extron MODELLBAU

Oldiman / # X5533

assembly instructions

wingspan 1500mm

R/C flight model for electric drives
Control via 4 channels (rudder, elevator, aileron, motor)

MADE IN GERMANY

English instructions are available for download. Please check the product page on our website **Instructions in French** available in téléchargement. Visit our website Internet. **Istruzioni in Italian** available for download. Visit our website on the web.

Please check the kit contents before starting construction. If any parts are missing or damaged, please let us know immediately by email to **service@pichler.de** We will help you as quickly as possible.

ATTENTION - The appearance of the parts included in the kit may differ from the pictures.

Read these instructions completely before you start building. Familiarize yourself with the basic structure. Please check the Oldiman product page in our online shop **www.pichler-modellbau.de** to see if there is a newer version of these instructions or additions.

The kit is aimed at advanced model builders who have experience in building model aircraft. The model was specially developed for electric drives and is not suitable for combustion engines.

Pay particular attention to good bonding and use BINDAN propeller glue for wood bonding. In our experience, this is the best wood glue for our purposes. Areas that are particularly stressed can also be bonded with 5-minute epoxy. If you need to do it quickly and no major stress is expected, ZOOM superglue can be used.

For optimal flight characteristics, we recommend the Extron brushless drive set, servos and batteries that we recommend. In addition, everything is ready to plug in, so no soldering is required.

A more powerful battery or motor does not mean more power. On the contrary, the performance of the model may deteriorate with a larger or heavier battery/motor. The model was developed, tested and flown by us in the proposed configuration.

Special accessories:

Brushless drive set Oldiman, # X5534
LiPo battery EXTRON 3500-3S, #X6419
battery Velcro strap, # X6667
adapter plug, # X6460
Servos ED120, # X5601 / x4
Servo extension cable 200mm, X6901 / x4
remote control system MASTER GigaProp 6, # C8802
surface protection bags, # X6625
pilot doll DANIEL, # X3265

We recommend the following accessories for building the model (see also www.extron-modellbau.de):

Extron building board, Building Board 900 x 300mm, #
X5535 Hinge slot set, # C5829
Mini balsa plane, # C8891
Sandpaper file, # C5565
BINDAN propeller glue, # X3577
Plastic adhesive rower L530, # C3583 ZOOM
CA adhesive, # X3571 + X3572 Fix It!
Metal clamps 50mm, # C4919 Crimping
pliers, # C8333 Fix It!
Quick clamp, # C4922 Push pins
(50pcs.), # C2434 Foil iron, #
C9758 Protective cover for
foil iron, # X9983

We recommend **ORACOVER** covering film for covering the model .

Adhesive recommendation. We generally recommend using BINDAN propeller glue. This will ensure permanent, secure bonding.
ZOOM superglue can also be used for gap-free connections.
For particularly stressed areas we recommend ZOOM 5-Min. Epoxy.

construction of the wing

Protect the construction base with a film.
Staple the lower main spar (G2) 10×3 balsa onto the building board. **We recommend the Extron building board, Order No. X5535.**

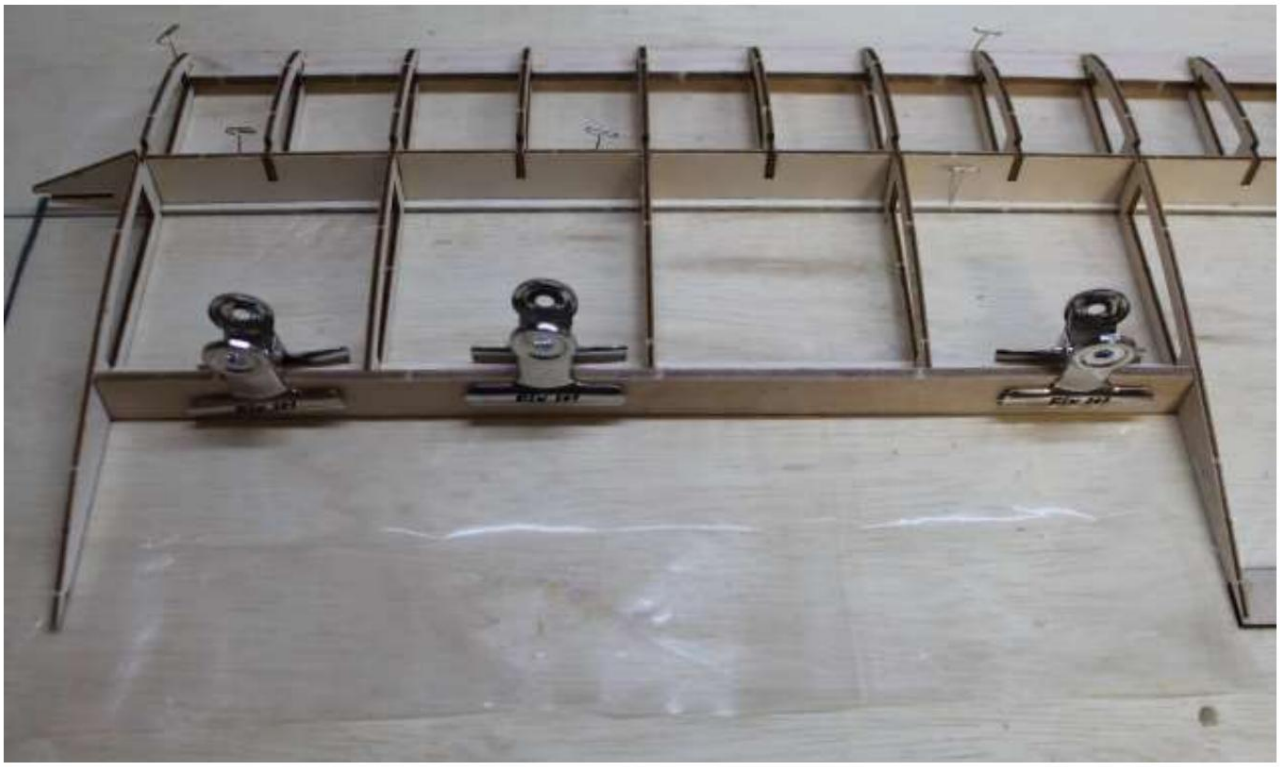
Glue the rib comb (B5) in the middle.

Insert the ribs in the order (from the right) D2, D3, D4, C2, D5, C1, D5, C1, C6, C1, C6, C1, C3, C1, D6 into the rib comb, align them at right angles to the main spar and fix them in place with superglue. **ATTENTION** On the assembly (B) there is a 90 degree angle construction aid made of lasered parts that you can use.

Insert and glue the leading edge (K1), finally glue the ribs to the rib crest.

Insert the end strip (J2) into the rib ends, align and glue. Make sure that the starting rib (D2) is straight and at a right angle to the main spar.

Glue the end strip (A5) into the aileron cutout with ribs.



Glue the end strip (i1) made of 5 mm balsa vertically into the aileron cutout using Bindan wood glue.

Glue the upper main beam (G2) with Bindan wood glue.

Glue the edge arch (C8) to the rib (D6).

Glue the rear part of the edge arch (C9). Make sure that it runs slightly diagonally towards the end of the rib.

Glue the edge arch rib (C11+C10) to the edge arch (C8) at the top and bottom.

To build the aileron, place the end strip (J1), attach the half ribs in the order (from the right) C4, D8, C12, C4 and C4, insert the front end strip (A6), align everything at right angles and glue.

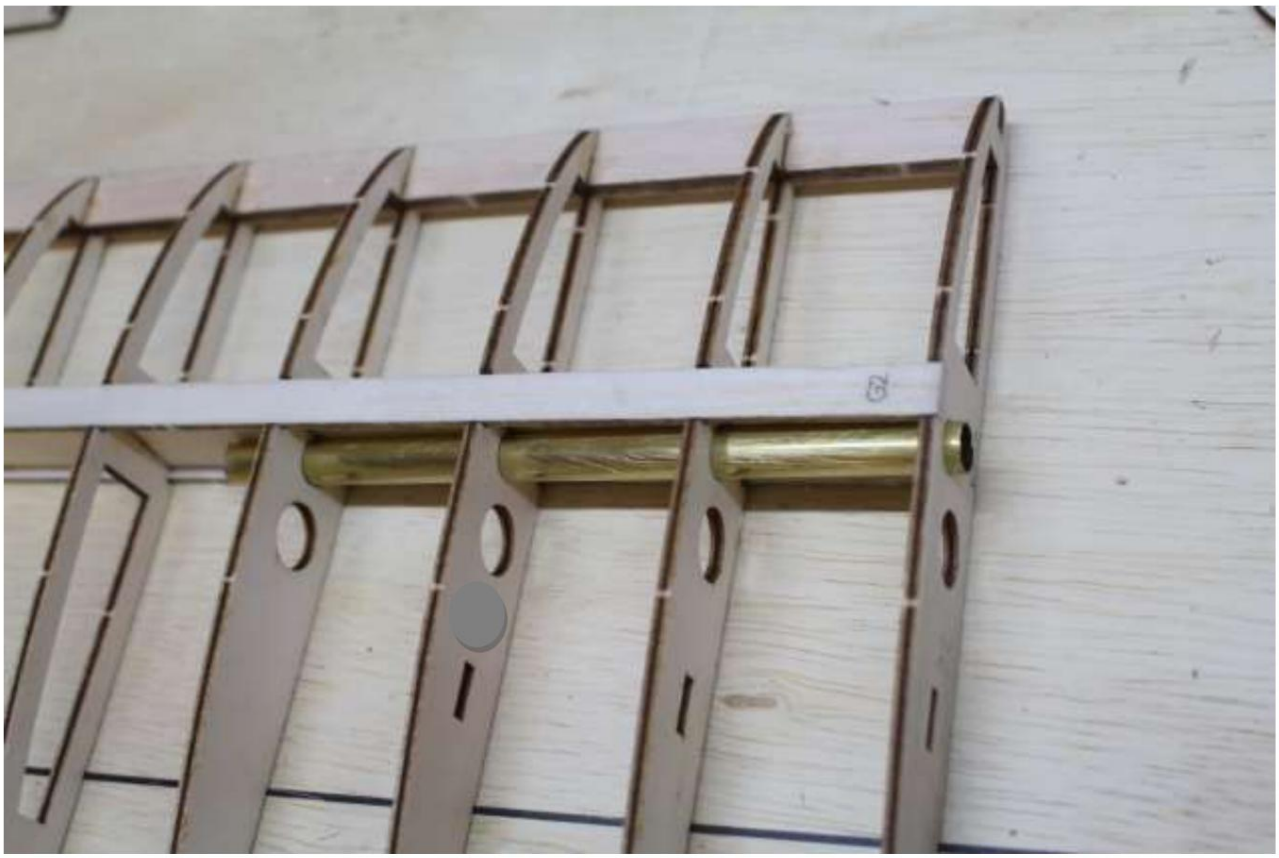
Place the 5 mm balsa end strip vertically in the aileron cutout (do not glue it to the wing!).
Coat the front of the aileron frame with Bindan wood glue.

Push the aileron frame towards the end strip. Align it and secure it against shifting.

After drying, turn the aileron over and glue in the boards for the control horn mounting (C7).

Turn the wing over and glue the servo board (B6)

Remove any excess on the rib (D2) and sand it flat. To do this, you can use the **EXTRON sandpaper file, Order No. Use X5565.**



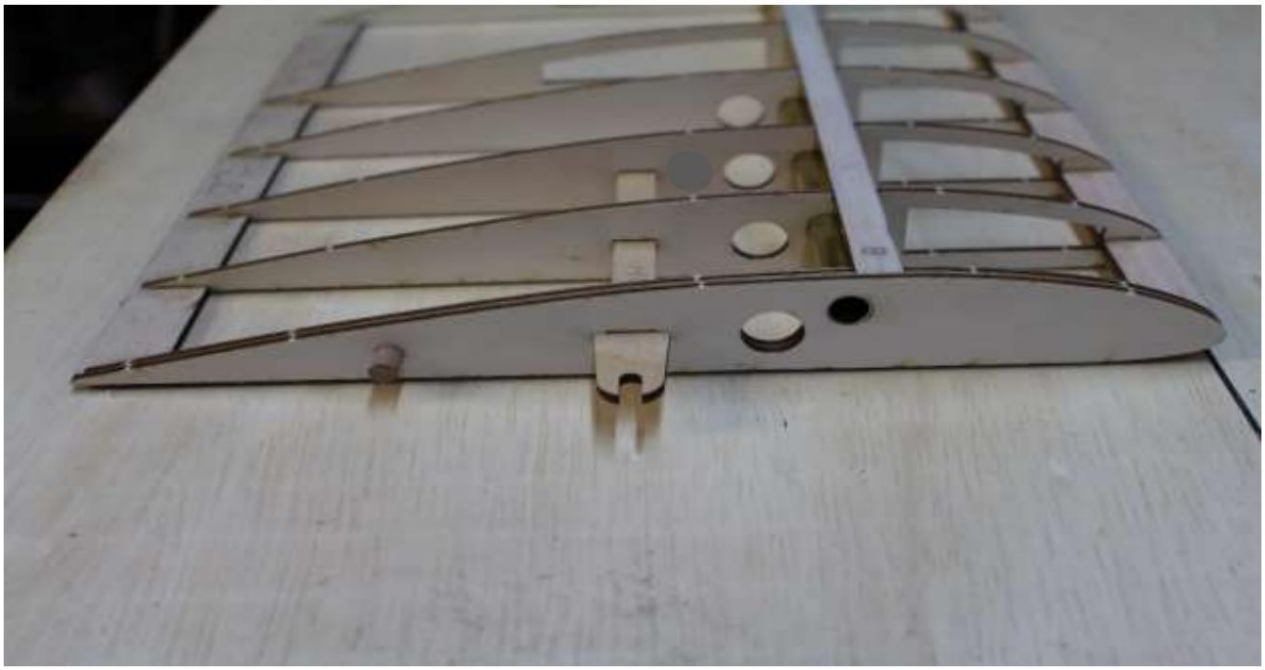
Insert the wing connection tube (brass 9×7mm) into ribs (D2) to (C2) and glue with 5-minute epoxy. Caution: Allow the wing connection tube to protrude approx. 2.5mm from rib (D2). Insert the plug (G1) at the rear end of the tube.

Note the hinge line on the wing and aileron and mark if necessary

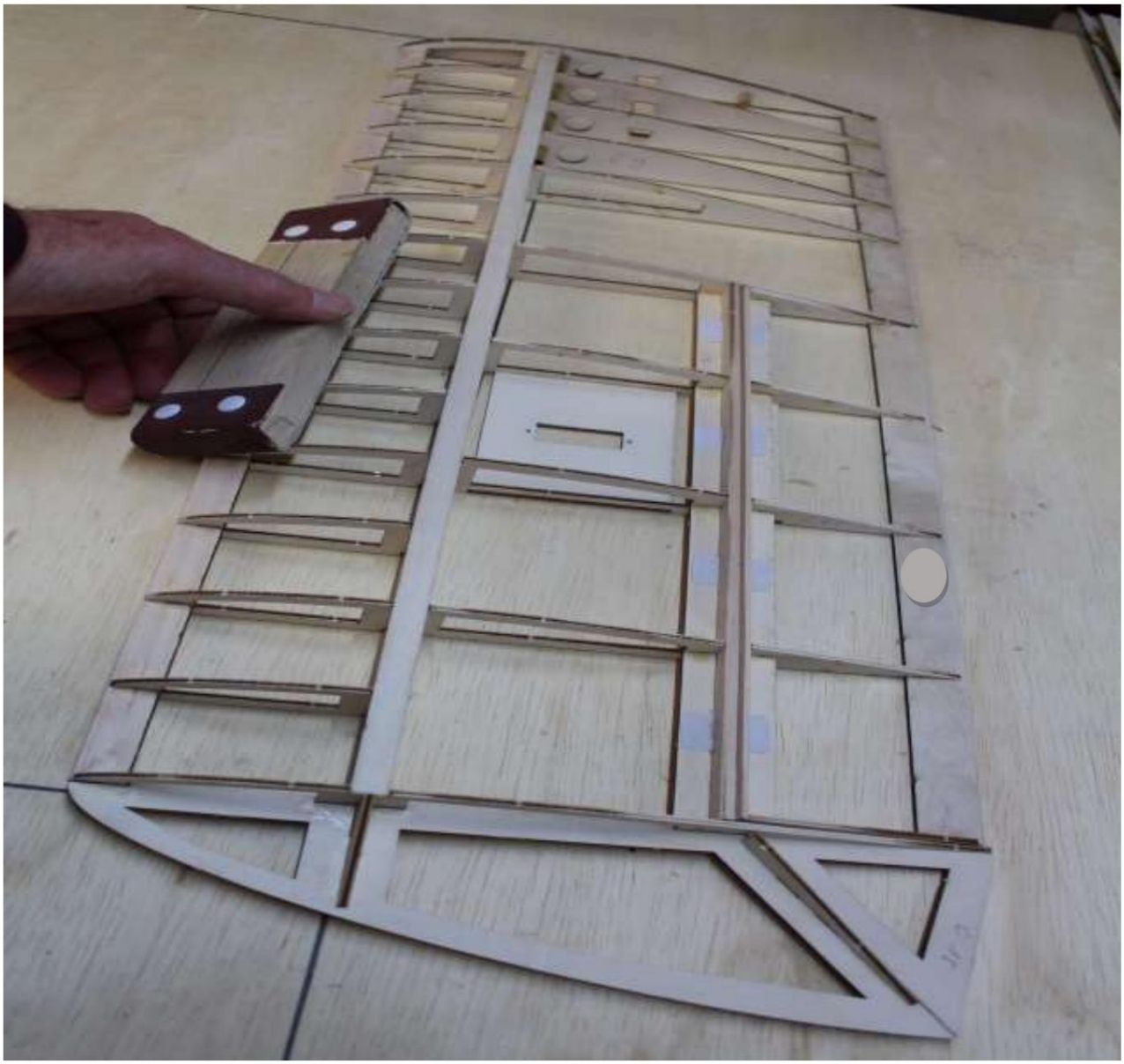
Make slots for hinges using a hinge knife. We recommend the **hinge cutting slot set, Order No. C5829.**

Insert the hinges and attach the ailerons to the wing. The hinges are only glued in after the covering has been applied! Sand the end strips on the wing and ailerons to match the profile.

Grind the aileron end strip to a point as shown.



Glue the deck rib (D1) with dowel and holder for wing securing (M6).

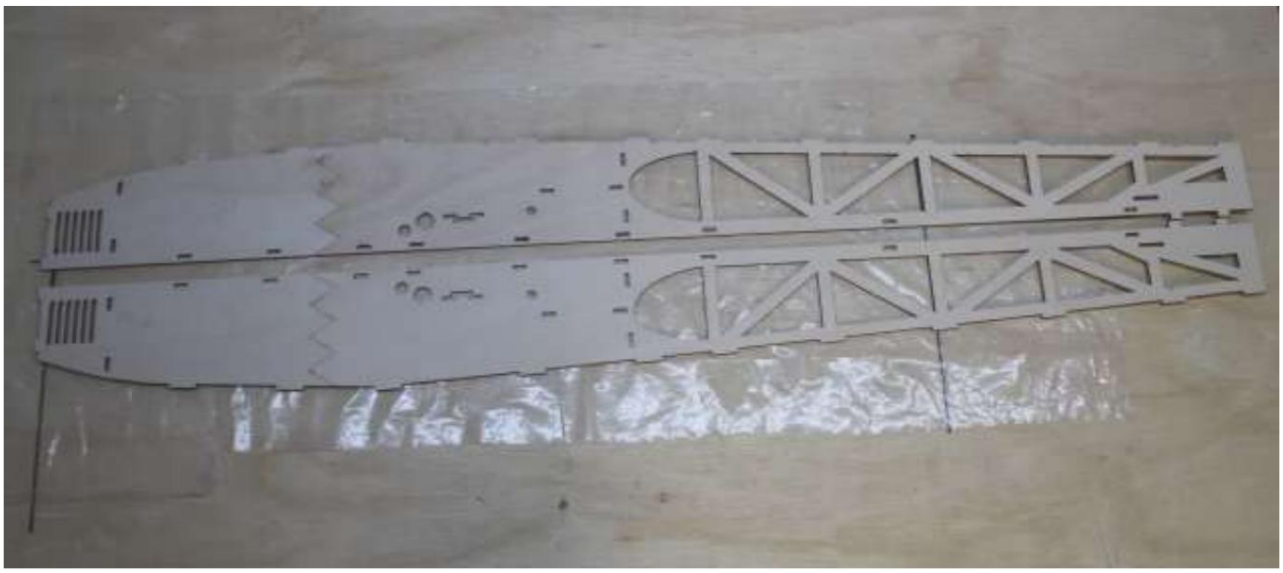


Sand the wing and sand the leading edge round. The **sanding block, Order No.**
X5568 has proven itself to be very effective.

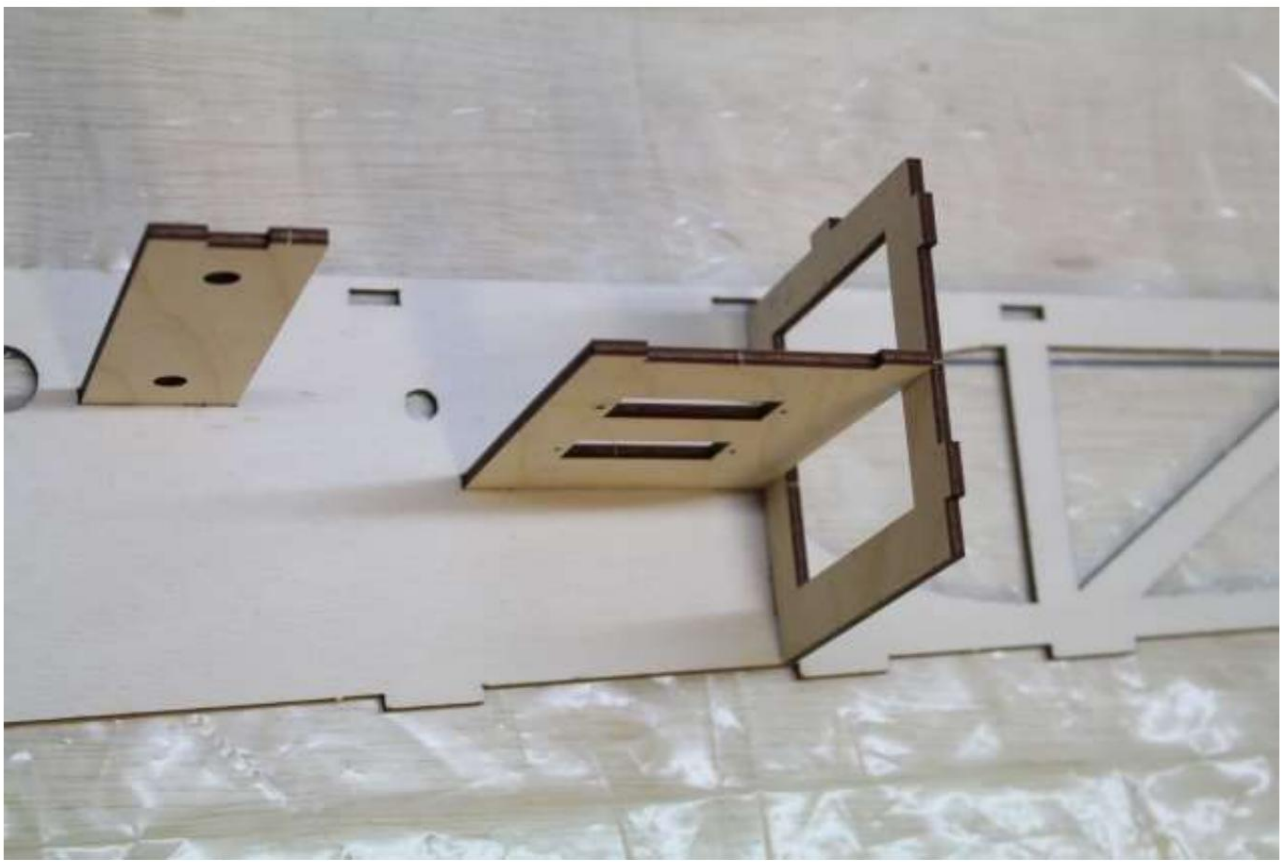
Assemble the second wing half in the same order, but **reversed .**

Attention: Build a left and a right wing!

construction of the hull

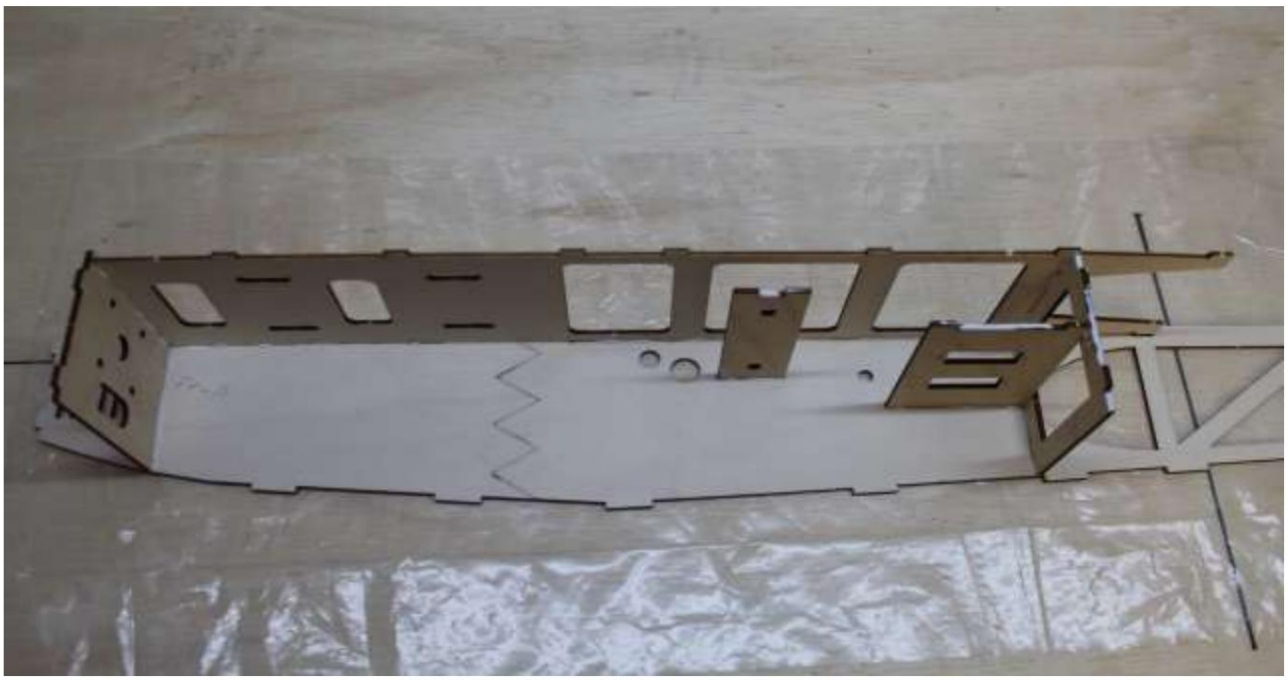


place cling film on top
Glue the fuselage side panels (E1-A and E1-B, F1-A and F1-B) with Bindan wood glue
Attention! E1A/B is the left fuselage side panel, F1-A/B is the right fuselage side panel (model seen from behind).

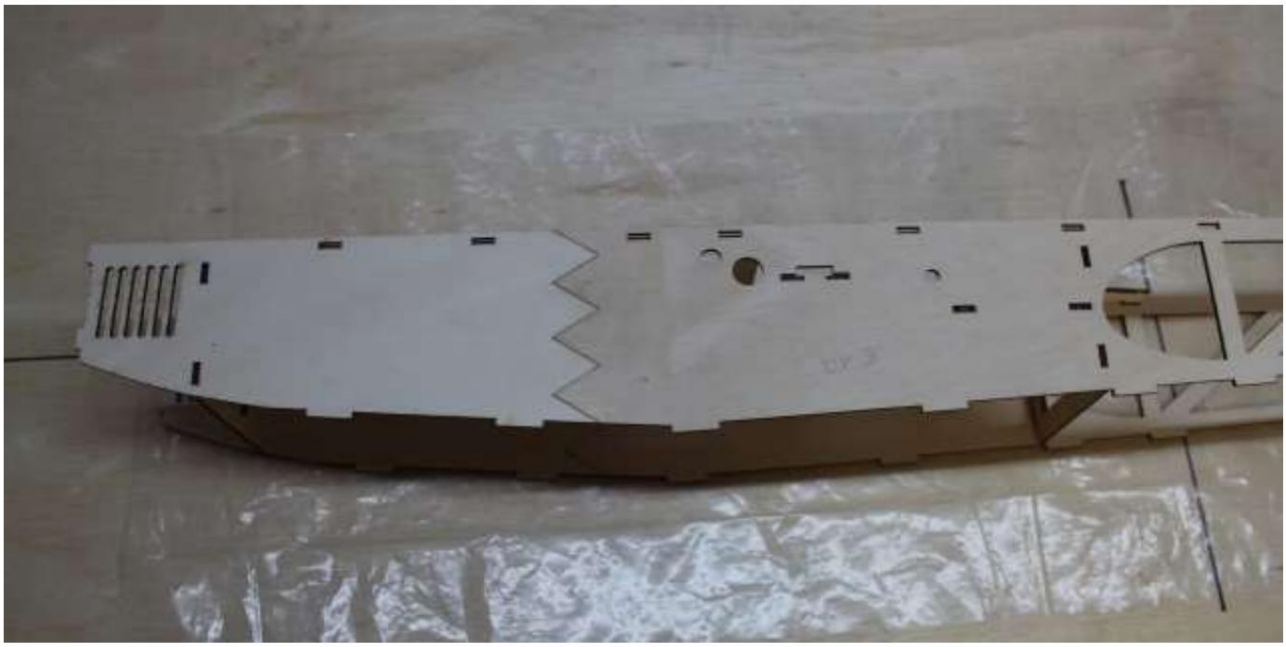


Fasten the right fuselage side section (F1-A/B) to the construction base. Glue the bulkhead (M3), servo board (M4) and board for securing the wing (M7) at an angle using white glue. Note: Install the servo board so that the servos are as far forward as possible.

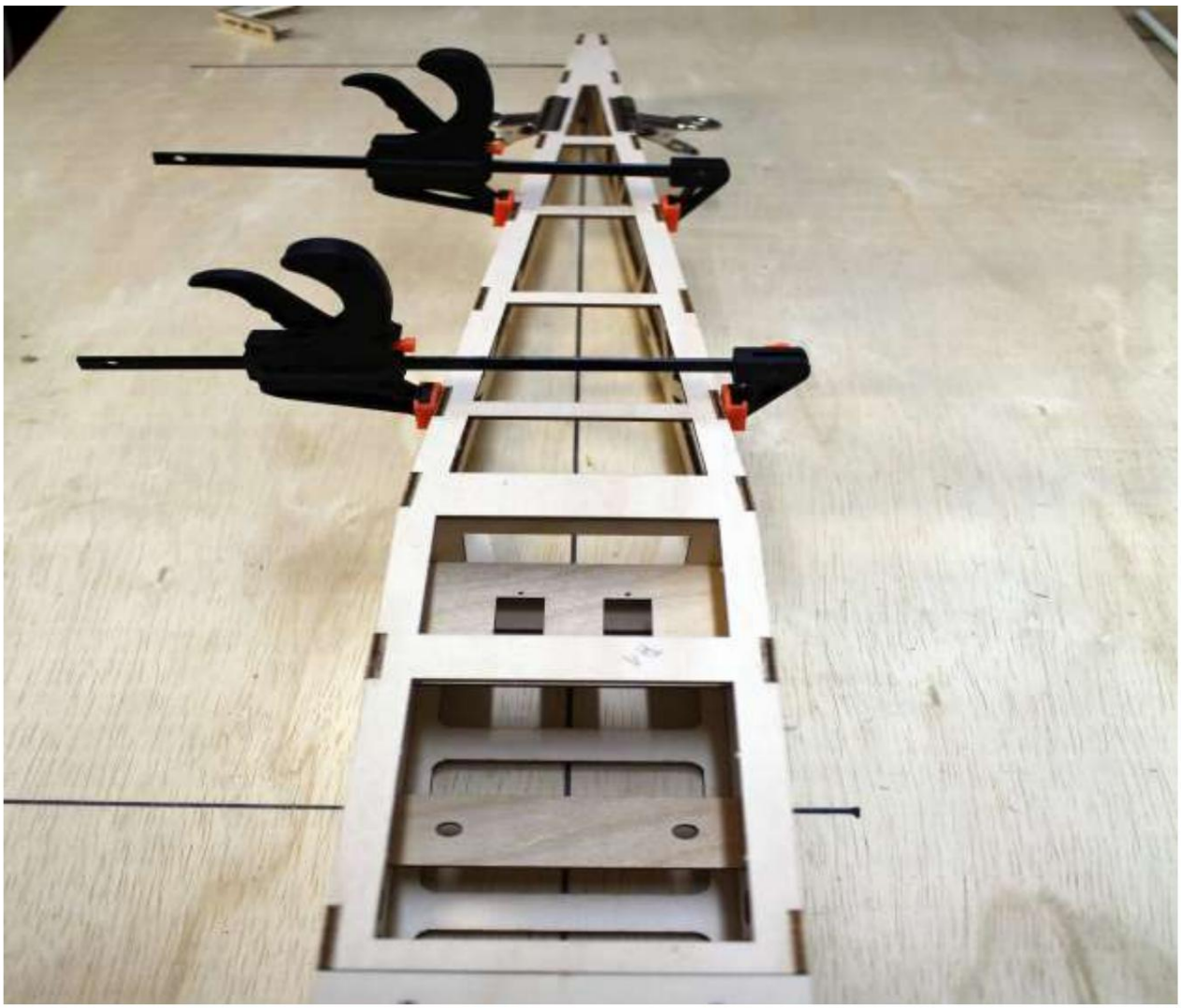
Glue the motor frame (M2) with Bindan wood glue.
Attention! The holes for mounting the motor are off-center because of the side pull of the motor. The larger distance between the holes and the side part is at the bottom.



Glue in the upper longitudinal board
(B1) **Attention!** The front edge runs diagonally downwards, the inscription "Oldiman" faces upwards.

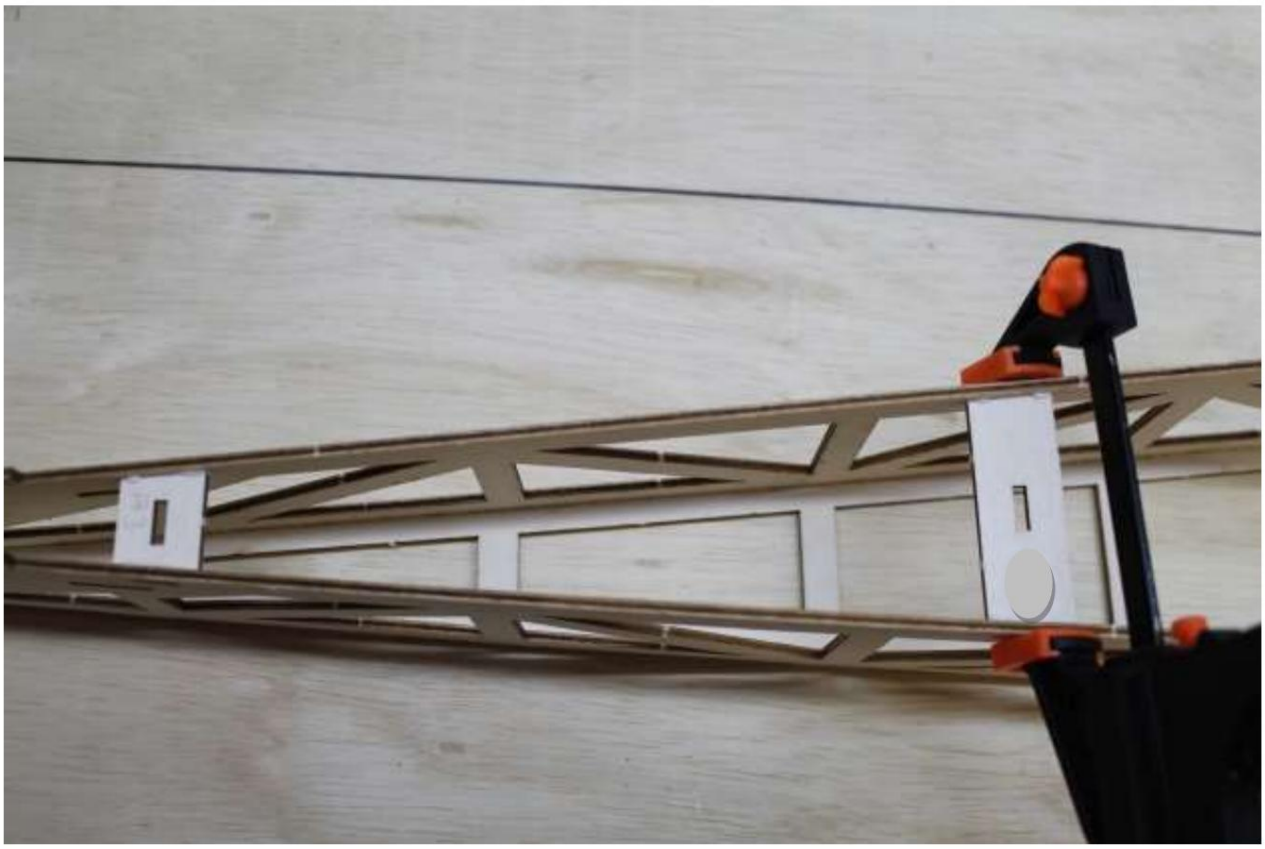


Glue on the left fuselage side panel (E1A/B).

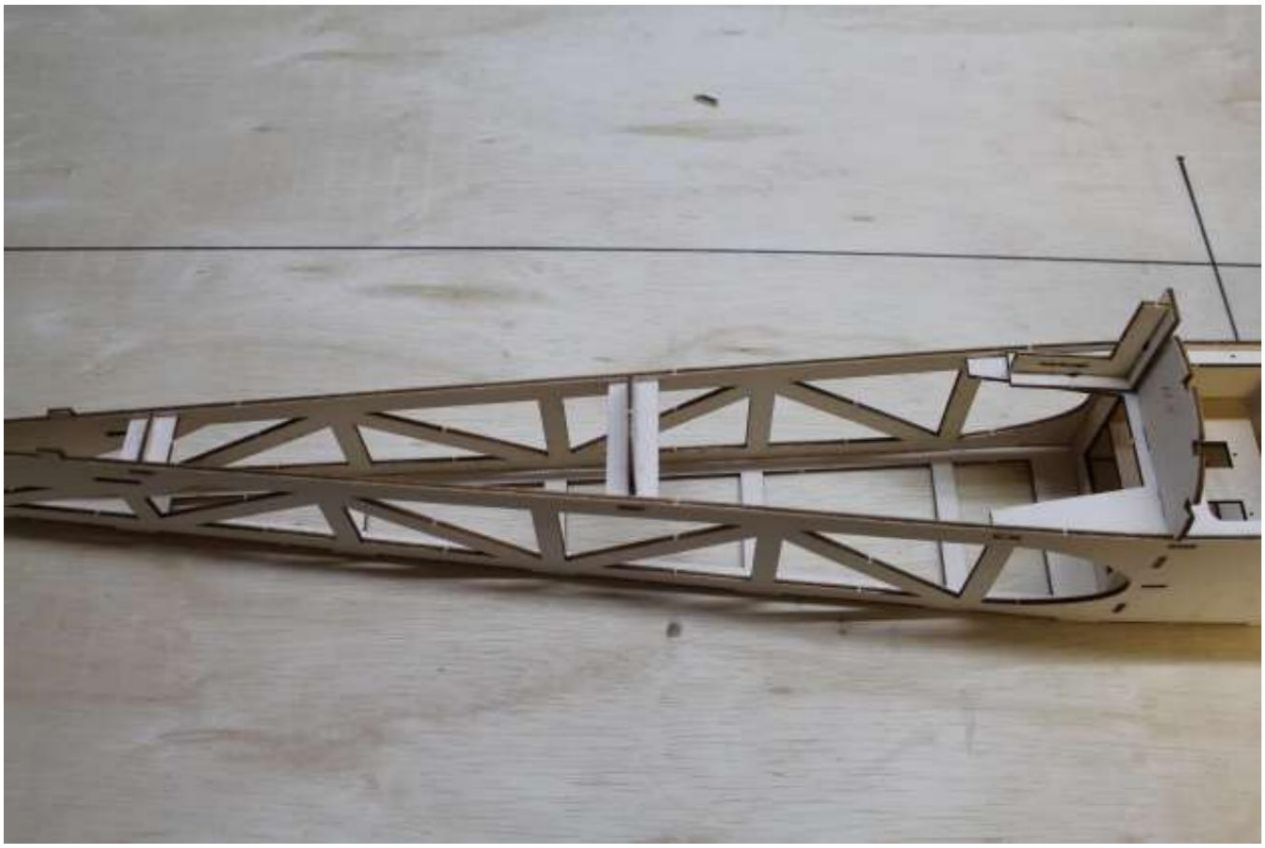


Pull the hull together at the stern and glue in the lower hull planking (A1).

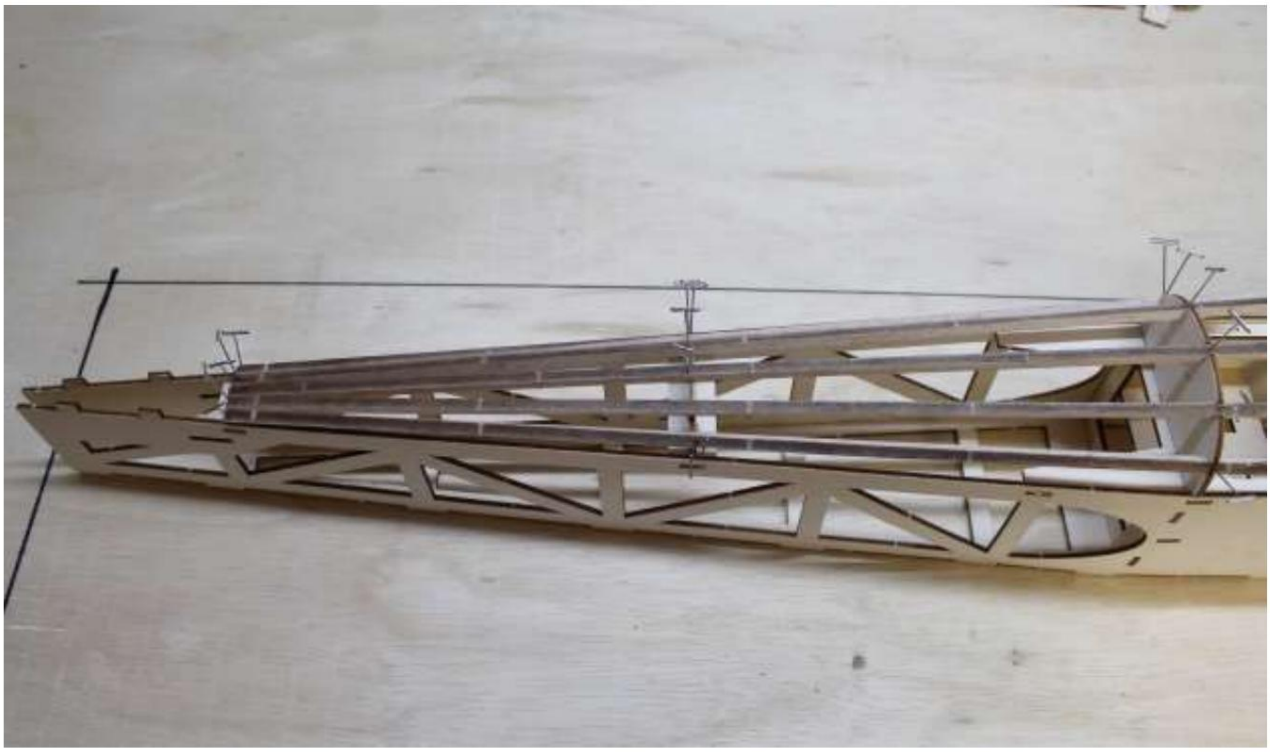
Glue in the lower, front fuselage planking (B2 and F3).



Glue in the cross braces (A3 and B4). The **Schellspann clamp, Order No. C4922,** is useful here.



Glue the half frames for the fuselage back (A8, A2, A4) at right angles using Bindan wood glue.



Glue in the longitudinal straps (H1). Fix with **model making needles, Order No. C2434 .**

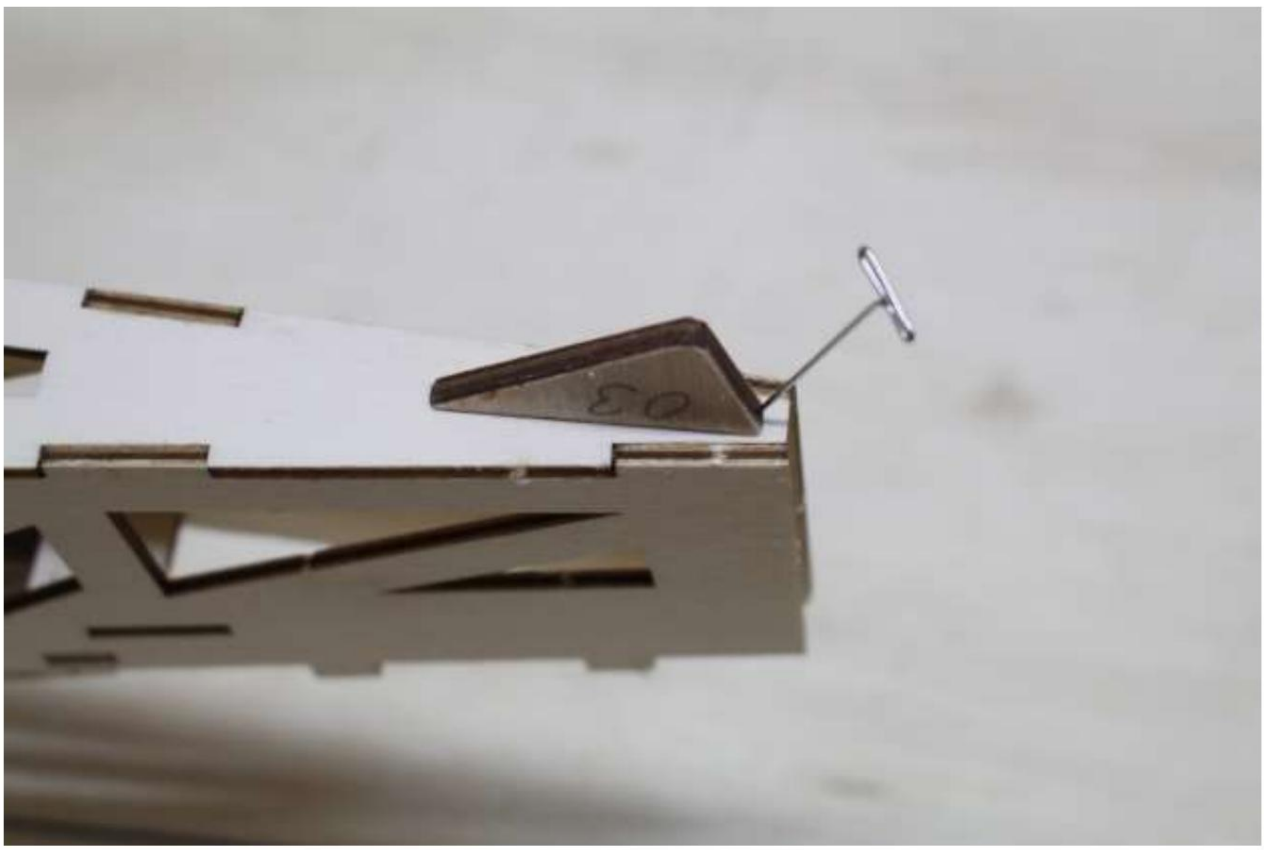
Sand any excess material on the frames (A8 and A4) until smooth.

Mount the motor to the motor bulkhead (M2) using M3×10 screws and M3 countersunk nuts.

Glue retaining plates (2× M5) to the front bulkhead (M1).

Insert the front bulkhead (M1) between the fuselage side panels and fasten it on
both sides with 2 self-tapping screws Ø 2.2×13 (Note: the engine bulkhead looks different from the current version).

Glue guide tube (brass Ø9 × 90 mm) into fuselage side panels with epoxy.



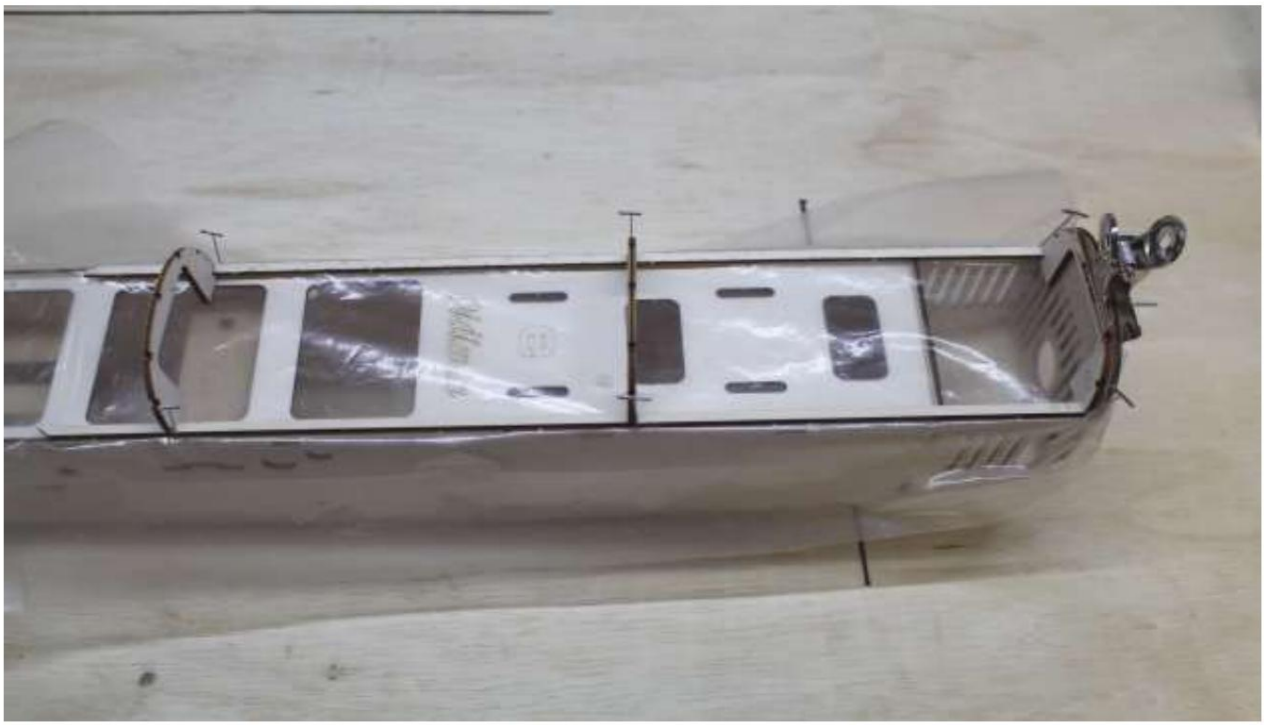
Glue the tail skid (O3).

Insert M4 drive-in nut into board for wing screw connection (M7) from underside of fuselage and secure with epoxy.

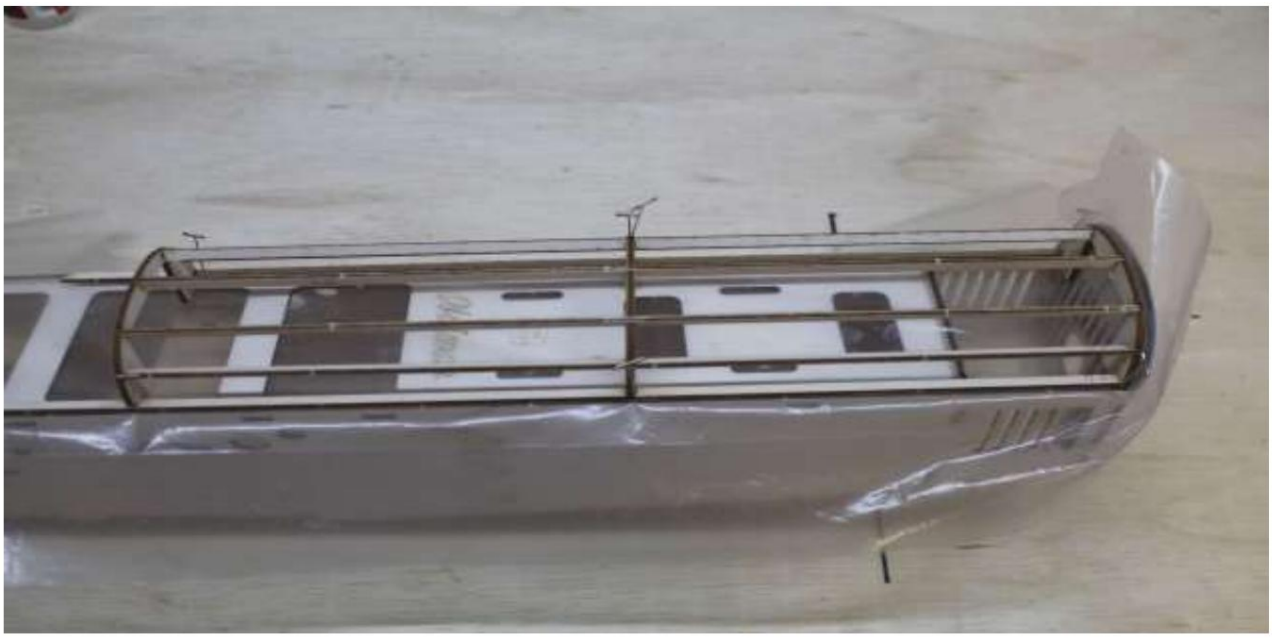
Screw in the knurled screws (plastic M4) from the top of the fuselage.

construction of the fuselage cover

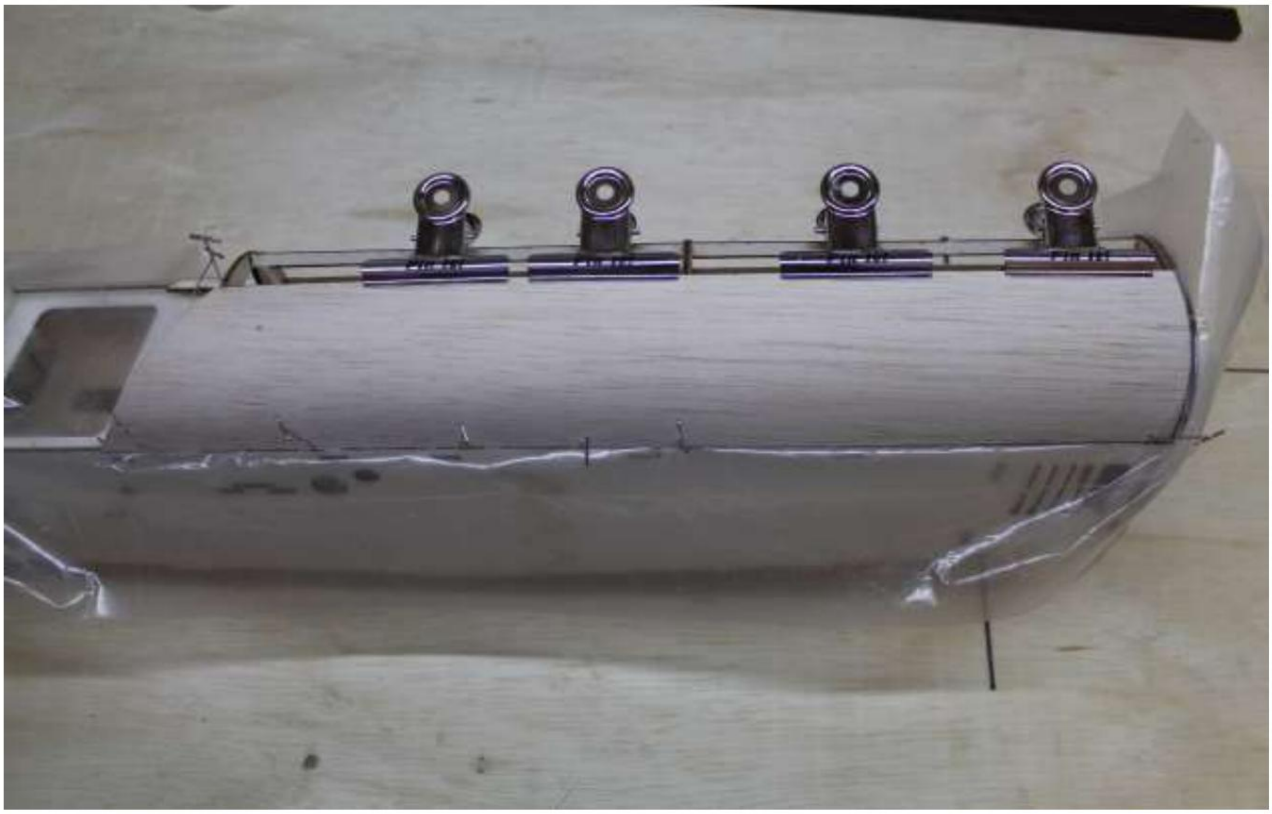
The front fuselage cover is best assembled directly on the fuselage. To do this, cover the upper part of the fuselage with a transparent film.



Attach the cover frame made of the longitudinal straps (2×A7 long) and the half frames (A9, B3, A10) to the fuselage.
Glue the longitudinal straps and half frames.
Attention! Do not glue to fuselage side panels.

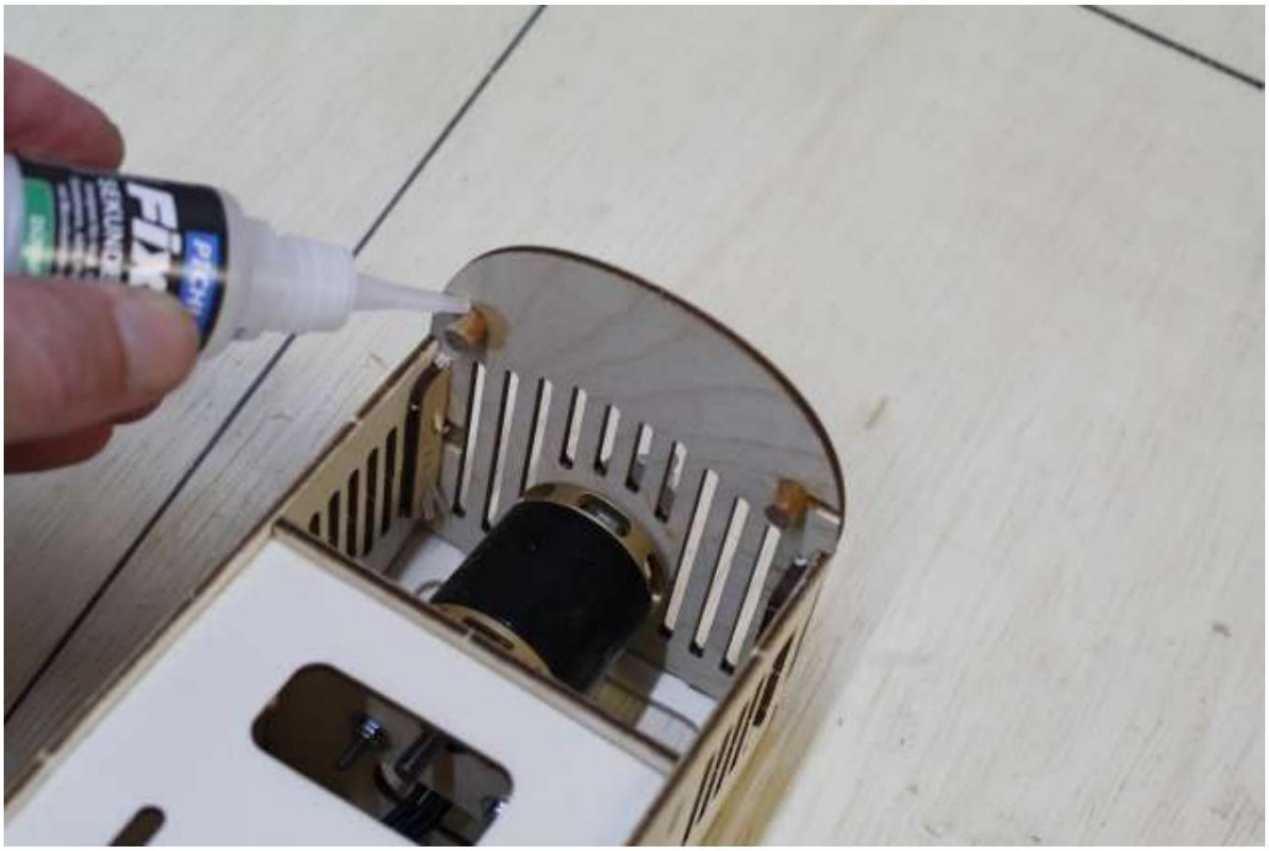


Insert longitudinal straps (5×A7 short) into half frames and glue.

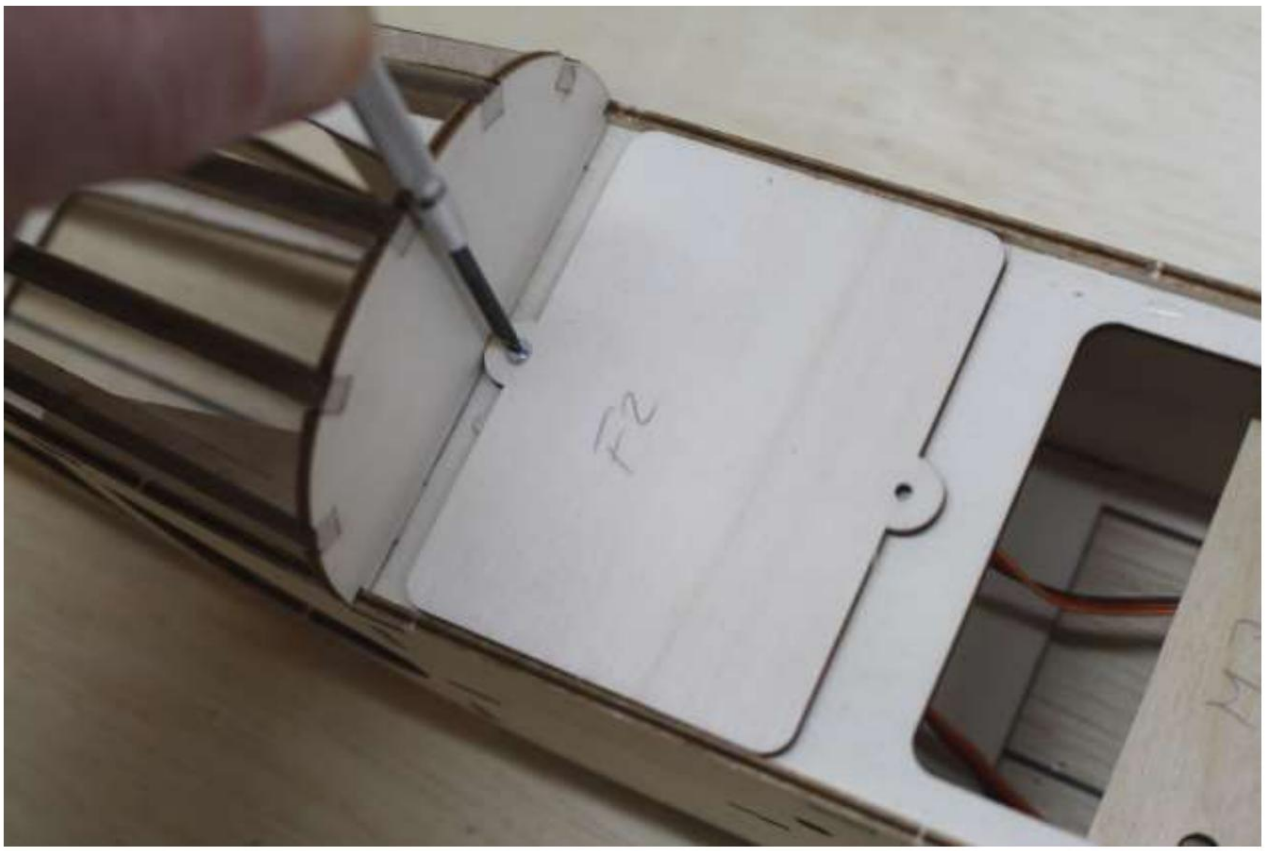


Glue on the planking parts (2× L1). The **Fix It! metal clamps, Order No. C4919,** are useful here.

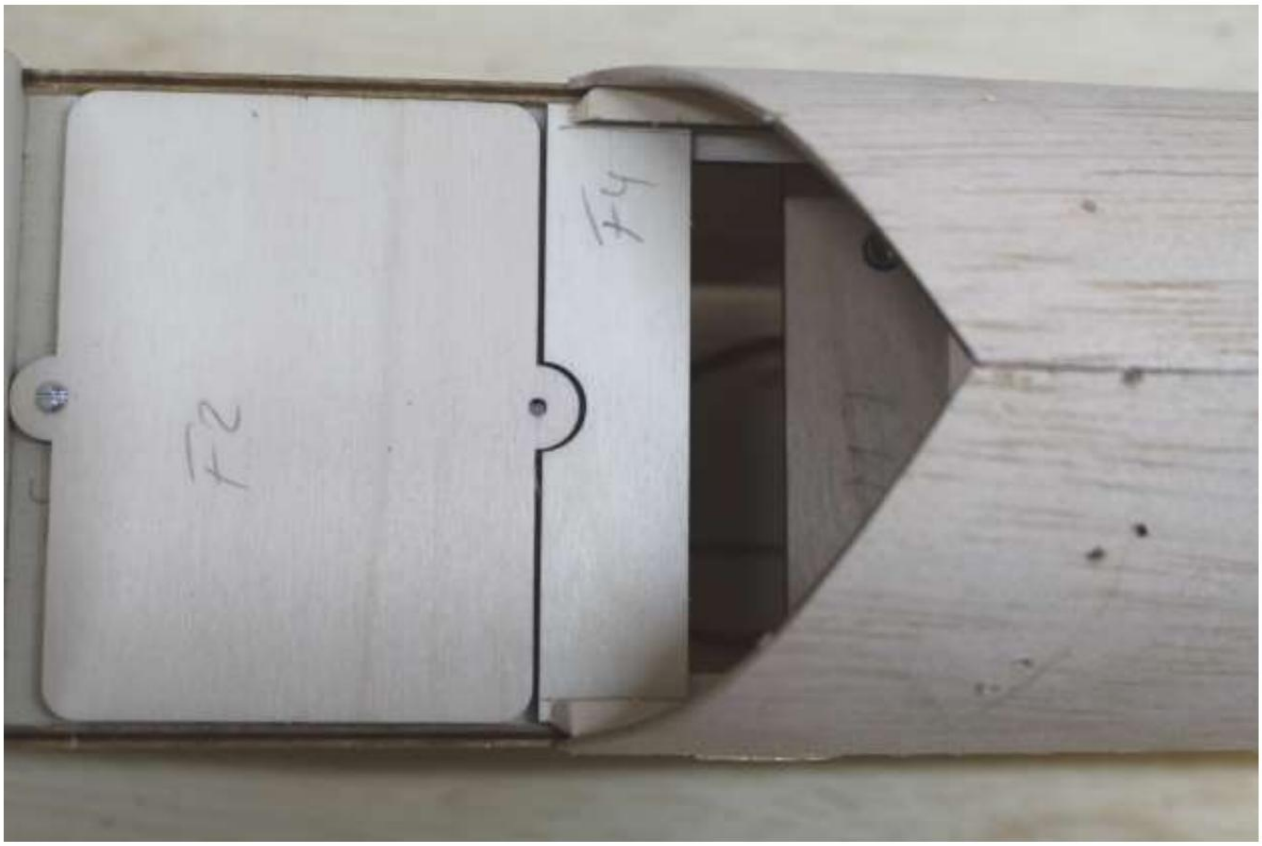
Secure the cover to the fuselage with adhesive tape. Mark the position of the locking dowels on the head bulkhead (M1) and drill holes.



Remove the cover and glue the locking dowel into the head bulkhead (M1).



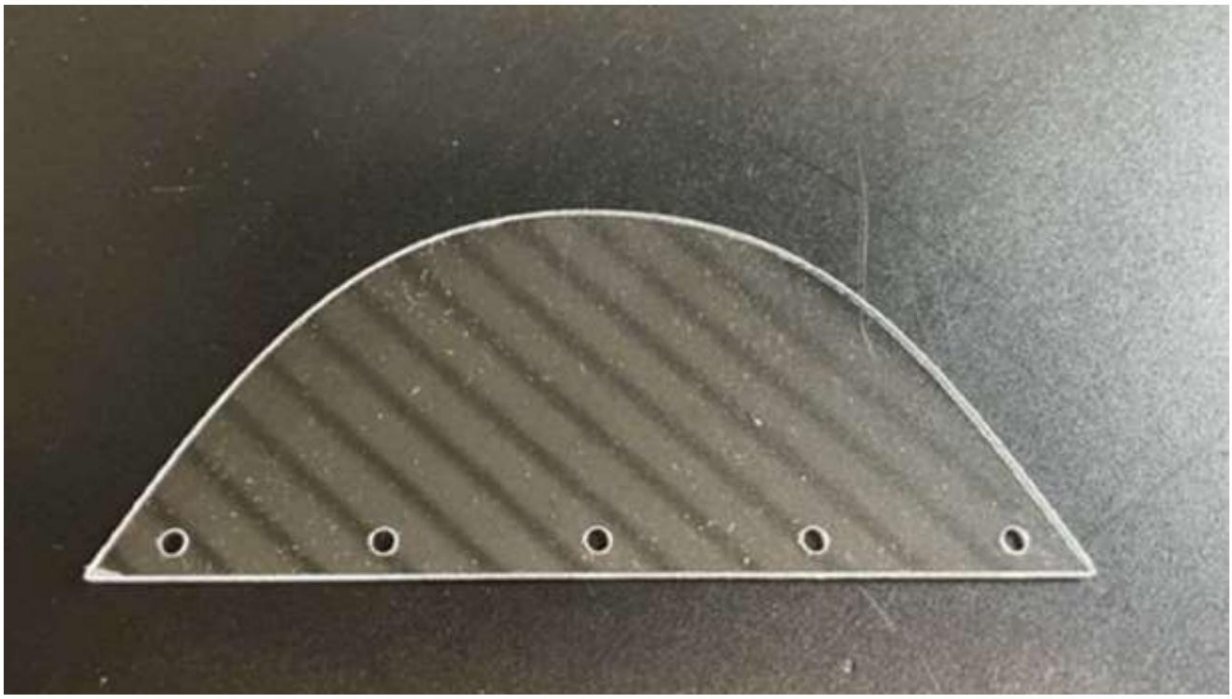
Screw the service cover (F2) to the fuselage. To do this, first screw in only the rear screw.



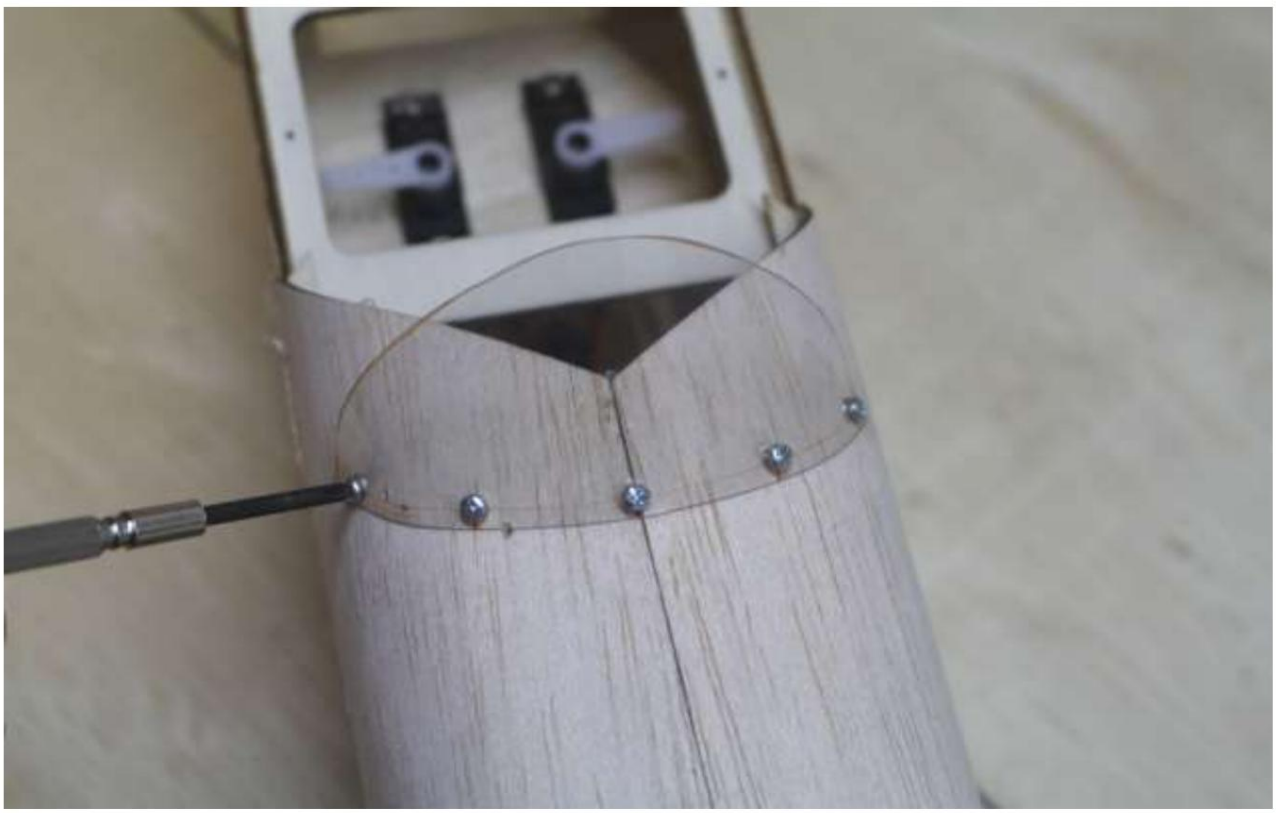
Glue the holding board (F4) to the lid and sand it round as desired.
Attention! Do not glue to the fuselage or service cover!

Screw the rotary latch (F5) with a screw Ø2.2×13 mm. Only tighten the screw so that the rotary latch can still be turned by hand.

Carefully sand the entire hull including the lid.

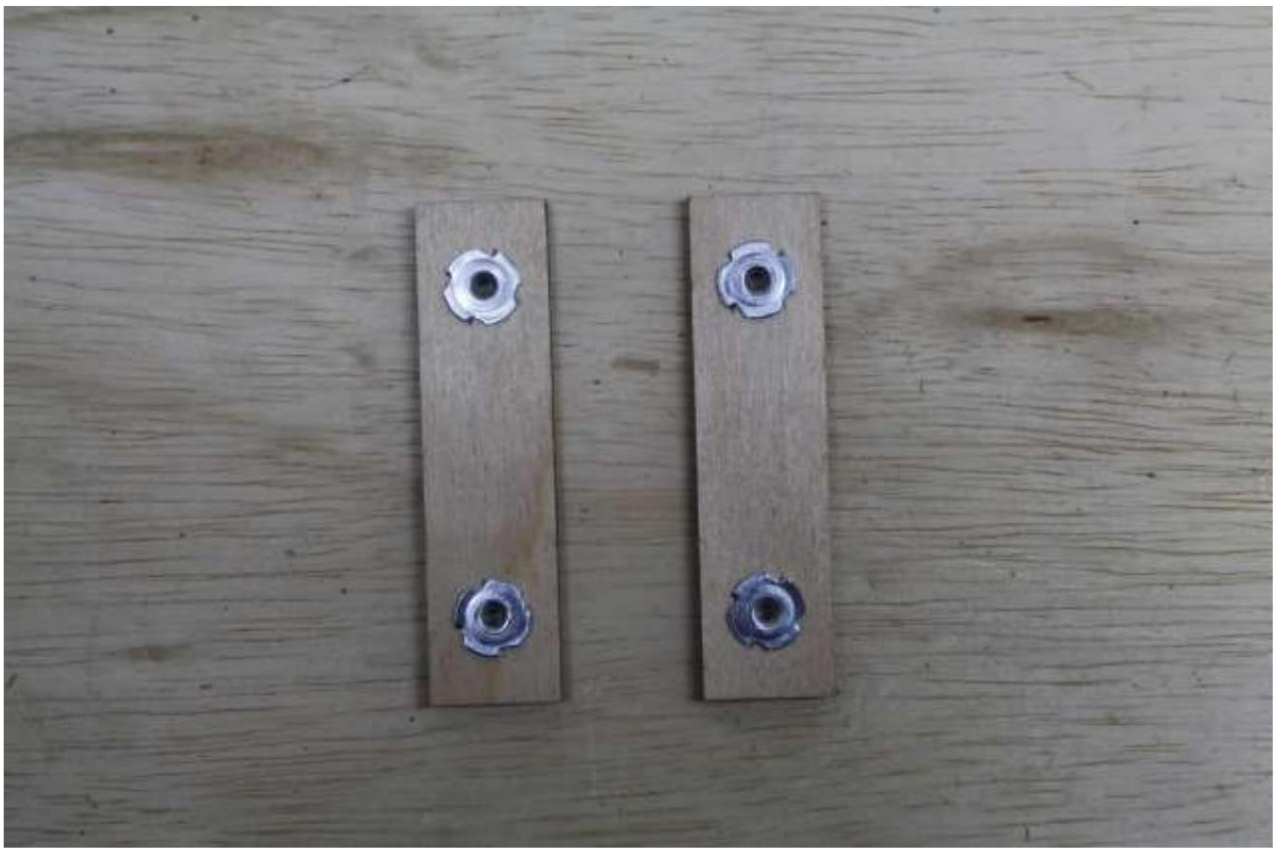


If necessary, remove the protective film from the windshield.



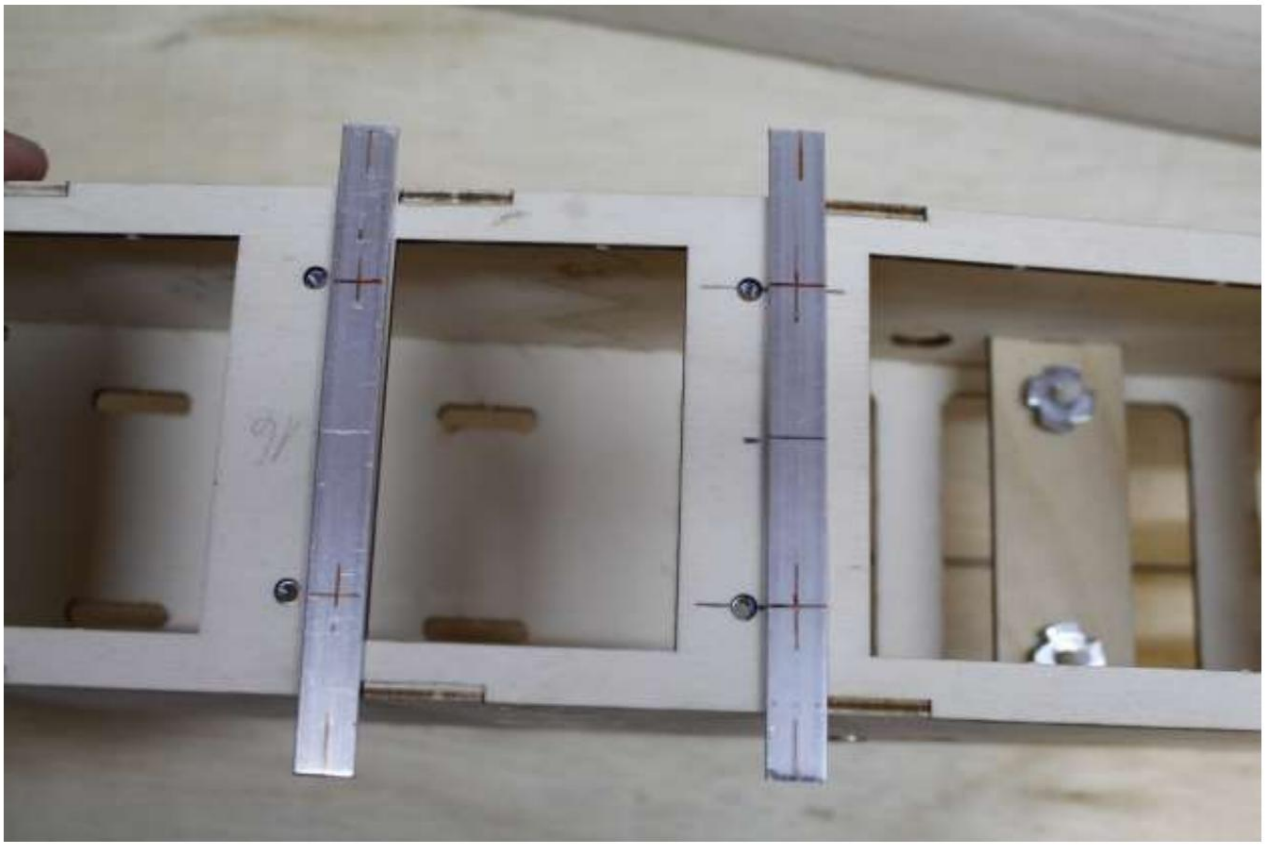
Align the windshield symmetrically on the cover and screw it in place with 5× self-tapping screws Ø 2.2×6.5 mm.
Work carefully, do not pre-drill, screw in screws carefully. Do not glue yet! The windshield will only be finally assembled and glued after the covering has been applied.

chassis installation

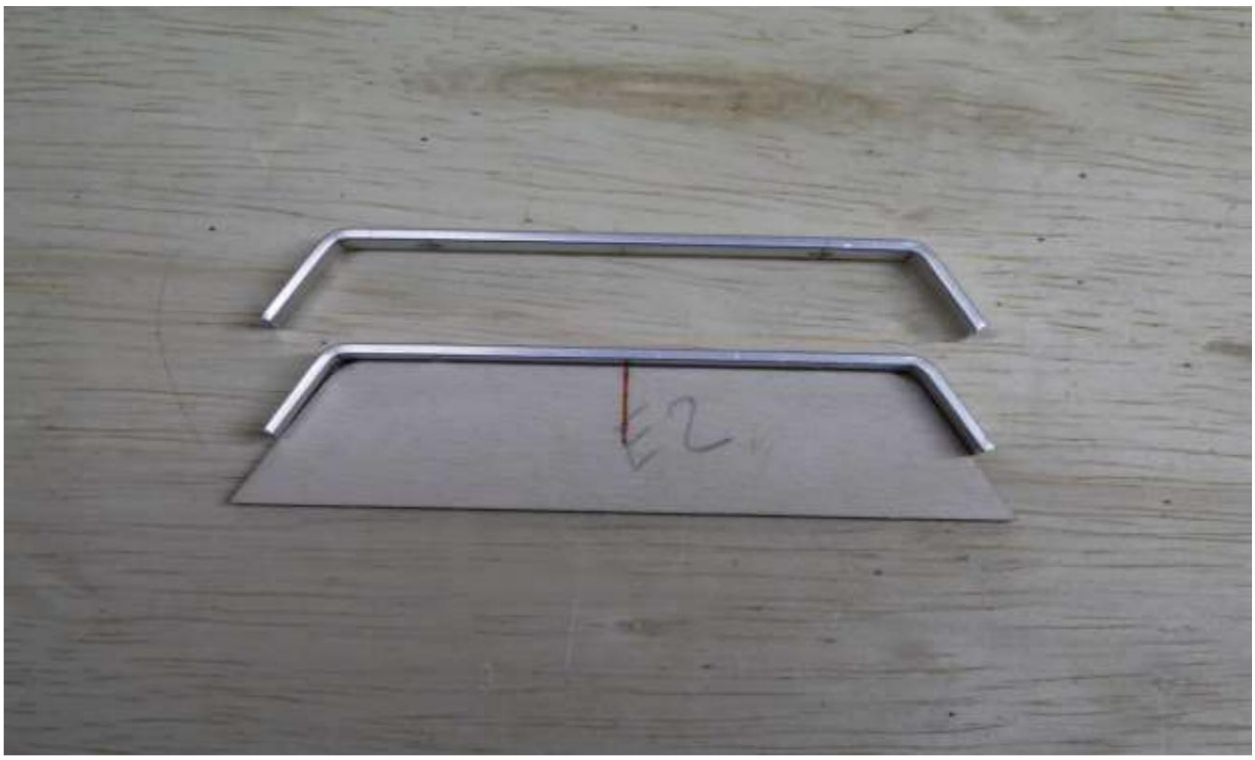


Insert 2× M3 countersunk nuts into the chassis board (2× M8).

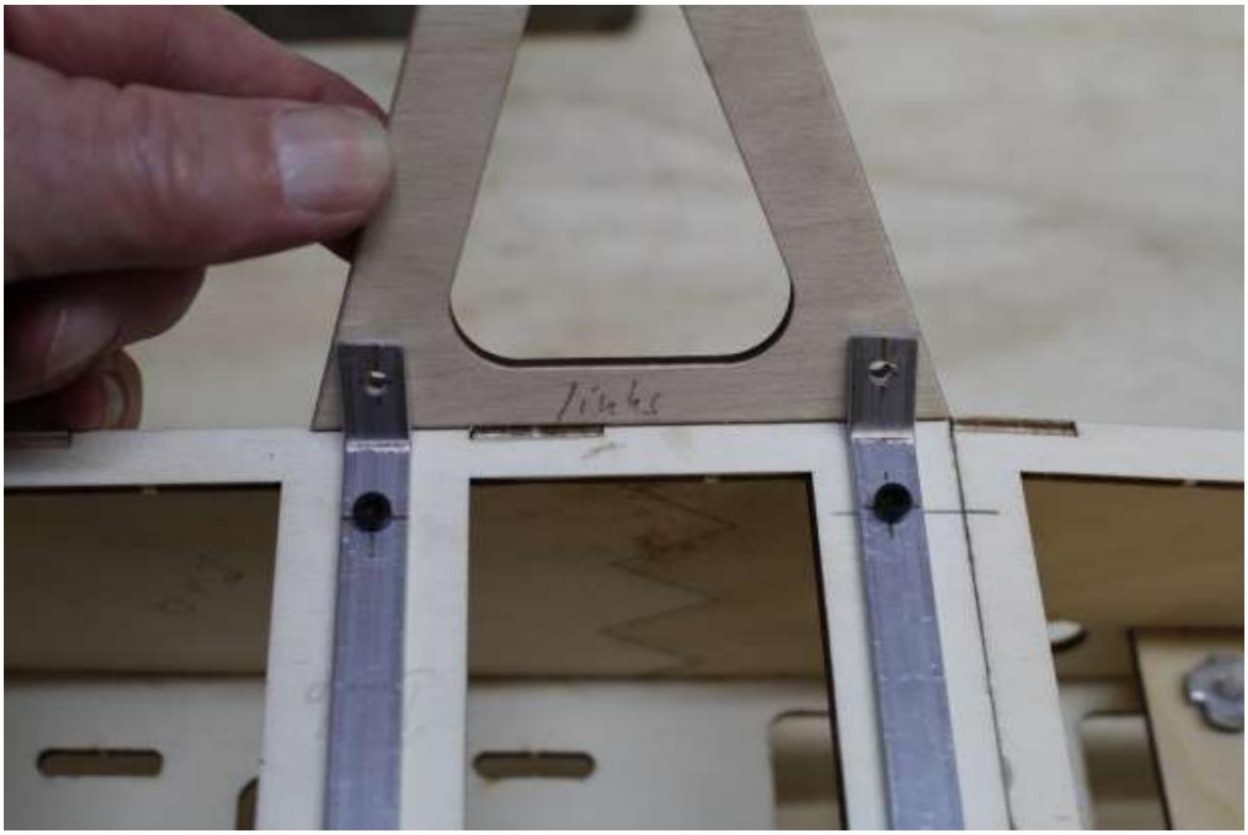
Glue the undercarriage board (2×M8) to the inside of the fuselage floor.



Transfer the screw holes from the underside of the fuselage to the aluminum bracket and drill with a diameter of 3.5 mm.



Bend the aluminum bracket on both sides according to the template (E2).



Drill the legs of the aluminum bracket with a Ø of 3.5 mm.

Transfer holes to chassis leg (O1) and drill with Ø 3.5 mm.

Mount the left and right chassis legs (O1) to the aluminum bracket with M3×10 screw and nut.

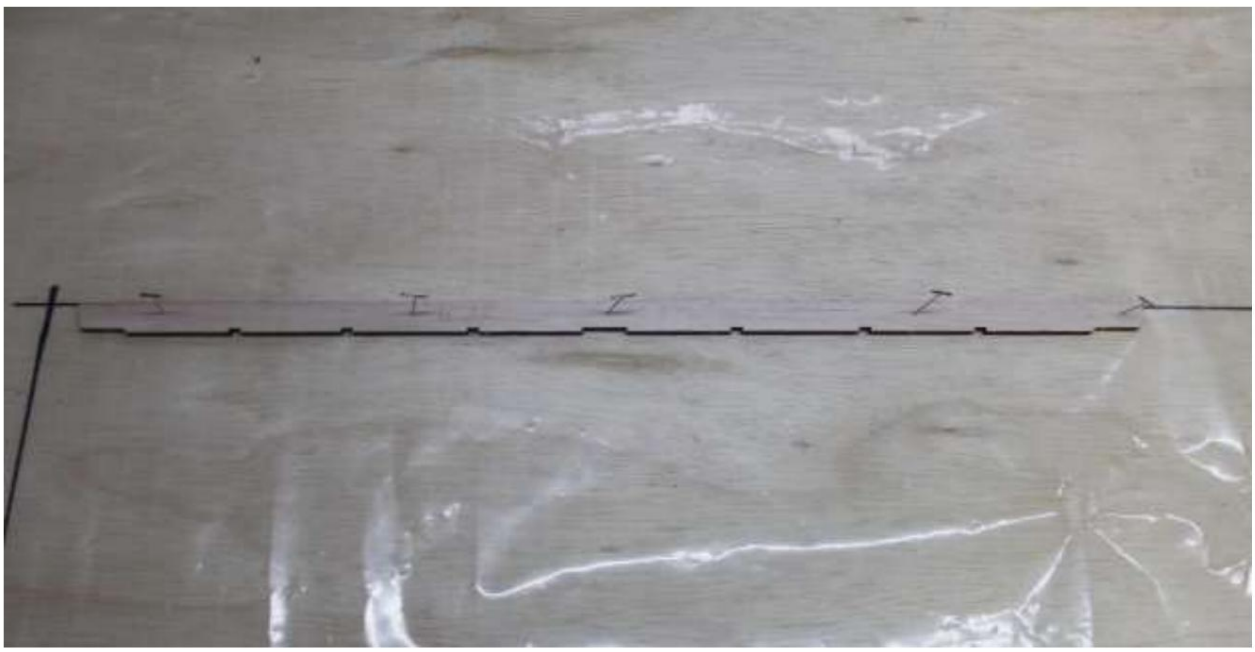
Insert brass tube Ø 4×17 mm into wheel (N1) and glue the reinforcements (O2) on both sides.

Insert the wheel axle (steel wire Ø 3×295 mm) into the chassis leg and attach the rubber bands.

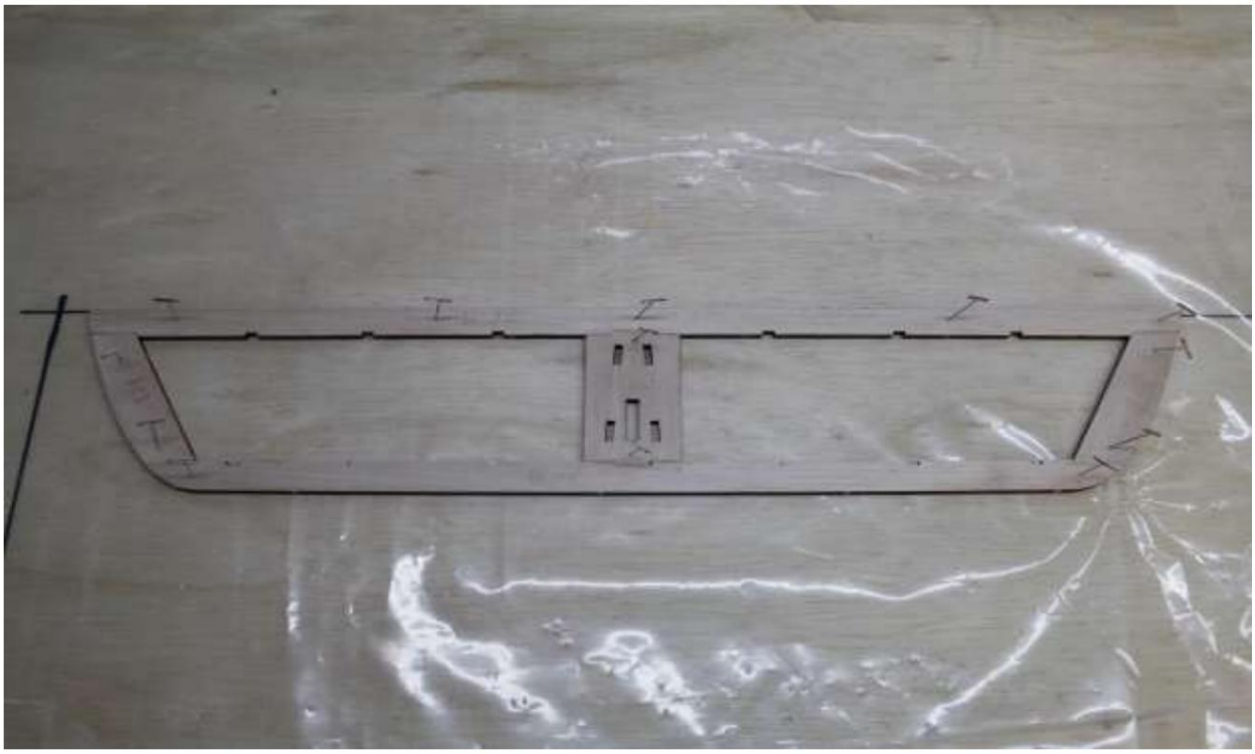
Put on the wheels and secure them with adjusting rings.

The fully assembled chassis.
It is recommended that you only permanently mount the undercarriage after the model has been covered.

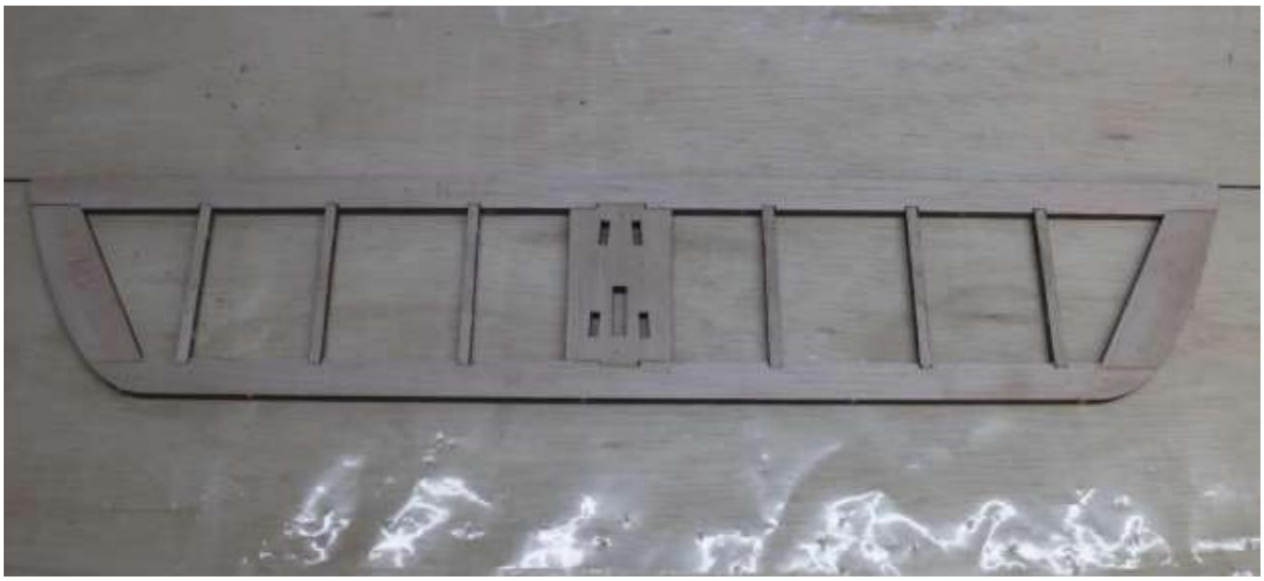
construction of the horizontal stabilizer



Protect the construction surface with transparent
film and attach the end strip (K15).

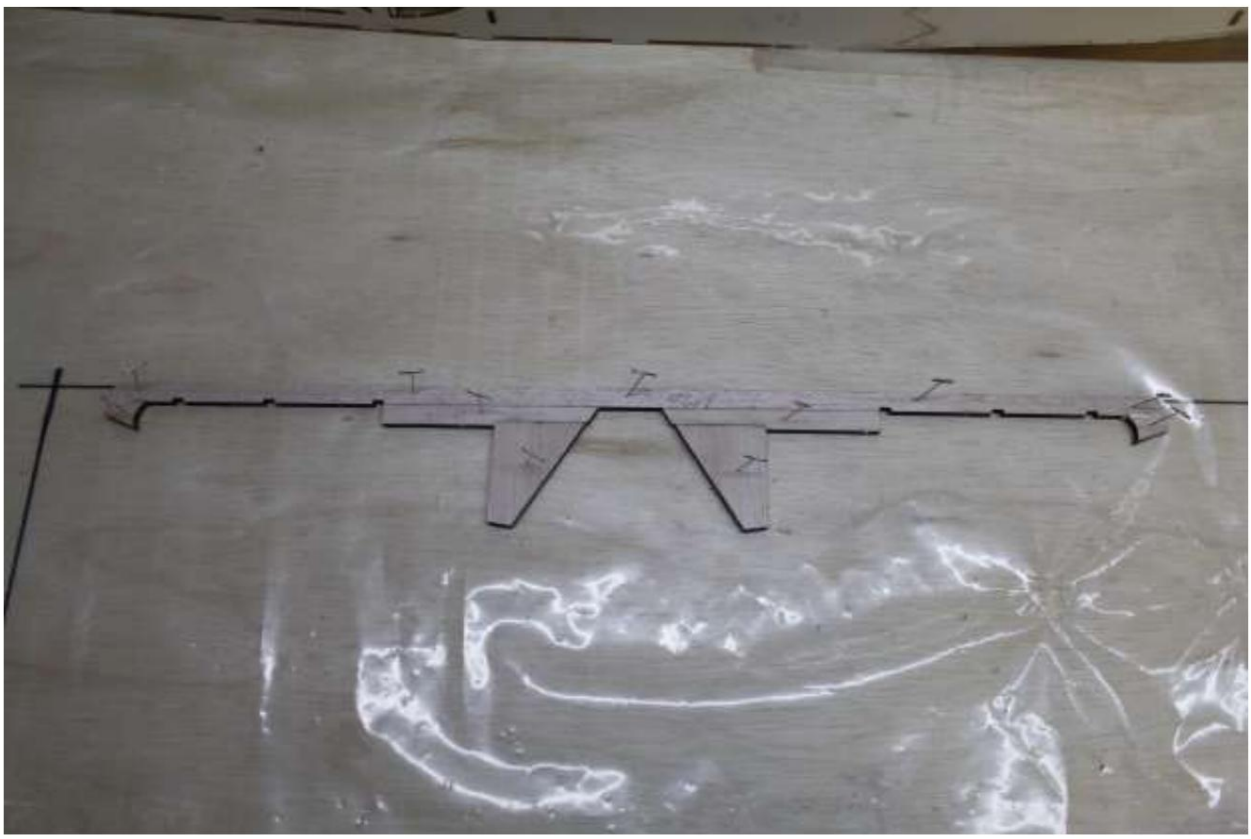


Glue the middle part (K13), nose strip (K18) and edge arches (2×K6).

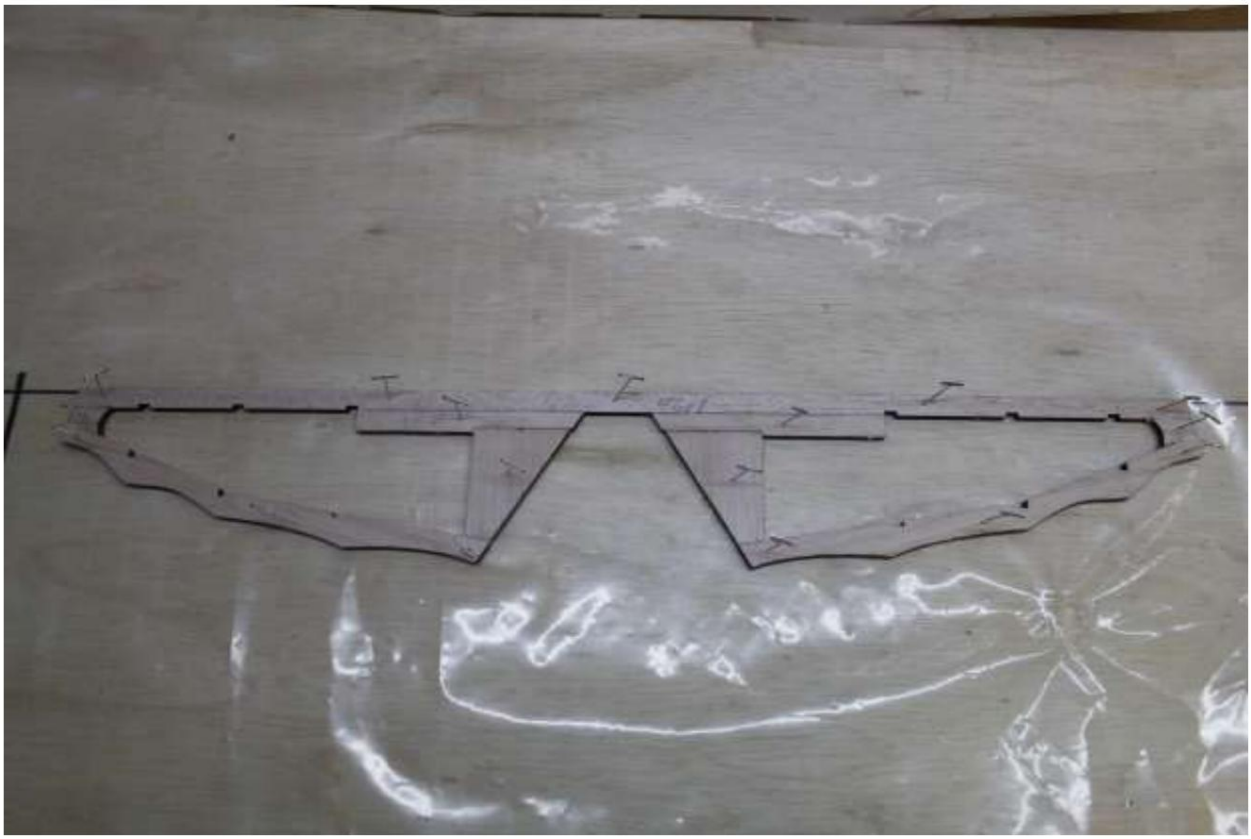


Glue in cross braces (6×K16).

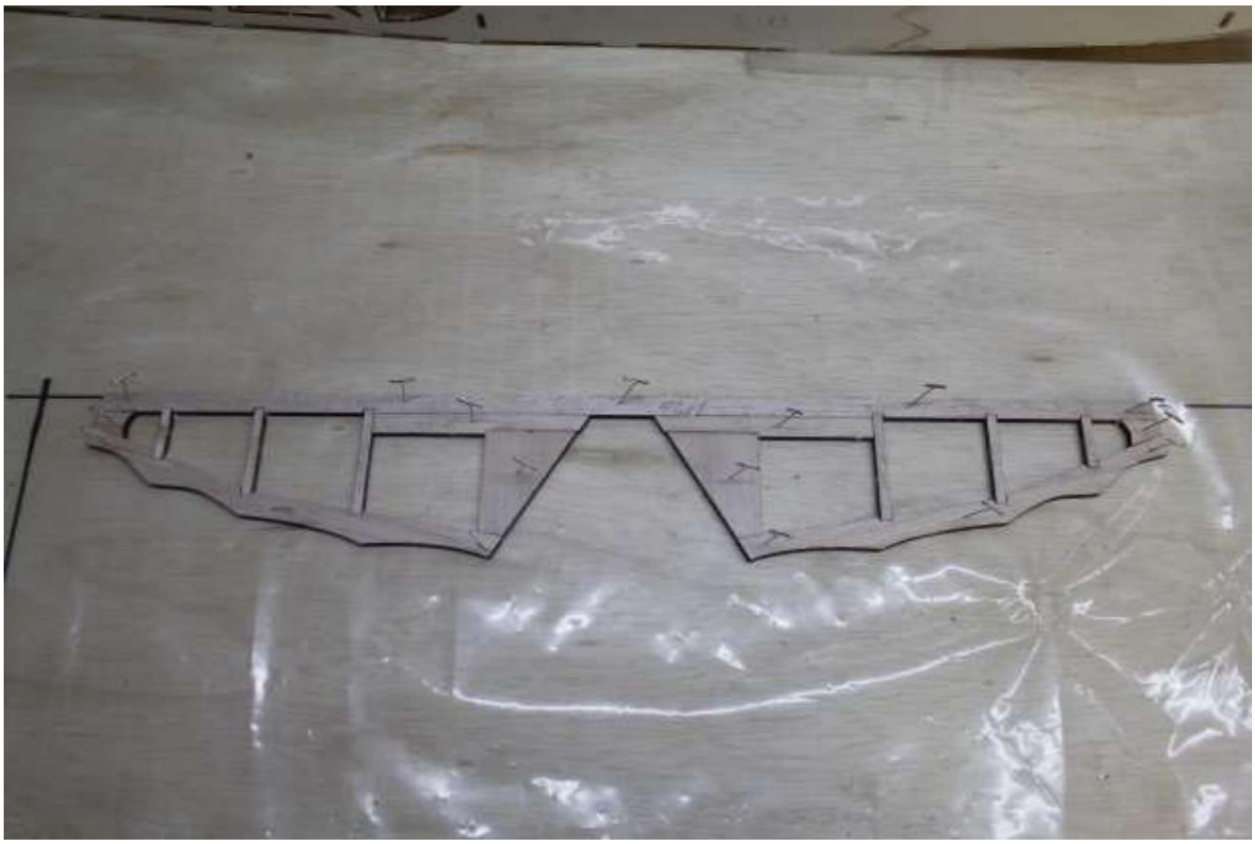
Fasten the front strip of the rudder flap (H20) to the building pad.
Glue reinforcements (2×K17).



Glue the triangular wedges (2×K4) and the edge arch (2×K14).

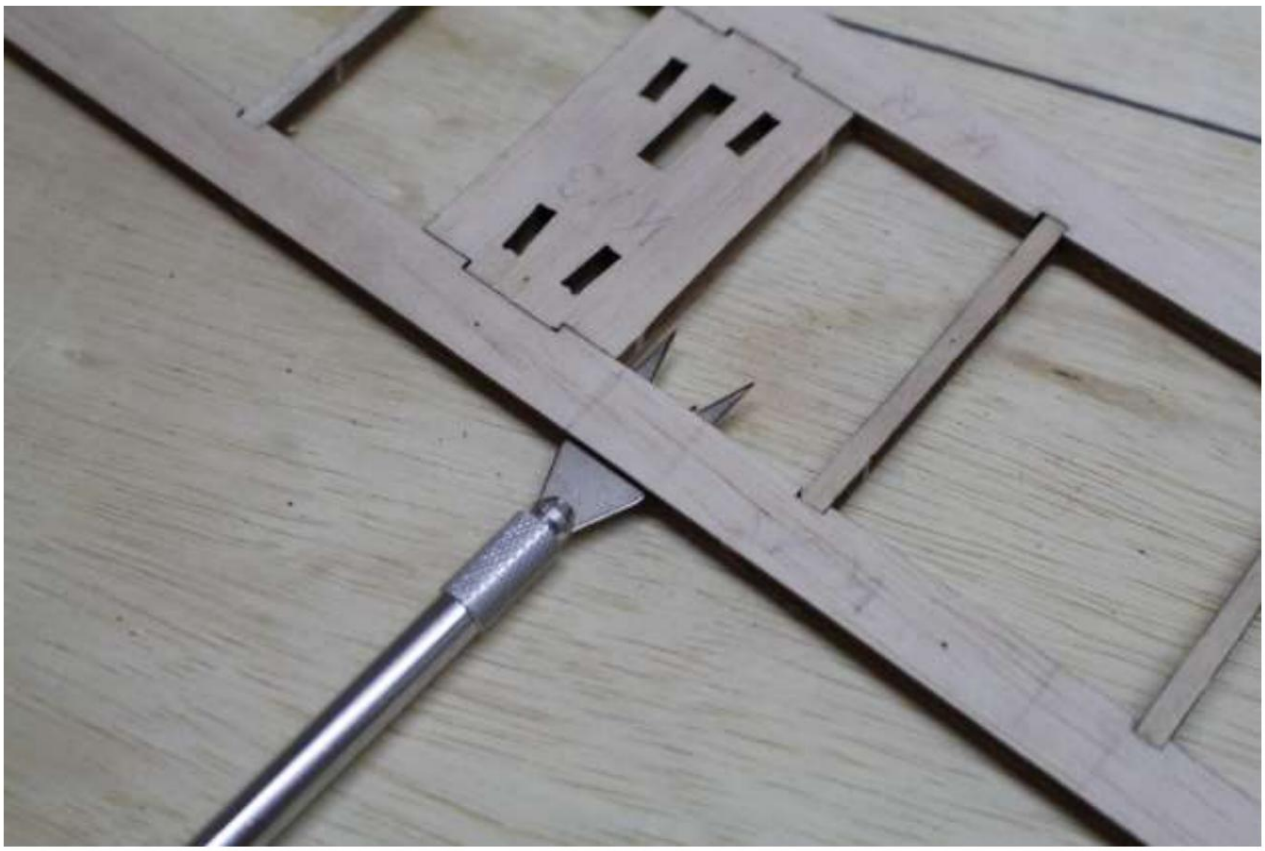


Glue the end strips (2×K2).



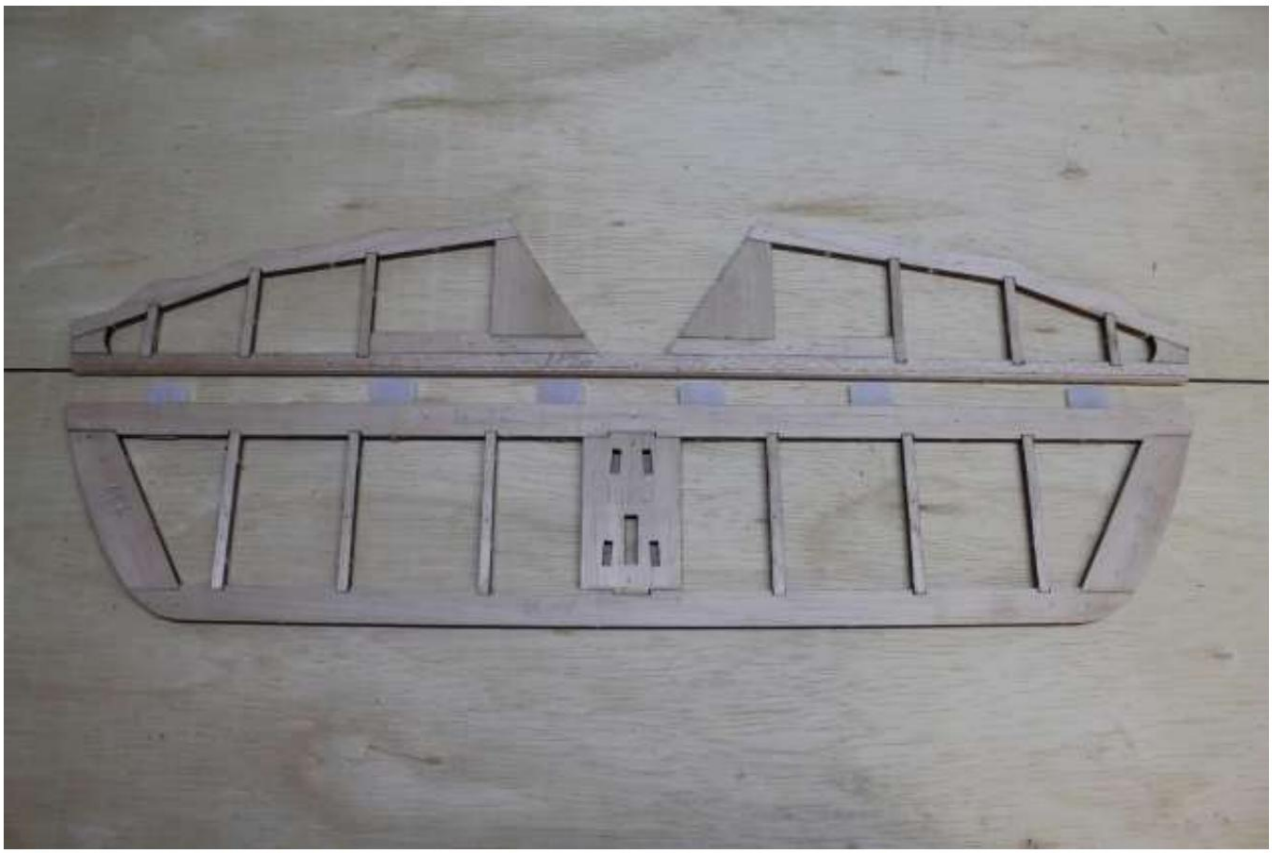
Glue cross struts (2xK7, K8, K9 each).

Mark the hinge line on the damping surface and rudder flap.



Make slots for hinges using a hinge knife.

Grind the front strip on the rudder flap to a point of 45°.



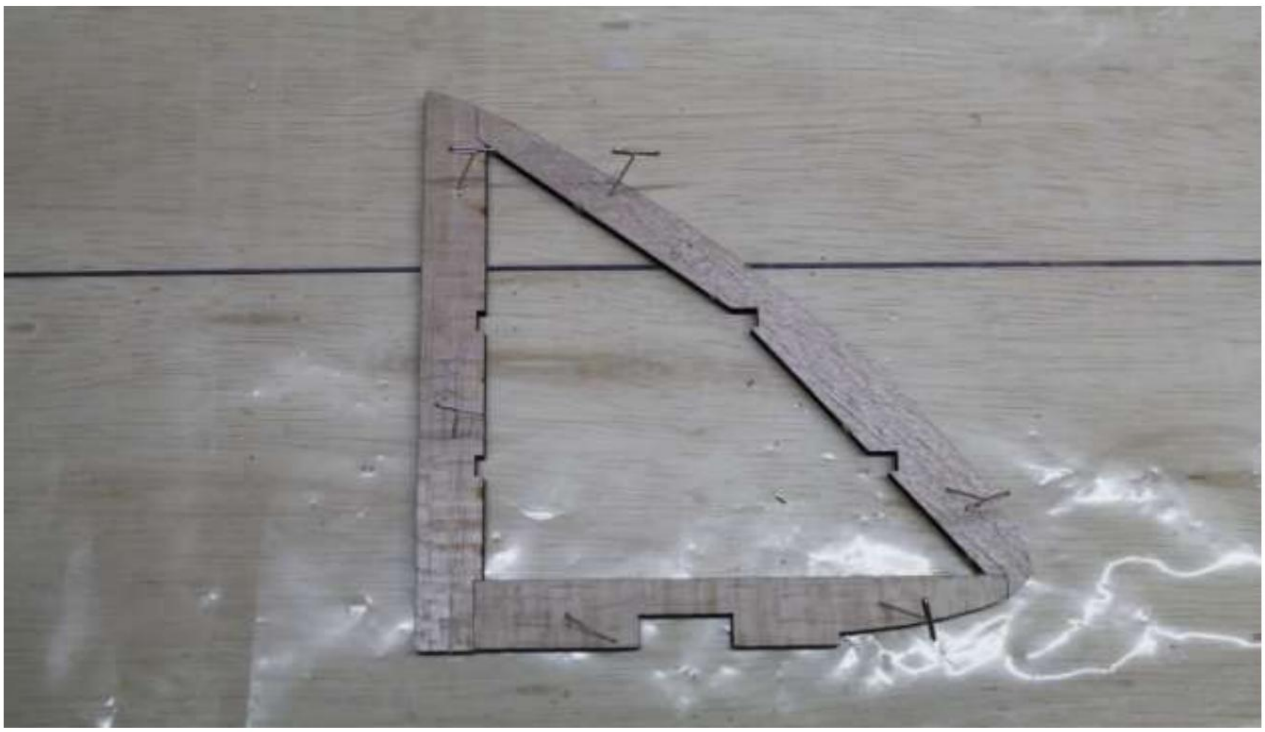
Connect the tail unit parts and sand down any excess parts.

Round off the nose and wingtips.

The end strip of the control surface flaps should remain sharp-edged, do not round them!

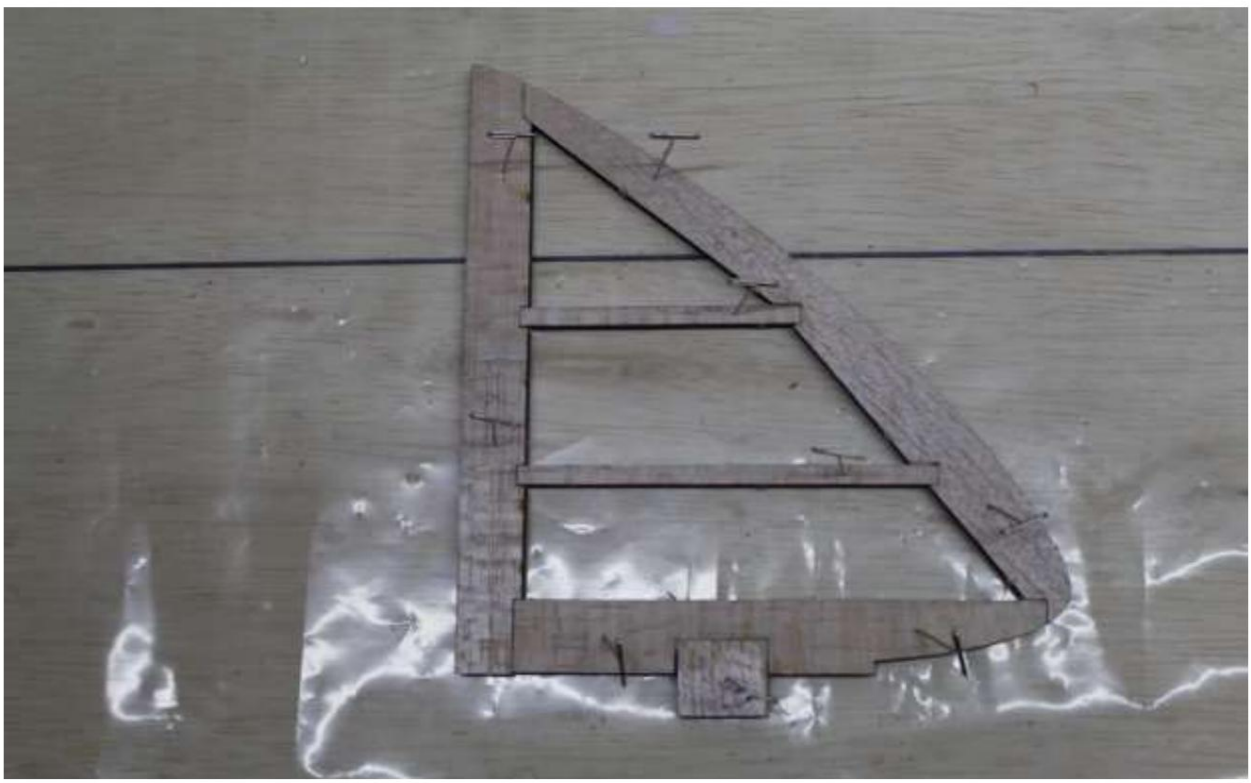
The fleece (patented) hinges are only glued in after the covering.

construction of the vertical stabilizer

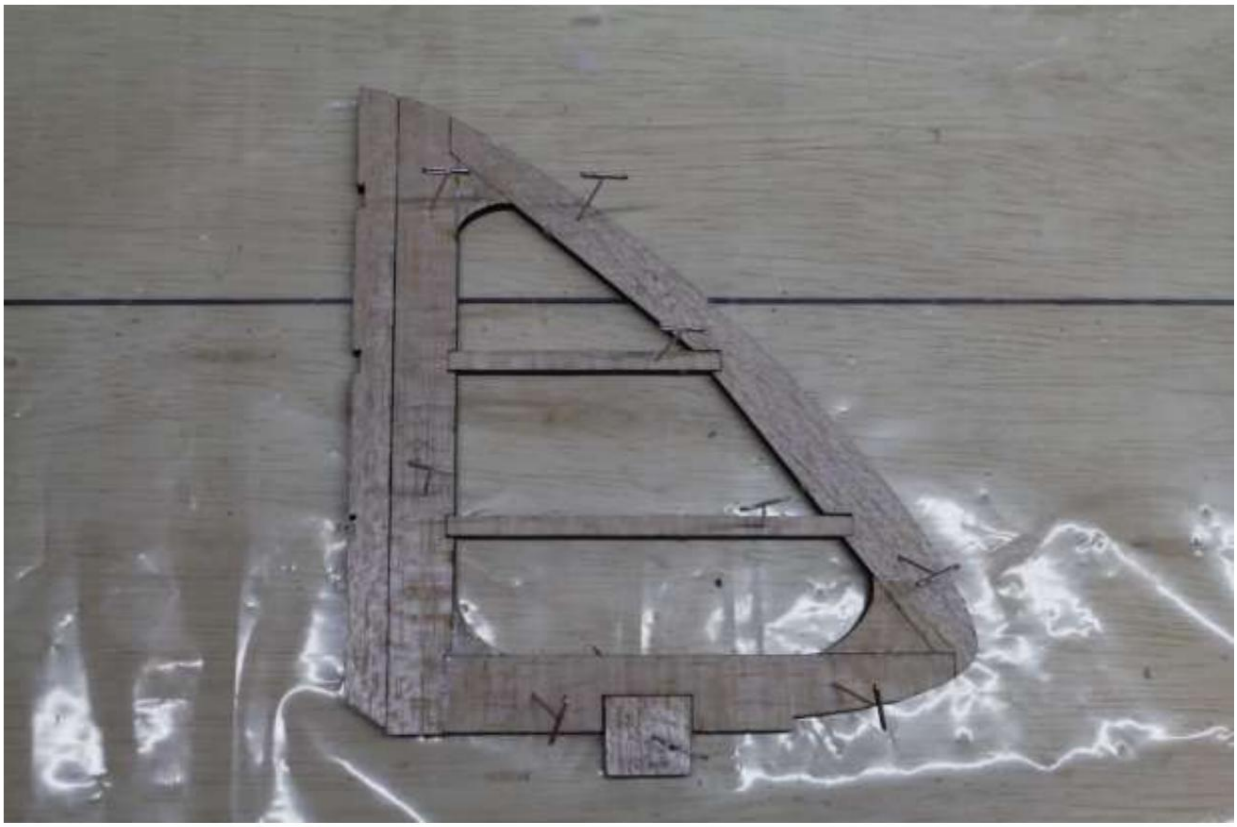


Protect the construction surface with clear film.

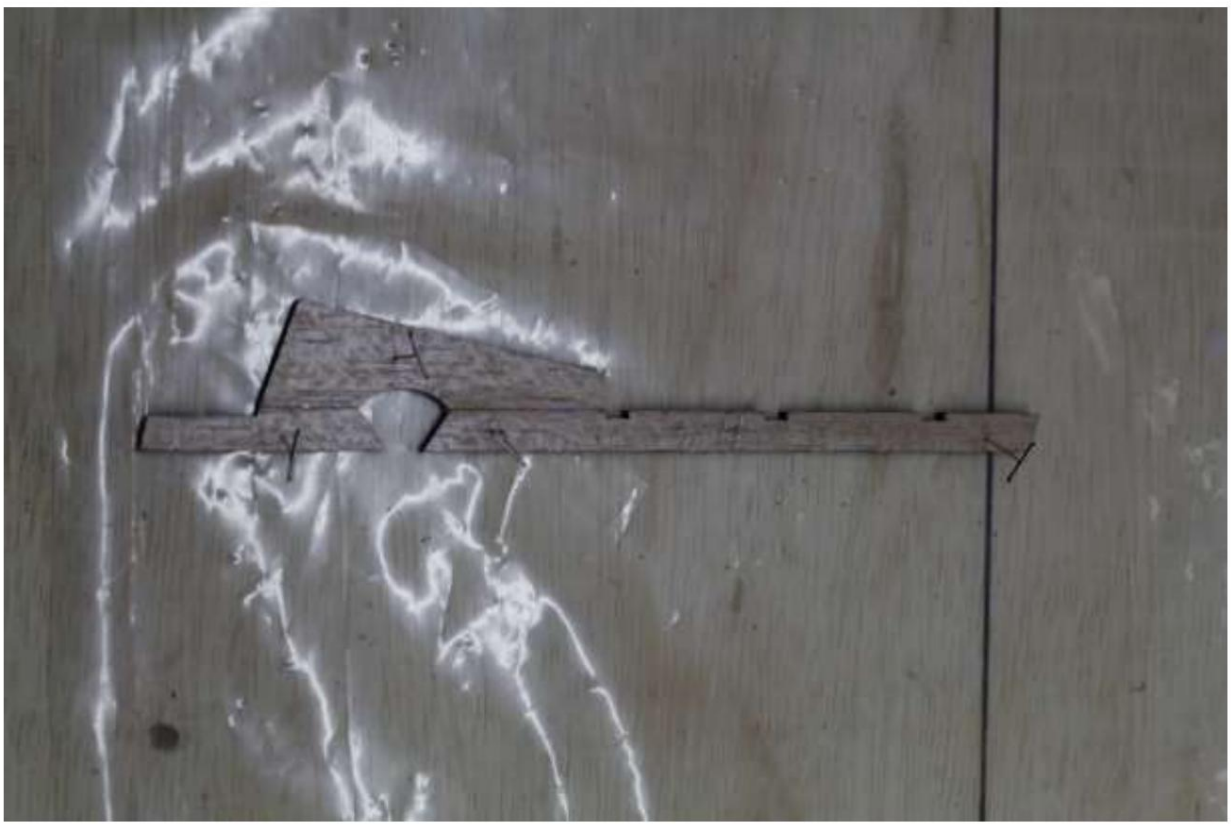
Staple and glue the end strip (H8), nose strip (H9) and lower end strip (H7) onto the construction base.



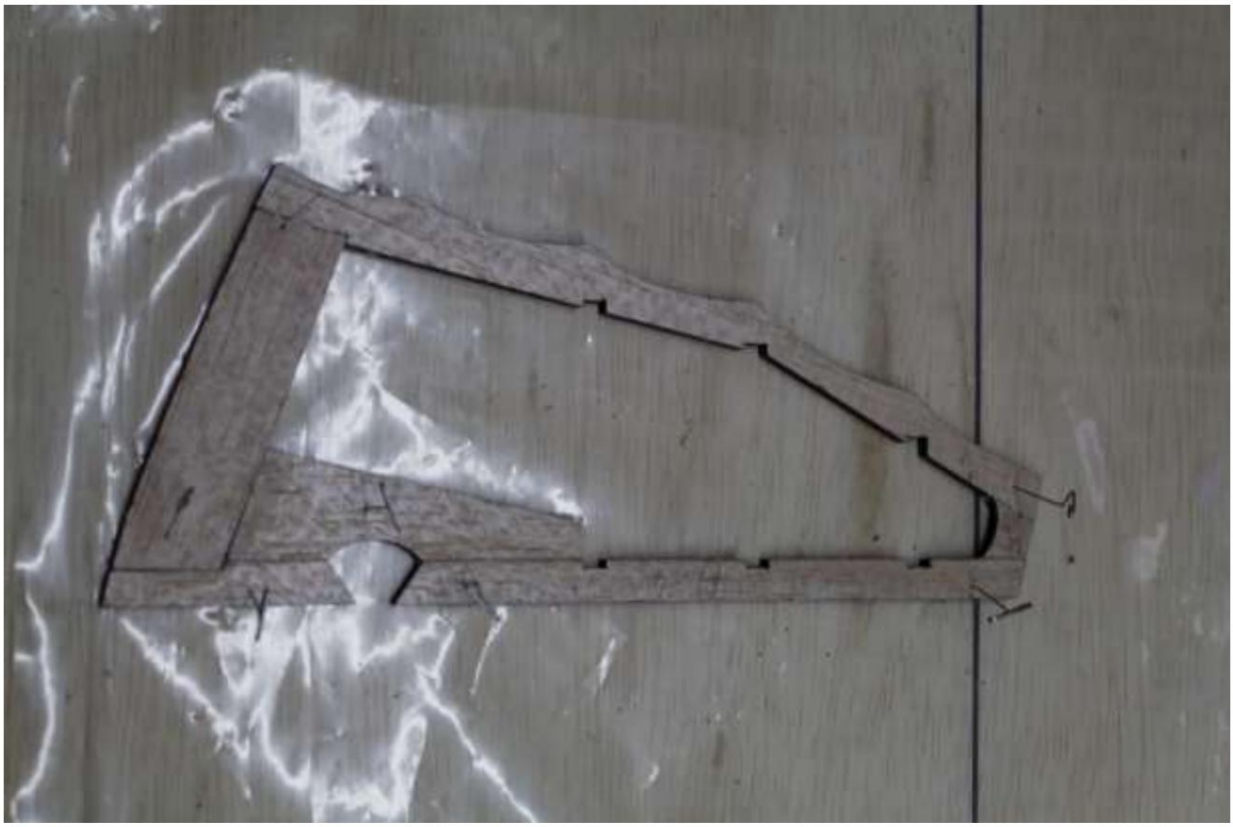
Glue the cross braces (H6, H5) and the centering part (H13).



Glue in corner reinforcements (L10, H11).



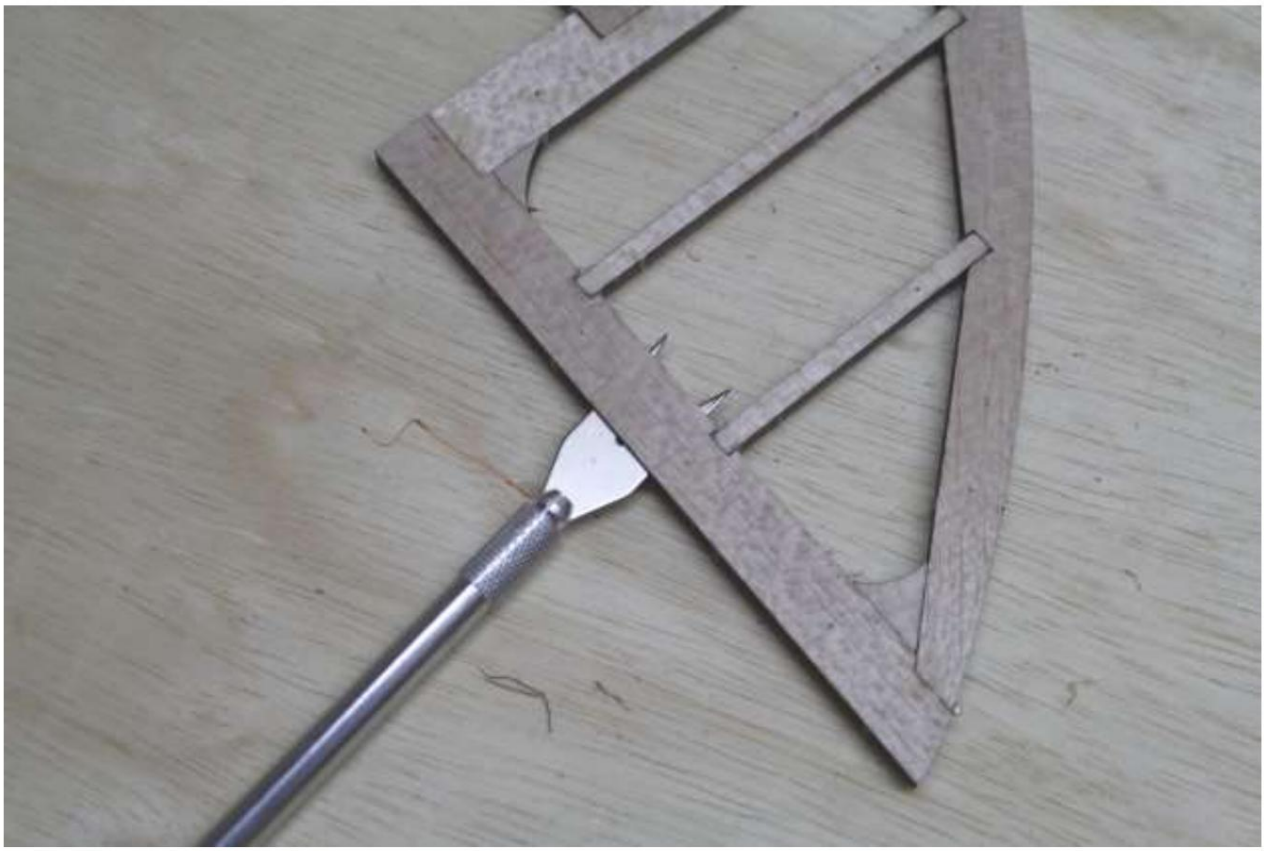
Staple and glue the front strip of the rudder flap (H16, H19) with connector (H15) onto the building base.



Attach and glue the upper (H18), lower edge arch (H17) and end strip (H14).

Glue crossbars (H2, H3, H4).

Mark the hinge line on the damping surface and rudder flap.



Make slots for hinges using a hinge knife.

Grind the front strip on the rudder flap to a point of 45°.

Connect the tail unit parts and sand down any excess parts.

Sand the nose strip and wingtips round.

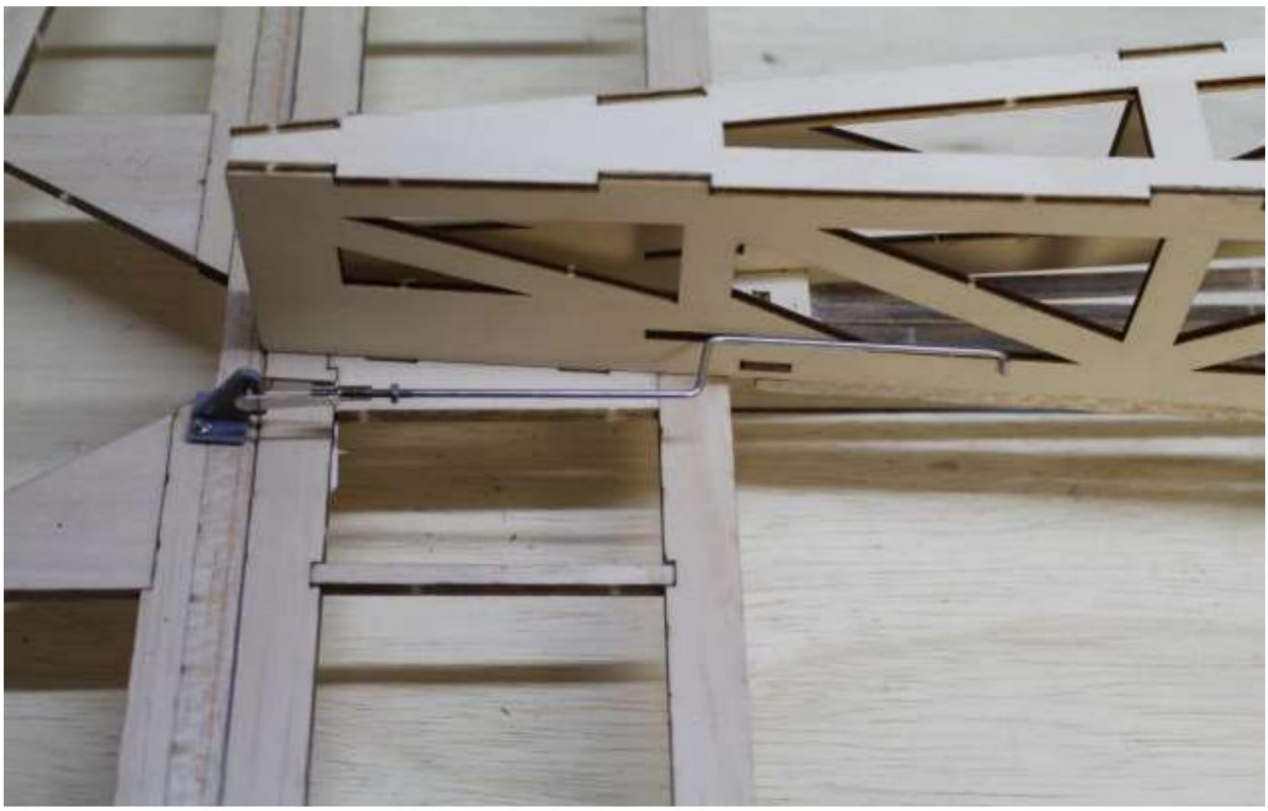
The trailing edge of the control surface flaps should remain sharp-edged; do not sand them round.

The flow hinges are only glued in after the covering.

Only glue the horizontal and vertical stabilizers to the fuselage after covering!

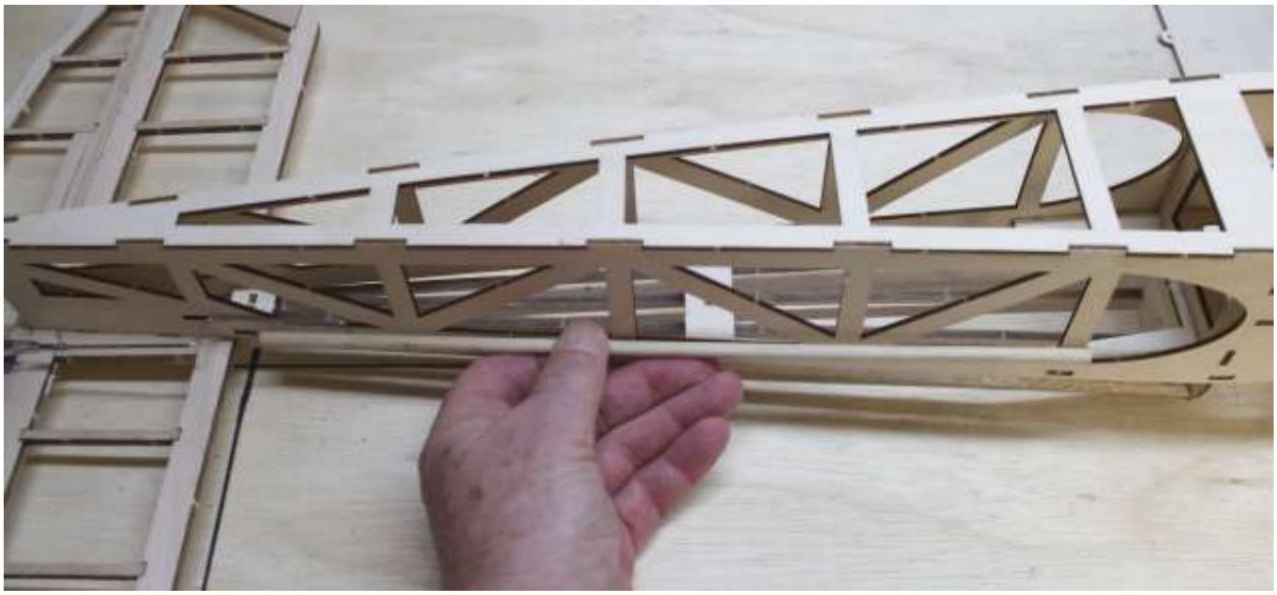
RC installation

Install servos for rudder and elevator in the fuselage, bring them into neutral position using the remote control and mount the servo arm.

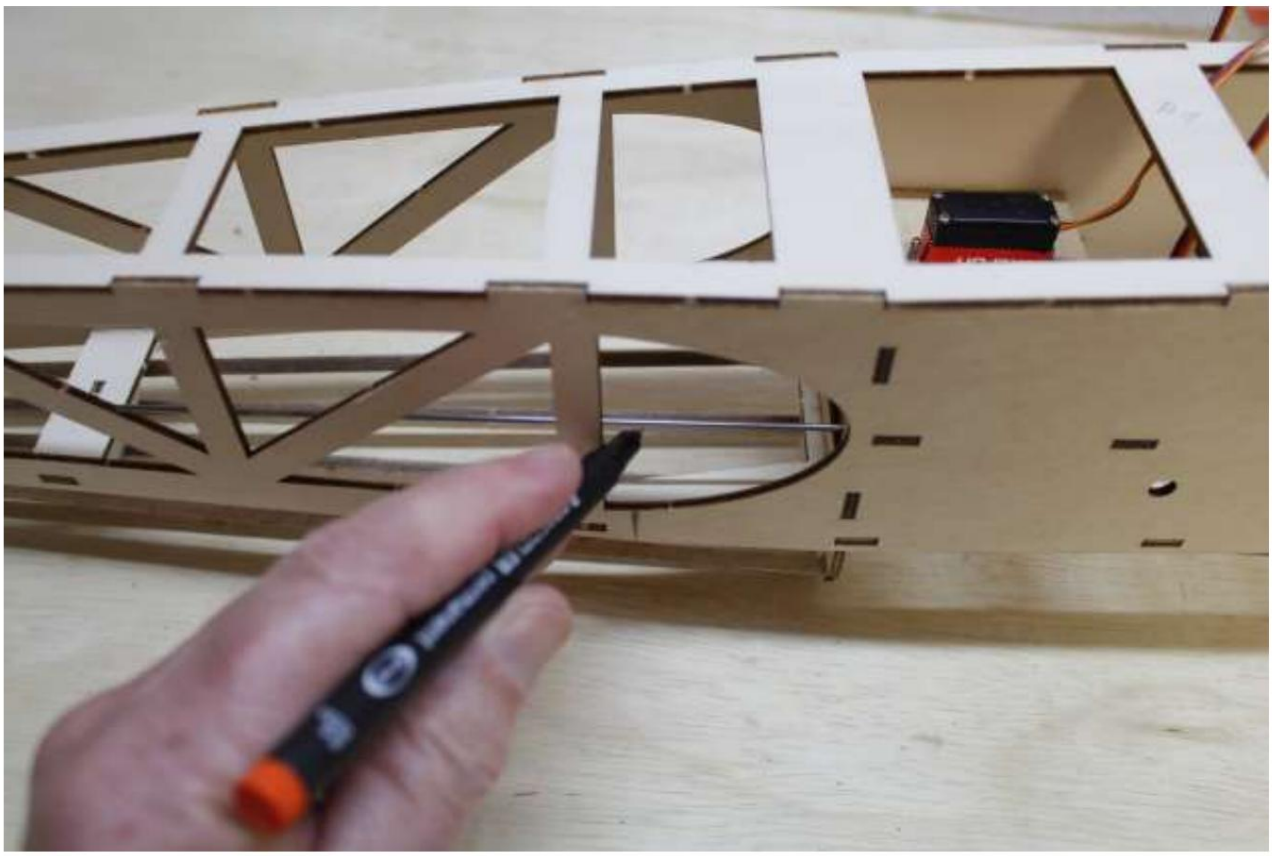


Mount control horns on the rudder and elevator.

Adjust the rudder-side M2 threaded rod to the hull feedthrough (bend twice by 90°).
Shorten the control wire and bend it at the end by 90°.

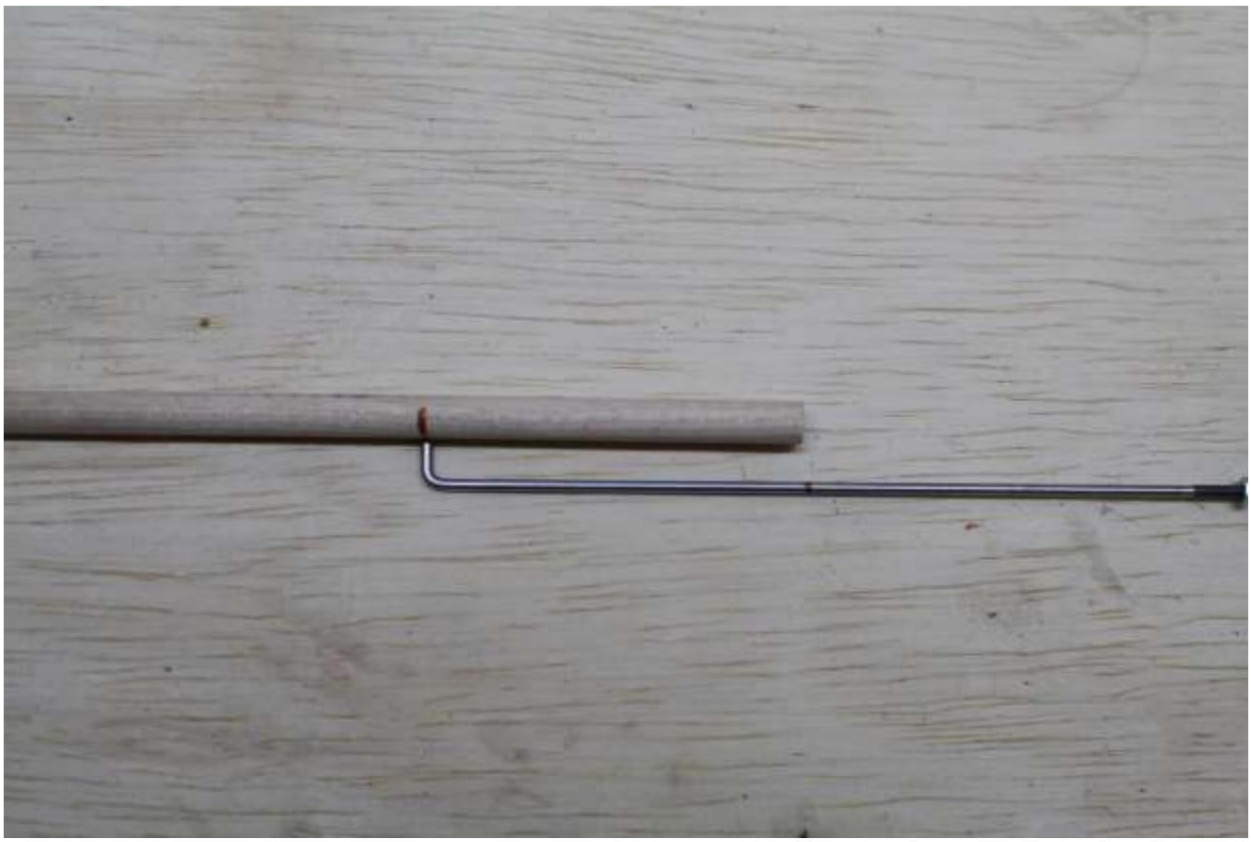


Hold the push rod (wood, Ø6×330 mm) against the fuselage and mark the front end on the fuselage side wall.



Attach the servo-side M2 threaded rod to the servo and transfer the marking from the fuselage side wall to it.

Remove the threaded rod and add approx. 60 mm from the marking.



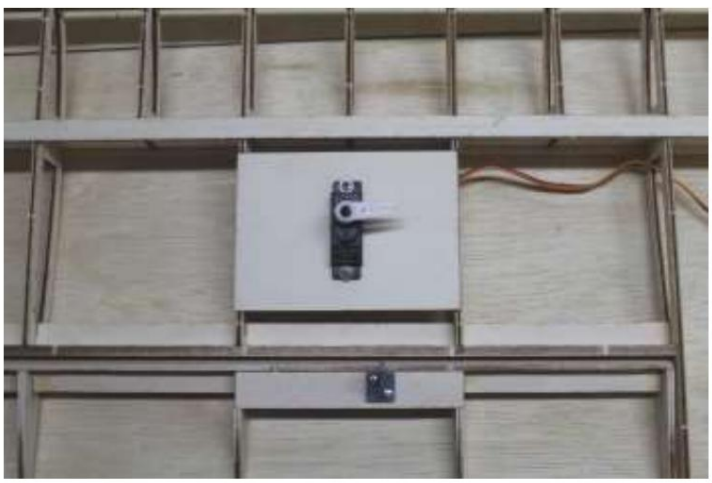
Shorten the threaded rod at this point and bend it at the end to 90°.

Place parts of the control rod and mark the position of the angled ends on the push rod.

Drill markings with Ø2 mm and insert the angled part of the threaded rod there.

Glue threaded rods to push rod on both sides with epoxy.
Shrink the shrink tubing onto the adhesive point.

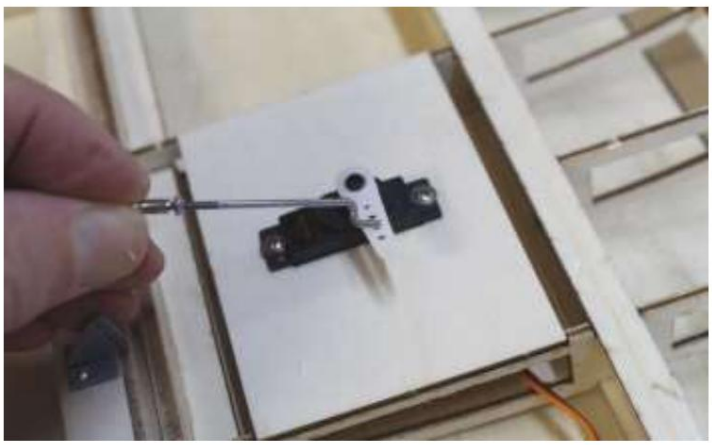
Repeat the entire process for the rudder control.



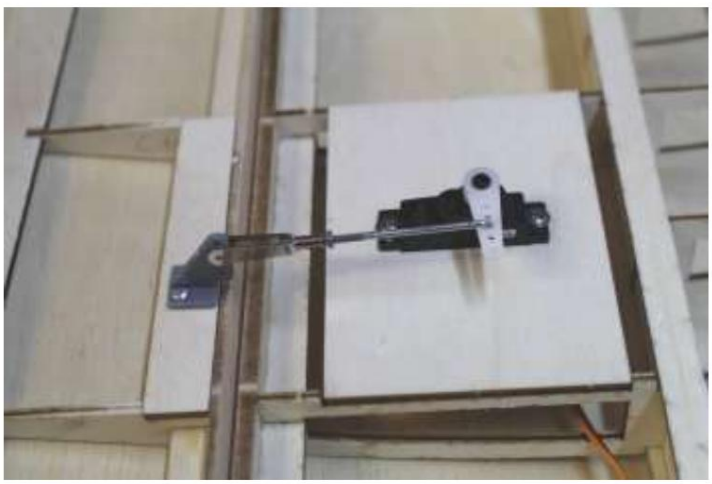
Screw the aileron servo and rudder horn into the wing.

Bring the servo to the neutral position using the remote control.

Attach the M2 threaded rod with fork head to the rudder horn.
Transfer the position of the hole in the servo arm to the threaded rod.

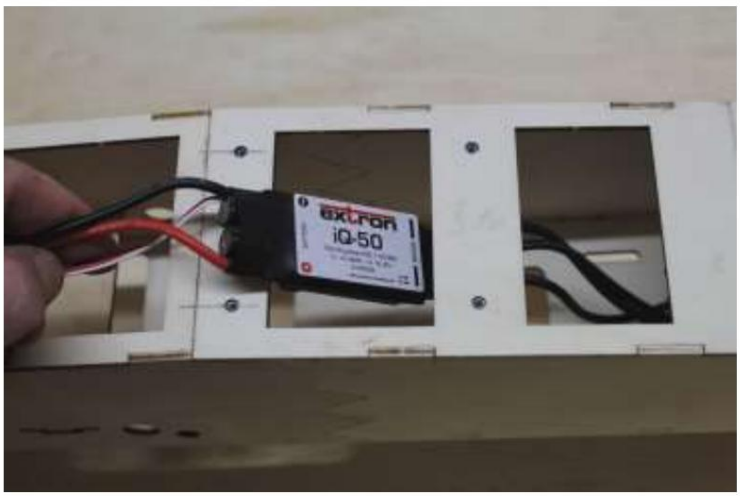


Bend the threaded rod 2×90° at the marking (Z-connection) and cut to length.
Drill the servo arm to 2 mm.



Attach the threaded stand to the servo arm with Z-connector and fork head to the rudder horn.

Extend the servo connection cable with 200 mm long extension cables. Extension cables should also be connected to the receiver.



Insert the controller into the fuselage through one of the lower openings and attach it to the upper longitudinal board (B4) with Velcro.

Once the shell is complete, the model can be covered. We recommend Oracover covering film.
Before this, the model should be completely freed of dust residues. Carefully sand down sooty cuts from laser cutting. You will achieve the best results with a foil iron, e.g. Order No. C9758. Be sure to use a protective cover, e.g. Order No. X9983, to prevent the foil from being scratched during ironing.

The flight battery can be securely attached to the battery board using Extron Velcro straps, Order No. X6667. The optimal center of gravity of the model can be adjusted by moving the flight battery.

rudder deflections
Aileron = 25mm up / 16mm down
Rudder = 35mm up and down
Elevator = 25mm up and down

focus
The optimal center of gravity is 78 - 82mm measured rearward from the leading edge of the wing.

Before every flight
The operation of model aircraft is subject to different regulations depending on the country. Please contact your local authority for information on the current legal regulations. You may need proof of knowledge and insurance to operate model aircraft.

You can get all the information you need from the German Model Flying Association (DMFV) or the German Aeroclub (DAeC). You can find the respective addresses and contact persons on the Internet.

First flight Before every flight, check that the model, drive and remote control are working properly. Carry out a range test.

Disclaimer Our liability is limited to the value of the model kit. Since we cannot monitor the proper construction and operation of the model aircraft, we accept no liability for consequential damage.

Spare parts

Spare parts are available for the Oldiman. More information at **www.extron-modellbau.de** or in the online shop.

For questions, suggestions & technical support please send us an email to service@pichler.de

IMPORTANT NOTE

Please check the Oldiman product page in our online shop to see if a newer version of this manual or the product description is available. Supplements are available.

Oldiman Construction Manual, Version 1.1

Subject to changes and errors.