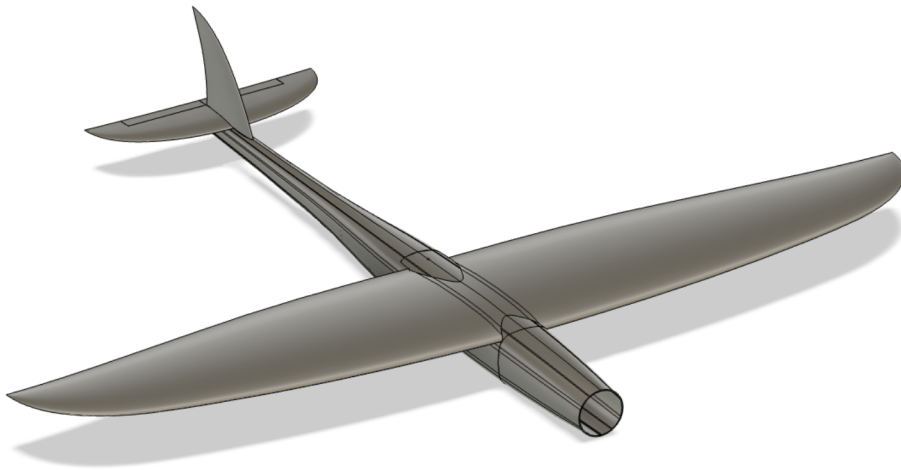


MICRO MONSTER BUILDING INSTRUCTIONS



Important: These building instructions apply exclusively to the optional All-In-One Package, which is available separately in the shop. It is not included in the scope of delivery of the kit.

FOREWORD

The Micro Monster is a purebred speeder and, at the same time, a well-thought-out everyday model for quick, uncomplicated after-work flights. With a takeoff weight of under 250 g, it remains flexible and legal to operate perfect for a quick session after work. Thanks to the Solidcore construction and clean CNC-milled parts, the build is fast and stress-free. In the air, it is well-behaved, precise, and predictable at all times. Relaxed and beginner-friendly on 2S, it becomes seriously fast on up to 6S reaching speeds of 350 km/h+. For the servos, simply choose HV06 or LV06 depending on your BEC. The FPV copter drive system makes it not only powerful but also pleasantly affordable.

TECNICAL DATA

Wingspan:	600mm
Length:	465mm
Spinner Diameter:	30mm
CG:	37-40mm (from the leading edge)
Aileron Throws:	+5mm up, -4mm down
Elevator Throws:	3mm
Angle of Incidence:	0 Degrees
Construction time:	8-10h

WING ASSEMBLY

STEP 1

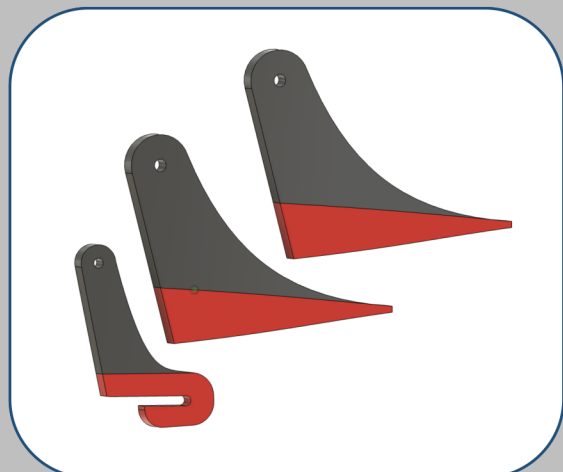


Remove the milled parts from the sheets (**marked in red**) and deburr them.



Roughen the gluing surfaces of the servo frames and control horns (**marked in red**) using the included sandpaper, then degrease them.

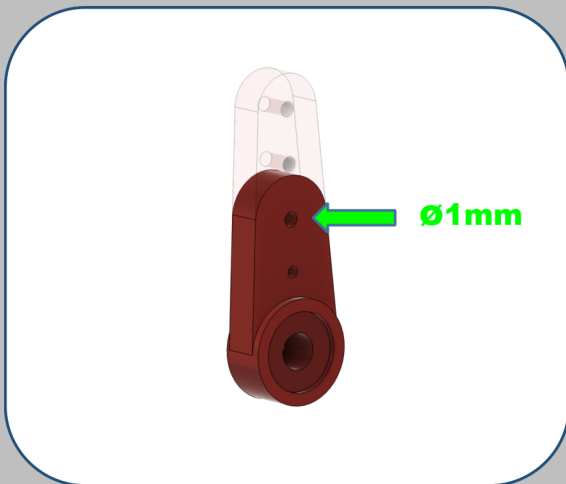
STEP 2



STEP 3

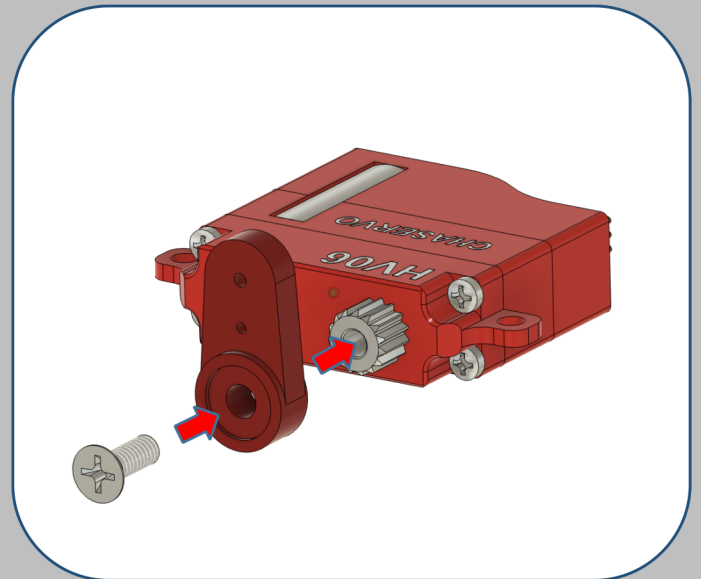
Apply Tape to the bottom of the servo to ensure that it does not get stuck during gluing.

STEP 4



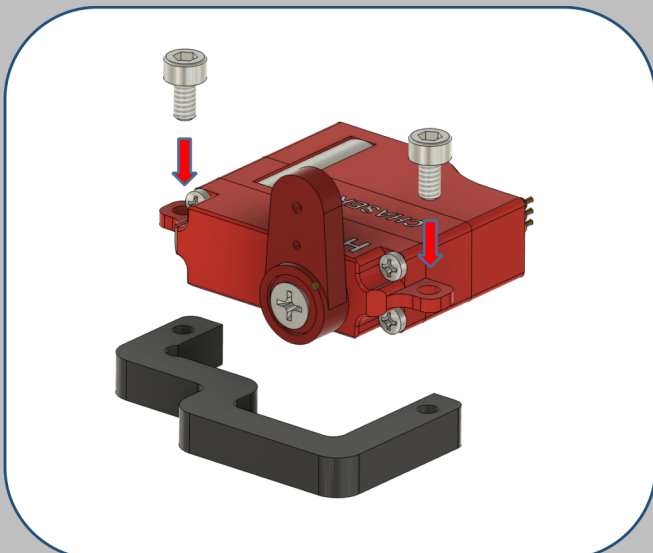
Shorten the servo horn with a cutter knife, sand it clean and round with the supplied sandpaper, and then **carefully drill out the top hole to 1 mm.**

STEP 5



Using a servo tester, bring the servo to its center position (1500 μ s). Then, attach the servo horn at a 90-degree angle to the servo and secure it with the screw provided with the servo.

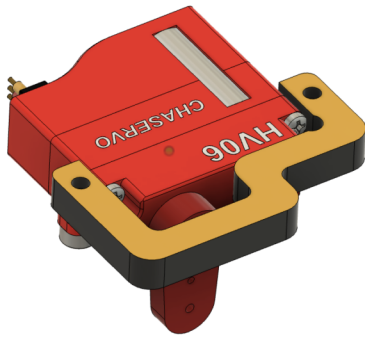
STEP 6



Mount the servo, with the servo horn attached, to the servo frame using the M1.6 screws included in the all-in-one package.

The pins are removed from the servo connector - ideally and carefully using a cutter knife - so that the cables can later be threaded through the designated channel when gluing the servo frame into the wing.

STEP 7.1

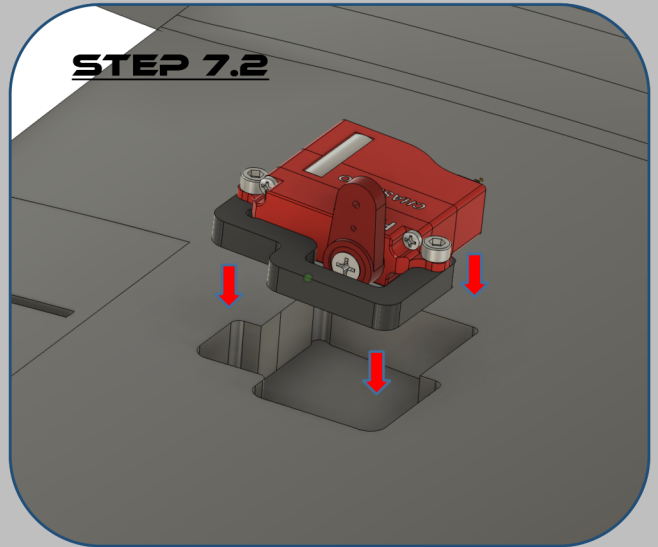


Before gluing, thread the servo cable through the designated channel. Then, glue the assembly into the cutouts of the wing and allow it to cure at room temperature for 24 hours, weighted down with weights. Afterwards, repeat the process on the other side.

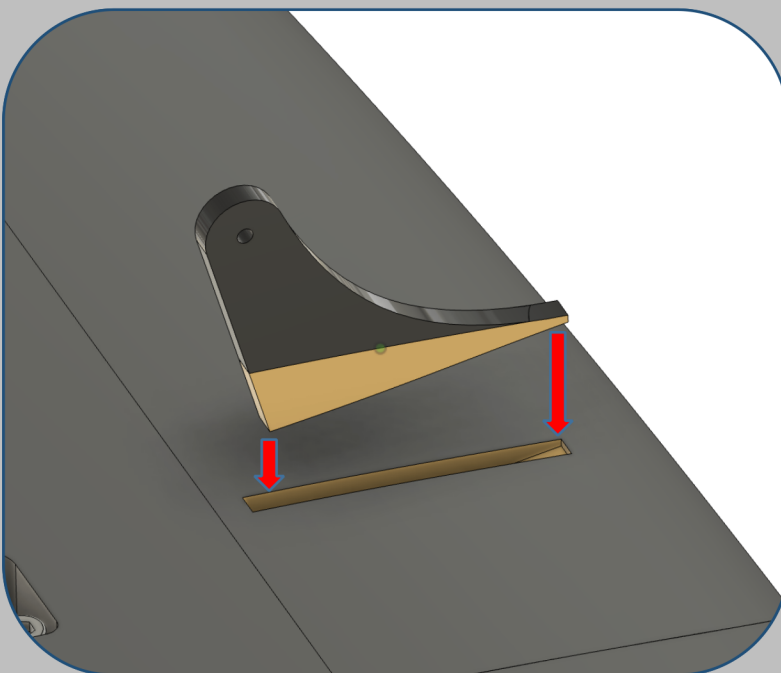
STEP 7

Apply the included 2-component adhesive to the gluing surface of the servo frame (marked in yellow).

STEP 7.2



STEP 8

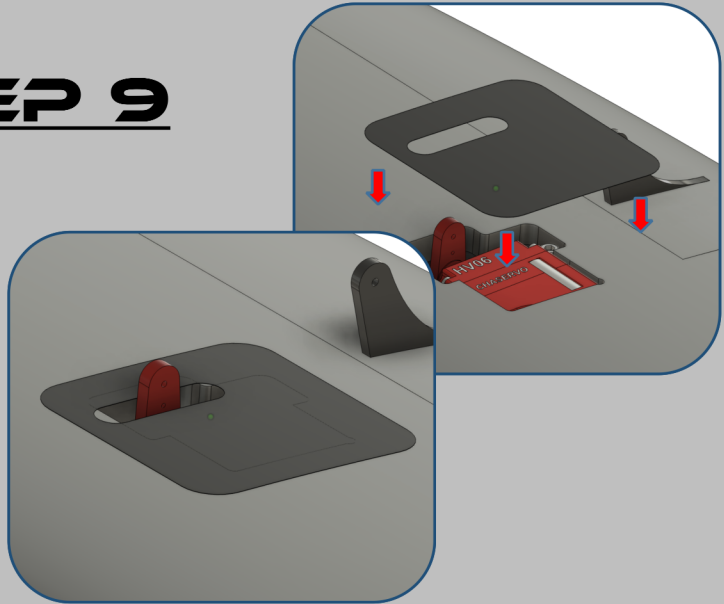


Apply tape around the gluing areas to ensure a clean glue joint later. Apply the included 2-component adhesive simultaneously to the aileron control horns on the right and left sides of the wing, as well as to the corresponding cutouts (marked in yellow). Then, insert both control horns into the cutouts and allow them to cure for 24 hours at room temperature under light pressure.

To save time, this step can be carried out immediately after gluing the servo frames (STEP 7) it is best to mix a fresh batch of adhesive for this.

STEP 9

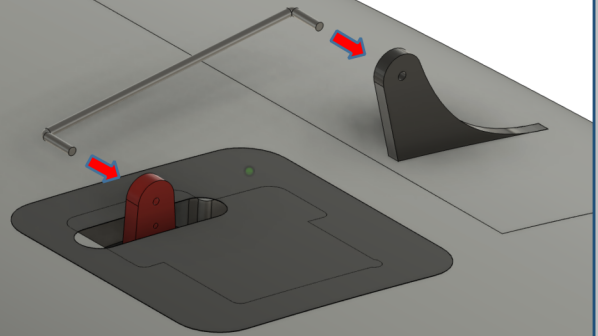
Place the stickers for the servo covers included in the all-in-one package precisely over the servos on both sides and stick them on. Ensure that the servo horns are centered in the recesses provided.



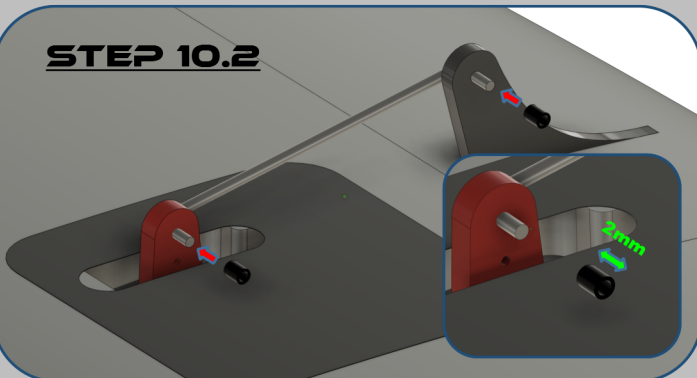
STEP 10

Attach the pre-bent linkage rods included in the all-in-one package to the servo horn and control horn. **It is essential that the servo frame and control horn are fully cured.** For testing, reinsert the pins of the servo cable into the connector to check the linkage for zero play and smooth operation using a servo tester.

STEP 10.1

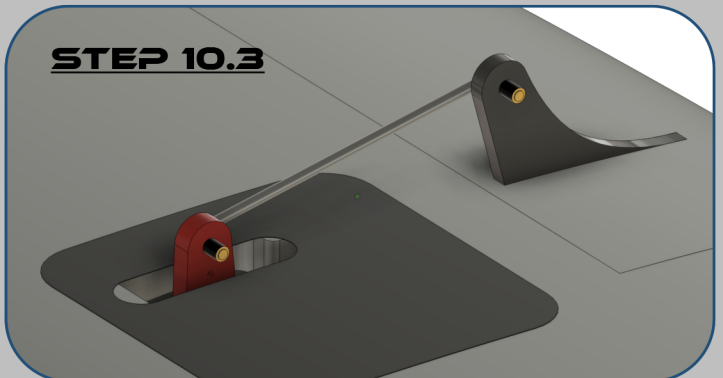


STEP 10.2



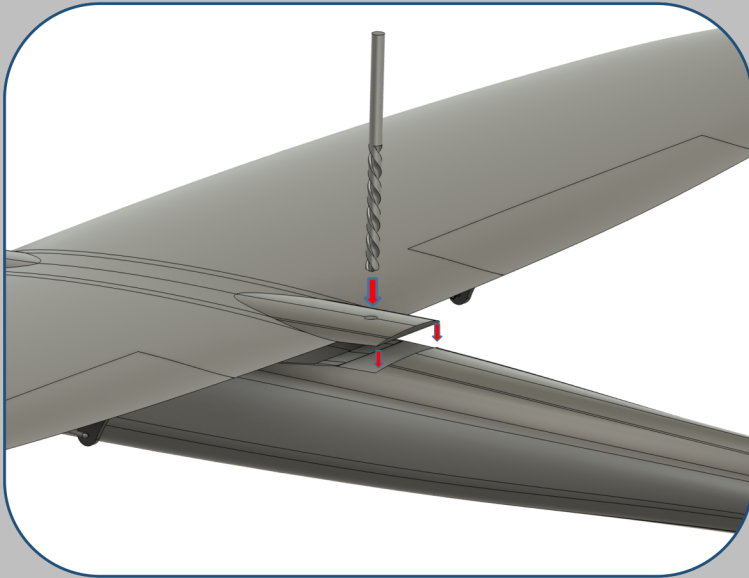
The protruding ends of the spring steel wire are roughened. Cut the included heat-shrink tubing into pieces approx. **2 mm** long, slide them onto the protruding linkage rods, and shrink them with a lighter.

STEP 10.3



Apply superglue to the front face (**marked in yellow**) of the heat-shrink tubing using the tip of a cutter knife and let it cure - **making sure that no glue flows into the hole of the control or servo horn** - These steps are then repeated for the other side.

FUSELAGE ASSEMBLY

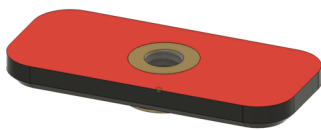


STEP 11

The wing is aligned centrally on the fuselage and fixed with tape. Subsequently, a hole is drilled with a 3 mm drill bit through the pre-milled hole on the wing to guarantee an exactly centered connection to the fuselage.

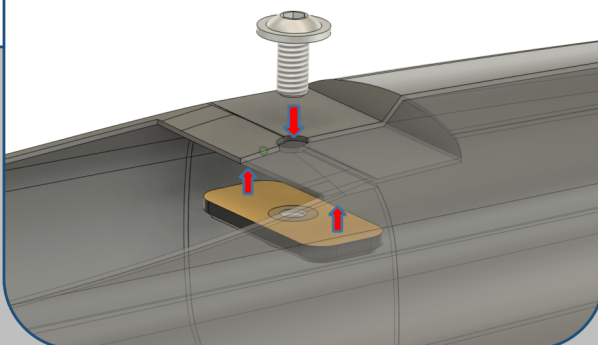
STEP 12

STEP 12.1



Sand the underside of the wing mounting plate (marked in red) with the included sandpaper and then degrease it.

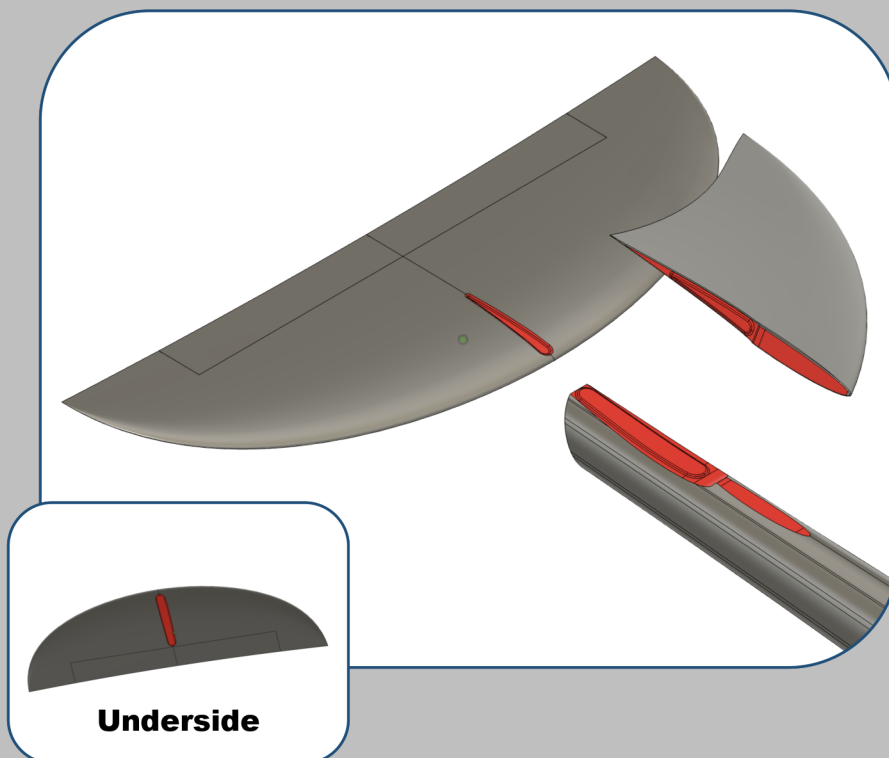
STEP 12.2



Apply a thin layer of the included 2-component adhesive to the underside of the wing mounting plate (marked in yellow) and glue it into the fuselage as shown. Ensure that no glue gets into the thread. Slightly fix the component with the screw and allow it to cure for 24 hours.

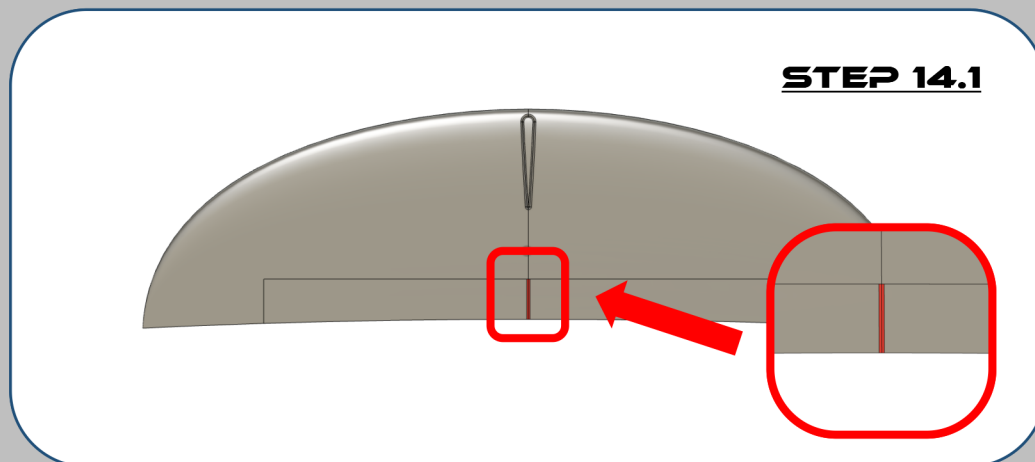
STEP 13

Roughen all components shown here at the gluing points (marked in red) with the included sandpaper and then degrease them.

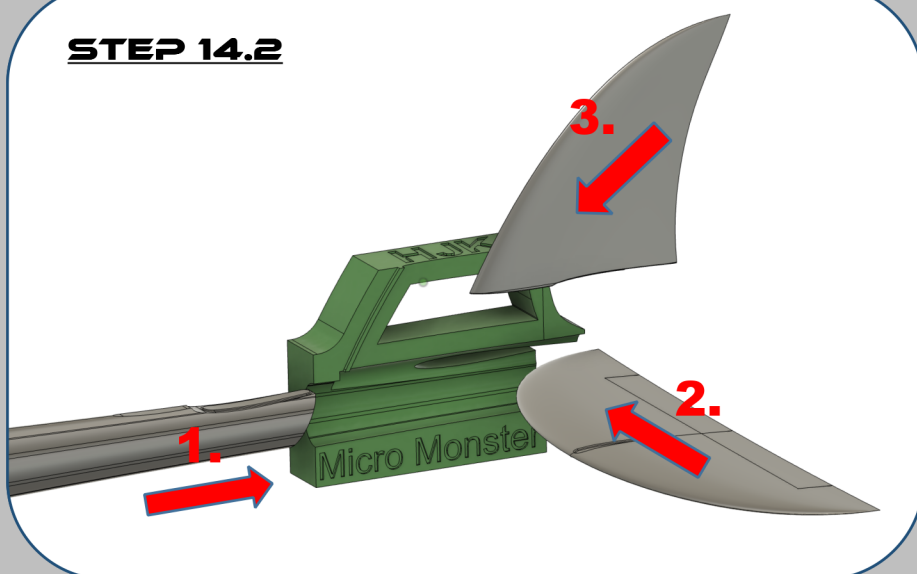


STEP 14

Measure the center of the horizontal stabilizer and mark it on the elevator with a pen for later.

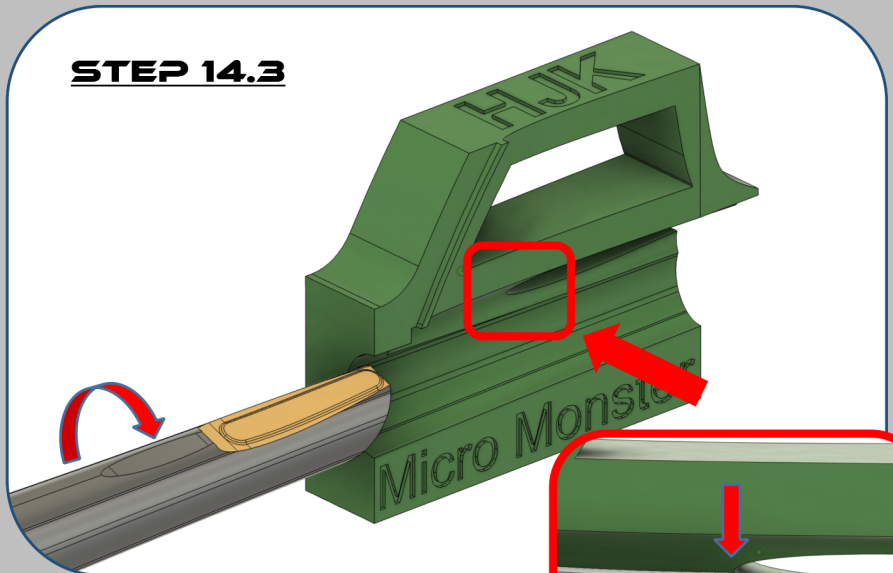


STEP 14.2

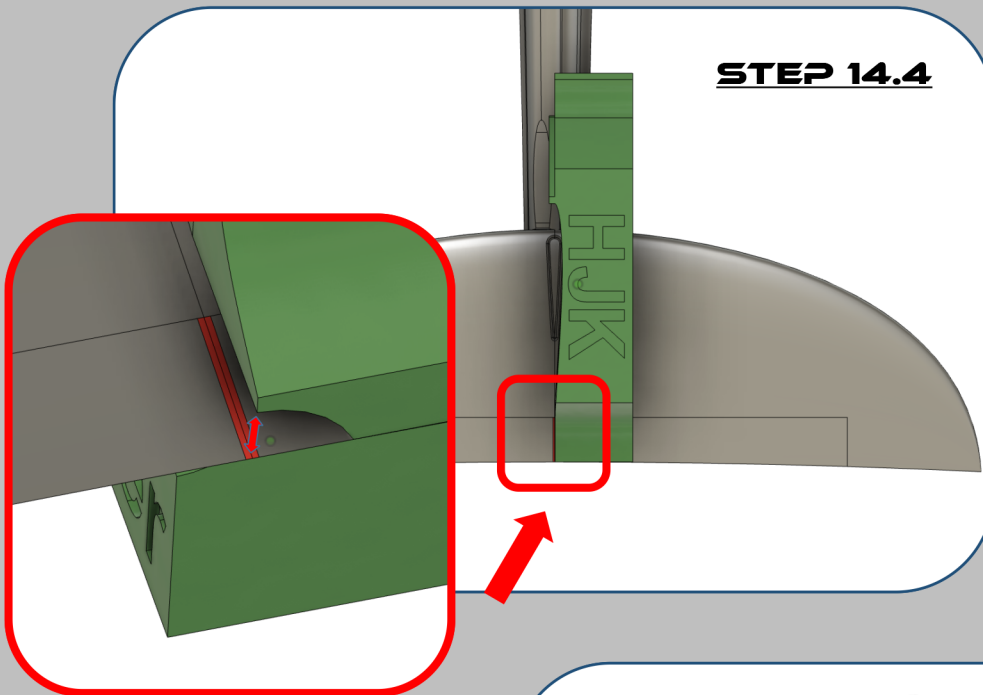


Assemble the parts shown in the correct order as a test and check if everything fits together like Lego.

Thinly coat the bonding area on the fuselage for the horizontal stabilizer (**marked in yellow**) with the included 2-component adhesive. Slightly rotate the fuselage to the left to avoid smearing glue onto the visible side of the horizontal stabilizer when inserting it later.

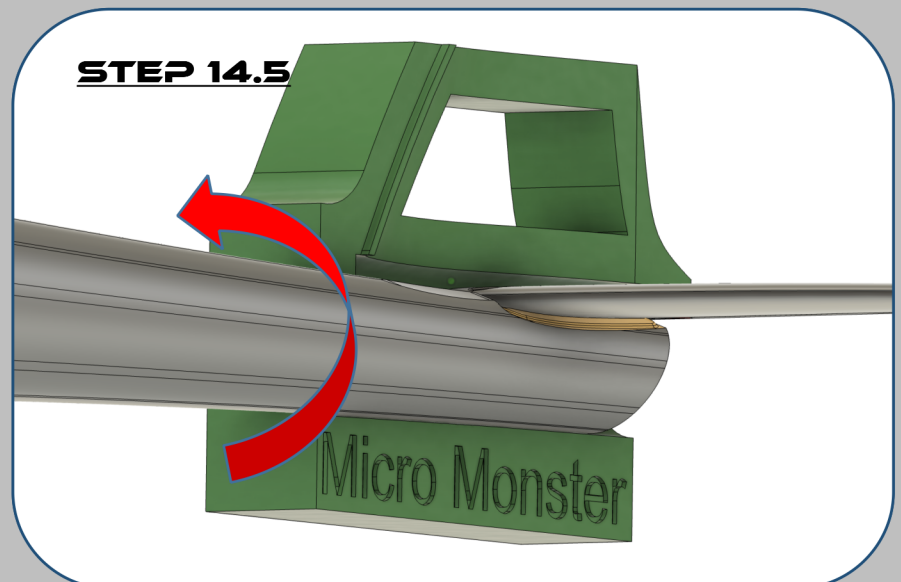


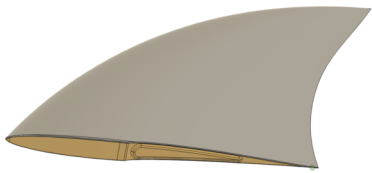
Push the fuselage in until the horizontal stabilizer locking mechanism and the slot of the 3D-printed assembly jig are at the same height.



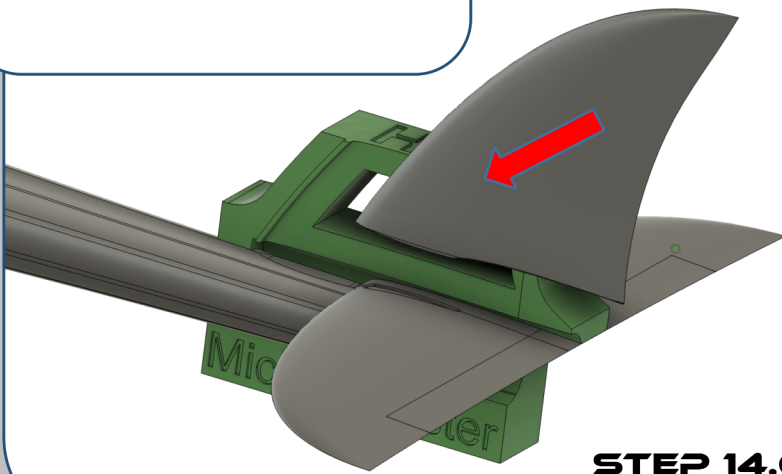
Adjust the stabilizer so that the end of the 3D-printed assembly jig aligns from above with the previously marked spot on the elevator.

Rotate the fuselage into the correct position so that the fuselage seam aligns with the 3D-printed assembly jig and the elevator locks into the fuselage.





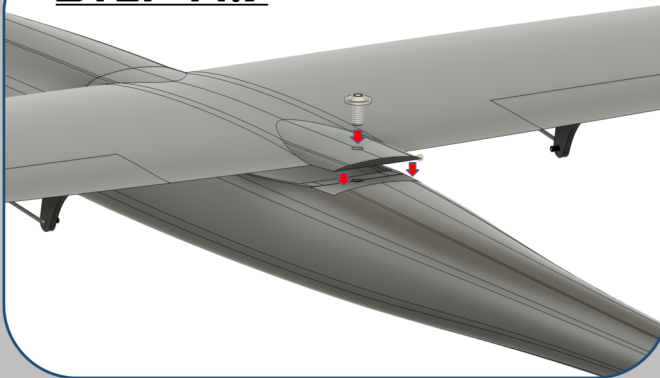
Thinly coat the bonding area of the vertical stabilizer (**marked in yellow**) with the included 2-component adhesive.



STEP 14.6

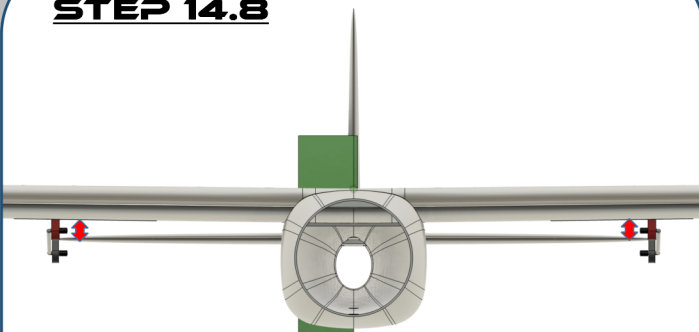
Insert the vertical stabilizer into the 3D-printed assembly jig and press it down with light pressure. To secure it, fix the vertical stabilizer to the 3D-printed assembly jig with a strip of tape, while a clamp fastens the fuselage to the 3D-printed assembly jig.

STEP 14.7



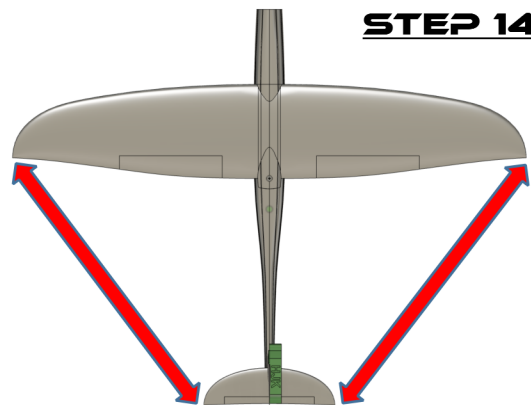
Mount the wing on the fuselage and fix it in place with the included screw.

STEP 14.8



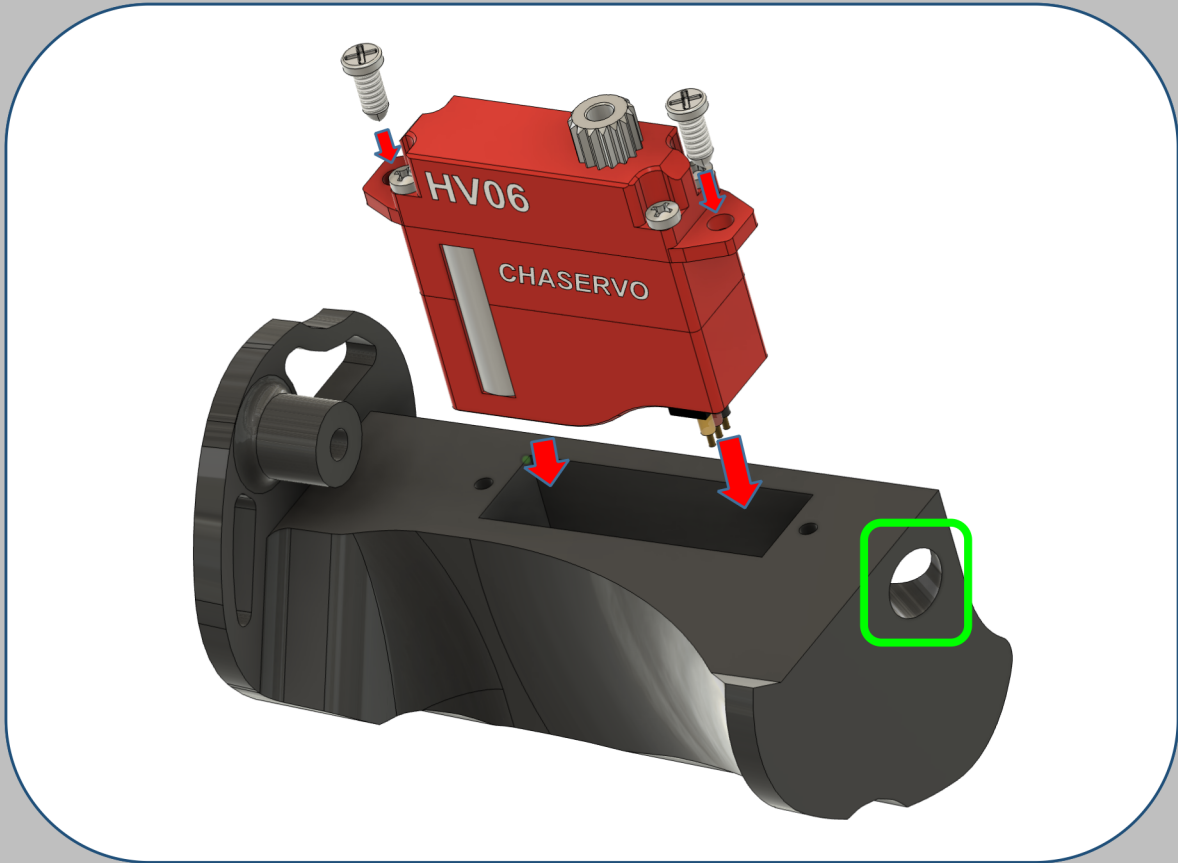
Look at the model from the front to check if the wing is parallel to the horizontal stabilizer. If not, carefully adjust the alignment by hand until the wing and horizontal stabilizer are parallel to each other.

STEP 14.9



Check from above whether the distances from the wingtip to the tip of the horizontal stabilizer are equal on both sides. In case of deviations, carefully push the horizontal stabilizer in the right direction until the measurements match on both sides.

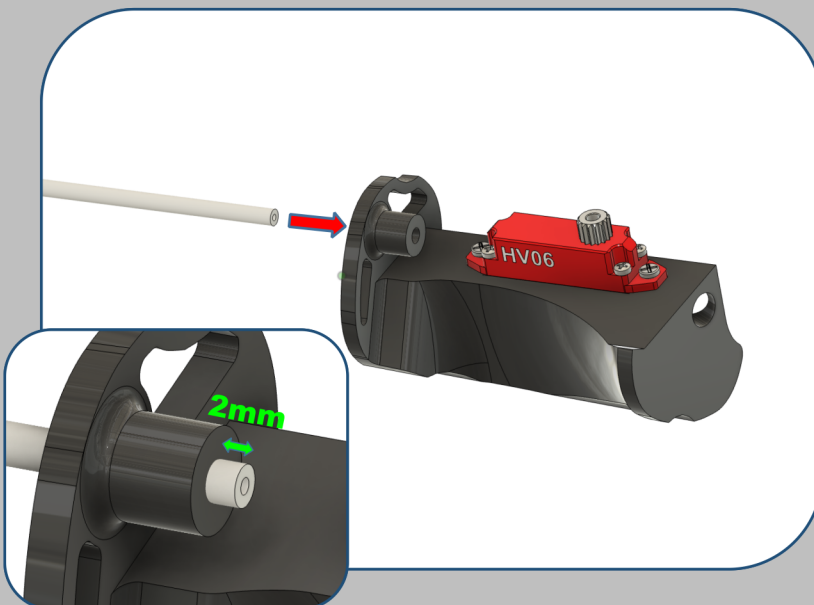
STEP 15



The servo is wrapped once completely with a single layer of adhesive tape.

The pins are removed from the connector on the servo cable - ideally and carefully using a cutter knife. Then, insert the servo into the 3D-printed holder. Feed the servo cable forward from below through the designated opening (marked in green).

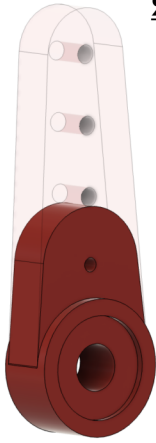
In the next step, securely fasten the servo in the 3D-printed holder using the included screws. Finally, reinsert the previously removed pins into the servo connector in the correct order.



STEP 16

Insert the Bowden cable tube into the 3D-printed holder from the rear until it protrudes approximately 2 mm at the front, then secure it with a small amount of superglue.

STEP 17.1



Hook the included spring steel wire, which is already provided with a Z-bend, into the hole of the servo horn.

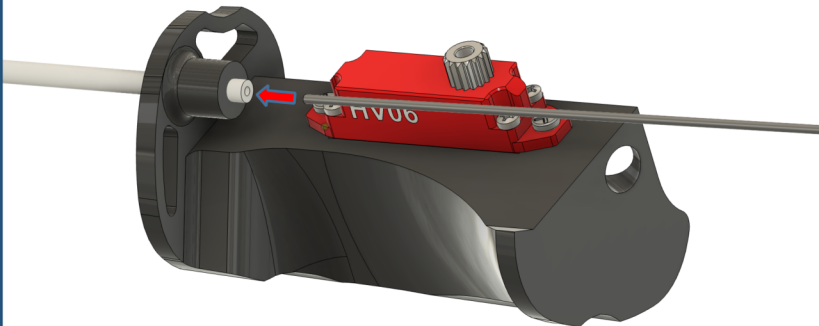
STEP 17

Shorten the servo horn with a cutter knife, then sand it clean and round using the included sandpaper.

STEP 17.2



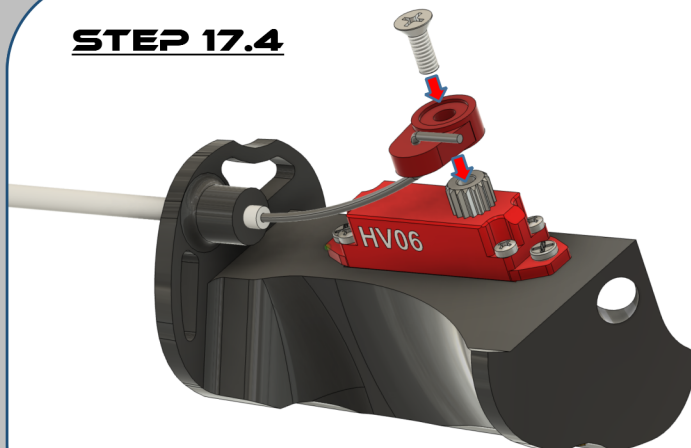
STEP 17.3



Slide the spring steel wire with the Z-bend on the other end into the Bowden cable tube.

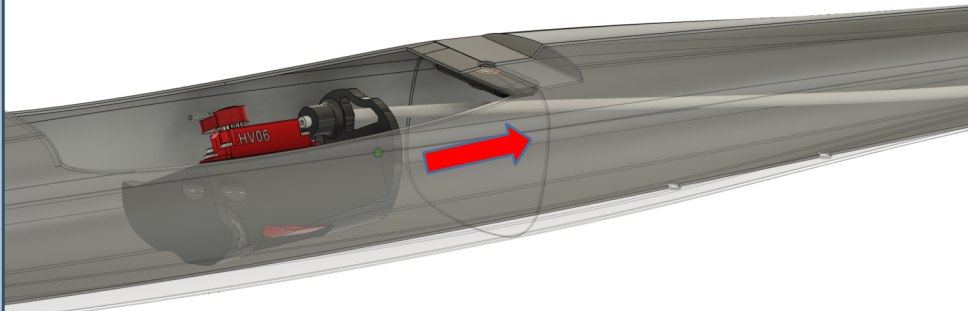
STEP 17.4

Bring the servo to its center position (1500 μ s) using a servo tester. Then, attach the servo horn at a 90-degree angle to the servo and fasten it with the screw included with the servo.



STEP 18

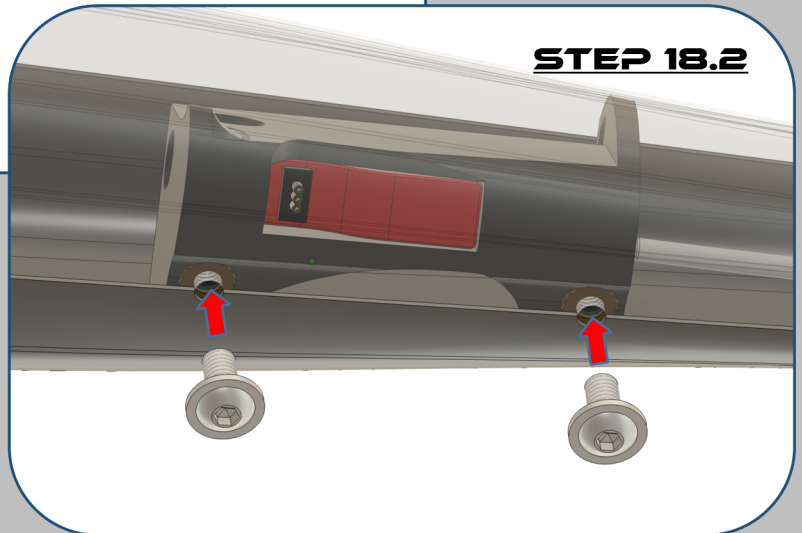
STEP 18.1



Slide the servo mounted in the 3D-printed holder into the fuselage until the brass threads align with the pre-drilled holes in the fuselage.

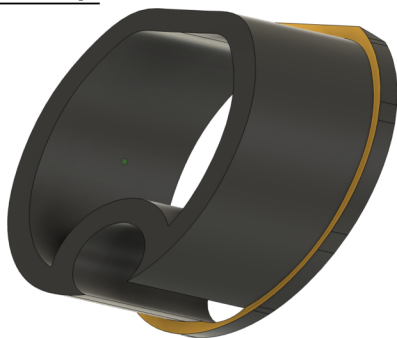
Tighten the 3D-printed holder from below using the M3x4 mm screws included in the set.

STEP 18.2



STEP 19

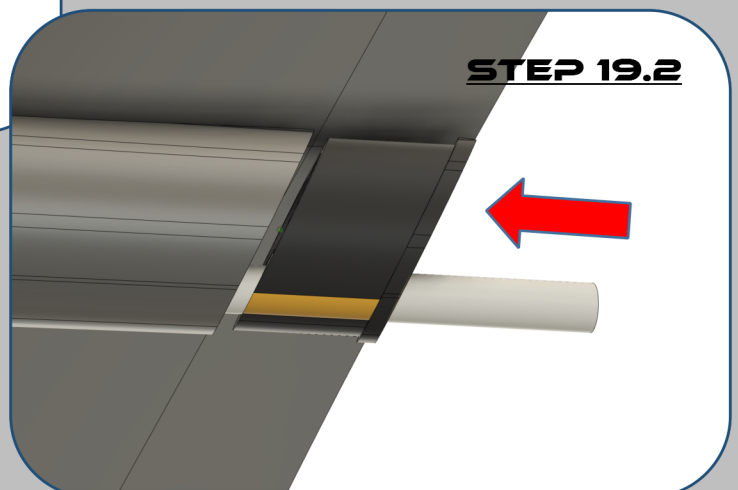
STEP 19.1



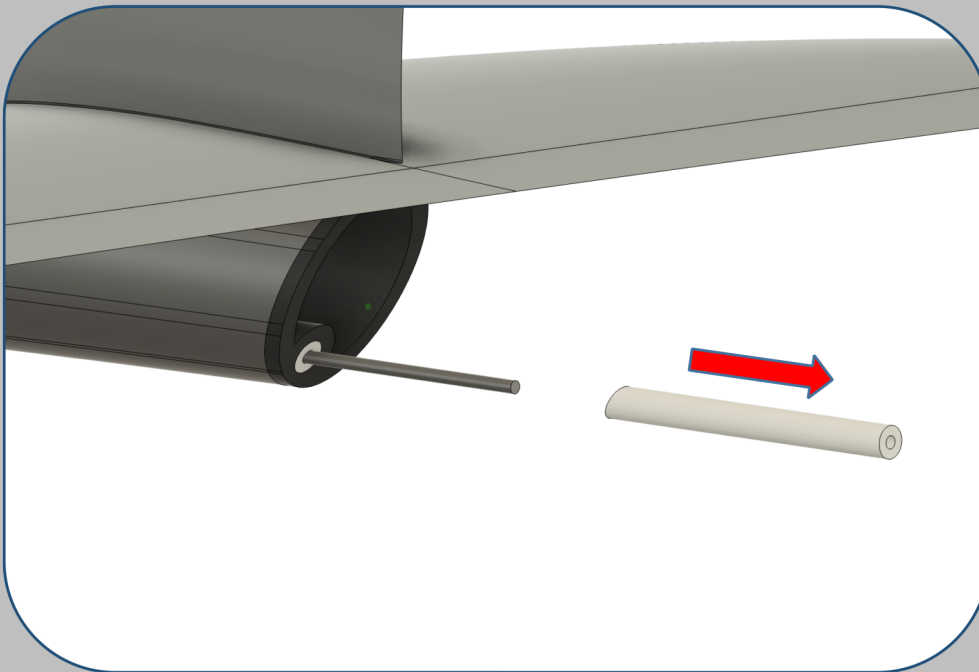
Caution: The next step must be done **quickly!** Apply superglue to the bonding surface of the 3D-printed fuselage tail section (**marked in yellow**).

Just before the 3D-printed fuselage tail section is fully seated in the fuselage, let some more superglue flow between the Bowden tube and the tail section (**marked in yellow**). Then, press the entire assembly firmly into the fuselage and wait until it has fully cured.

STEP 19.2

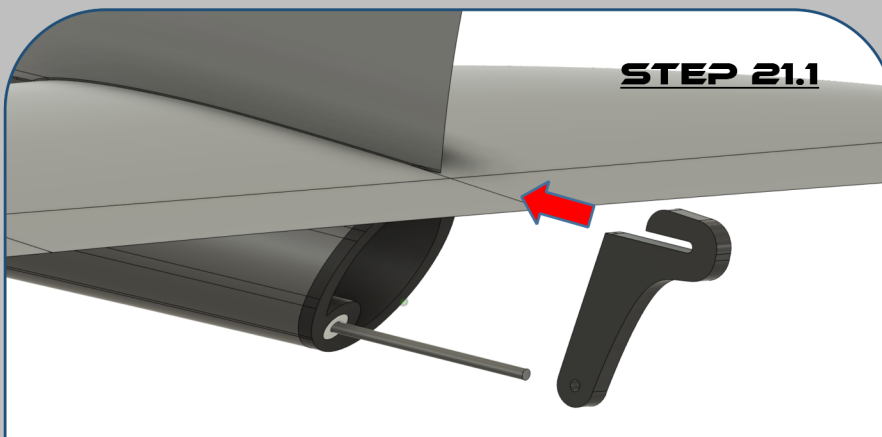


STEP 20

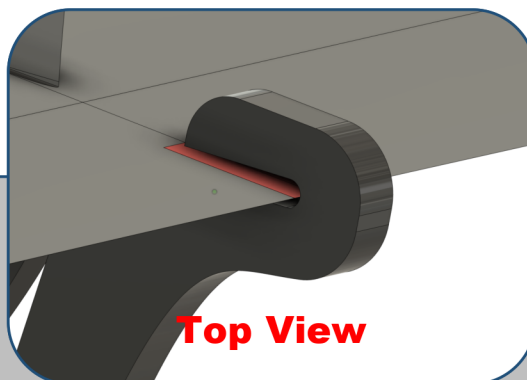


Once the superglue has cured, use a cutter knife to cut the Bowden cable tube flush with the 3D-printed fuselage tail section, so that the spring steel wire protrudes.

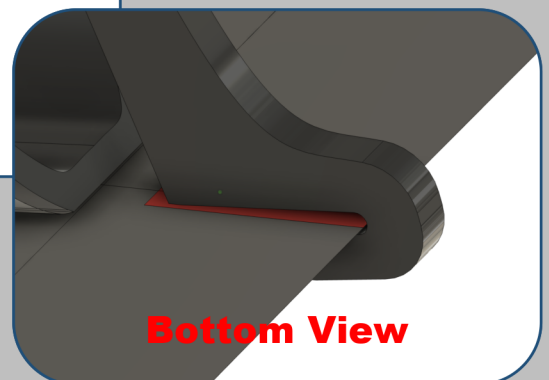
STEP 21



Place the elevator control horn, which has been previously sanded, onto the center of the elevator for a test fit.



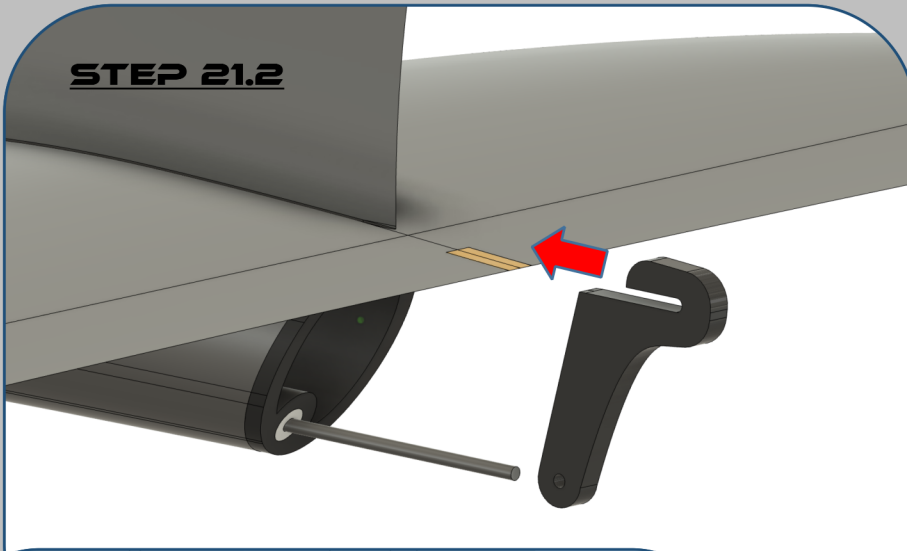
Top View



Bottom View

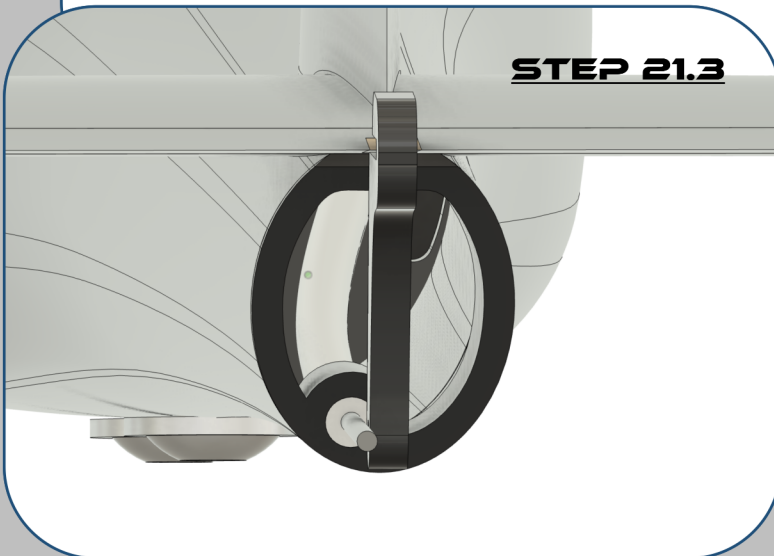
Once the control horn is attached, lightly mark around the outside with a pen or a sharp cutter knife. Then, remove the control horn again, roughen the bonding area (**marked in red**) with the included sandpaper, and degrease it afterward.

STEP 21.2



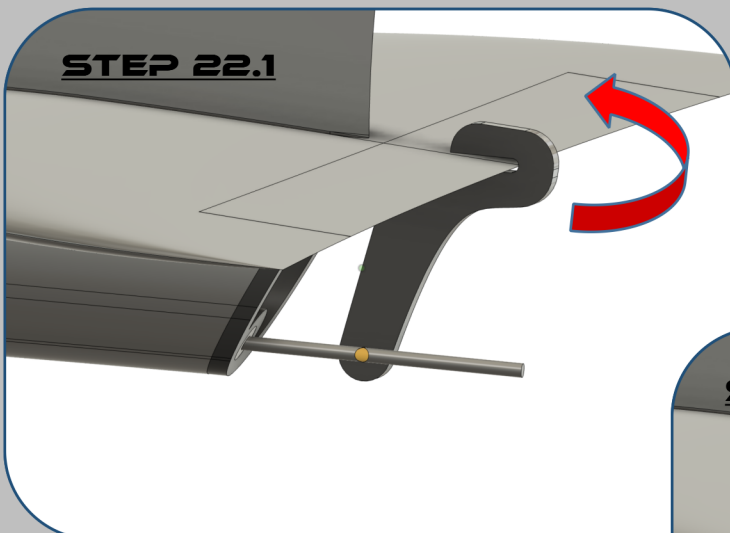
Mask off the area around the bonding site with adhesive tape to ensure a clean glue seam later. Then, apply the included two-component adhesive to the bonding surface (**marked in yellow**) and place the control horn centrally.

STEP 21.3



Check once more from the rear to ensure the control horn is seated centrally on the elevator. Then, peel off the adhesive tape and allow the glue to cure for 24 hours.

STEP 22.1



STEP 22

With the servo and elevator in their neutral positions, use a pen to mark the location of the control horn hole on the spring steel wire (**marked in yellow**).

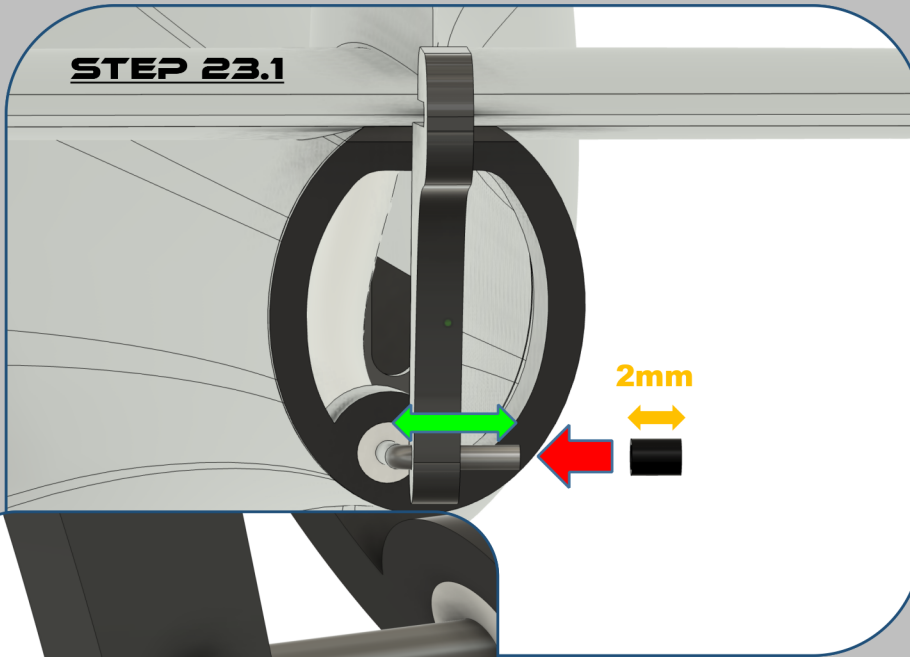
Fold the elevator up, hold the wire with a pair of combination pliers in front of the mark, and bend it by hand behind the mark slightly more than 90° toward the control horn.

STEP 22.2



STEP 23

STEP 23.1



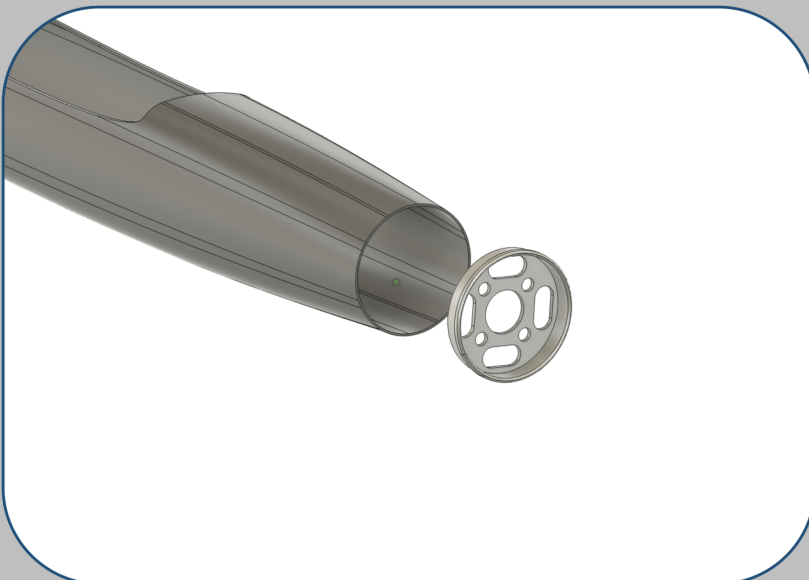
The spring steel wire is shortened to **5mm** after the bend, roughened, and threaded through the control horn. The included heat-shrink tubing is cut to a length of approx. **2mm** and slid onto the protruding linkage rod.

STEP 23.2



Shrink the heat-shrink tubing using a lighter. Apply a small amount of superglue to the end face (**marked in yellow**) of the heat-shrink tubing using the tip of a cutter knife and let it cure - **ensuring that no glue flows into the hole of the control horn or servo horn.**

STEP 23



Finally, mount a standard 2207 motor onto the aluminum cup mount included in the all-in-one package. The fuselage may need to be adjusted with the provided sandpaper so that the cup mount can be inserted with a pressure fit. Afterward, wrap the cup mount and the fuselage twice with adhesive tape, ensuring the tape is held under tension and kept taut during the process.