

extron
MODELLBAU

building instructions

Cafe Racer #X5554



Wingspan 800mm

R/C flight model for electric drives
Control via 3 channels (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 contents of the kit before starting construction.

If any parts are missing or damaged, please let us know immediately by email to:

info@extron-modellbau.de

We will help you as quickly as possible.

ATTENTION - The appearance of the parts included in the kit may vary from the images.

Read these building instructions completely before starting construction. Familiarize yourself with the basic structure. Please check the relevant product page in our online shop at **www.extron-modellbau.de** to see whether 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 developed specifically for electric drives and is not suitable for combustion engines.

Make sure the bonds are good and use BINDAN propeller glue for wood bonding. In our experience, this is the best wood glue for our purpose. Particularly stressed areas can also be glued with 5-minute epoxy. If things need to be done quickly and no major loads are expected, superglue can be used.

As construction progresses, carefully remove wooden parts with a sharp knife. Risk of breakage! Carefully remove the remains of the webs with a sanding block.

For construction we recommend the Extron building board. To prevent the components from sticking to the building surface, it should be covered with a thin plastic film (e.g. household cling film).

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 work is required.

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

Special accessories

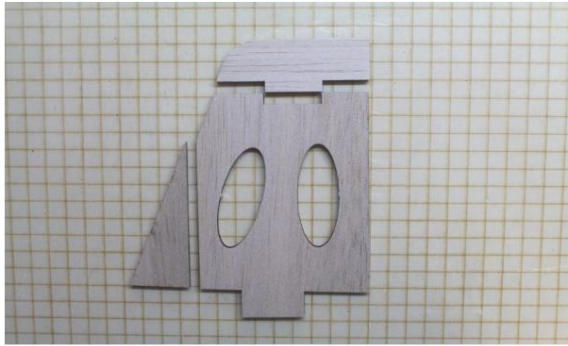
E-Brushless drive set for Cafe Racer, # X5555
[3] Servo EXTRON ED102, #X5608
LiPo battery EXTRON X2 1300-3S, # X6409
MASTER GigaProp 6 remote control system, # C8802

To assemble the model, we recommend the following accessories, see also:

www.extron-modellbau.de

Extron building board, 900 x 300mm, #X5535
Mini Balsa Planer, #C8891
Extron Sanding Block, #X5568
Grinding discs for sanding block, #X5569
Sandpaper file, #X5565
BINDAN propeller glue, #X3577
ZOOM CA adhesive, #X3571 + X3572
Fix It! Metal clips 50mm, #C4919
Crimping pliers, # C8333
Fix It! Quick release clamp, #C4922
Push pins (50 pieces), # X3441
Foil Iron, #C9758
Protective cover for foil iron, # X9983

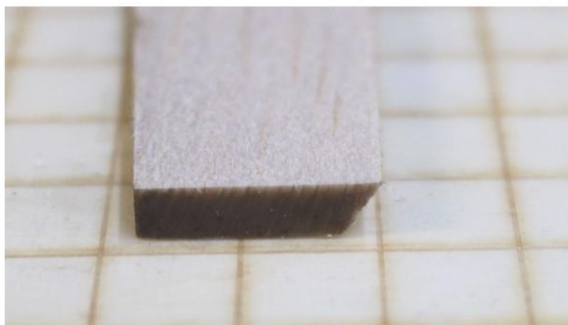
Tail units



Staple and glue the parts for the vertical tail (I1, H5, H6) onto the building board.
After drying, sand the front edge round.
The end strip remains sharp-edged, not rounded!

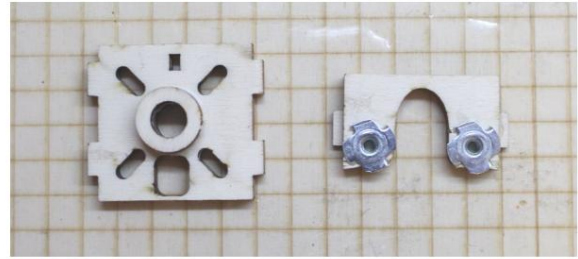


Attach the edge arch parts (H1) with the horizontal stabilizer (H2) to the building board and glue them together.
After drying, sand the front edge and edge curves round.



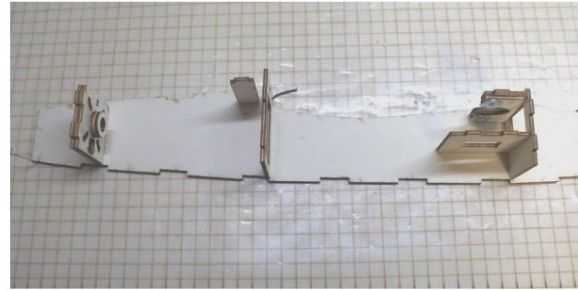
Bevel the front edge of the rudder flap at an angle of approx. 45°. The end strip remains sharp-edged.
The rudder flap is only hinged after covering.

hull

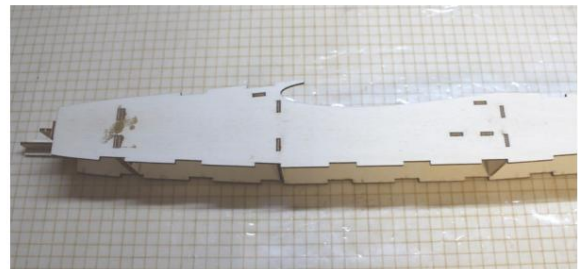


Glue the parts for the engine frame (2xE2).
Glue spacer rings (2xE3) to the engine frame on the back.

(Note: The spacer rings prevent damage to the battery caused by the motor shaft protruding into the battery compartment). Glue the holder for the wing screw connection (E6, E7) and insert the M4 drive-in nuts.



Lay the fuselage side part (B1) flat and insert and glue the frames (E2, E4, E6), servo board (E5), cross member (C4) and holder (E6/7). Pay attention to angularity.



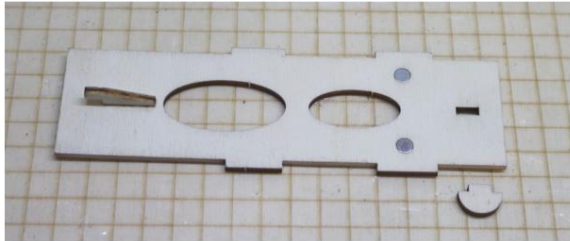
Place and glue the second fuselage side part (B1).



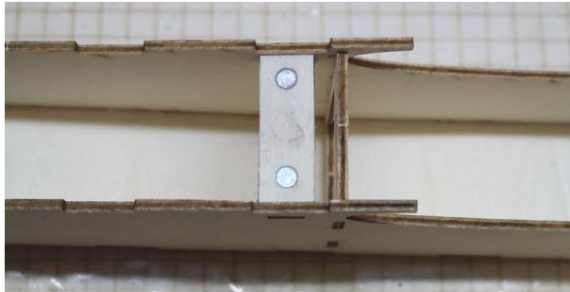
Insert and glue the upper back of the torso (D1). The underside of the two side parts should rest on the building board.



Turn the fuselage over, insert and glue the lower fuselage planking (D2).



Glue the lock (B2) into the front fuselage cover (D3). Glue 2x magnets into the lid (D3) with superglue. Fit the handle (B3) into the lid (D3), but only glue it after covering.



Glue the holding plate (C3) for magnets in the fuselage to the cross member (C4) and insert the magnets with superglue.

(Note: Make sure the polarity of the magnets is correct to those in the lid. If they are glued in incorrectly, they will repel each other).

Sand the fuselage carefully, rounding the edges slightly.

wing



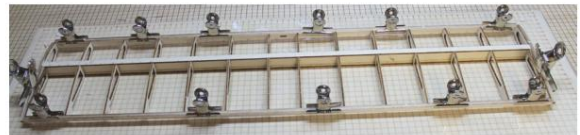
Staple the lower main spar (B4) straight onto the building board. Glue the rib comb (C2) onto it in the middle. To check, insert a rib as a test and, if necessary, then align the rib comb.



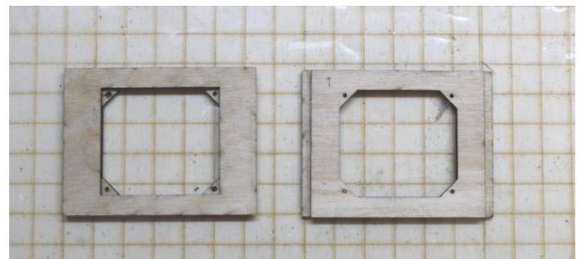
Insert the ribs on each side into the rib comb in the order (A1, 2x A2, 4x A3) and glue them together. (Note: When removing the ribs from the boards, be careful not to break the support feet).



Glue the upper main spar (B4), auxiliary nose strip (G2) and auxiliary end strip (G1).



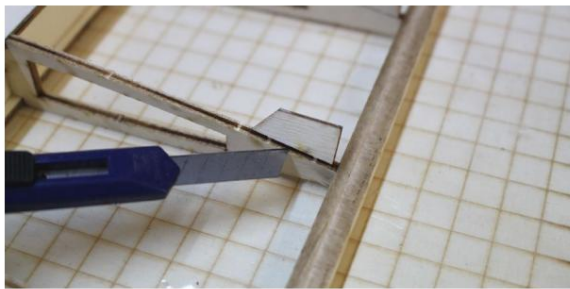
Glue the nose strip (4), end strip (F5) and edge arches (F1).



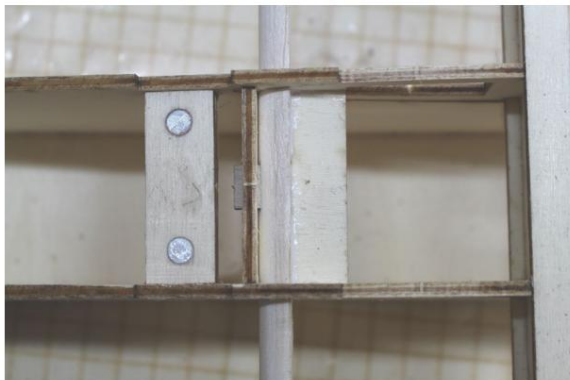
Glue the servo holding frame (J4) and cover holder (J1), the cutouts must lie exactly on top of each other.



Glue the servo holding frame (J4/J1) and cable gland (J6) to the underside of the wing.



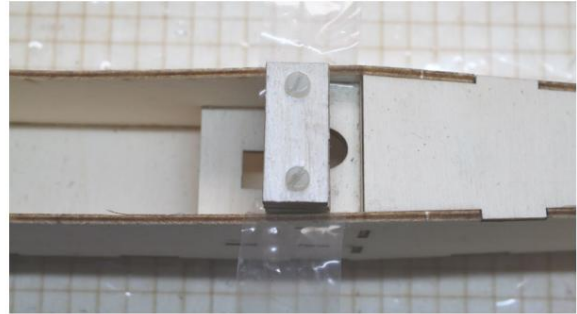
Carefully separate the support feet and Sand the nose strip.
Sand the entire wing carefully.



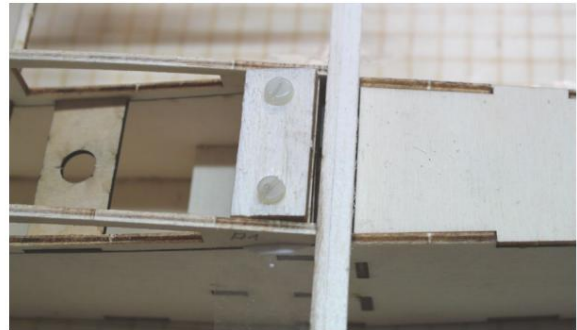
Glue the front wing lock (A4).
Installation tip: Place the wing on the fuselage and push in the lock. The nose of the locking device must slide easily into the holder in the frame (E4).



Glue the block for wing screw connection from (F3, A5, E1 and F3). The two plywood parts lie in the middle between the balsa parts
Use M4 screws as centering.



Screw the block for wing screw connection to the holder (E6/7) in the fuselage using M4 plastic screws.



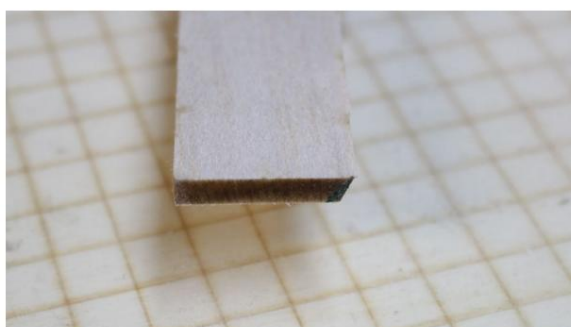
Place the wing on the fuselage. Allow the block to slide between the two middle ribs (A1). If the seat is OK, glue the block well between the ribs (A1). Do not glue the block to the fuselage under any circumstances; if necessary, place small pieces of foil in between!



Fill the gap between the block and the end strip with scrap wood.



Remove the wing from the fuselage and sand the protruding parts of the block on both sides according to the profile.

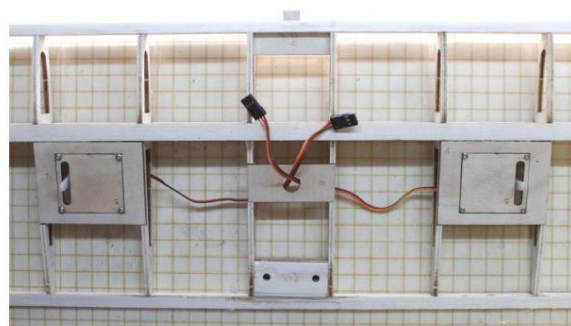


Bevel the front edge of the ailerons (H3) at an angle of approx. 45°. The end strip remains sharp-edged. The rudder flaps are only hinged after covering.

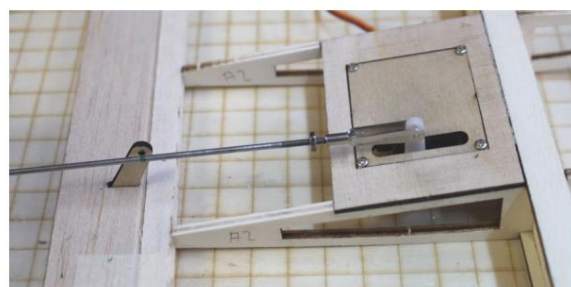
RC installation



Glue the aileron servo to the cover (J5) with 5-minute epoxy.



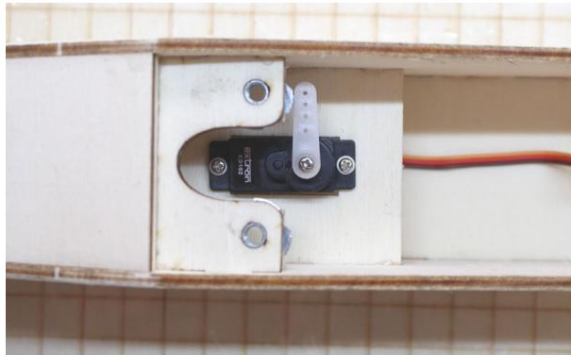
Fasten the cover (J5) with the servo in the servo holding frame (J4/J1) with 4x screws 1.8x7 mm. Lay the servo cable in the wing and pull it through the hole in the cable gland (J6). Bring servo to neutral position.



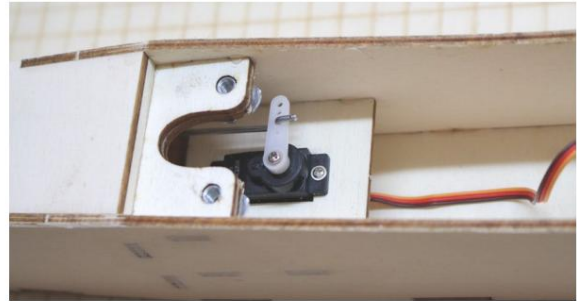
Temporarily attach the ailerons to the wing with adhesive tape and insert the control horn (J2). Rudder linkage made of steel wire Ø1.8 mm, M2- Make the clevis and M2 nut and clip the clevis into the servo lever. Measure and mark the length of the steel wire up to the rudder horn



Bend the wire at the marking 2x 90° for a Z connection. Cut off any excess wire length and attach the Z connector to the control horn.



Screw the elevator servo into the servo board (E5). Bring servo to neutral position.



Insert the linkage from behind into the fuselage to the elevator servo. Determine and mark the length on the servo arm. Bend the Z-end and hang it on the servo arm.

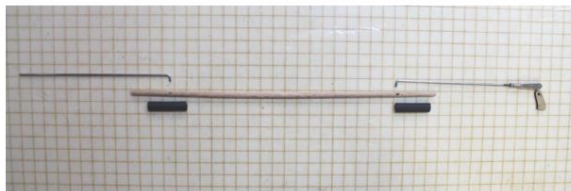


Insert the elevator into the fuselage. Temporarily attach the elevator flap to the tailplane with adhesive tape and insert the control horn (J3).

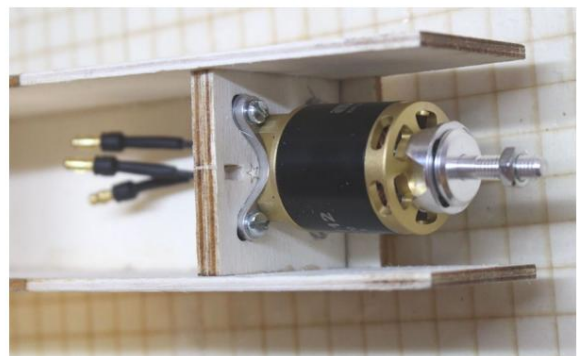
Drive installation



Complete the engine with assembly cross and propeller driver.



Make the elevator linkage, too
Cut off a piece of steel wire Ø1.8 mm from the thread with a length of 120 mm, screw on the M2 clevis and nut. Bend the wire at the other end by approx. 5 mm by 90°. Make 2mm holes in 4mm wooden stick at both ends, approximately 30mm from each end. Bend the remaining part of the 1.8 mm steel wire (used from the aileron) at 90° at one end.



Fasten the motor to the motor frame (E2) with 4x M3x10 screws and M3 drive-in nuts.

To adjust the side pull, place a Ø3x7 washer between the motor frame and the mounting cross on each of the two left-hand fastening screws (viewed in the direction of flight).

Pull the connection cable through the lower opening in the motor frame into the battery compartment.



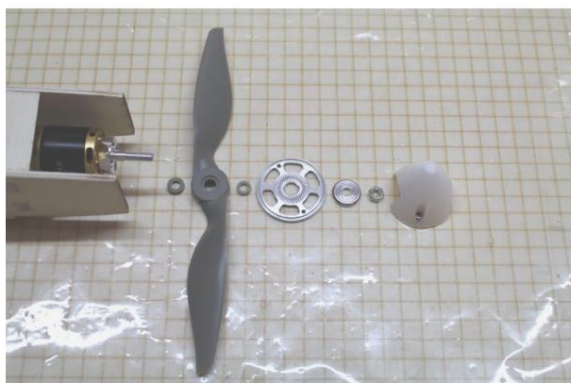
Glue the wires to the wooden stick with 5-minute epoxy. To secure it, slide shrink tubing over the glued area and shrink it.



Attach the controller to a fuselage side wall using double-sided adhesive tape or Velcro.

Connect the connecting cables to the motor

Secure the battery to the opposite fuselage side wall with Velcro.



Screw the propeller and spinner onto the motor shaft. Adjust the shaft holes on the propeller and spinner to the motor shaft using centering washers.

Final work

Model completely covered with iron-on foil. For this purpose, we recommend the films from Oracover, which are available in many different colors. Beforehand, the model should be completely freed of any dust residue. Carefully sand off any sooted interfaces from laser cutting. For best results, use the foil iron, e.g. #C9758. Be sure to use a protective cover #X9983 to prevent the film from being scratched while ironing.

Attach the elevator and aileron rudder flaps with adhesive tape or iron them on when covering with foil.

Control horns in elevator (J3) and aileron (J2) paste in. Glue the elevator and vertical stabilizer to the fuselage.

The model's optimal center of gravity can be adjusted by moving the flight battery.

Optimal center of gravity

63mm (Measured from the nose bar)

Rudder deflections

Aileron = +6mm / -5mm

Elevator = +/- 6mm

The operation of model aircraft is subject to different regulations depending on the country. Please contact your state authority to find out the current legal regulations. You may need proof of knowledge and insurance to operate model aircraft. You can obtain all information about this from the German Model Flight Association (DMFV) or from the German

Aero Club (DAeC). You can find the respective addresses and contact persons on the Internet.

Before every flight

Check the model, drive and remote control for functionality. Perform 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 assume no liability for any consequential damage.

For spare part inquiries, general questions and suggestions, please send us an email info@extron-modellbau.de

We hope you enjoy flying and avoid breaking any spars or ribs!

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Construction instructions version 1.1

Changes and errors excepted.

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