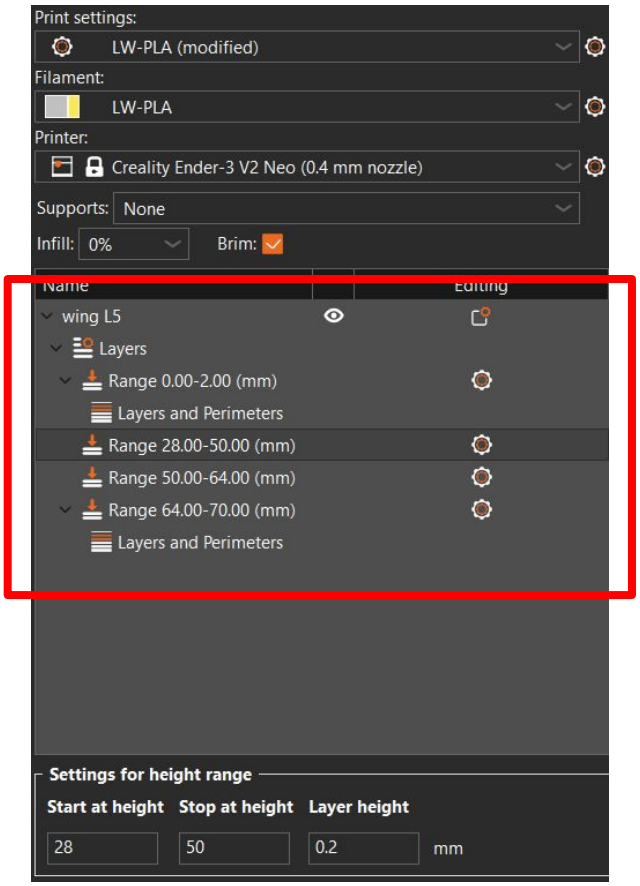
Set up a general setting for LW-PLA and tune it for your specific LW-PLA filament.

0.5 flow rate, 40 mm/s, zero retract, aim for 0.60 mm wall thickness
All of our setting can be fund in any .3mf file.

Some parts have modifiers. Open the part in PrusaSlicer and check the right-side panel to view them.

Key settings: layer height changes (shorten when print angle declines) and **top/bottom solid infill.**

Top and bottom solid infill provide structural strength. Apply the modifiers where needed by referencing the PrusaSlicer settings for each part.



Assembly

Easy to assemble; parts slide into each other. These joints must be glued, and glue must also be applied to the internal ribs where the ribs contact each other.

You will need **medium CA glue + activator** and a **hobby knife**.

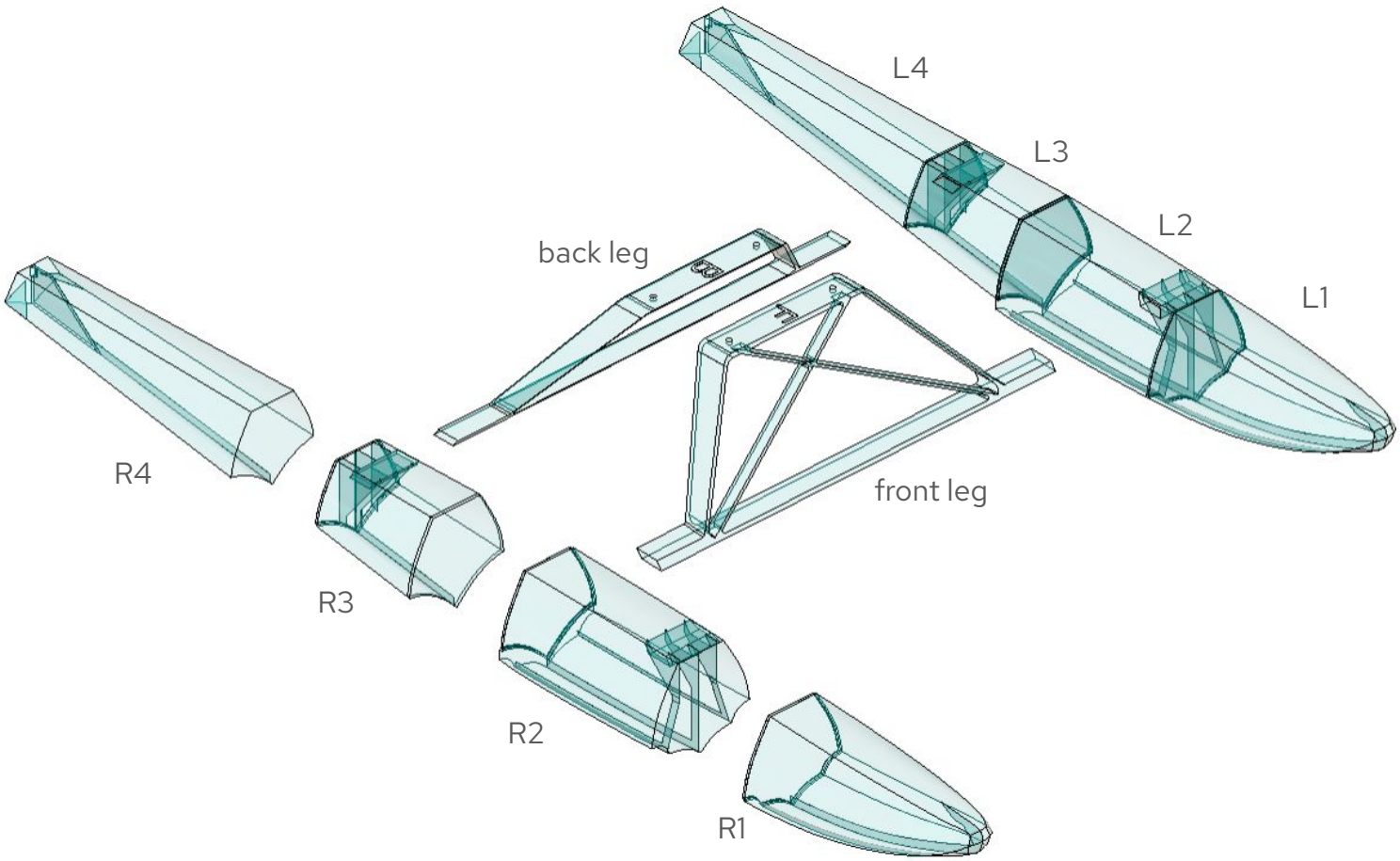
Before gluing parts together, always dry-fit them first. They usually fit well, but sometimes you need to scrape lightly with a hobby knife or trim a small plastic remnant from printing.

Floats

First, glue together the right and left float. Thoroughly seal all joints with glue. You also need to apply it to the internal ribs that touch each other.

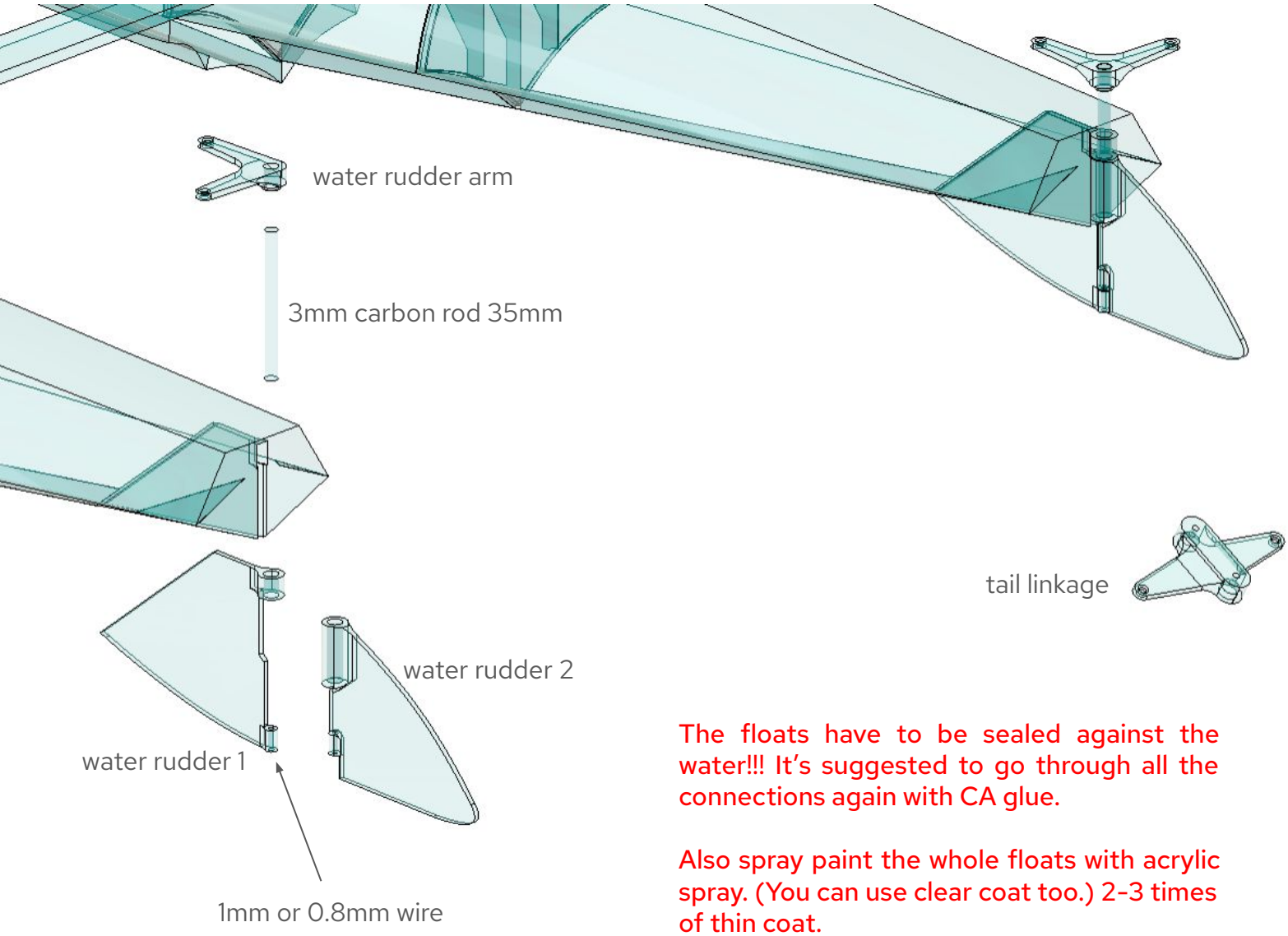
Then, make it waterproof – this is a very important step – with any spray paint or clear spray varnish. 2-3 layers are enough.

After that, it's worth screwing the front leg and back leg onto the fuselage, and then gluing the floats on the legs (push them all the way in).



Water Rudders

You need to glue the following parts to the ends of the floats. Carefully glue the moving parts together.



The floats have to be sealed against the water!!! It's suggested to go through all the connections again with CA glue.

Also spray paint the whole floats with acrylic spray. (You can use clear coat too.) 2-3 times of thin coat.

Finally tie the water rudder arms together with a 1 mm wire and Z-bends.

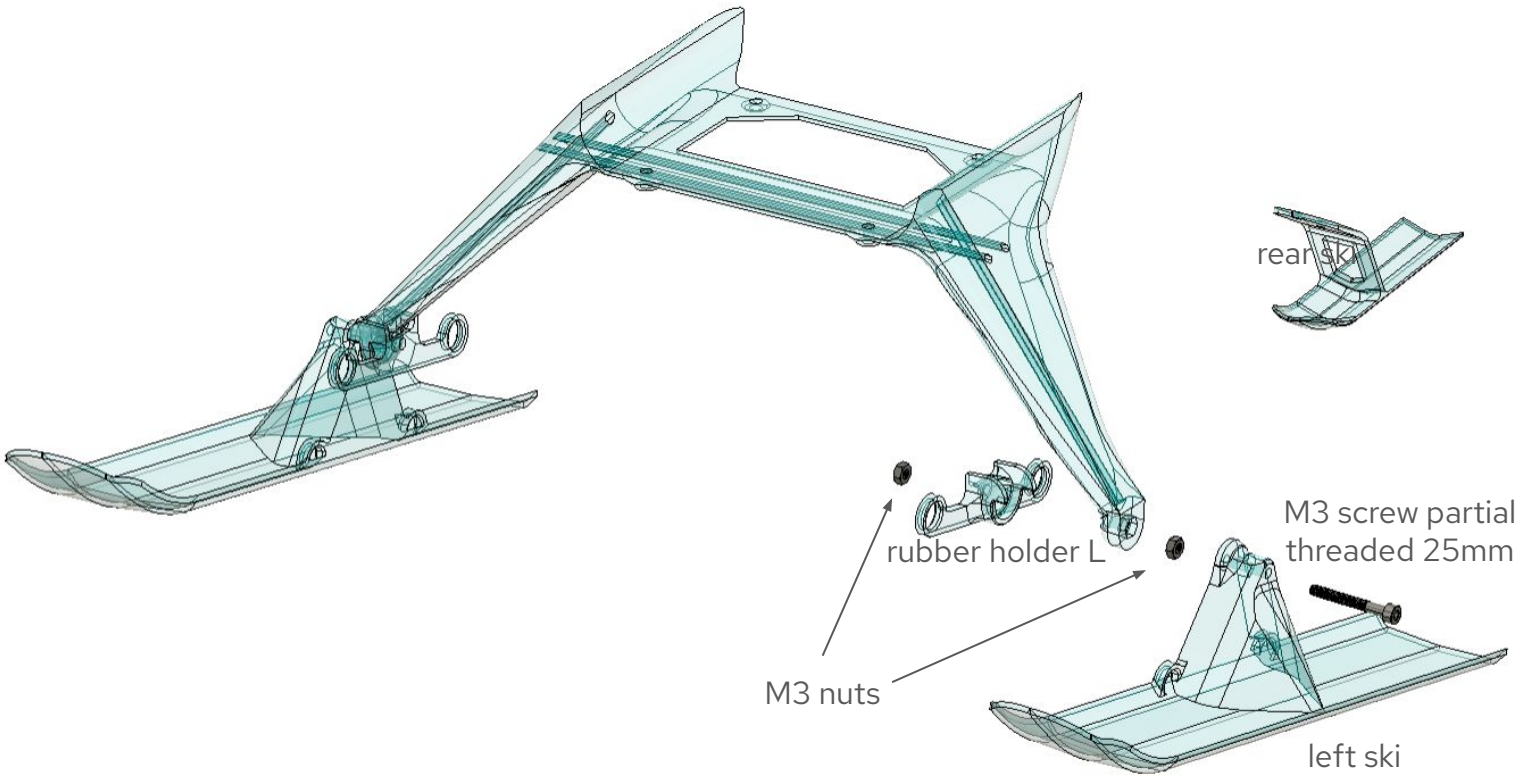
Screw on the tail linkage to the Beaver's rudder and the whole assembled floats to the Beaver.

Tie the water rudder arms to the tail linkage with thin chord or fishing line, apply light tension while you tie them.

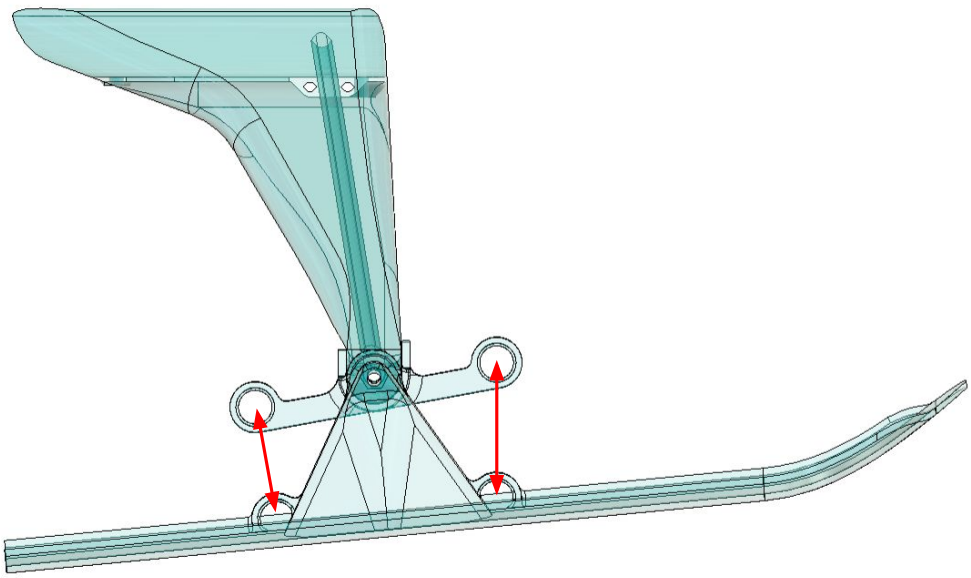
TEST the floats in water before use!!! Measure the weight before and after 15 minutes in water.

Skis

Just screw them together.

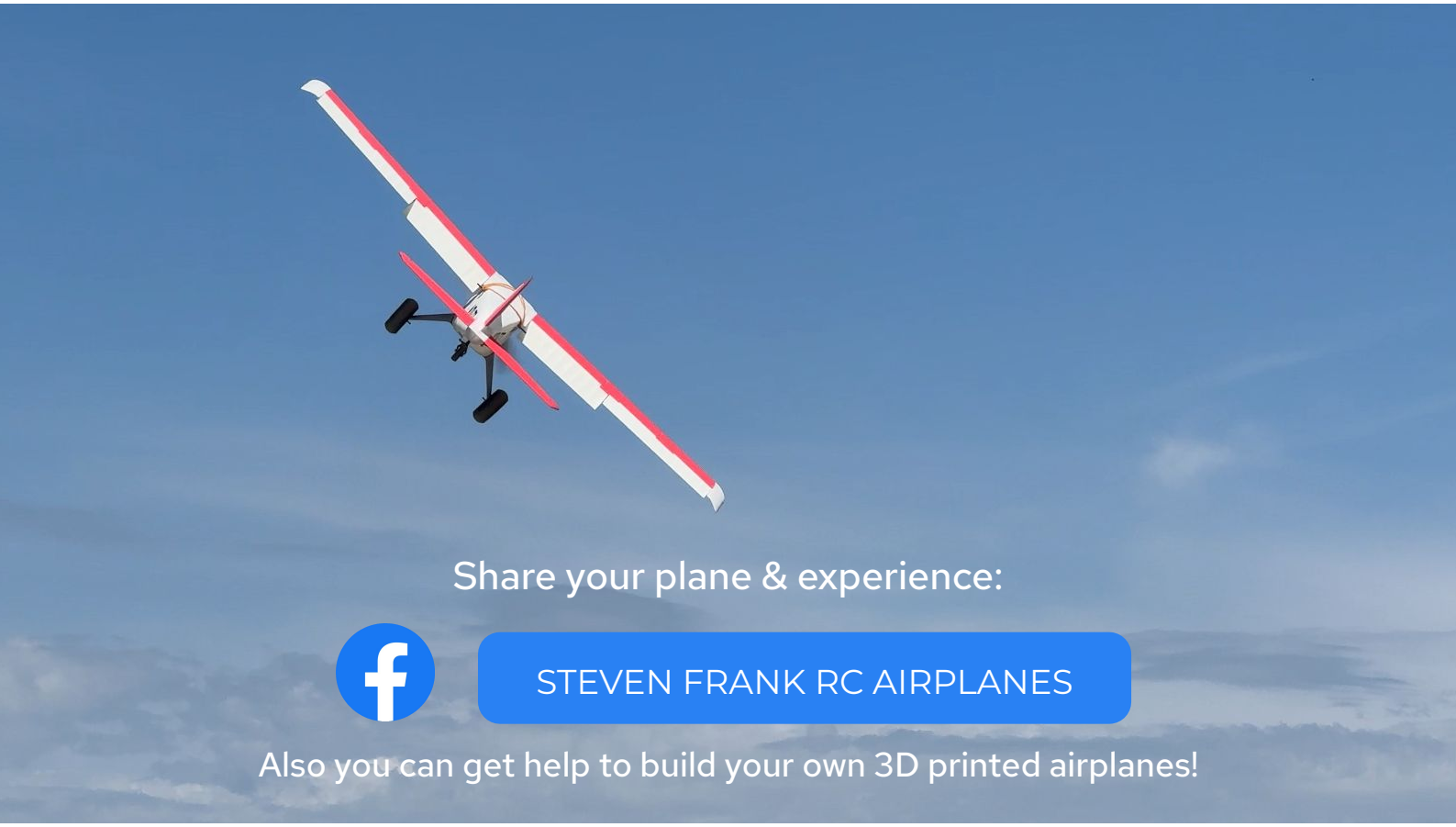


Attach the rubber bands so that the ski base is approximately at this angle.



Be cautious

Flying Over Water:
When operating over water, a crash or hard landing may result in the loss of your aircraft. Always fly over shallow water where retrieval is possible, and have a safe and responsible rescue plan in place – such as a boat, kayak, or wading gear – before your session begins!



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Thank you!