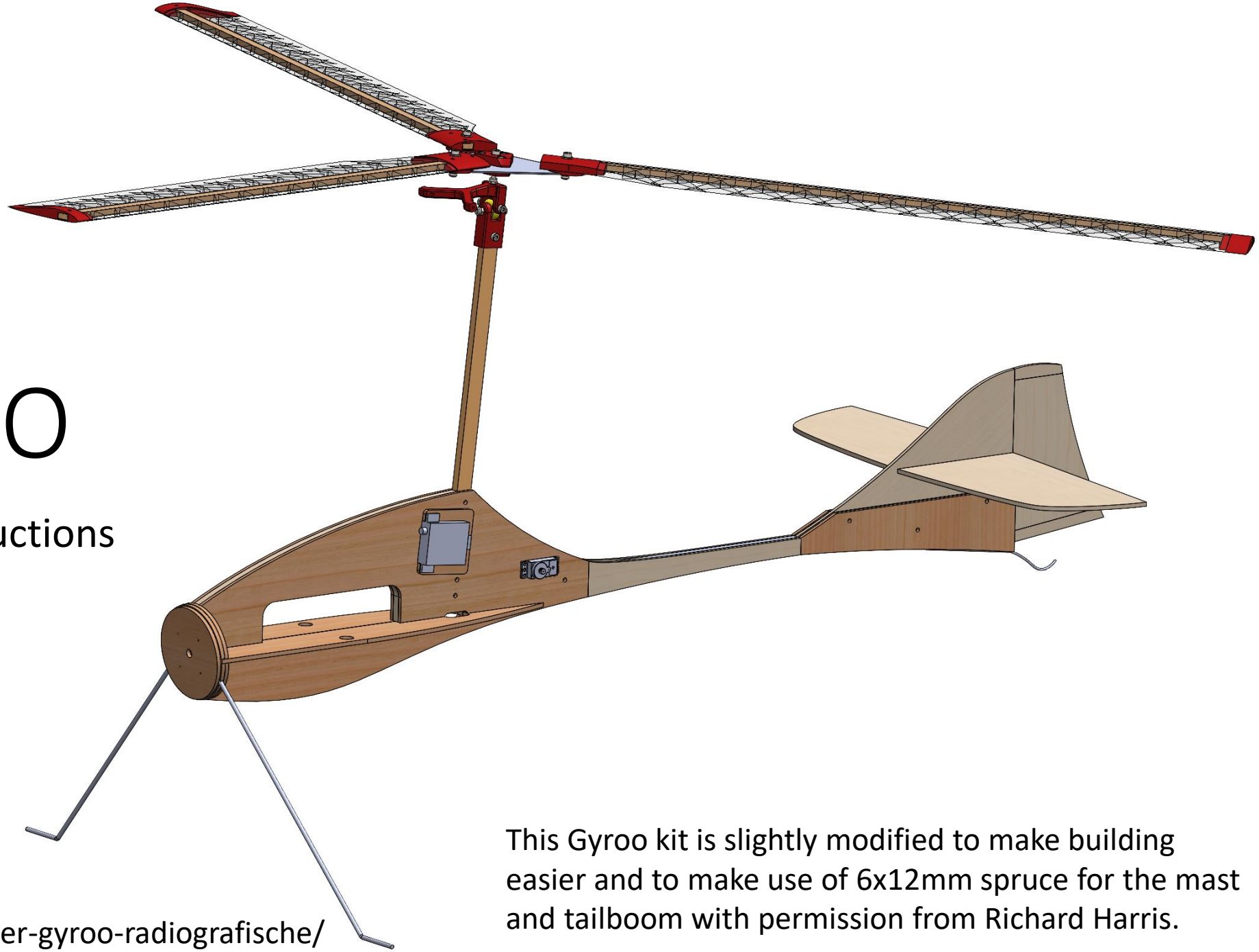
GYROO

Building instructions

HILLcnc



https://hillcnc.nl/product/gyrocopter-gyroo-radiografische/

This Gyroo kit is slightly modified to make building easier and to make use of 6x12mm spruce for the mast and tailboom with permission from Richard Harris.

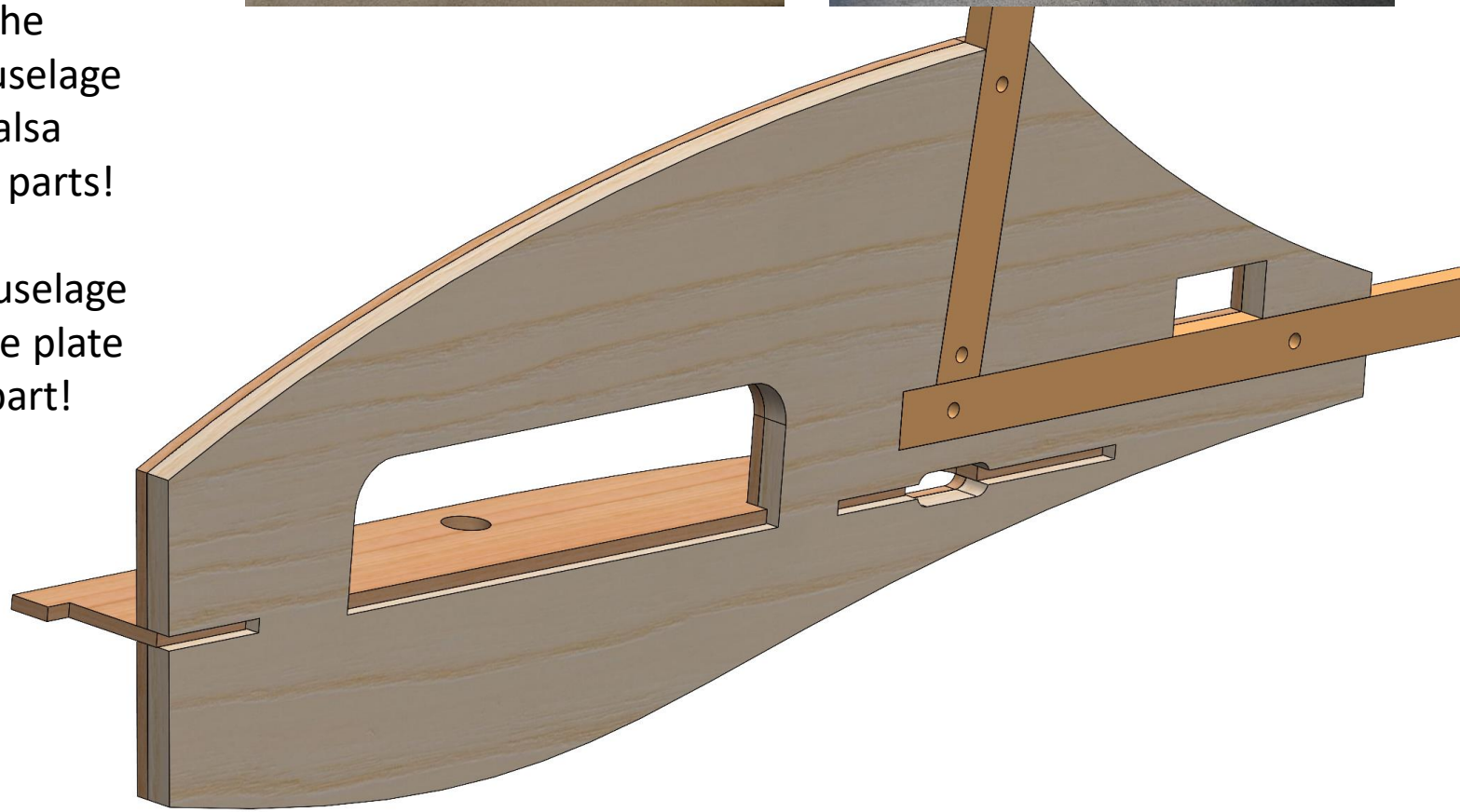
Check:
https://forums.modelflying.co.uk/index.php?/topic/48521-gyrooan-autogyro-for-under-%C2%A325/&tab=comments#comment-892158
for more information on the Gyroo

Cut the mast (260mm) and tailboom (500mm) to length

Glue the balsa fuselage core pieces onto one of the plywood side pieces. Use one of the horizontal fuselage parts, the mast and tailboom to make sure the balsa parts are in the correct location. Dont glue these parts!

When the glue has set, glue the other plywood fuselage plate onto the balsa core. Use a horizonal fulelage plate as guide for correct positioning. Don’t glue that part!

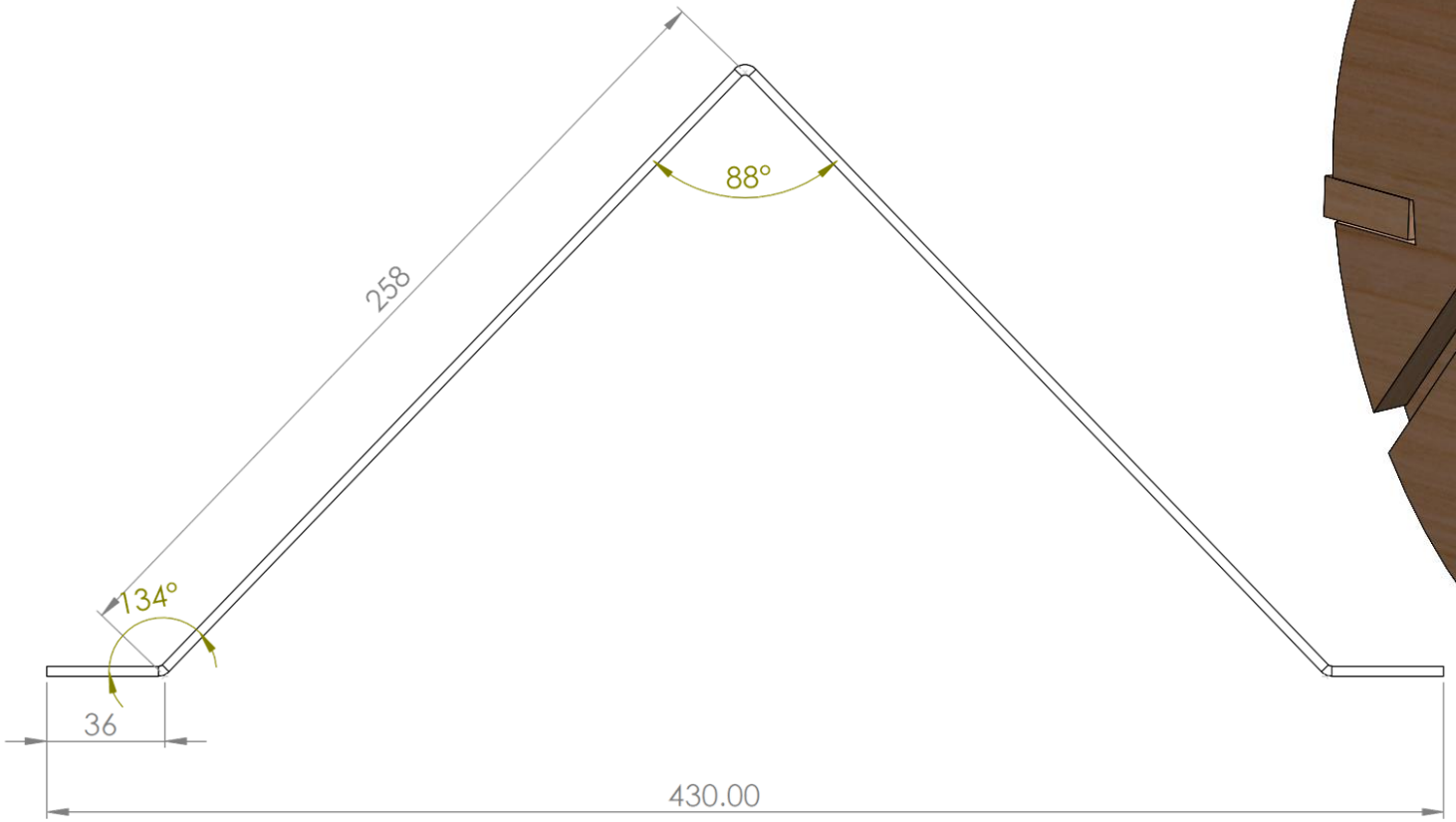
When the glue has set, slide the tail and mast back into the fuselage.
Slide the tail in first and make sure its all the way in like the picture shows.
Then place the mast.
Drill the 3mm holes as shown.



Slide the fuselage parts together as shown, don’t glue!

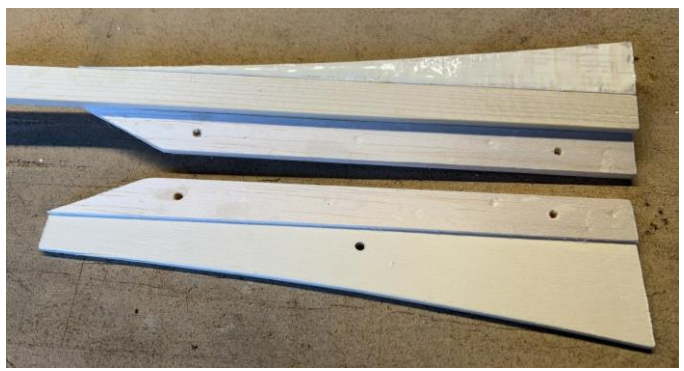
Bend the landing gear from 4mm spring steel wire. See the picture below.

Glue the rear motorplate parts together as shown in the picture. Use the screw holes and landing gear as guide. Don’t glue to the fuselage or landing gear.

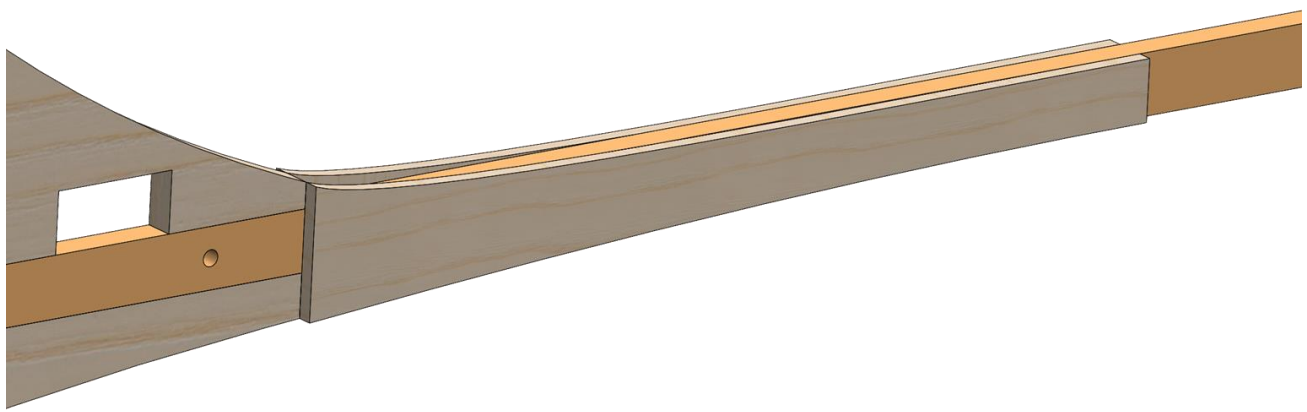


Glue the 2mm spacer and 6 mm balsa core part onto the right plywood tailplate. Use the tailboom as guide for correct positioning. Don’t glue the tailboom!

Glue the remaining 2mm balsa spacer onto the left plywood sideplate. Glue the sideplate onto the 6mm balsa core, using the tailboom as guide.
Don’t glue the tailboom

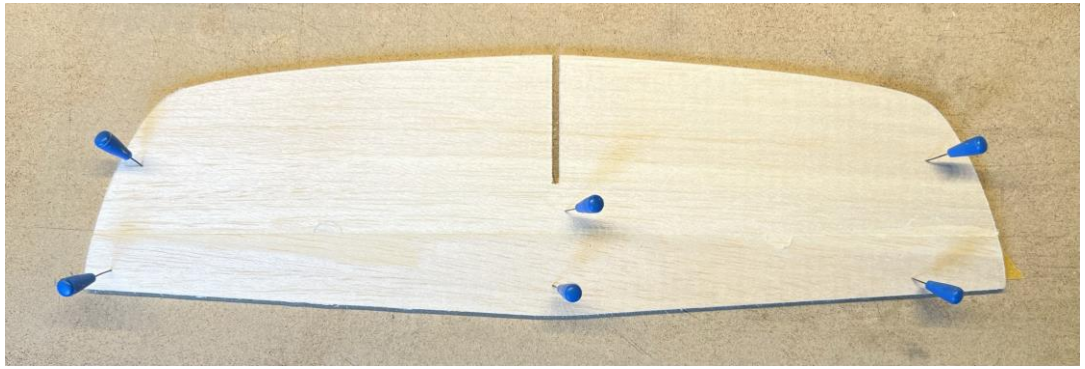


Slide the tailboom into the fulelage. Glue the 3mm blasa sideplates to the tailboom. Carefully align like the picture shows. Fill the gap above and below the tailboom with some scrap 6mm balsa. Take care not to glue it to the fuselage.



Slide the tailboom into the tail and slide the vertical stabiliser into the tail. Carefully align and drill through the 3mm holes.

Glue the vertical stabiliser parts together and sand smooth. Round the leading edge.



Glue the rudder parts like shown.
Lightly sand both sides until smooth.

Sand the hinge line at 45 degrees like shown.

Covering:

Sand all parts and round the sharp edges, except for the trailing edge of the horizontal and vertical stabiliser.

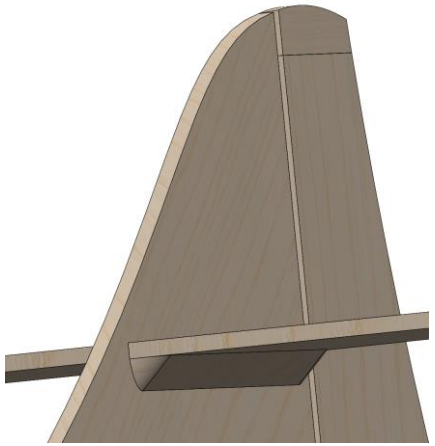
Use some small screws to assemble the front and rear motorplate together and sand it into a nice smooth coneshape. Disassemble after sanding.

I find it easier to cover the parts before final assembly. Take care not to cover parts that slide into other parts and have to be glued.

Cover the front and rear motorplate
Cover all the fuselage parts
Cover the central part of the tailboom
Cover the tail pieces and rudder. A hinge can be made from covering film for the rudder.

Final assembly:

Glue the fuselage parts together and glue the rear motorplate to the Fuselage using 2K Epoxy. Glue the vertical and horizontal stabiliser.
Use some scrap 6mm balsa sanded into a triangular strip, cover the outside and glue it into the corner underneath the horizontal stabiliser like shown.



Cover one side and the edges of the servo frame. Position it like shown in the picture. Make sure the servo mounting screws don’t drill into the mast.

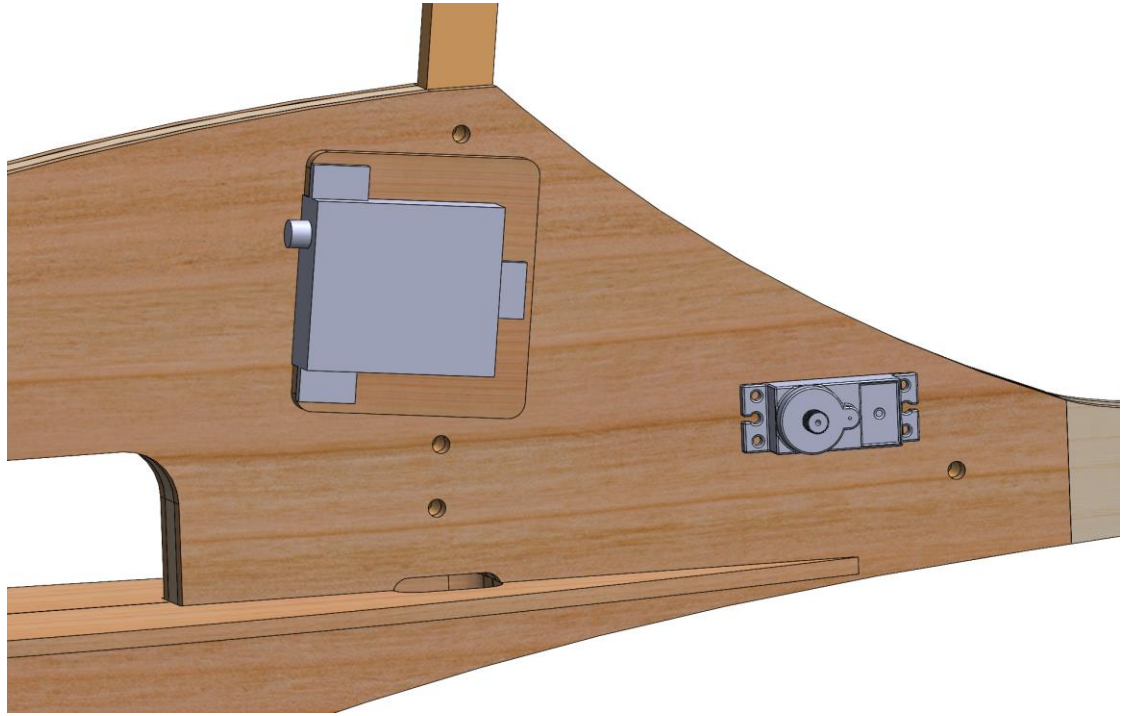
Remove the covering from the fuselage under the servo frame and glue the frame to the fuselage.

Mount the other head servo in the same spot on the other side of the fuselage. There are holes in the fuselage to pass the servo wires through allowing for a neat installation.

Mount the rudder servo in the position shown.

Place the landing gear into the groove of the motor plate. Place the front motorplate and the motor and secure both to the fuselage using 4 screws through the motor mount.

Slide the tail boom into the fuselage and fix with M3 screws and nyloc nuts. Slide the tail assembly onto the boom and fix with M3 screws and nyloc nuts. Fix the vertical stabiliser to the tail assembly with M3 screws and nyloc nuts. Don’t over tighten any of these screws.



Additional parts for 3D printing:

Rotorhead:
https://www.thingiverse.com/thing:6012124

Rotorblades:
https://www.thingiverse.com/thing:6003931

Small parts for the tail:
https://www.thingiverse.com/thing:6012085