MINI DLG Installationinstructions

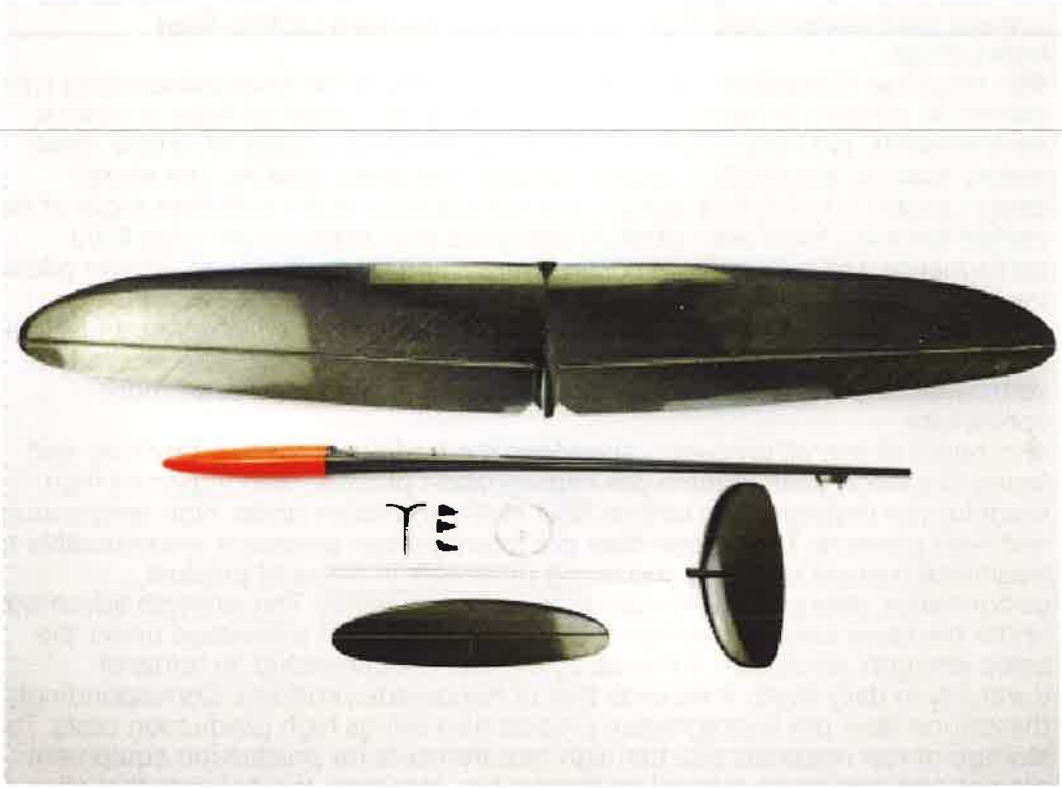
The one meter wingspan all carbon fiber aircraft model based on the current mainstream DLG flight concept and modern carbon fiber technology.

●In response to modern mainstream flight concepts, we have collaborated with champion athletes to develop designs that meet the needs of flight in various environments. We have optimized the perception and control of airflow, weak airflow floating, penetration, launch altitude, and other aspects. The aircraft design adopts a rudderless design, and the selection and installation angle of the vertical tail wing have been carefully designed and tested to optimize flight performance and reduce flight costs. After testing by multiple well-known pilots, the performance is excellent.

●In aircraft assembly, the mainstream design is adopted: an integrated fuselage, a nose cone, an integrated servo mounting seat, and a replaceable sleeve type vertical tail, making installation, debugging, and daily maintenance more convenient.

●In terms of overall process, abandons the traditional manual brushing and laying of carbon cloth, adopts pre impregnation process, uses imported high modulus pre impregnation carbon fiber cloth, and forms under high temperature and high pressure. The carbon fiber pre impregnation process is incomparable to traditional manual brushing and laying processes in terms of product performance, strength, standardization, and consistency. The strength advantage under the same weight conditions, as well as the weight advantage under the same strength, cannot be achieved by manual craftsmanship. In terms of durability in daily flight, it exceeds that of handmade products. Correspondingly, the carbon fiber pre impregnation process also brings high production costs. The storage of raw materials and the high requirements for production equipment are not comparable to manual craftsmanship. However, We believes that all performance improvements are worthwhile.

ARF All components

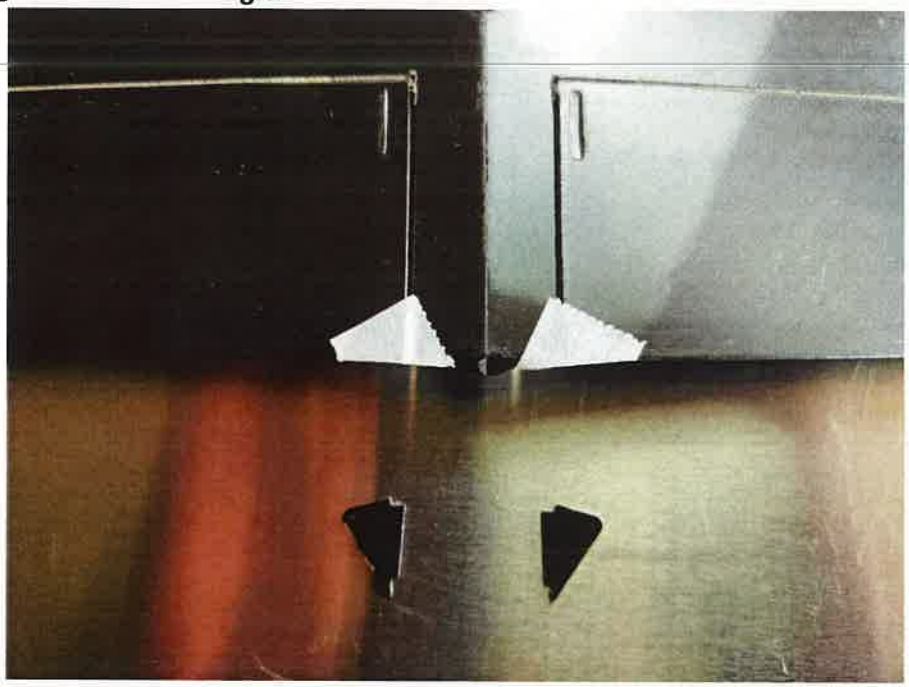


The complete ARF version includes the following components:
Wing, fuselage,nose cone, flat tail, vertical tail, rudder angle * 3, hand buckle * 1, root tail cable and clamp pipe * 2, 0.8mm aileron pull rod steel wire * 2, pull rod sleeve * 2, 0.4mm torsion spring steel wire.
Please bring your own installation tools: steel ruler, art knife, electric grinder, pointed nose pliers, epoxy resin adhesive, decorative paper, etc.

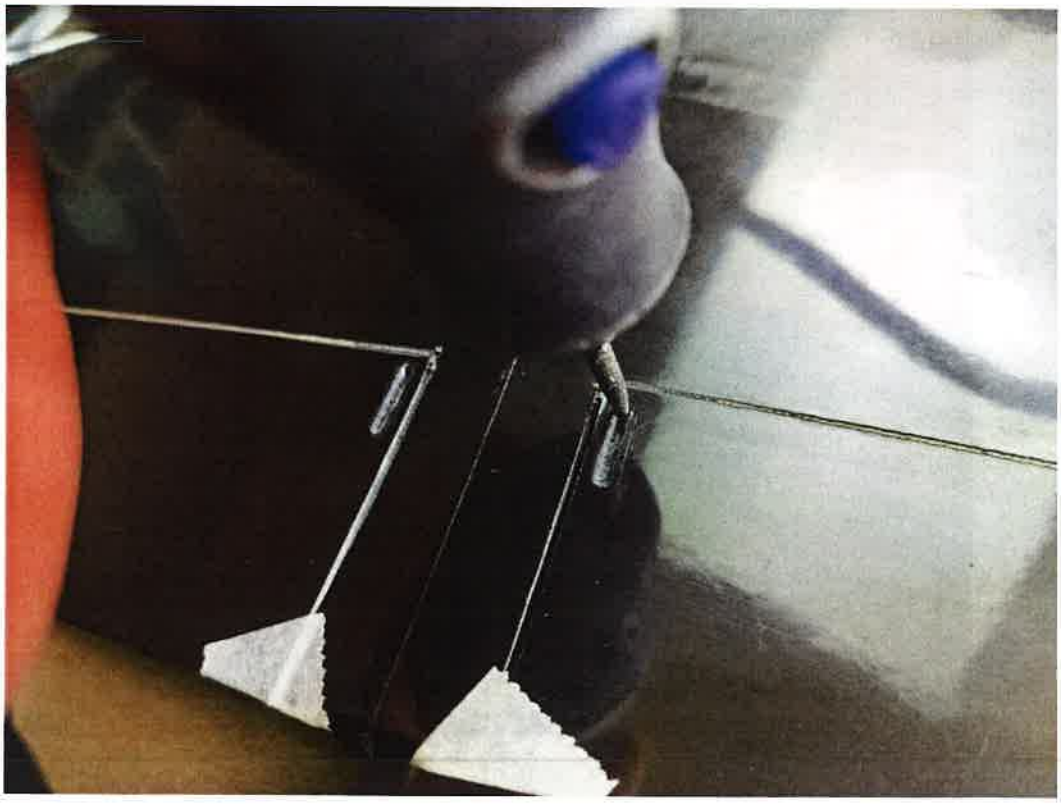
1、Wing

The installation of the wing section is divided into two parts: aileron rudder angle and launch buckle.

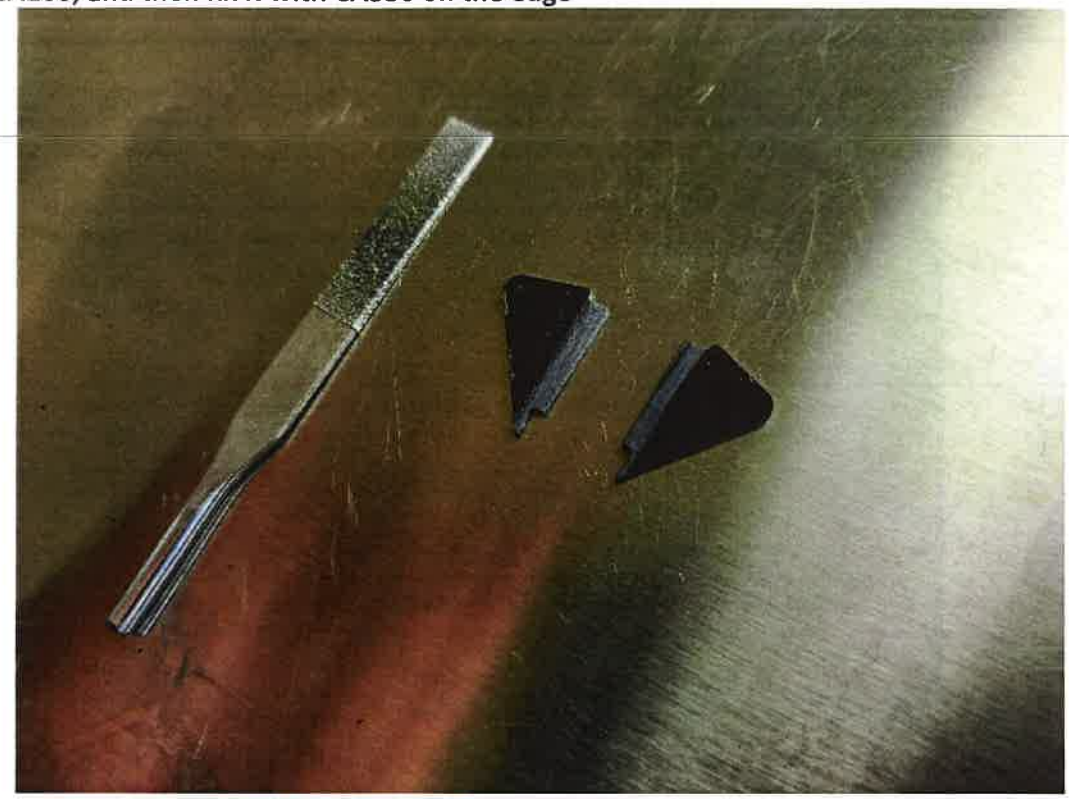
①Aileron rudder angle

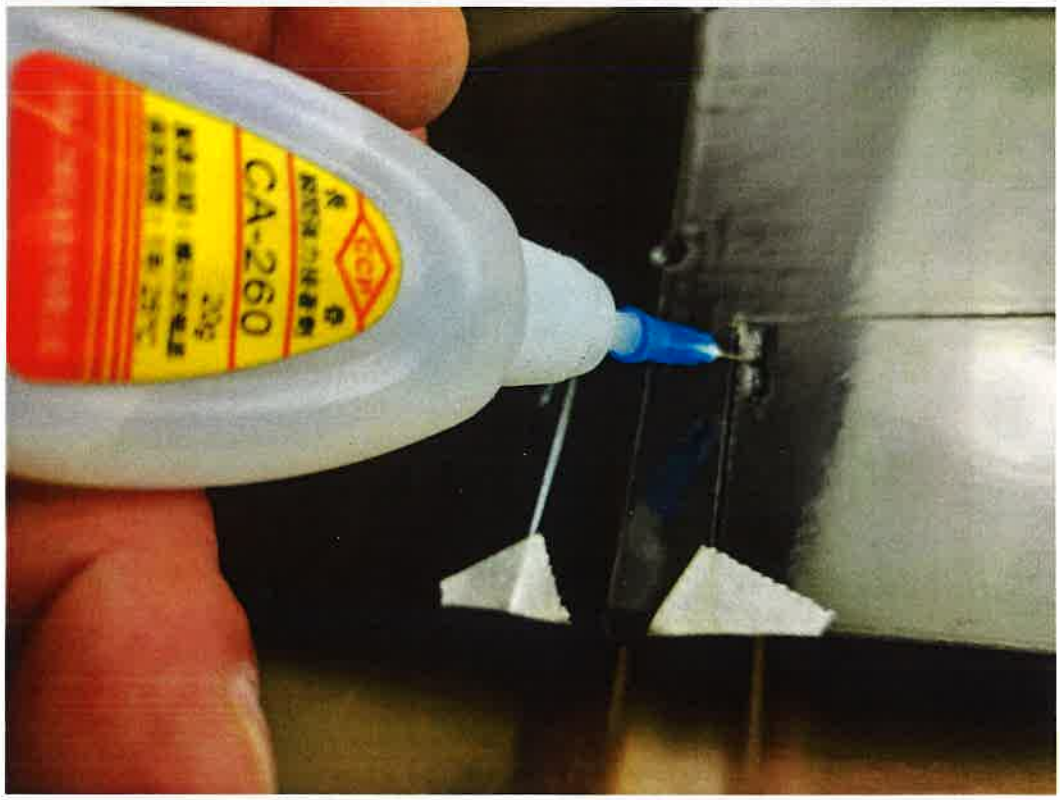


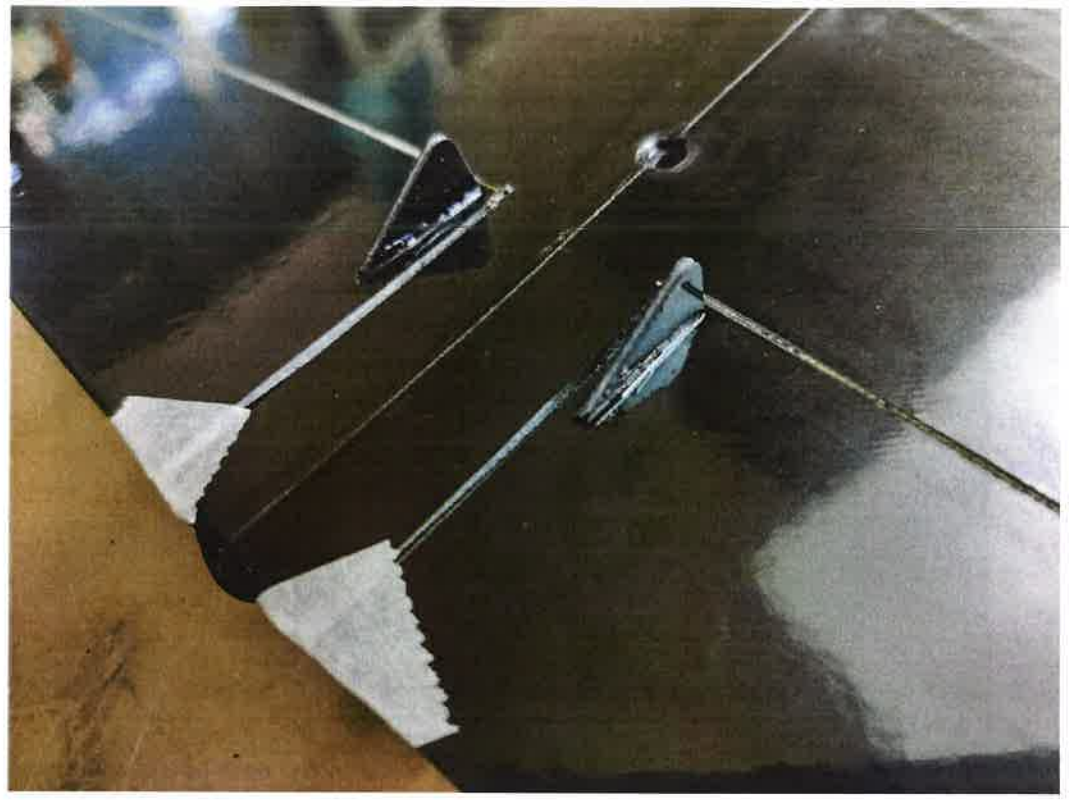
Use an electric mill to slot along the reserved rudder angle slot, and clean the core foam



Polish the adhesive surface of the rudder angle, position it with 502 glue or CA260, and then fix it with CA330 on the edge





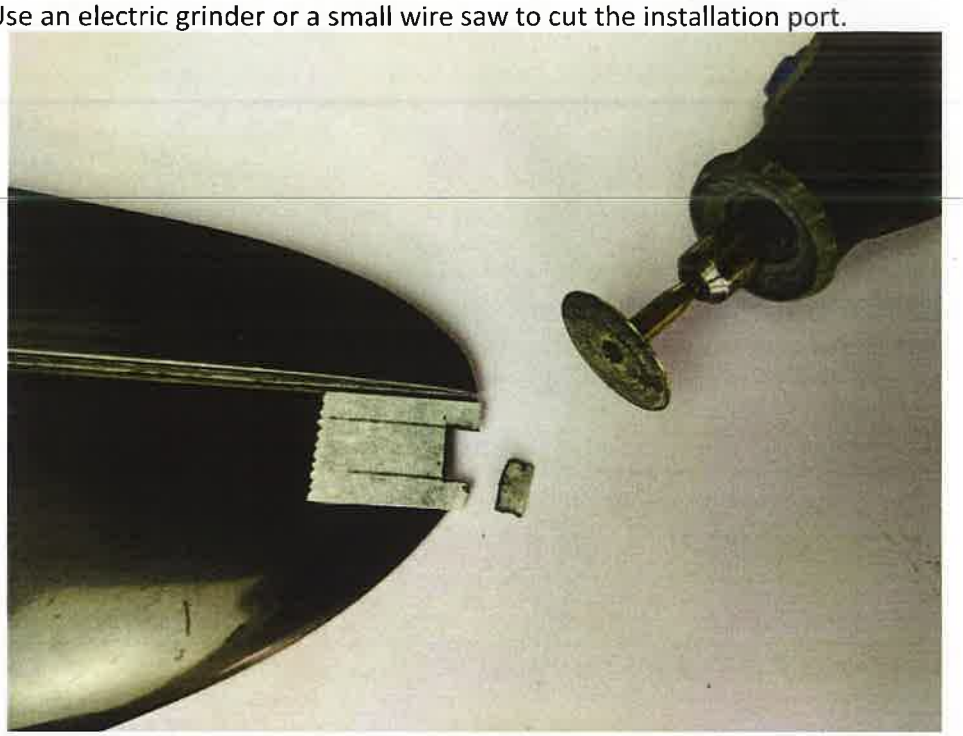


② launch buckle

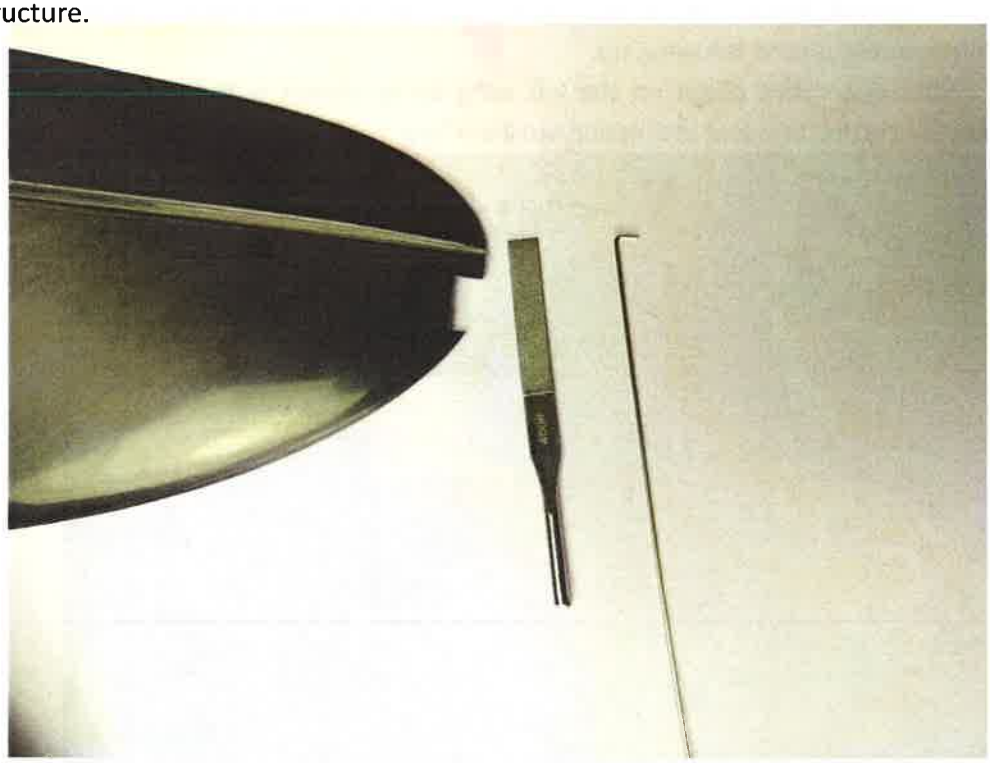
he aircraft leaves the factory with a default right hand launch and structural reinforcement on the left wing tip.

Stick decorative paper on the left wing tip as shown in the picture, mark and draw the cutting line and processing auxiliary line

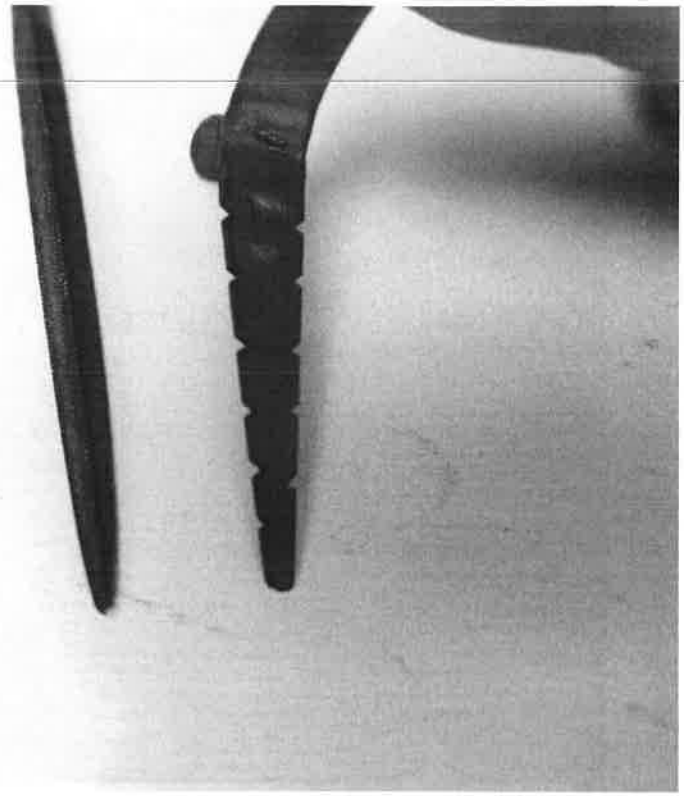
Use an electric grinder or a small wire saw to cut the installation port.



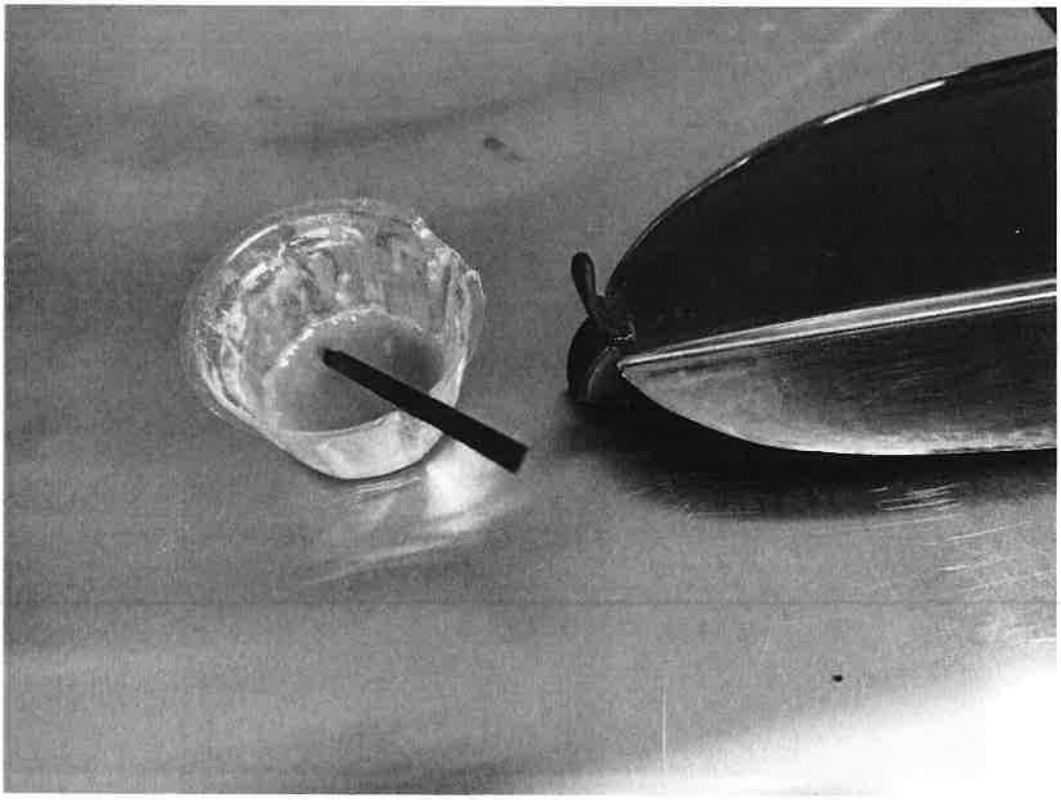
Use tools such as bent steel wire and small file to clean the core in the corresponding area of the wing tip with reference to the auxiliary line, so that there is no residual core foam between the hand buckle inserted into the wing part and the wing carbon structure.



Polish the launch buckle to a comfortable feel according to your own needs, use a triangular file to polish the inserted part of the buckle into a notch, and also polish the bonding surface.

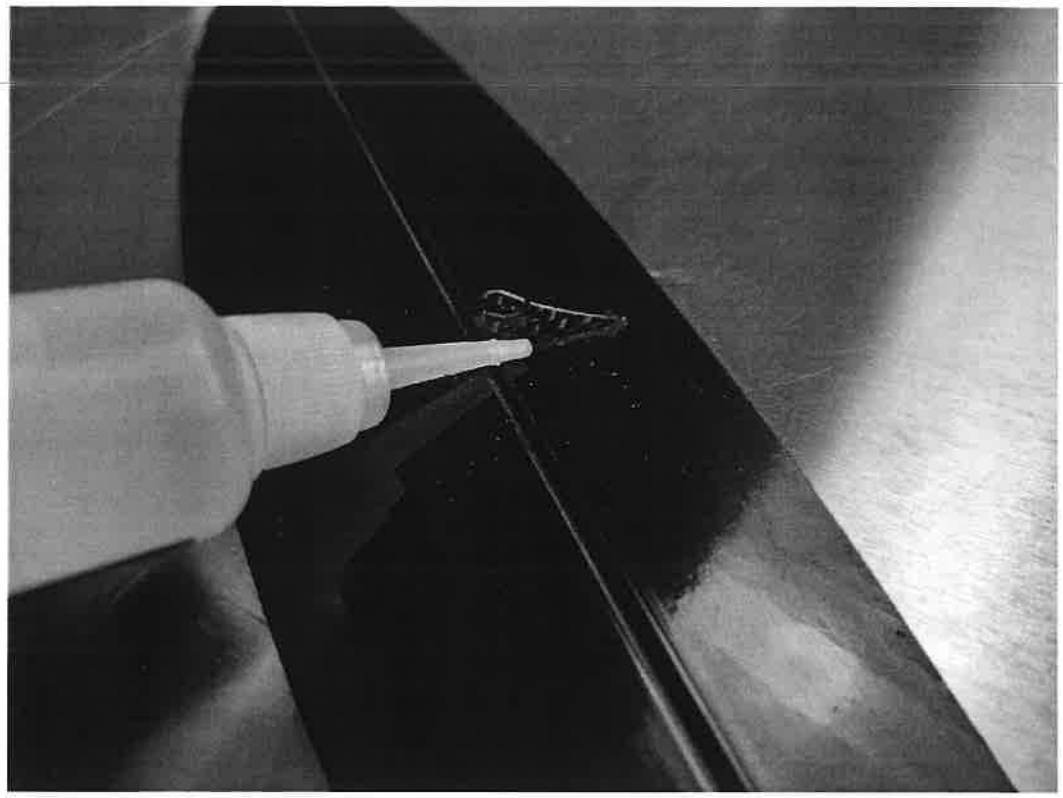


Fill the space cleared on the wing with epoxy resin, insert the launch buckle into the appropriate position, clean up any spilled resin, and wait for curing.

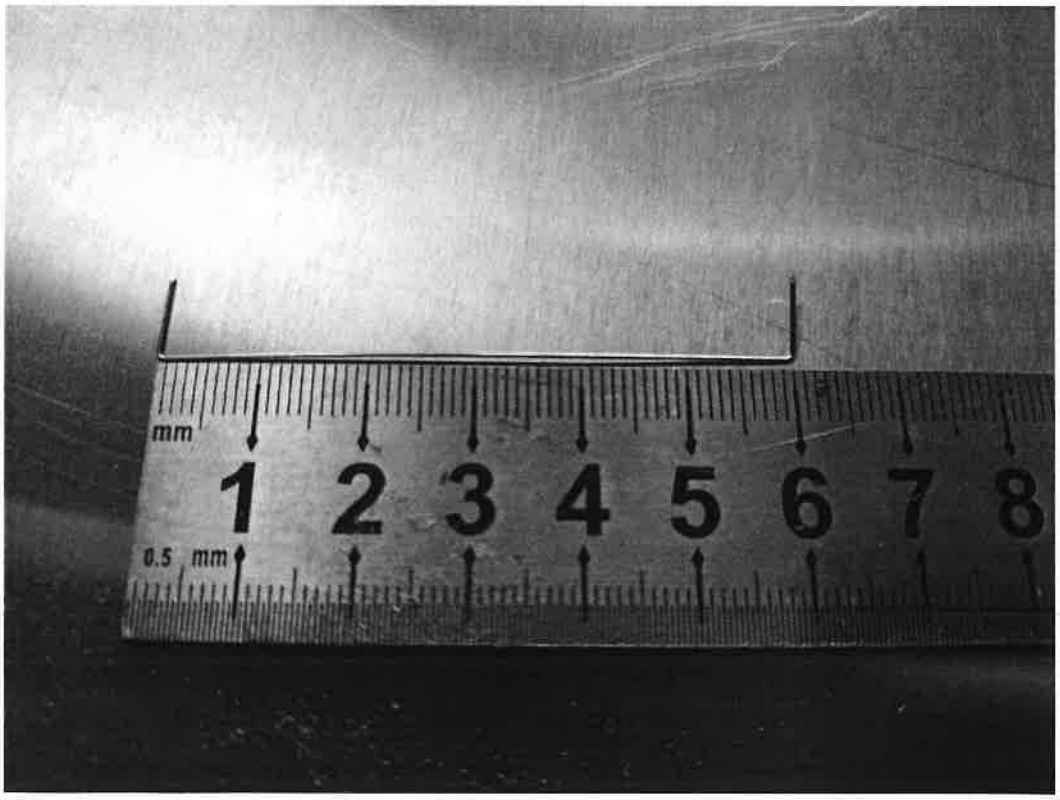


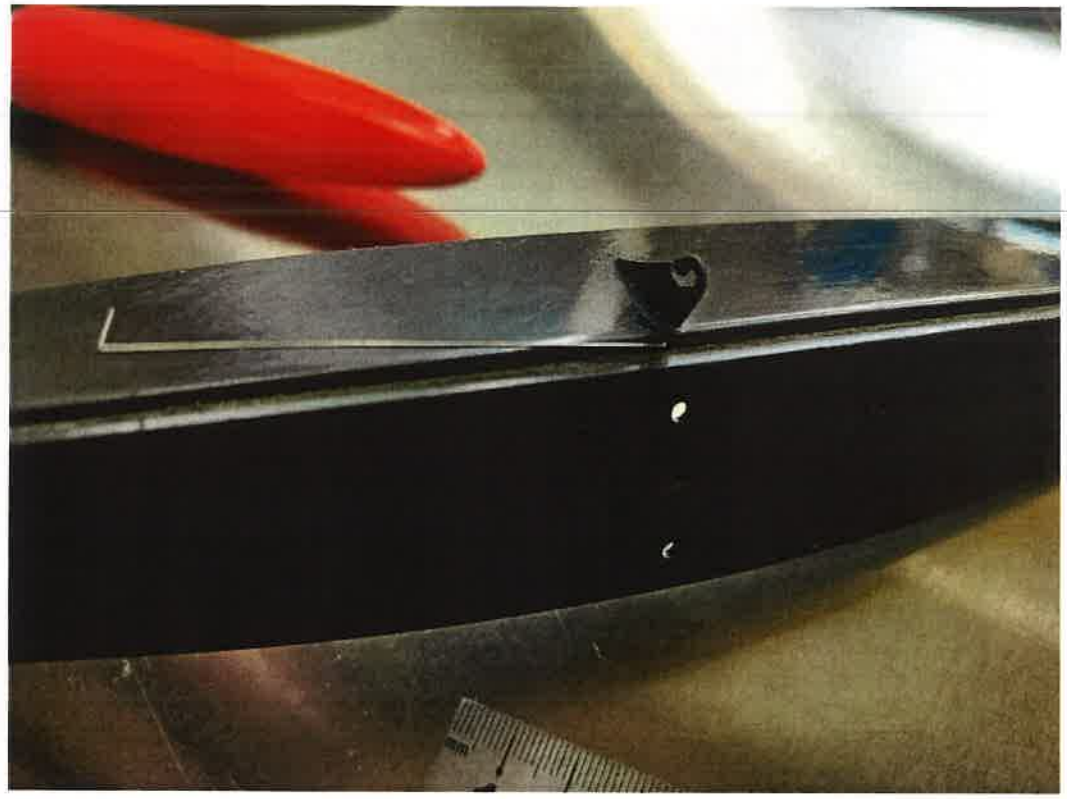
2、Horizontal tail

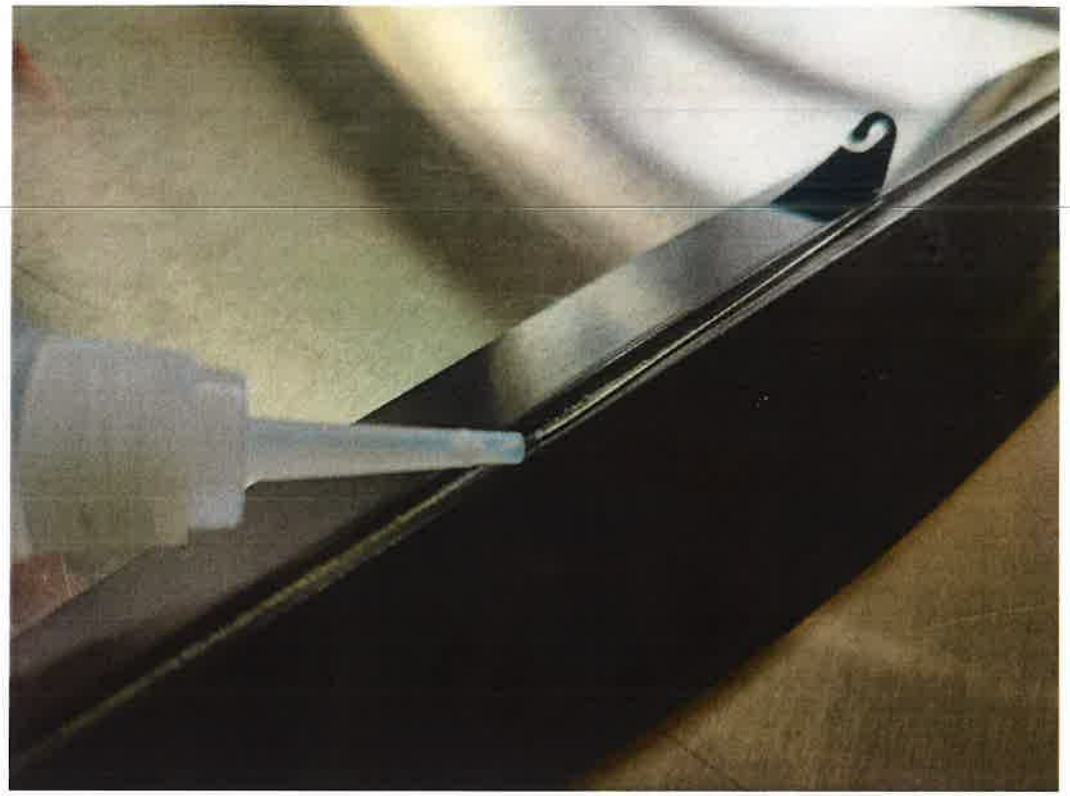
On the elevator surface, groove along the mark, insert the flat tail rudder angle, and fix it with glue



Use the torsion spring steel wire in the attachment, according to the dimensions shown in the picture, to make the torsion spring. Insert elevator and stabilizer and reinforce with 502



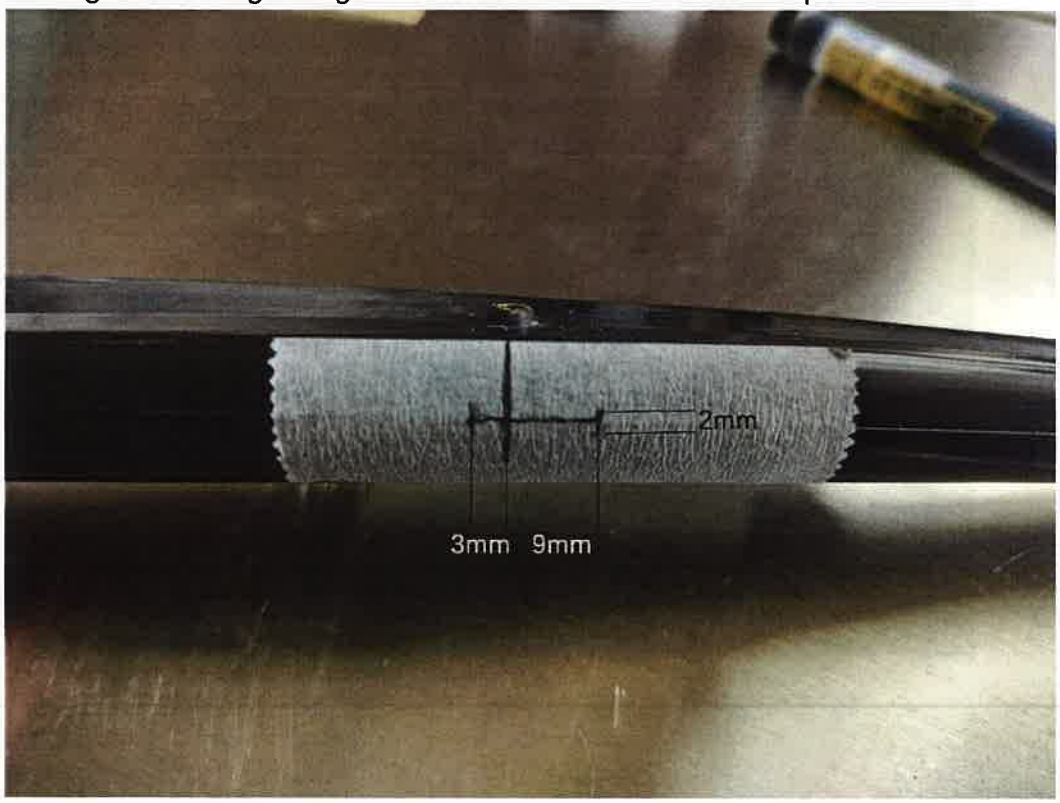


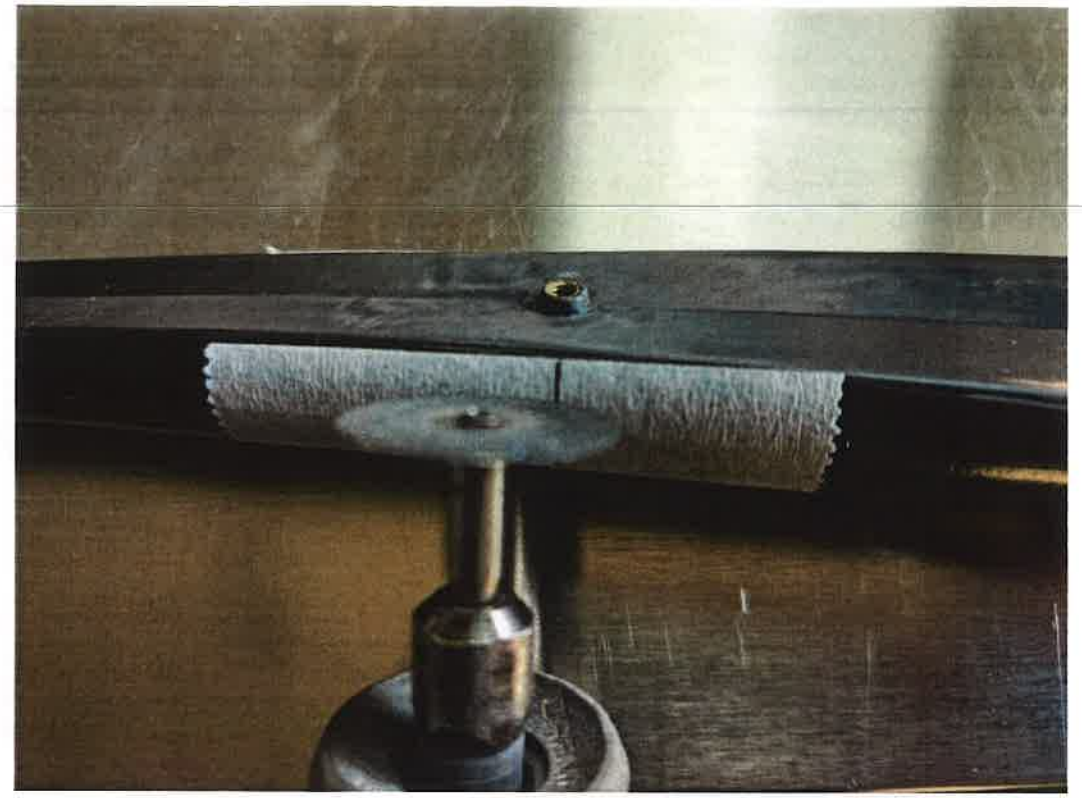


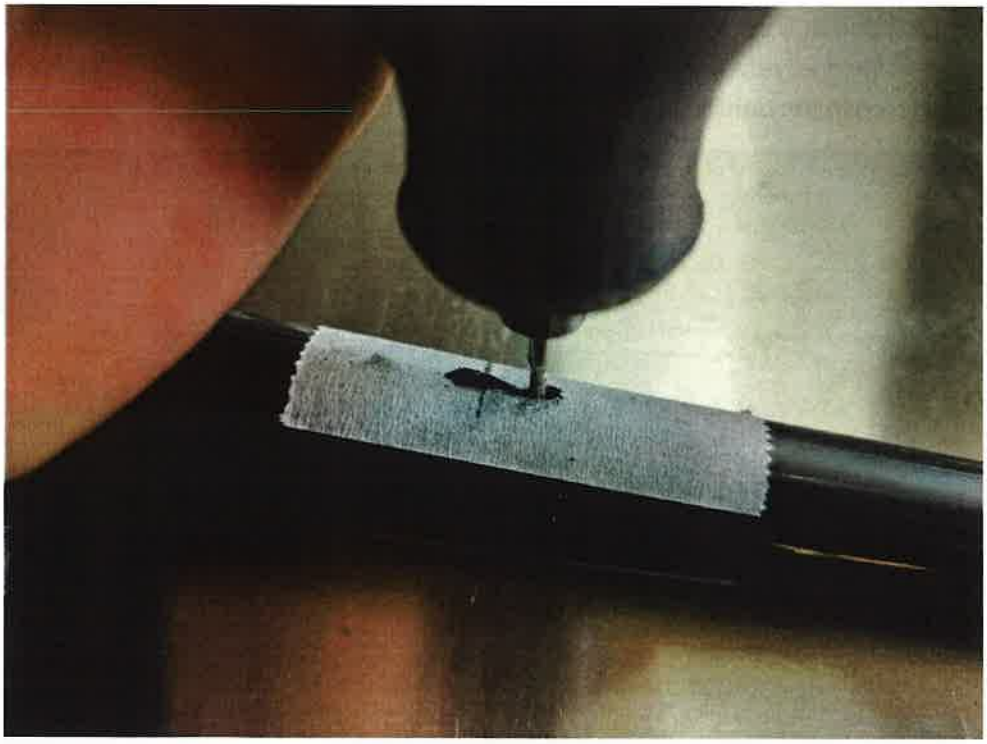
3、Fuselage

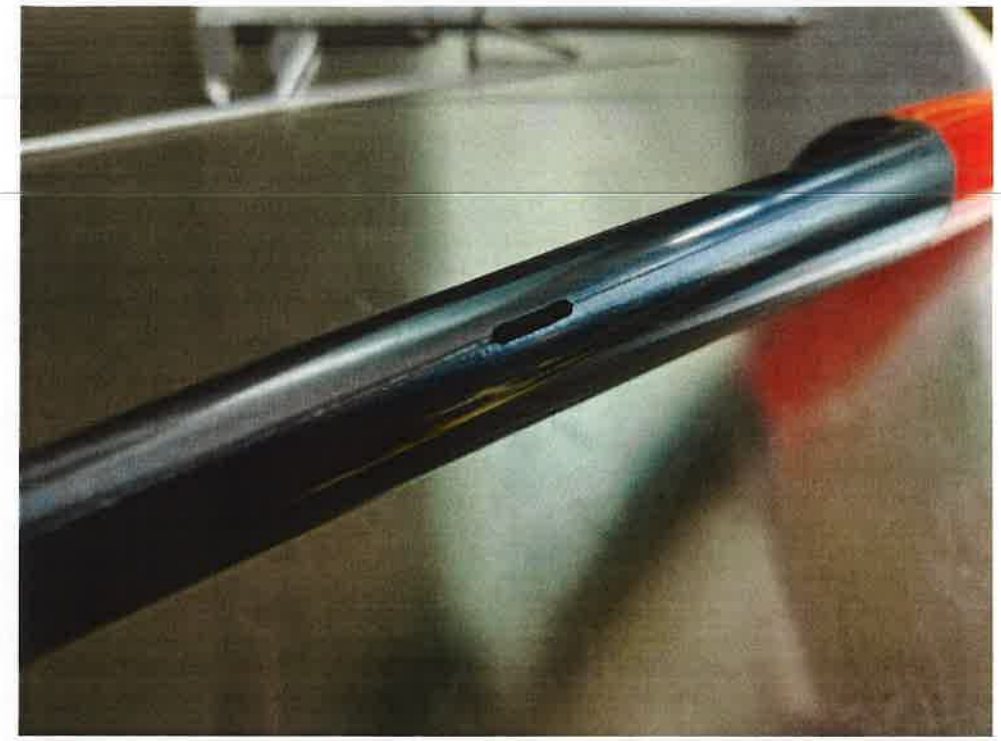
On the side of the fuselage, draw the slot position with the screw hole position on the rear wing platform of the wing as the reference point.

Use cutting blades and grinding heads to create slots for the aileron pull rod.





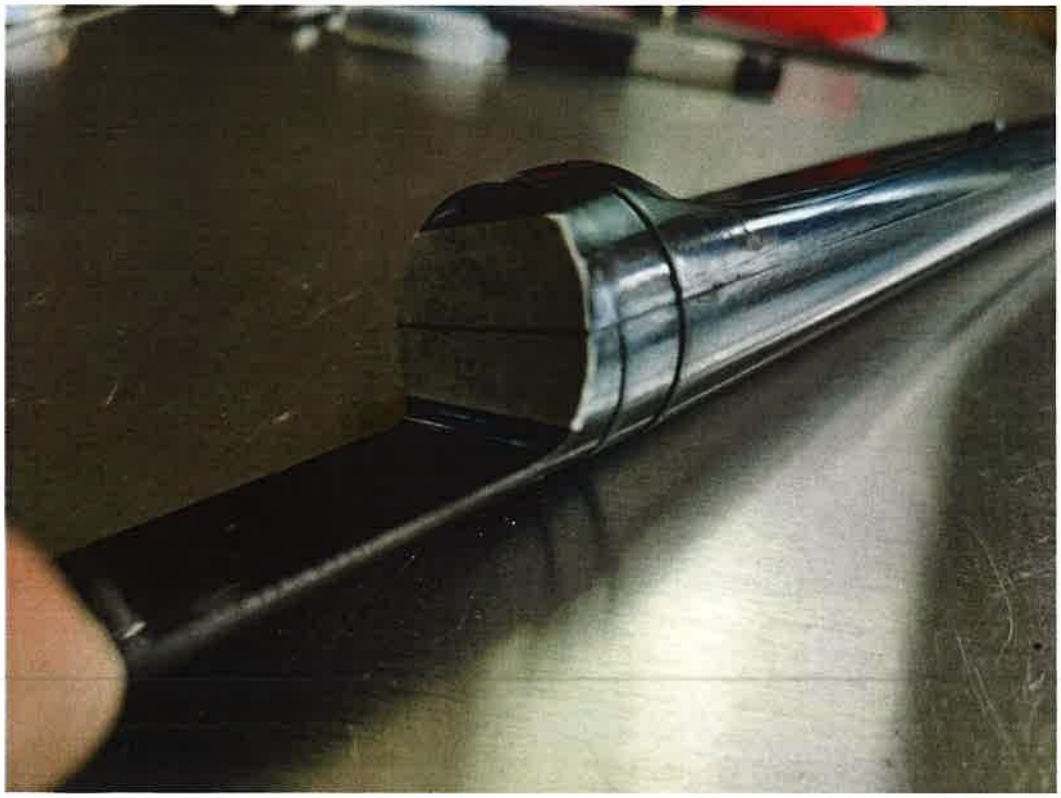




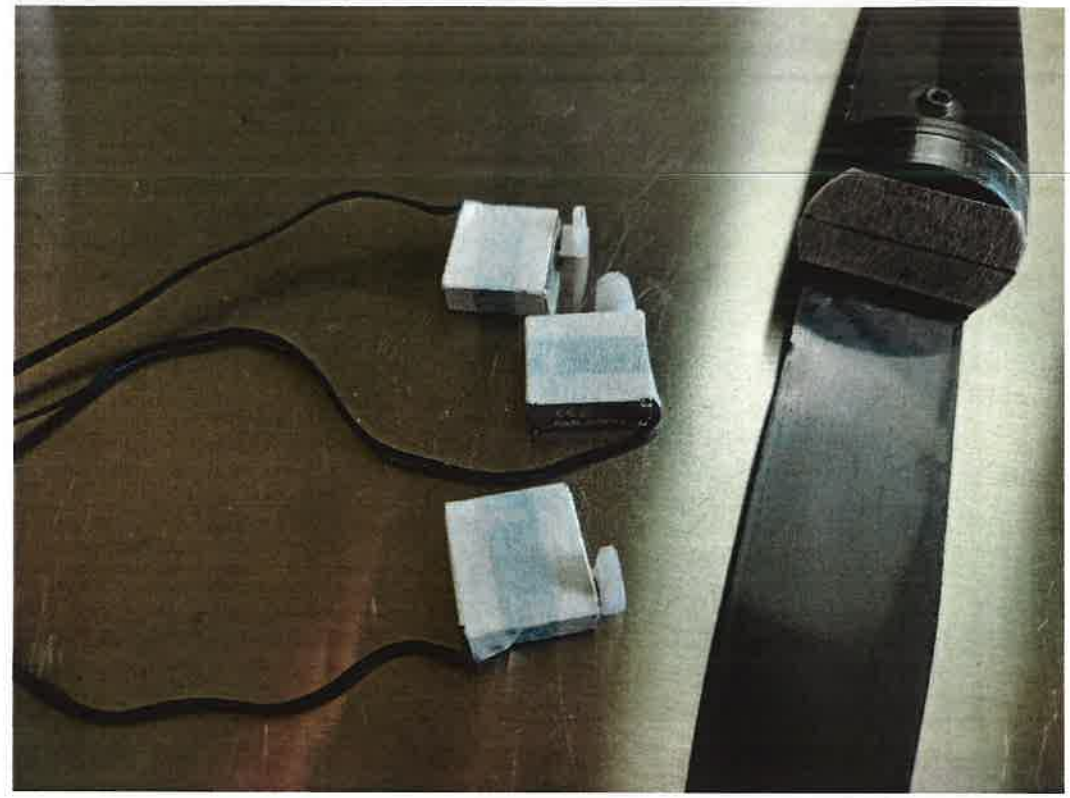
4、Installation of servo and pull rod cables

Three servos are required. It is recommended to use PTK7306 servos or KST A08 elevators and X06 servos for ailerons, or other servos of similar specifications.

Stick decorative paper on the front of the fuselage and mark it with the mold line as a reference horizontal line.

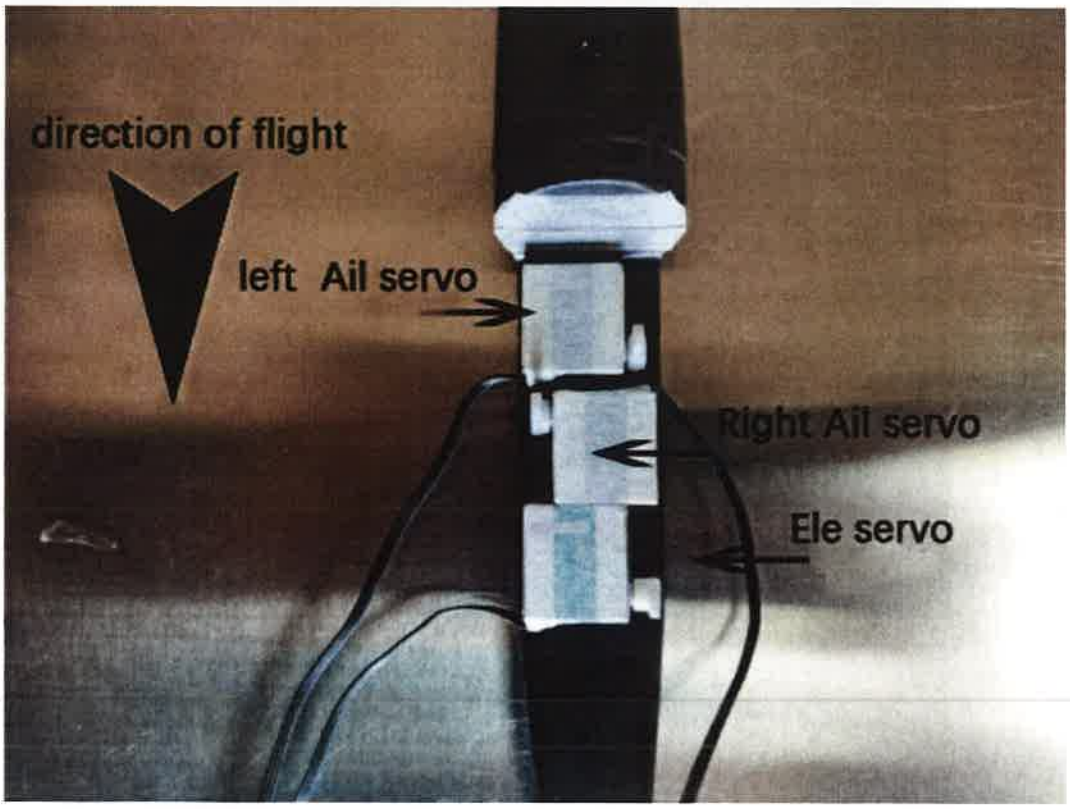


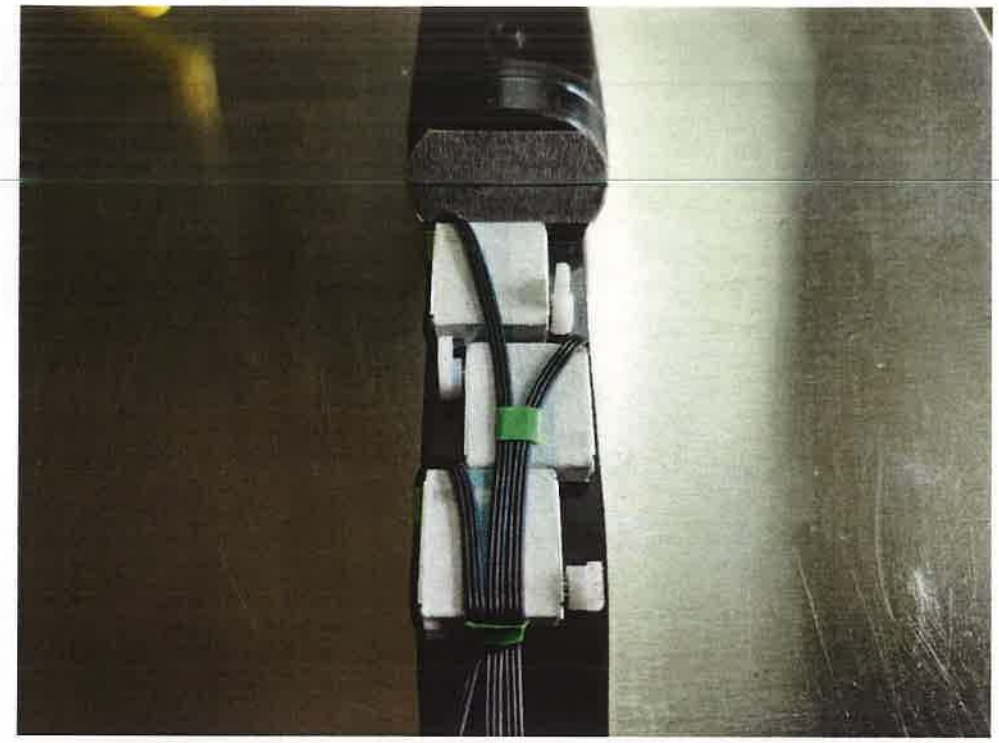
Wrap the servo



Arrange three servos in sequence, fix them with glue, and organize and position the servo lines

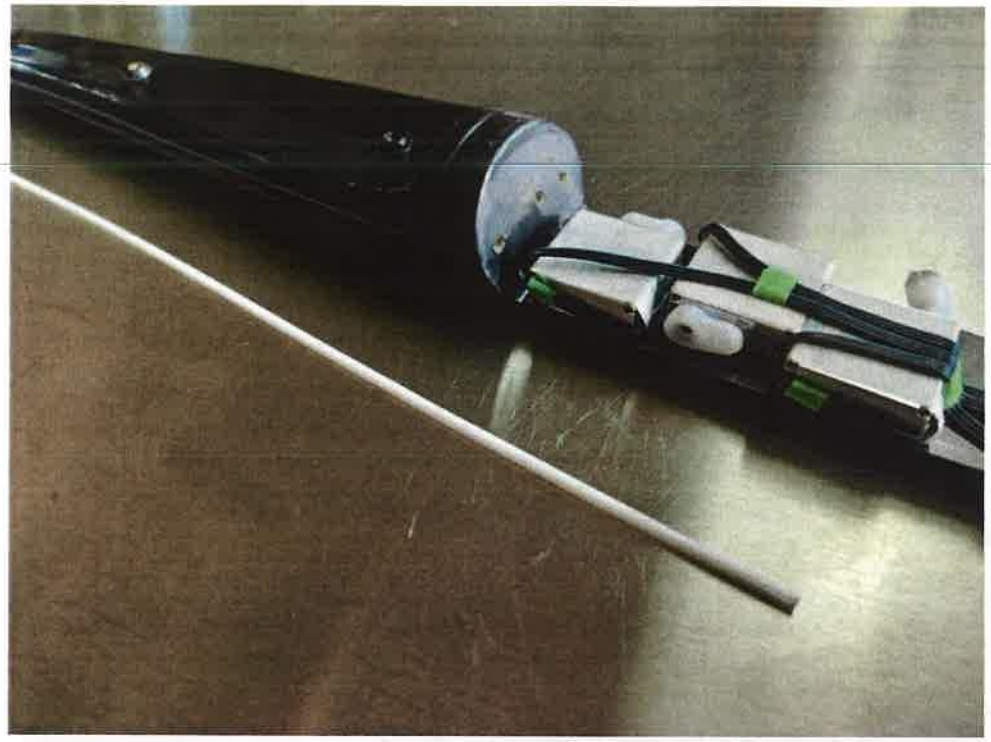
(Left and right are based on the direction of flight)



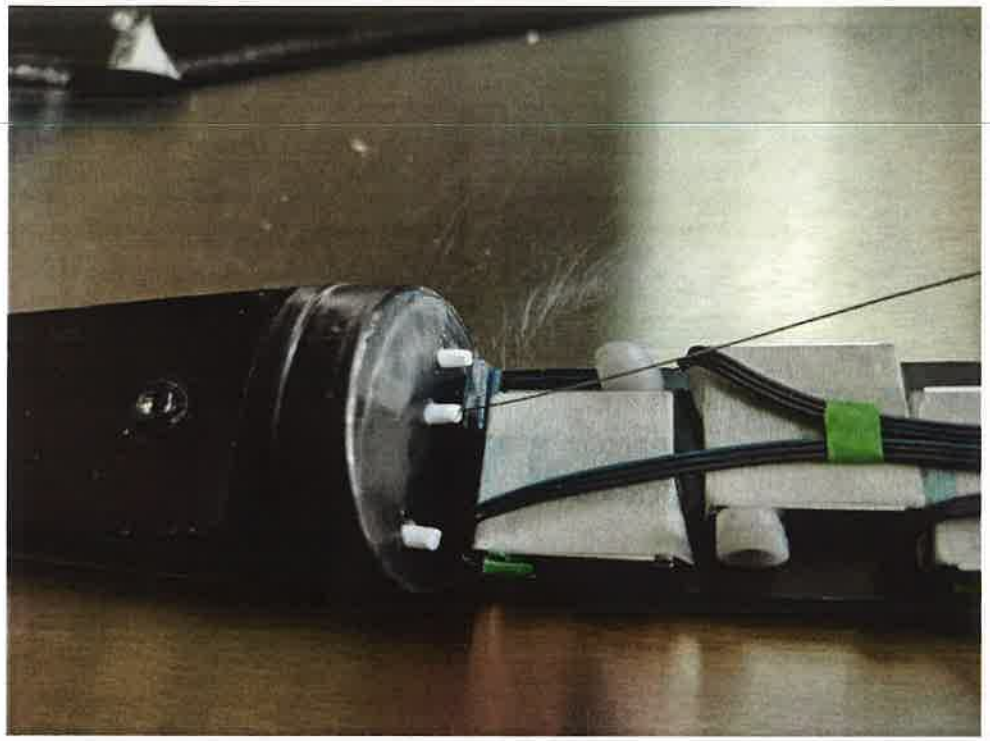


Using the direction of the pull rod and pull wire as a reference, use a 2mm grinding head to start the groove hole of the pull rod.

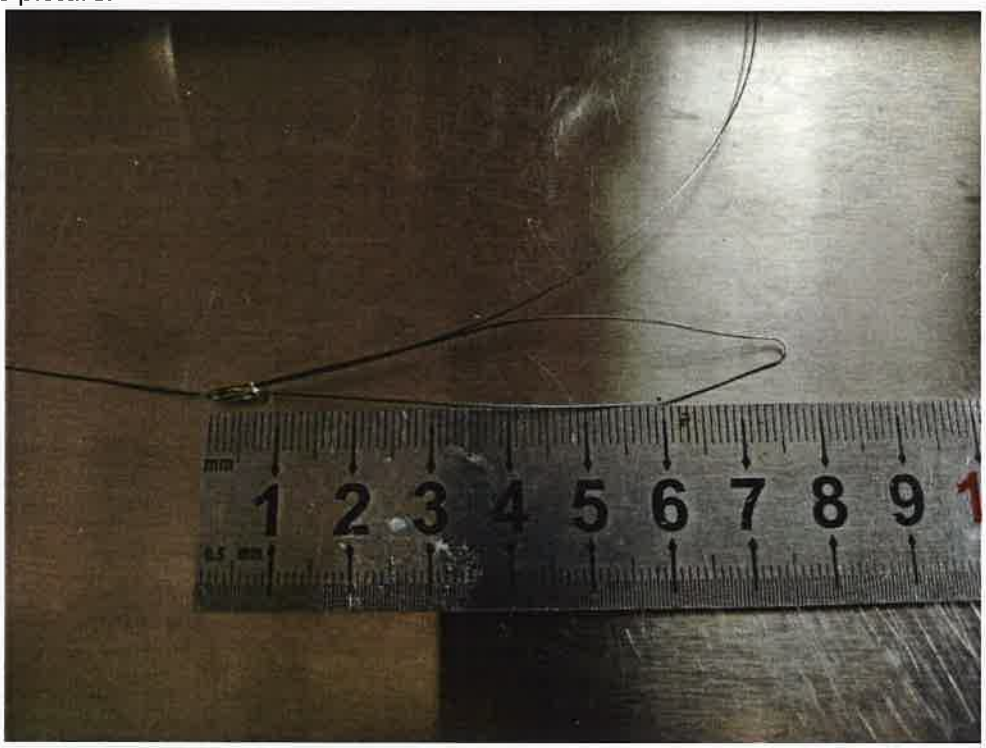
Insert the pull rod guide in the attachment and position it with glue



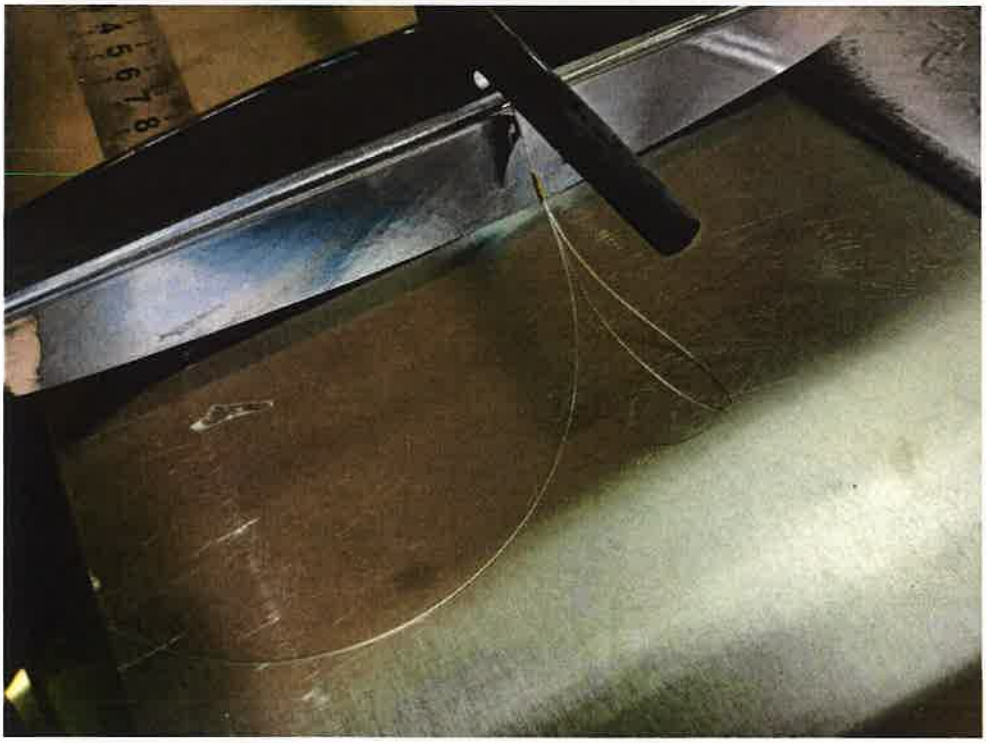
The steel wire cable passes through the fuselage and exits the flat tail wing hole



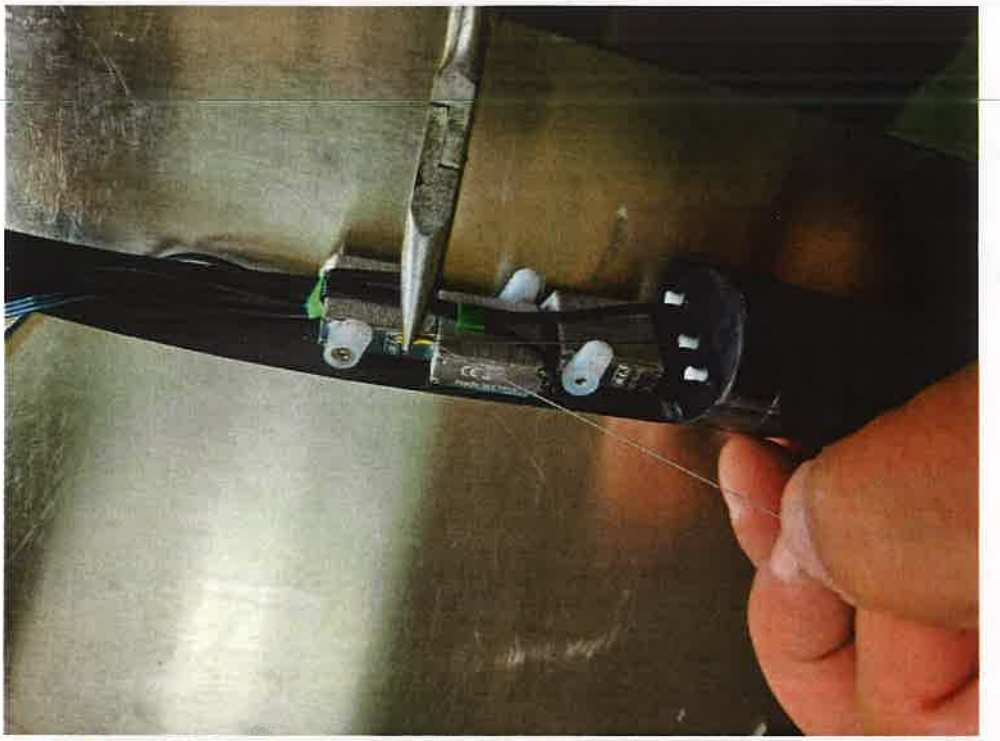
Use a clamp at the end to clamp the wire rope with the pull ring buckle as shown in the picture.

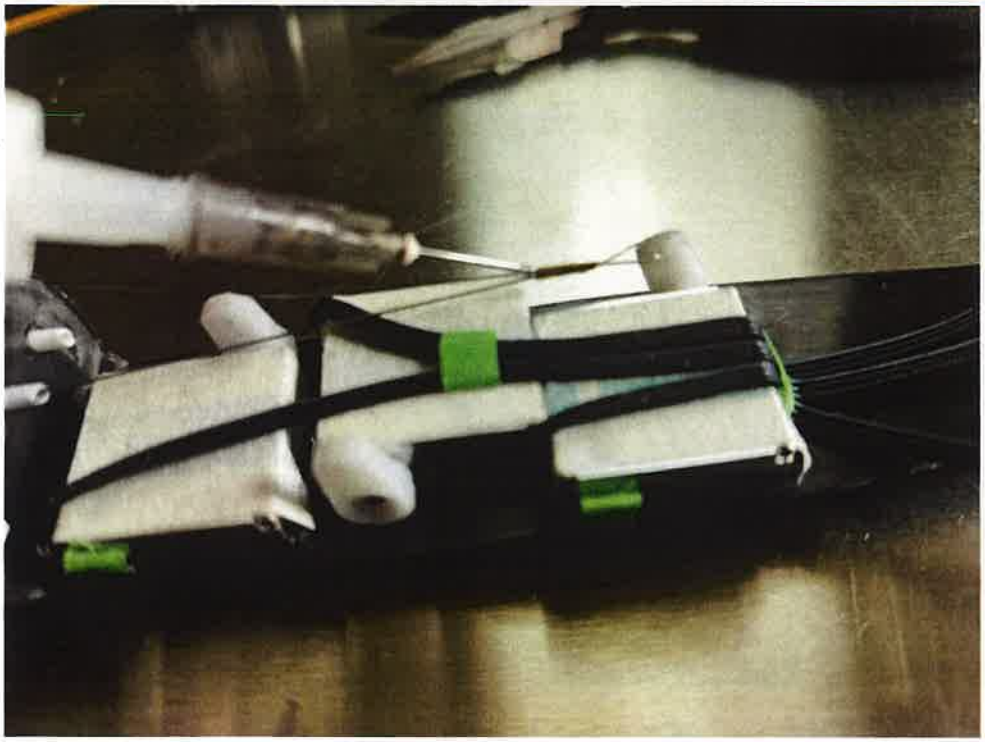


Install a flat tail and hang a cable loop on the rudder angle



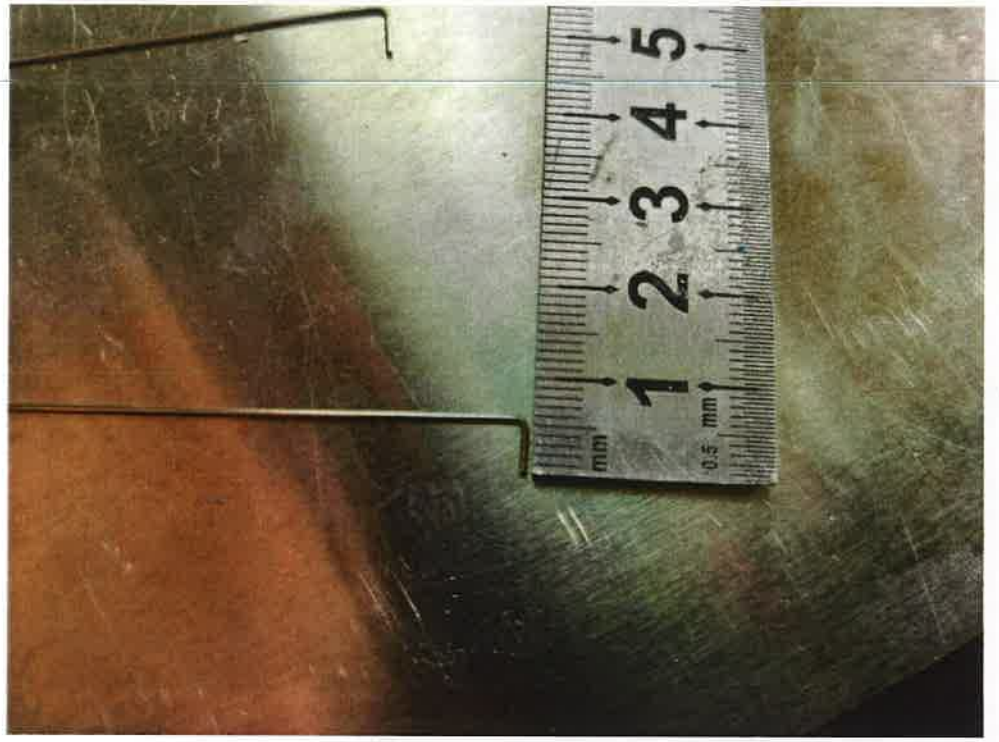
Power on the elevator, tighten and level the rudder surface, clamp the clamp, and fix it with glue



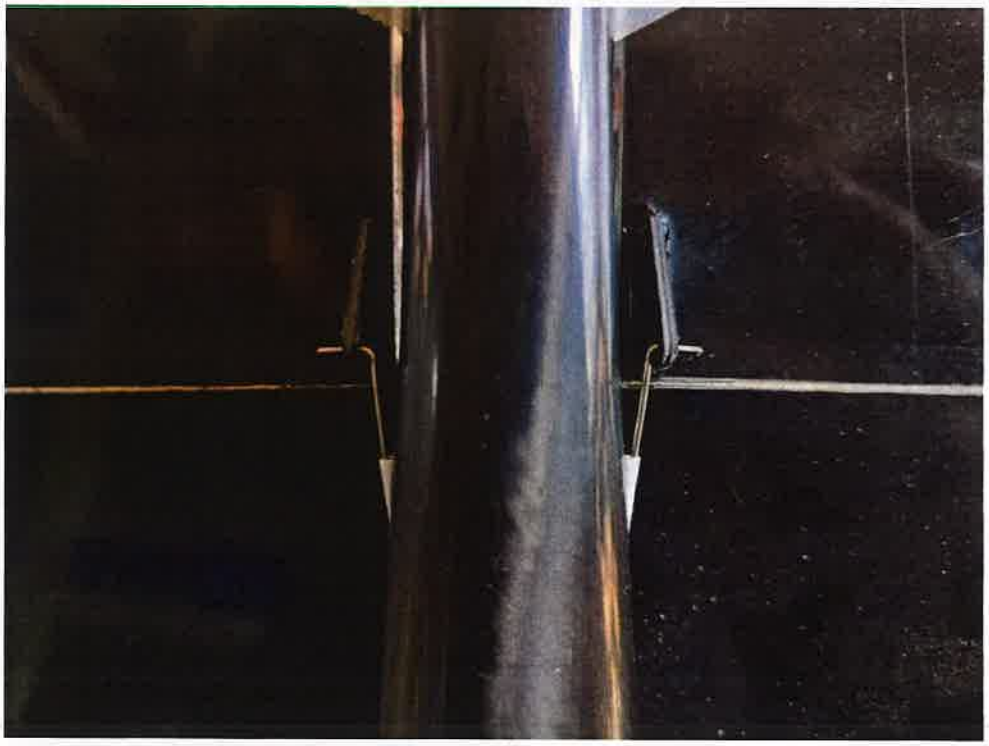


Aileron pull rod

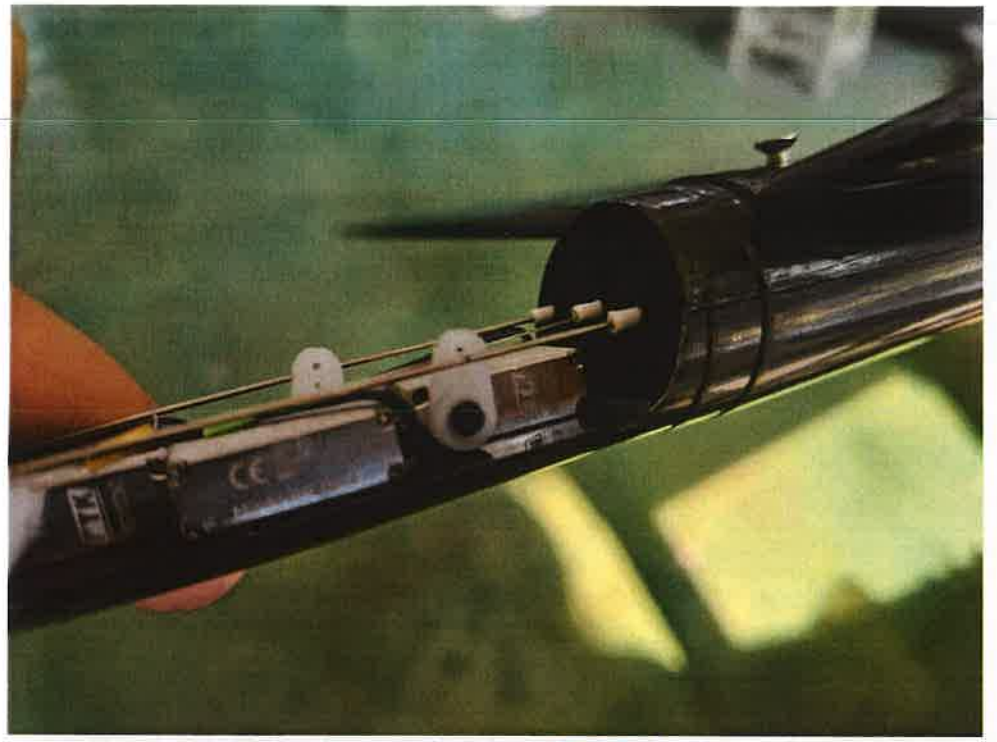
0.8mm pull rod steel wire, one end bent to a 90 ° angle as shown in the figure, and 2 pieces made separately.

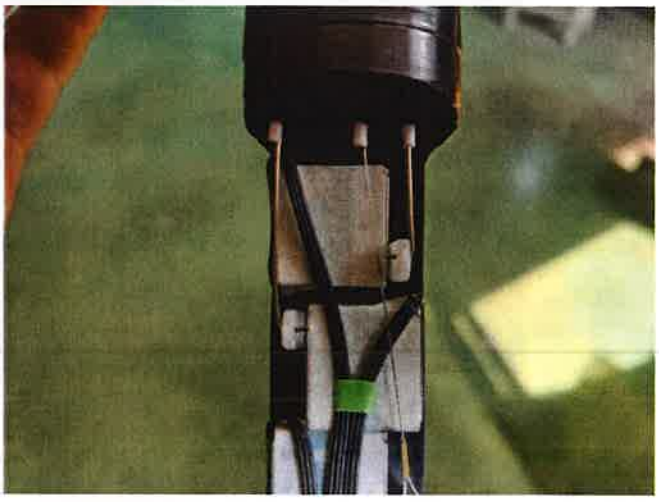


Insert 2 pull rods into the sleeve, insert the wing rudder angle, and secure the wing.



Power on the servo, mark the lever, bend it 90 degrees, and insert it into the rudder angle hole.





Vertical tail

Please note that the vertical tail has an airfoil and installation direction. The conventional right-handed version, with a convex tail on the left side of the fuselage

After inserting the vertical tail into place, fix it with a few 502 or CA points on the joint surface