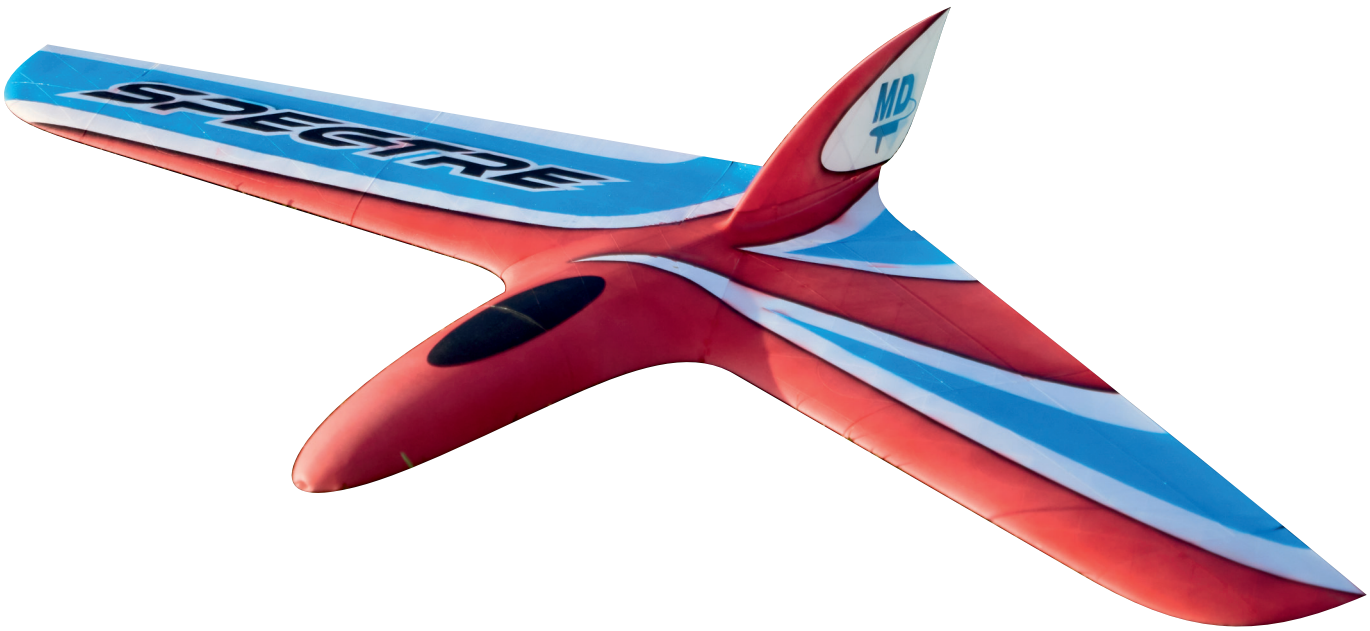
Spectre



Build Instructions

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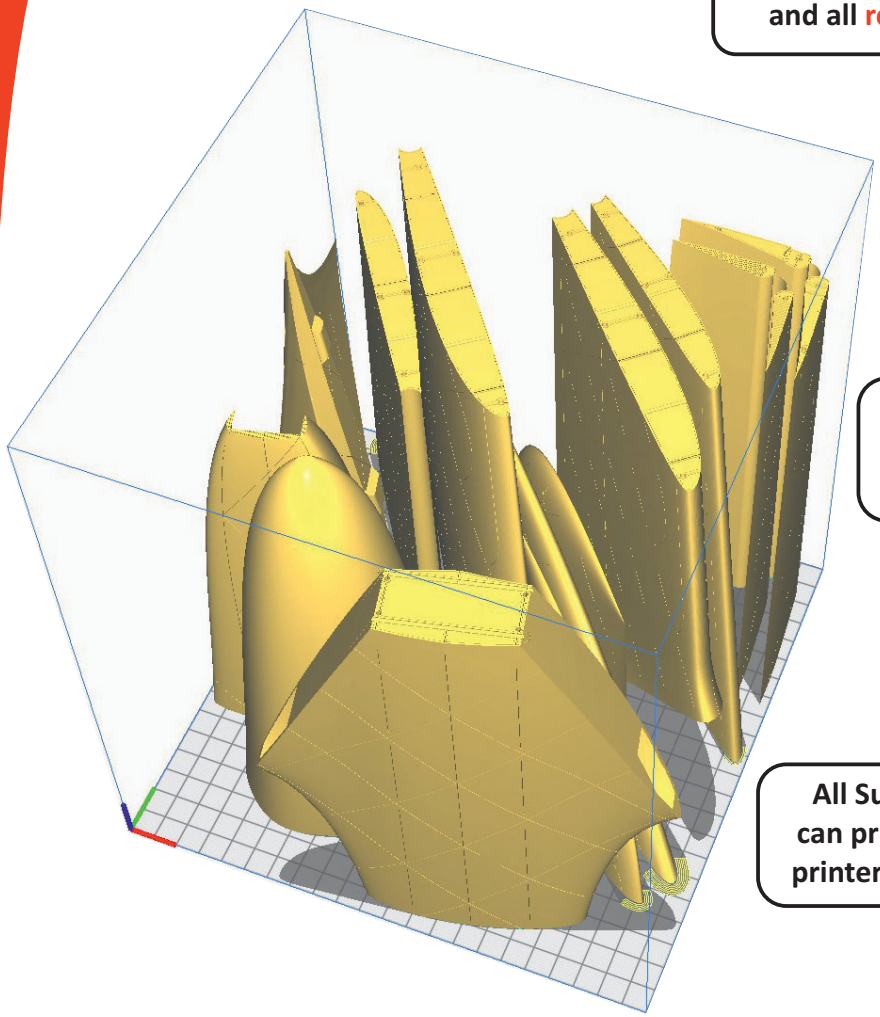
Printing

Minimum printer size:
165mm x 165mm x 200mm
0.4mm Nozzle
0.2mm layer hight

The slicer MUST have a Surface Mode. The only slicers with Surface Mode are Ultimaker Cura and Raise3D ideaMaker and their derivatives. Both are free.

All bule parts must be sliced in Surface Mode and all red parts must be sliced in Normal Mode.



Choose the material and flow to get a wing loading that you like. LW PLA at 40% flow results in a 200 gramm airplane.

All Surface Mode parts are oriented so that you can print the entire airplane at once on a 220/220 printer. LW PLA parts must be printed individually.

Scaling the plane works very well. It can be used to simply get a bigger airplane or to fit electronics that would not fit in the default size. The plane is still printable at 200% with a 0.4mm nozzle.

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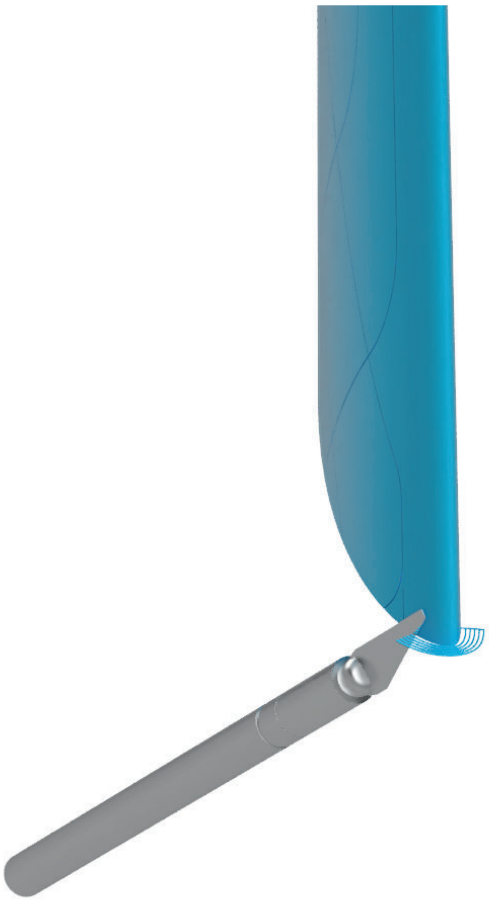
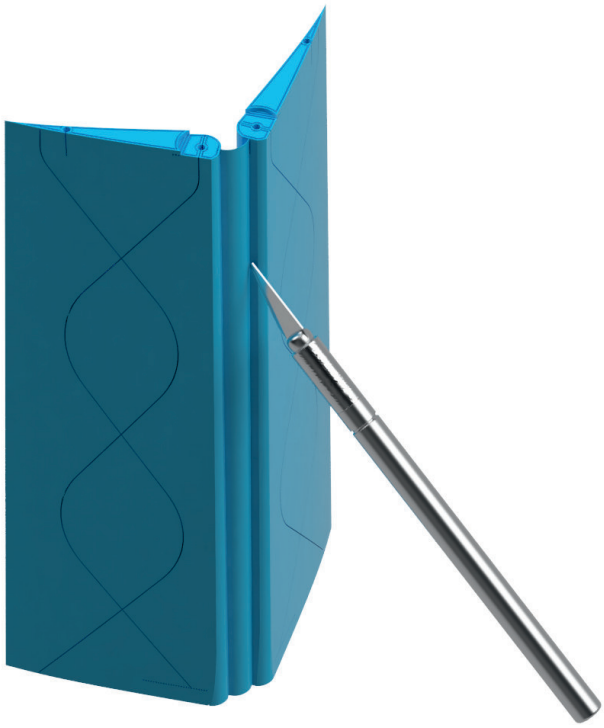
Build

Remove print incorrections and build plate adhesion helpers.



Seperate the elevons by carving multiple times with a sharp blade.



Black pins can be cut from 1mm carbon fiber rod, alternatively from 1mm steel rod. 4 are needet.

Red pins can be cut from 1mm carbon fiber rod, alternatively printed from PLA in Normal Mode. 18 are needet.

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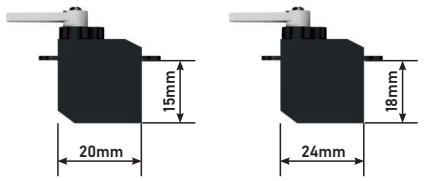
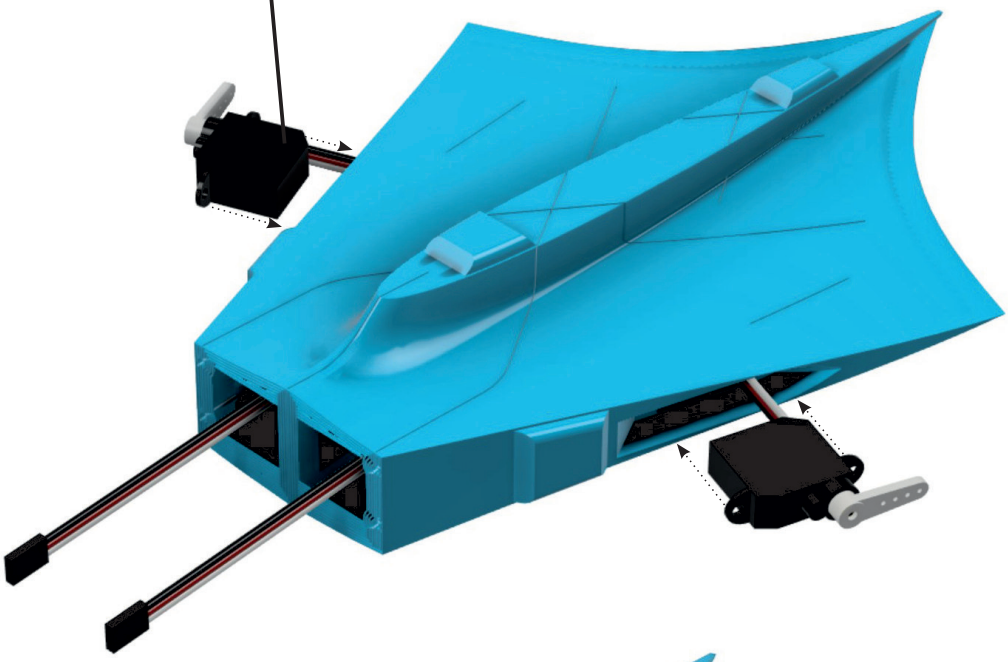
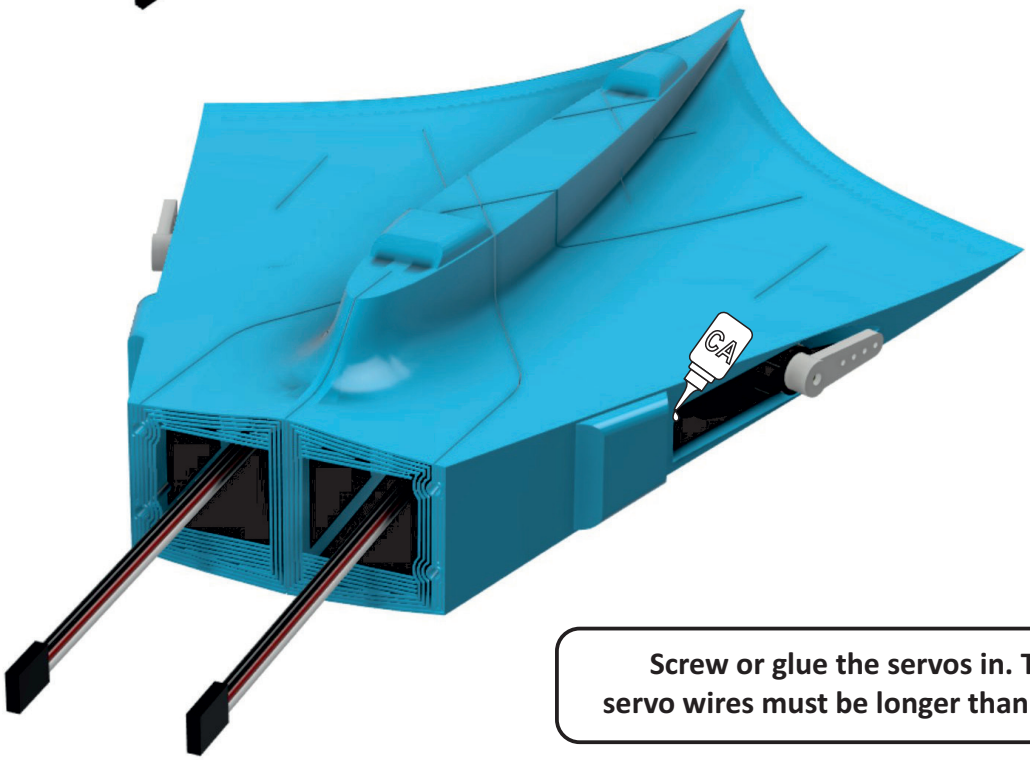
Build



2 x 8mm servos. There is a fuselage version for servos with 20mm and 24mm lenght. Metal gear servos highly recommendet!





Screw or glue the servos in. The servo wires must be longer than 30cm.

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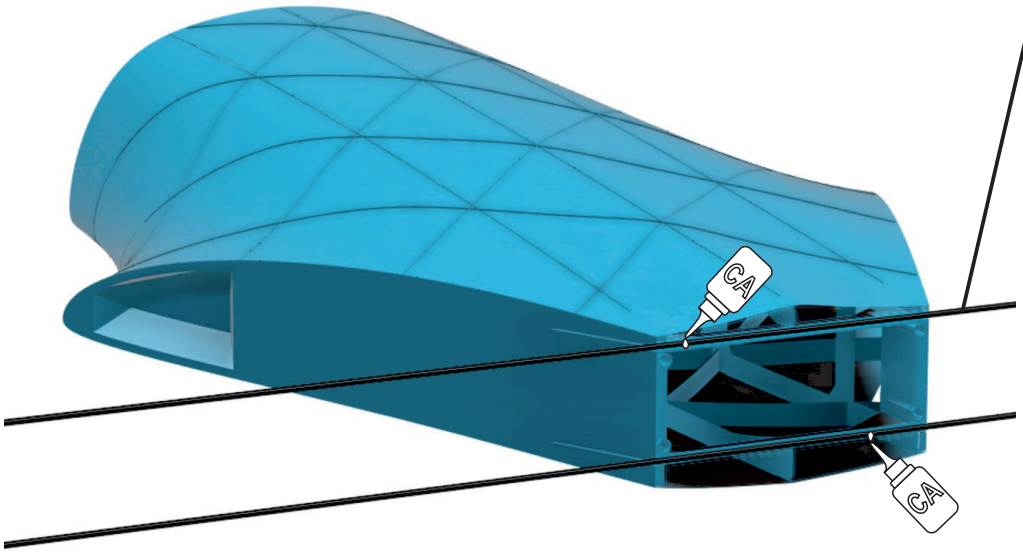
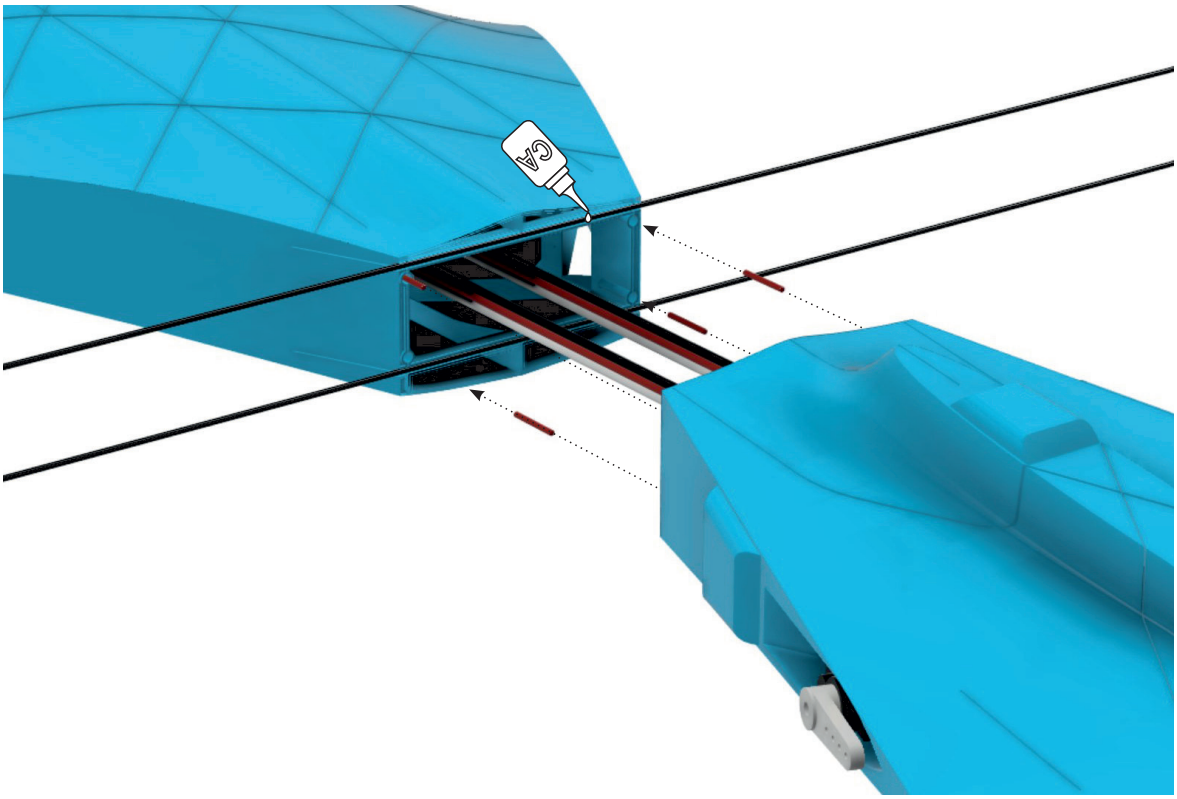
Build

2 x Carbon fiber rods 1mm x 1 meter



Glue the carbon rods right in the middle.



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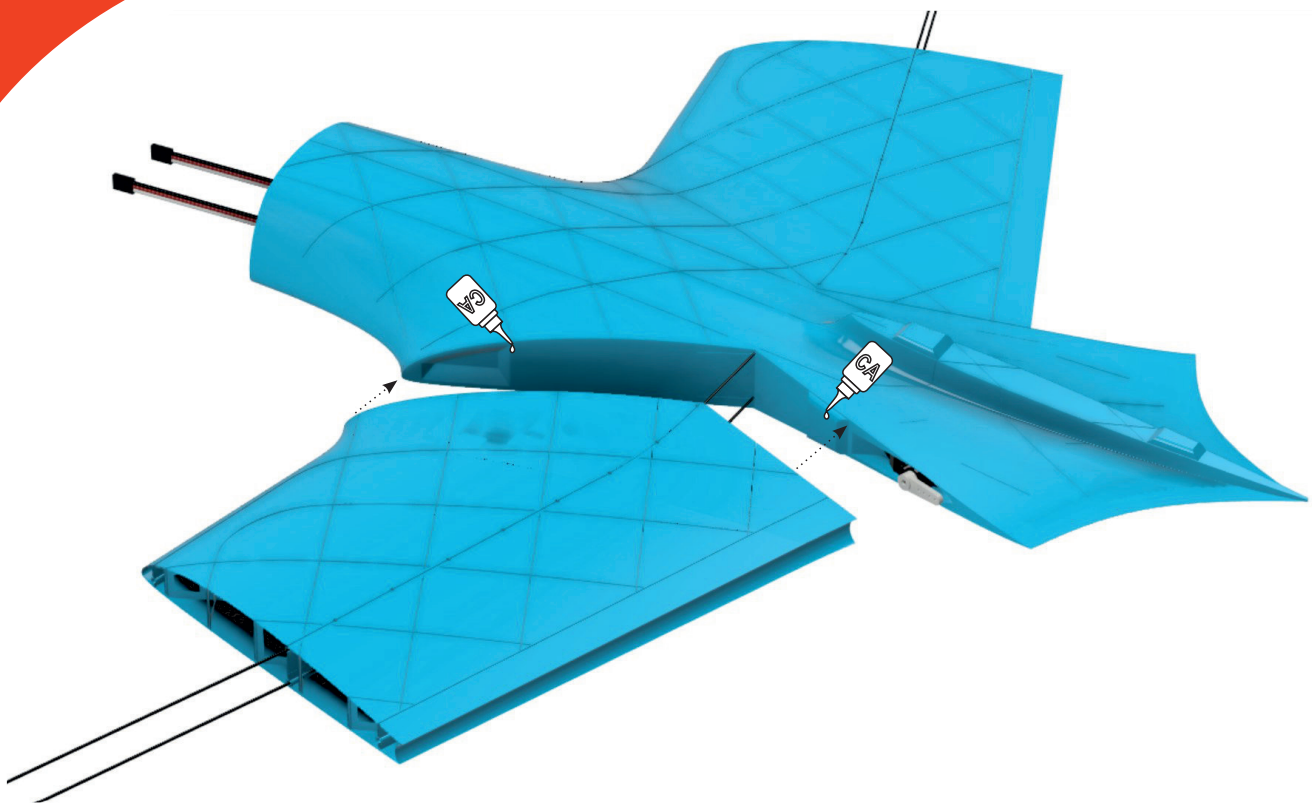
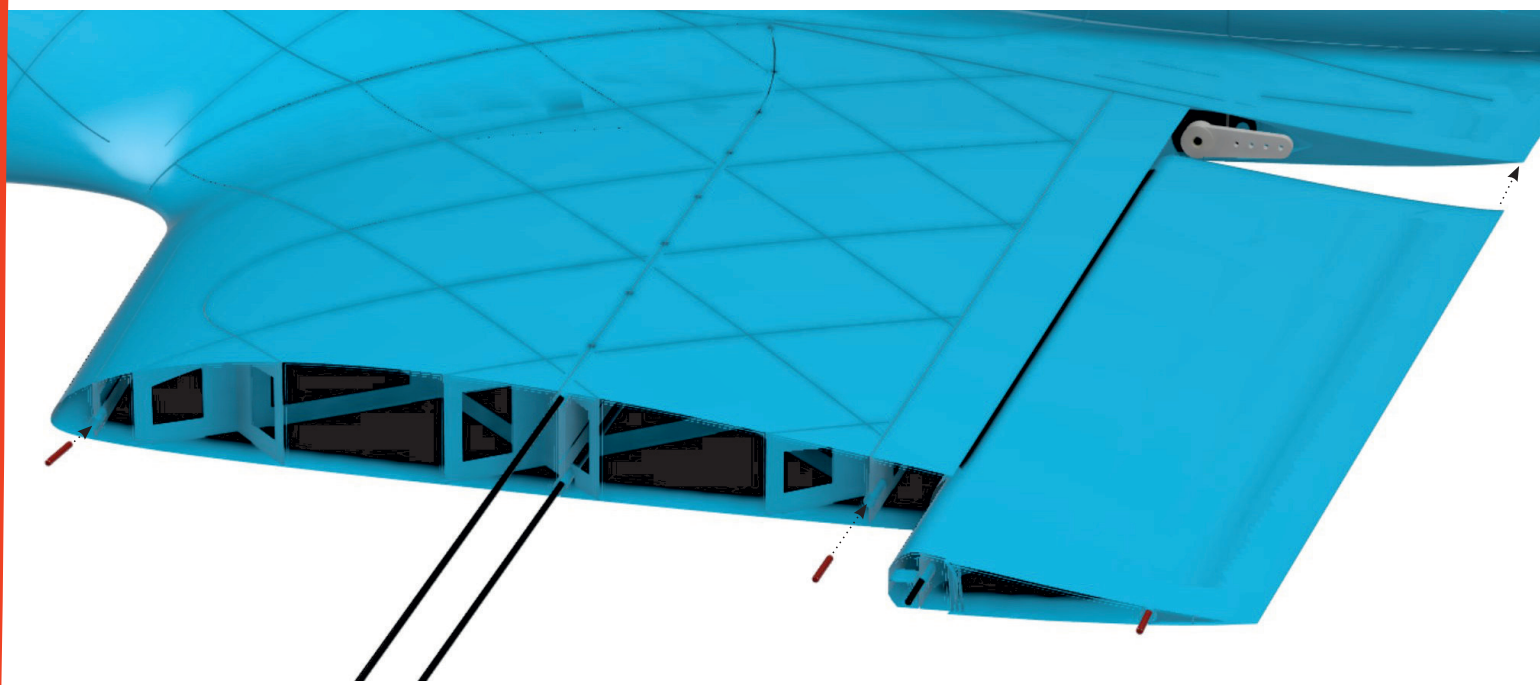
Build





The elevons should fit directly over the servo arm. A bit of cutting might be required for some servos.

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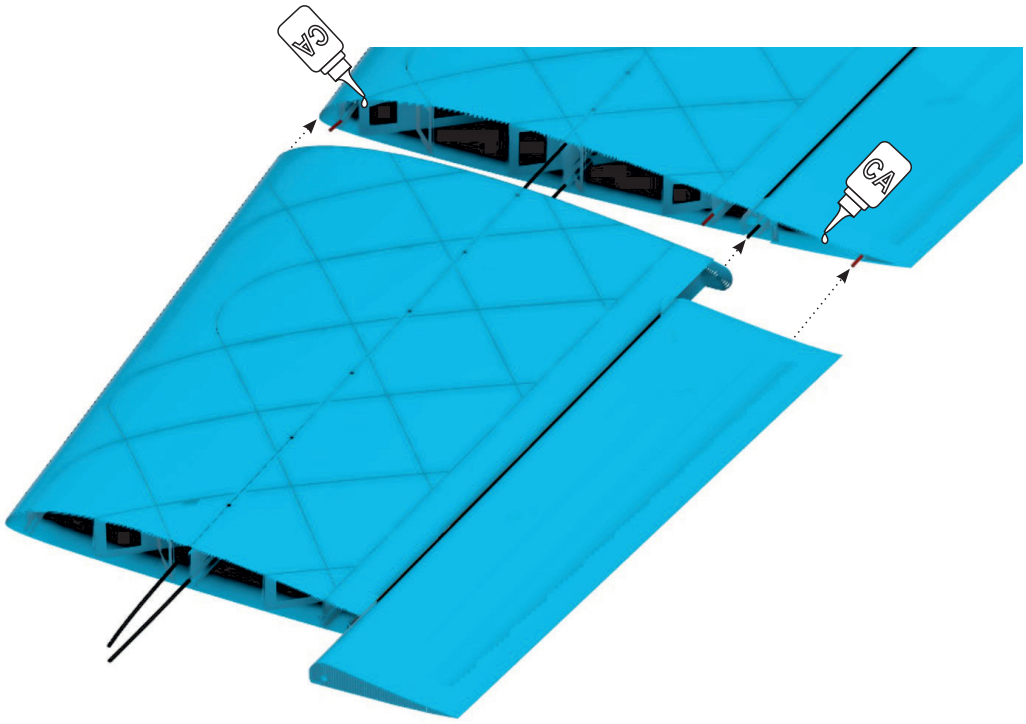

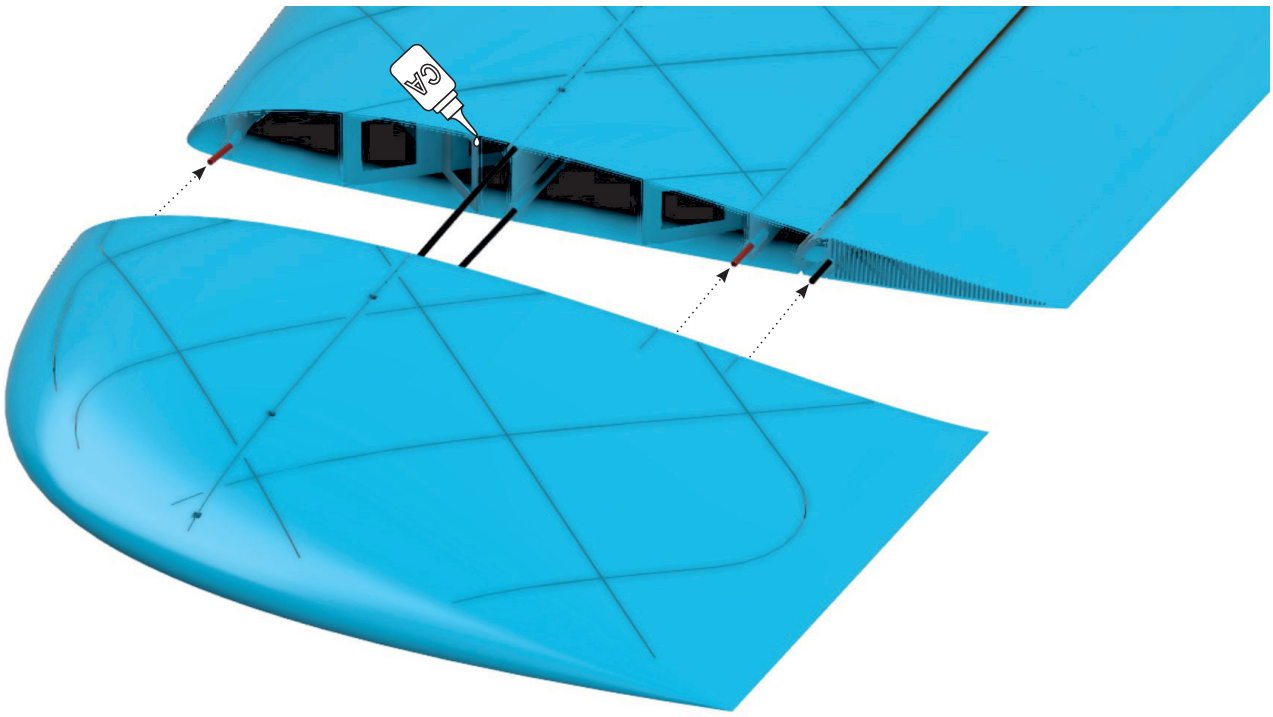

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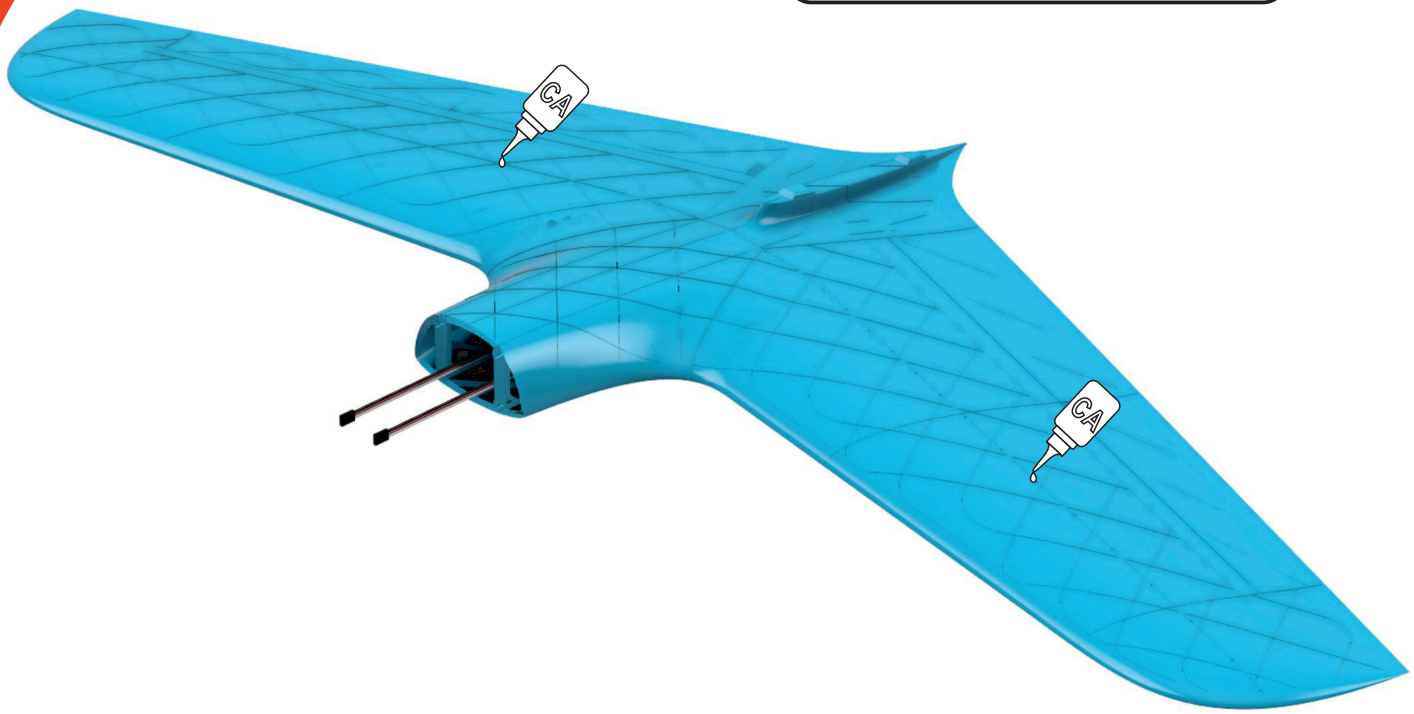
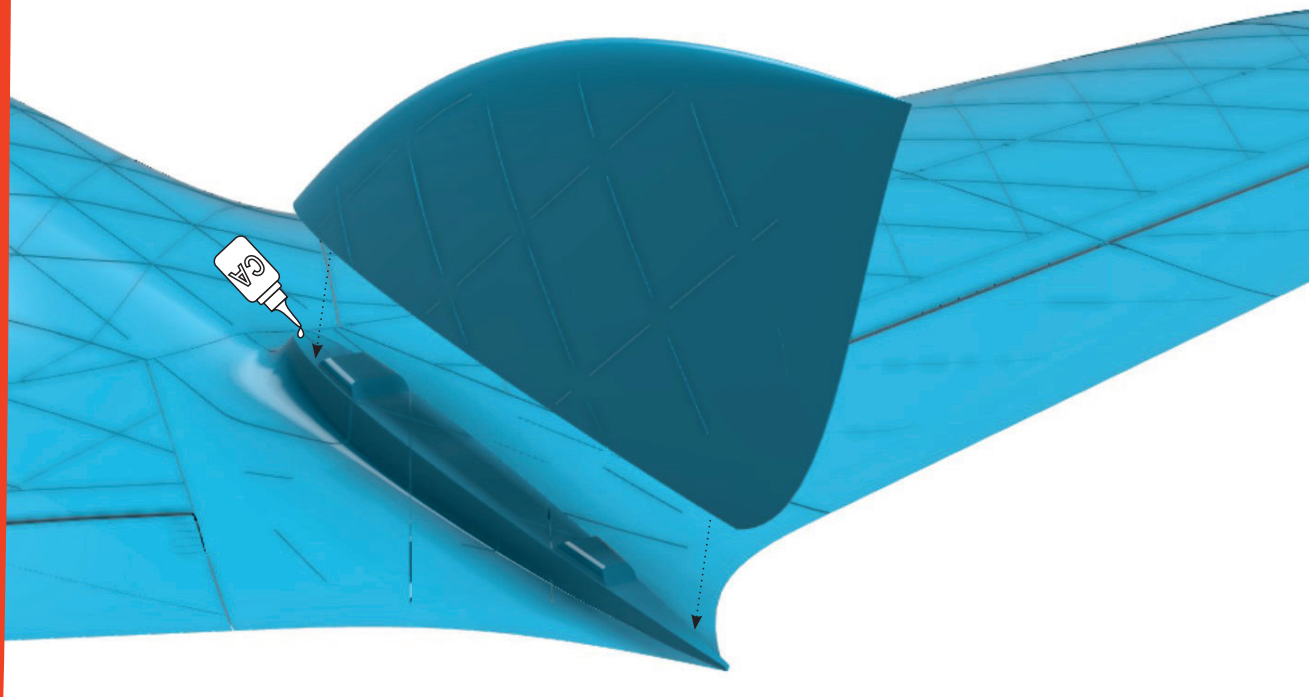
Build

Pour glue into the holes to reinforce the carbon fiber rods.





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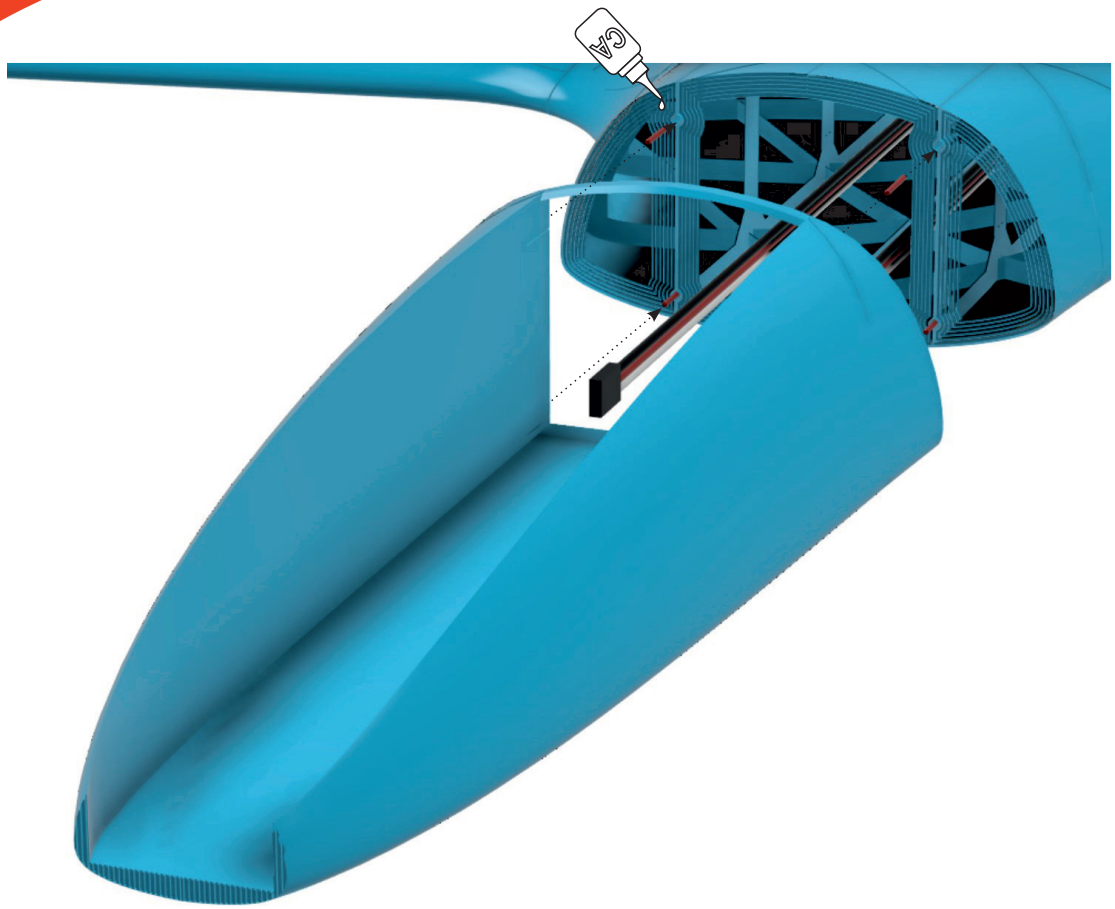

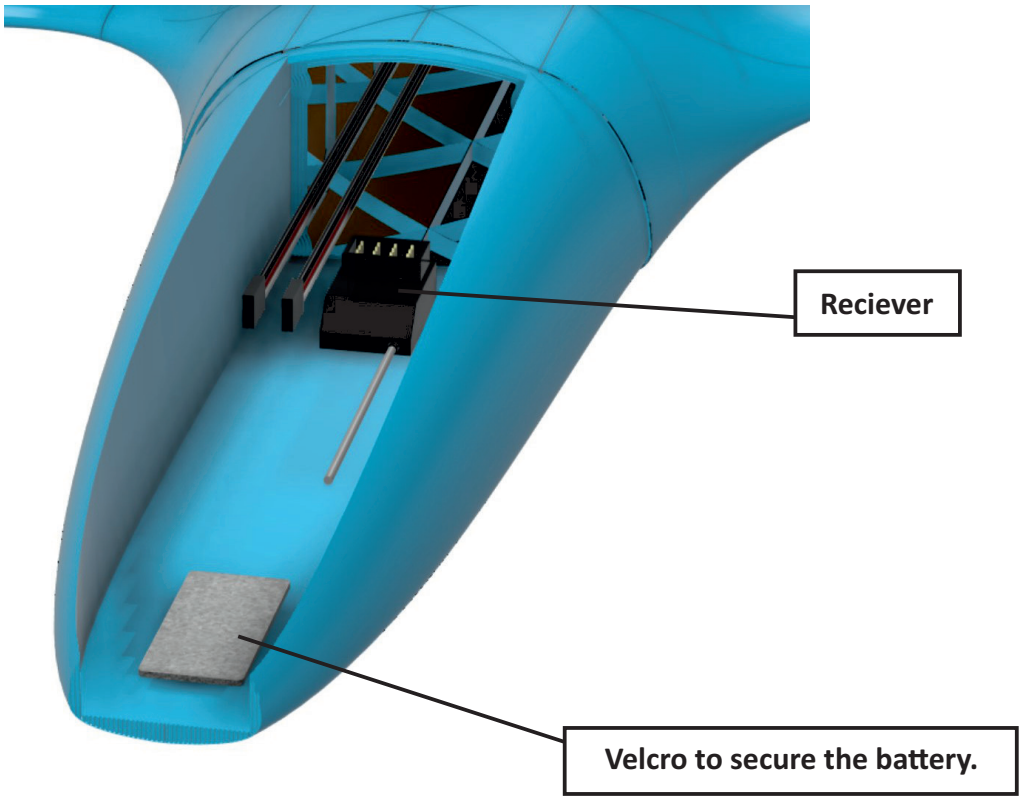

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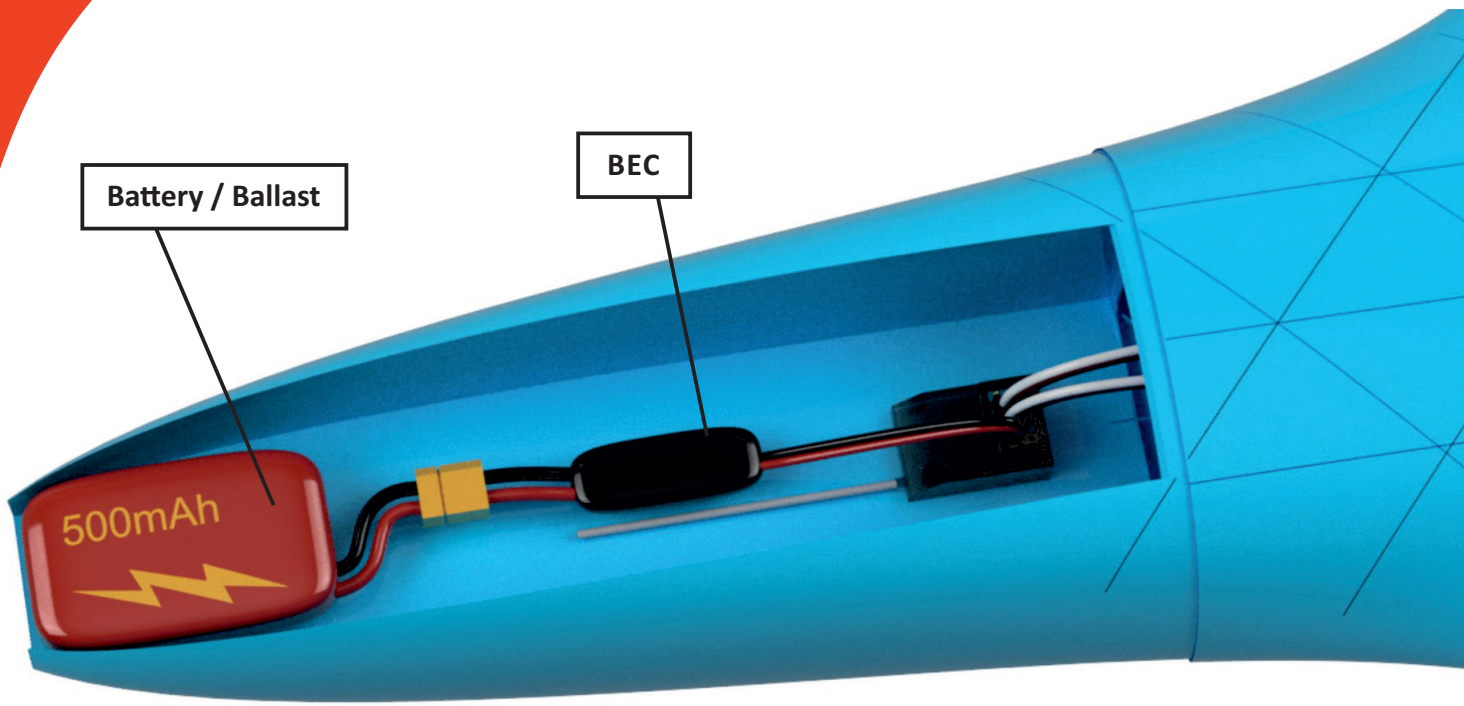

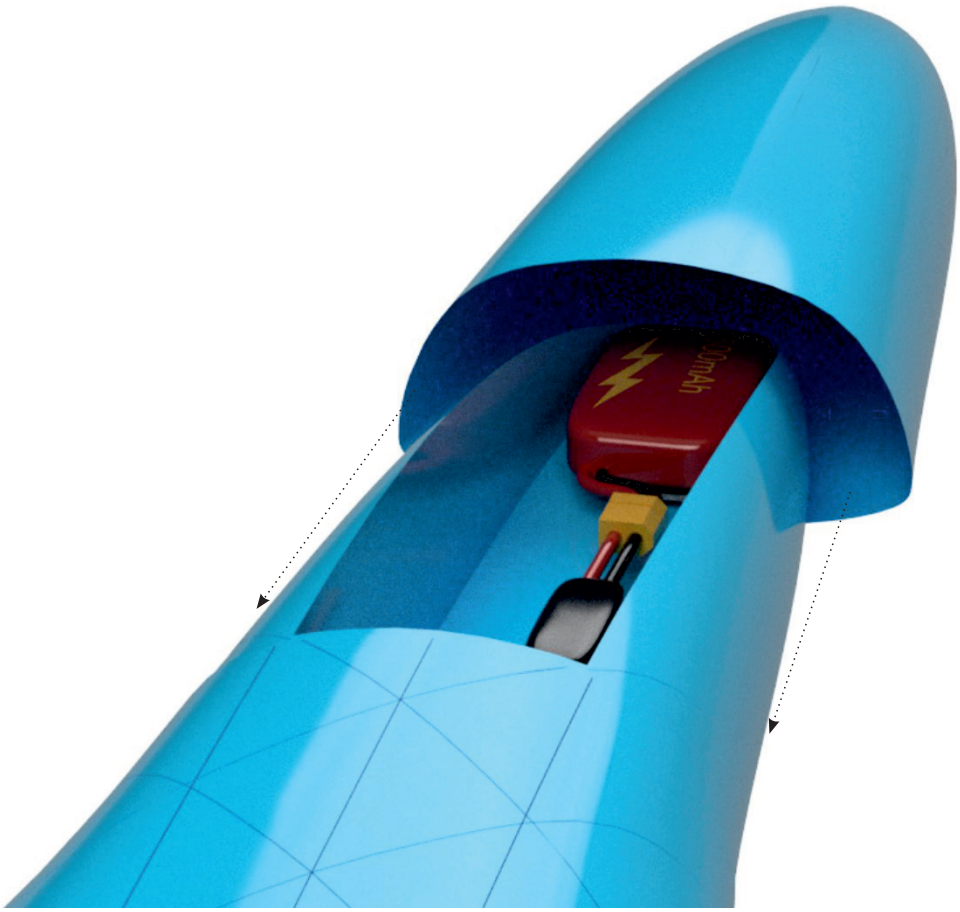

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Build

The ideal CG is 7mm behind the rearest point of the leding edge.

The recommendet throws are 25mm on elevator and 35mm on aileron.

Disclaimer

The purchase contains digital files that allow you to produce the parts for this airplane on your own 3D printer. No physical product is beeing shipped. The files are for personal use only. Please contact me if you want to use them in any commercial way.
The files may never be passed on to any third party. This is a remote controlled aircraft that requires skill, caution, and responsibility while building and while operating the aircraft. Always consider the safety instructions of any product, material or tool associated with the build and operation of this aircraft. Always be aware of possible dangers related to building or operating radio controlled aircraft. Always consider your local law when operating the aircraft.
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