

Before start ,please carefully read the explanations!

Aichi D3A1



Specification:

Length: 1540mm(60.6")
Wing span: 2057mm(81")
Wing area: 76.1sq.dm(8.2sq.ft)
Wing loading: 99.9g/sq.dm(32.8oz/sq.ft)
Flying weight: 7.6kg(16.7lbs)
Radio: 6ch & 7servos
Engine: 120 4-cycle
C.G: 135mm

INSTRUCTION MANUAL



SAFETY PRECAUTIONS

This R/C airplane is not a toy!

(The people under 18 years old is forbidden from flying this model)

First-time builders should seek advice from people having building experience.If misused or abused,it can cause serious bodily injury and damage to property.

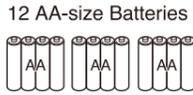
Fly only in open areas and preferably at a dedicated R/C flying site. We suggest having a qualified instructor carefully inspect your airplane before its first flight.Please carefully read and follow all instructions included with this airplane,your radio control system and any other components purchased separately.

REQUIRED FOR OPERATION (Purchase separately!)

CAUTION: For details concerning the equipment listed below (size, maker, etc.), check with your hobby shop.

1 A minimum 6 channel radio for airplanes (with 7 servos), and dry batteries.

CAUTION: Only use a minimum 6 channel radio for airplanes! (No other radio may be used!)
6 channel radio for airplane is highly recommended for this model.



A minimum 6 channel transmitter for airplanes.



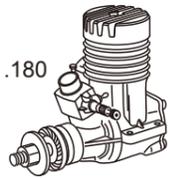
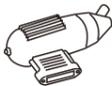
For handling the radio properly, refer to its instruction manual.

2 Engine and Muffler

Model Airplane Engine 4-cycle .180

Glow Plug

Muffler



3 Propeller Spinner

Purchase a propeller that will match your engine.



Spinner nut



15"X7

4

Sponge Sheet



Silicone Tube



Fuel Filter

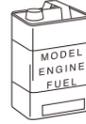


5

Required for engine starting:

Glow engine fuel only.

WARNING: Normal gasoline cannot be used with glow engines.



Fuel Pump



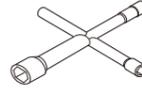
Booster Cord



4 D-size Batteries



Plug Wrench



6

Glue

Instant Glue



Epoxy Glue

Epoxy A

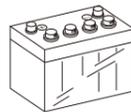
Epoxy B

7

Other equipment for enhancing airplane operation & performance

Engine Starter

12V Battery (for starter)

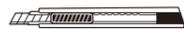


9

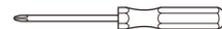
Optional parts: rubber wheel with metal hub.

TOOLS REQUIRED (Purchase separately!)

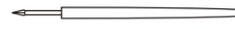
Sharp Hobby Knife



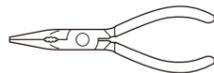
Phillips Screw Driver (l, m, s)



Awl



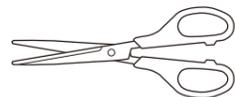
Needle Nose Pliers



Wire Cutters



Scissors



BEFORE YOU BEGIN

1 Read through the manual before you begin, so you will have an overall idea of what to do.

2 Check all parts. If you find any defective or missing parts, contact your local dealer.

3 Symbols used throughout this instruction manual, comprise:

4 We strongly recommend you use the thread lock for all the screws when you build your model.



Apply epoxy glue.



Drill holes with the specified diameter (2mm).



Cut off excess.



Pay close attention here!



Assemble left and right sides the same way.



Apply instant glue (CA glue, super glue).



Cut off shade portion.



Ensure smooth non-binding movement while assembling.



Must be purchased separately!

Do not overlook this Symbol!



Warning!

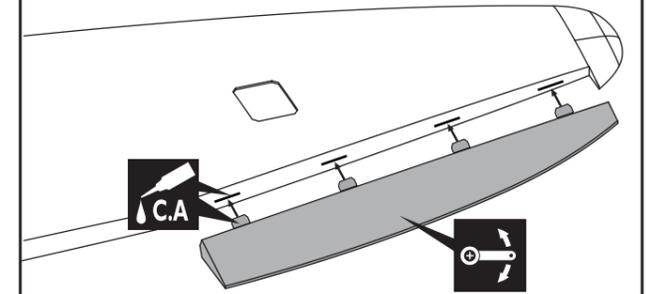


Accessory list for the coming installation steps.

	Clevis	2
	Retainer	2
	Rod (2x300mm)	2
	TP Screw (2.3x12mm)	8
	Screw (3x40mm)	2
	Pin hinge(24x24mm)	8
	Washer(3x15mm)	2
	Lock Nut (3mm)	2
	Washer(3x15mm)	2

3

Apply instant type CA glue to appropriate position of trailing edge and pin hinge.



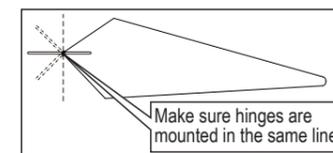
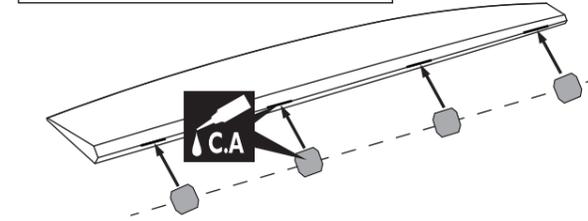
Warning! Securely glue together. If coming off during flights, you'll lose control of your airplane which leads to accidents!



1

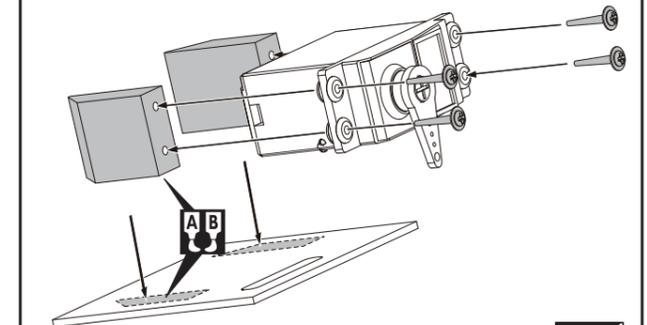
Apply instant type CA glue to appropriate position of aileron and pin hinge.

Pin hinge(24x24mm) 8



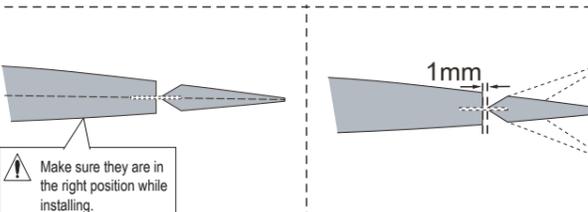
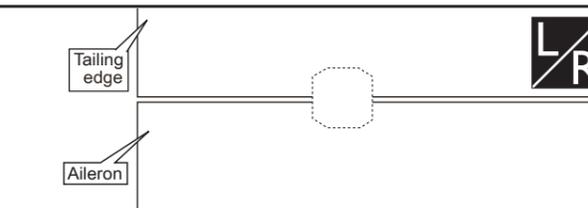
4

Fix the aileron servo to the serve tray with epoxy.



2

Keep about 1mm width space between aileron and trailing edge.

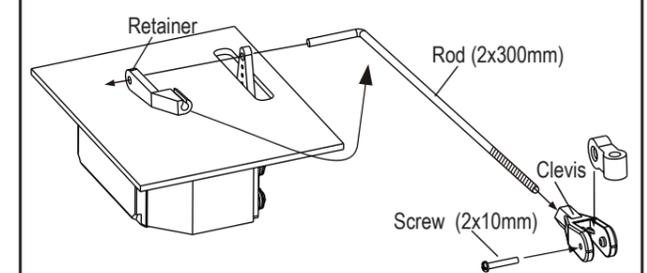


Make sure they are in the right position while installing.



5

Install the nylon control horn and connect the linkage.



Apply epoxy glue.



Assemble left and right sides the same way.



Pay close attention here!



Apply instant glue (CA glue, super glue).



Ensure smooth non-binding movement while assembling.



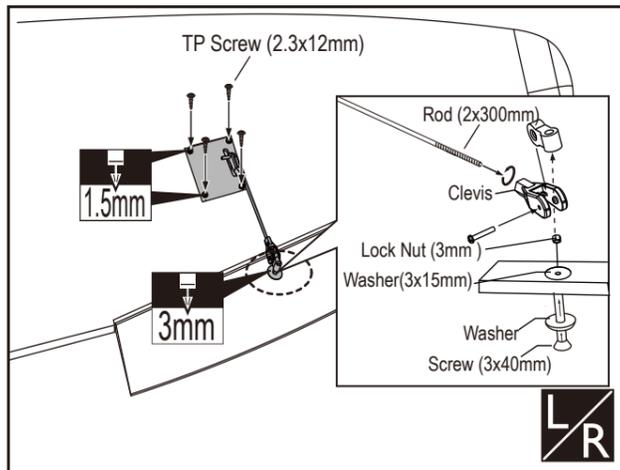
Cut off shaded portion.

Do not overlook this symbol!



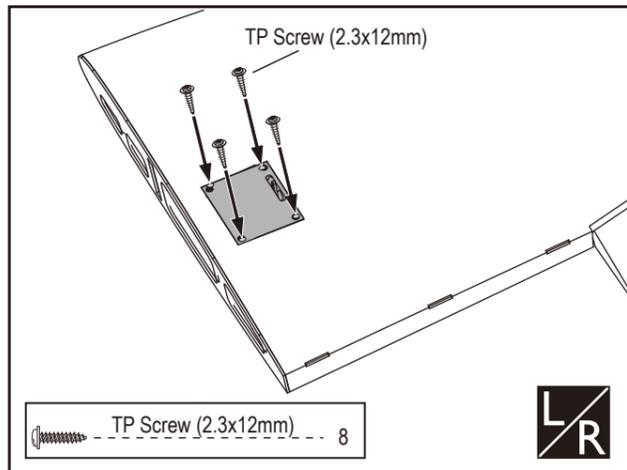
6

Secure the servo. Install the nylon control horn and connect the linkage.



8

Assemble the flap servo to the main wing with screws.

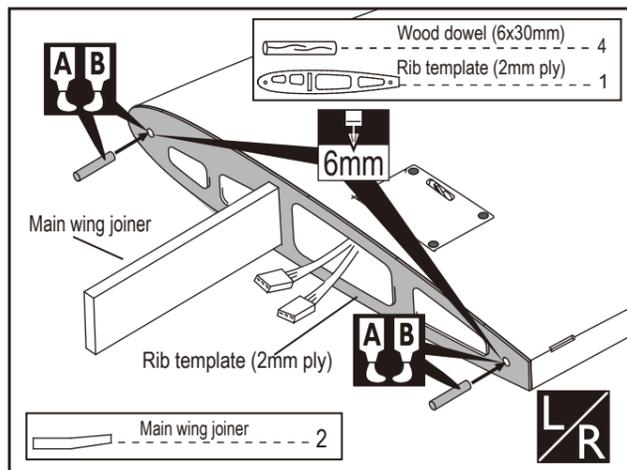


Accessory list for the coming installation steps.

- Servo tray(68.5x56.5x2mm) 2
- Wooden Block(20x20x8mm) 4
- TP Screw (2.3x12mm) 8
- Rib template (2mm ply) 1
- Wood dowel (6x30mm) 4
- Main wing joiner 2

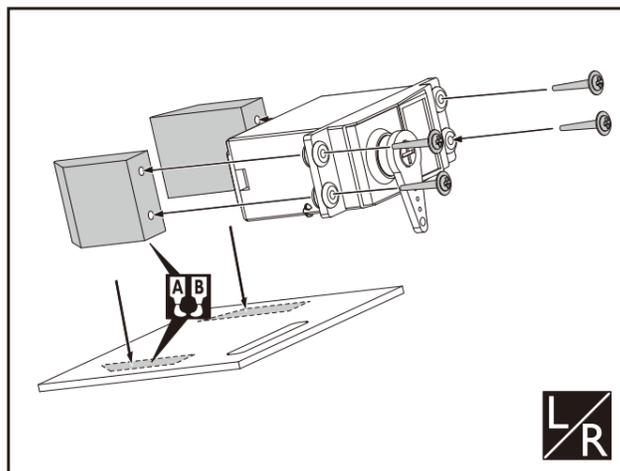
9

According to the rib template drill holes in the outer wings and epoxy wood dowel in them.



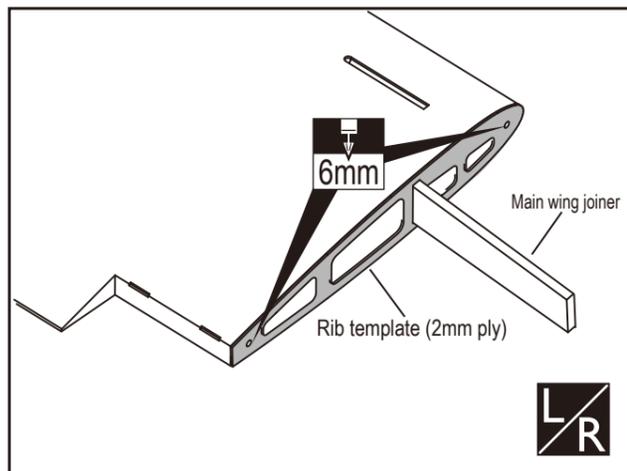
7

Fix the flap servo to the servo tray with epoxy.



10

According to the rib template drill holes to the center wing.

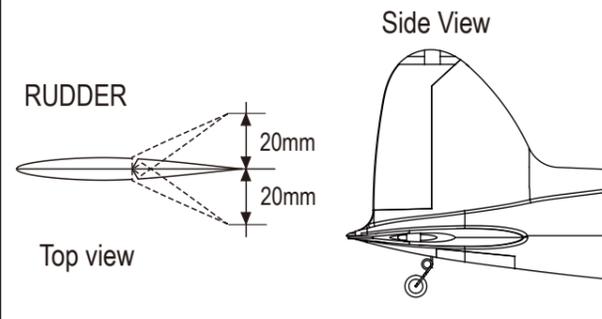


77

Adjustment.



Adjust the travel of each control surface to the values in the diagrams. These values fit general flight capabilities. Readjust according to your needs and flight level.

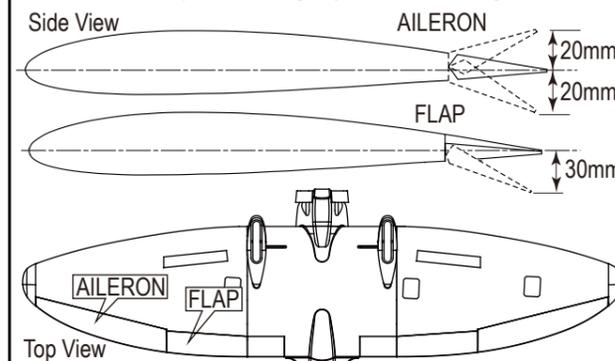


78

Adjustment.



Adjust the travel of each control surface to the values in the diagrams. These values fit general flight capabilities. Readjust according to your needs and flight level.

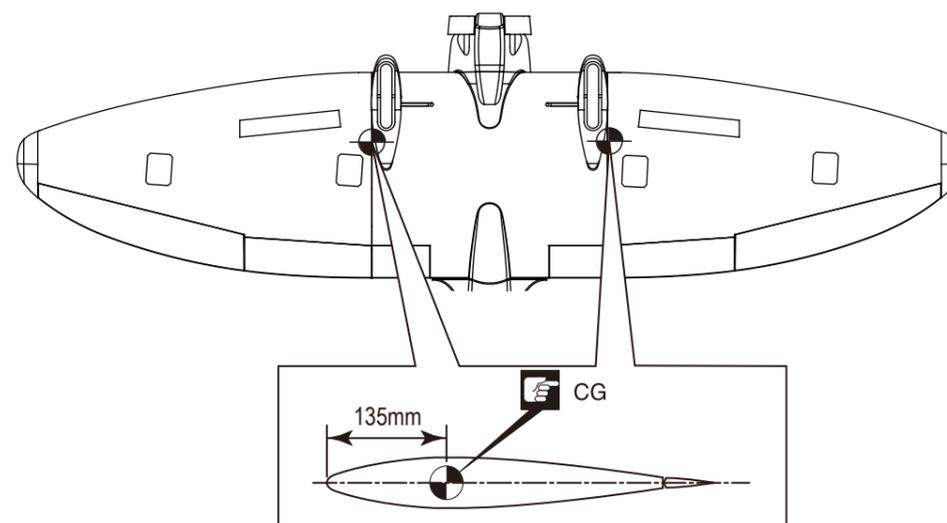


79

Centre of Gravity.



Never fly before checking the CG's required position. In order to obtain the CG specified, reposition the receiver and battery.



NEVER fly the model without well balancing.



Apply epoxy glue.



Assemble left and right sides the same way.



Pay close attention here!



Apply instant glue (CA glue, super glue).



Ensure smooth non-binding movement while assembling.



Cut off shaded portion.

Do not overlook this symbol!



Apply epoxy glue.



Assemble left and right sides the same way.



Pay close attention here!



Apply instant glue (CA glue, super glue).



Ensure smooth non-binding movement while assembling.

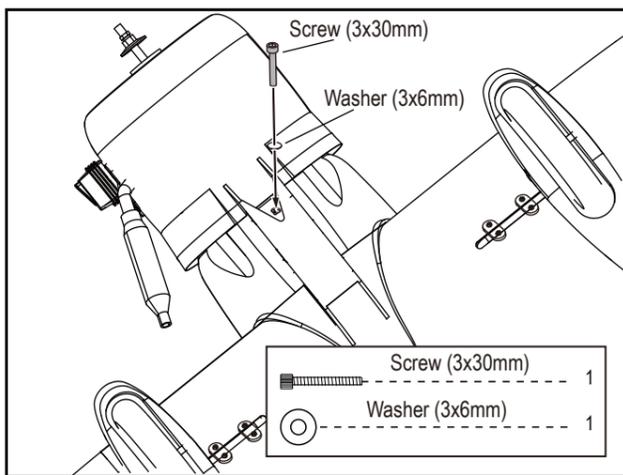


Cut off shaded portion.

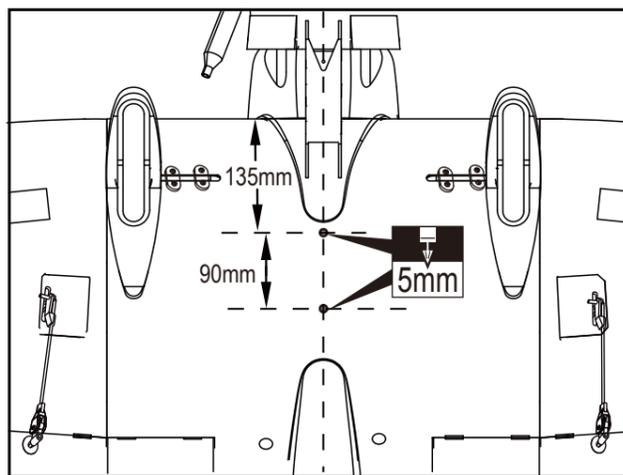
Do not overlook this symbol!



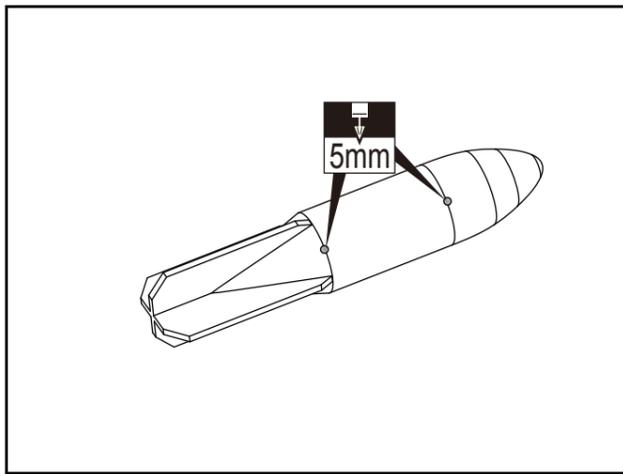
71 Fix the fairing part to the fuselage with screw.



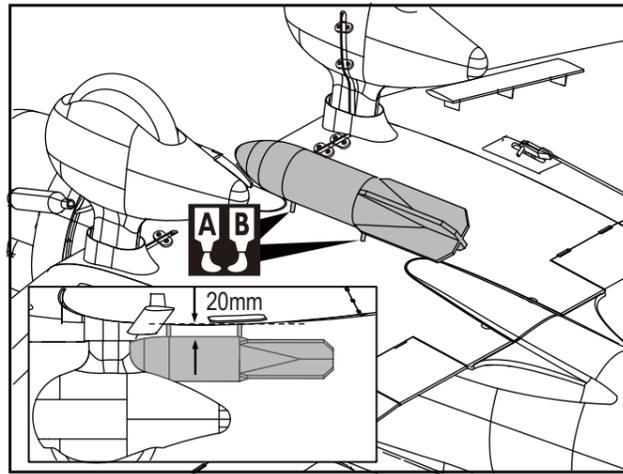
74 Drill holes to relevant position in the centet wing.



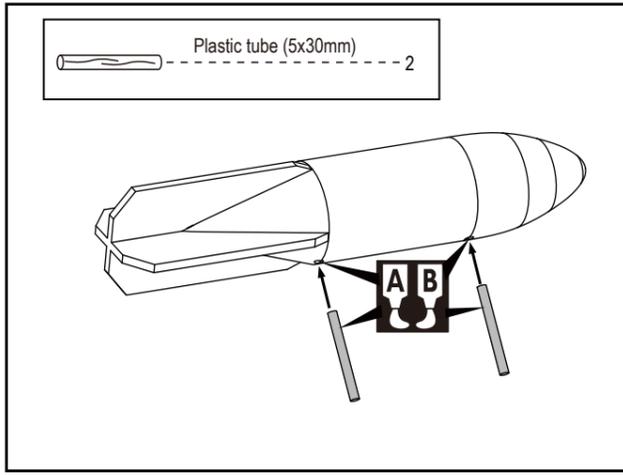
72 Drill holes to appropriate in the bomb.



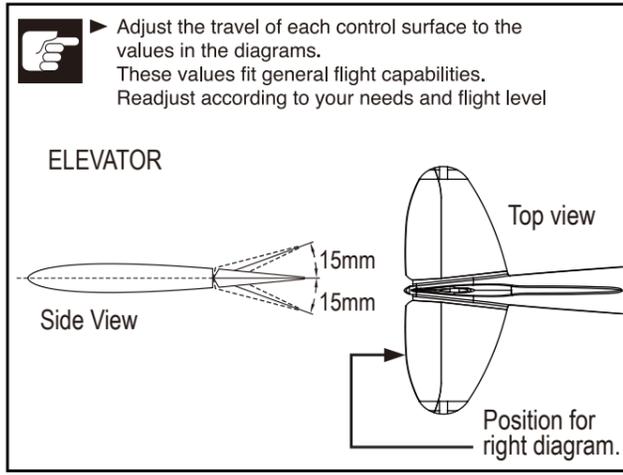
75 Epoxy the bomb to the bottom wing.



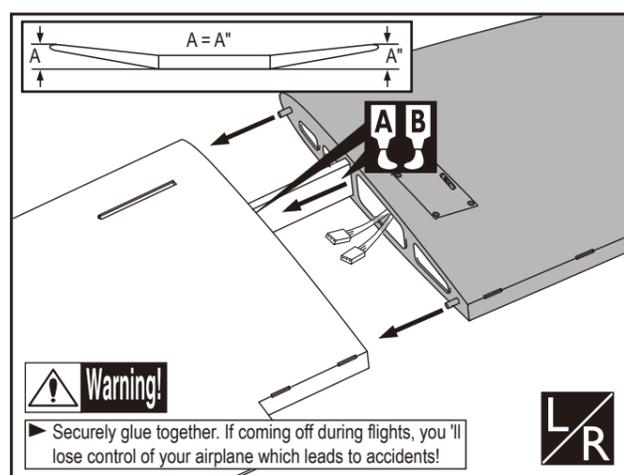
73 Epoxy plastic tube into the holes.



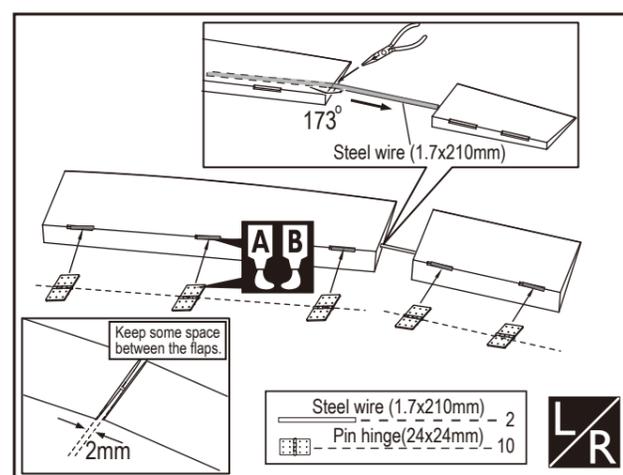
76 Adjustment.



11 Epoxy main wings to the centre wing by main wing joiners.



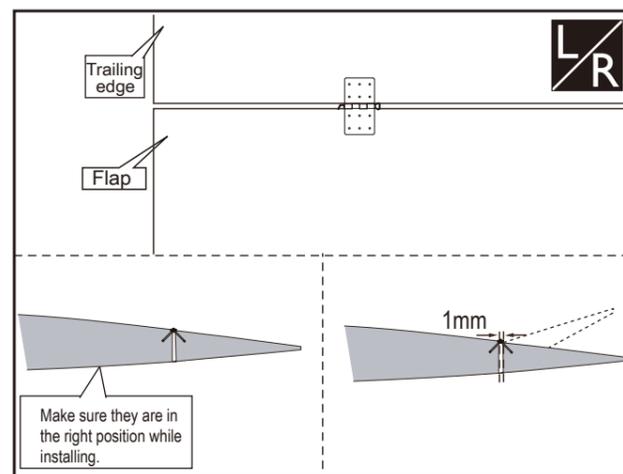
13 Connect the two flaps with metal wire, keep some space between them and epoxy the pinned hinges to the flaps as below.



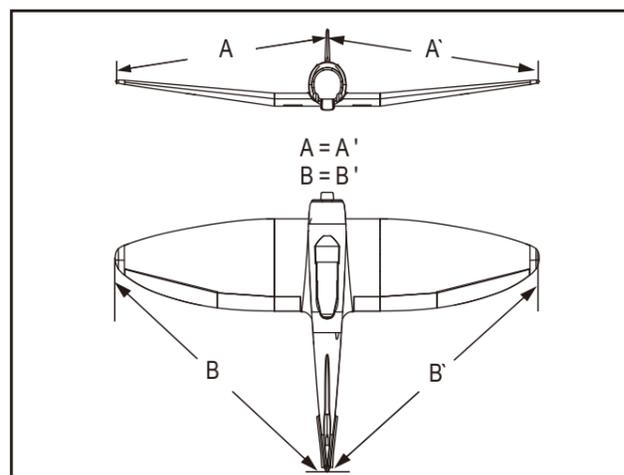
Warning! Accessory list for the coming installation steps.

	Clevis	2
	Retainer	2
	Rod (2x300mm)	2
	Screw (3x45mm)	2
	Washer(3x15mm)	2
	Lock Nut (3mm)	2
	Washer(3x15mm)	2
	Wood dowel (6x50mm)	2
	Pin hinge(36x20x1mm)	10
	Steel wire (1.7x210mm)	2
	Screw (6x50mm)	2
	Blind Nut (6mm)	2
	Reinforcement Plate	2

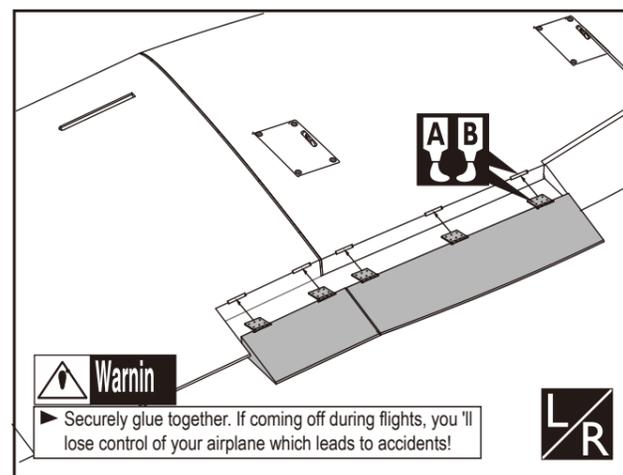
14 Keep some space about 1mm width between trailing edge and flap.



12 The sketch when the wings assemble finished.



15 Epoxy the flaps to the wings as illustration.



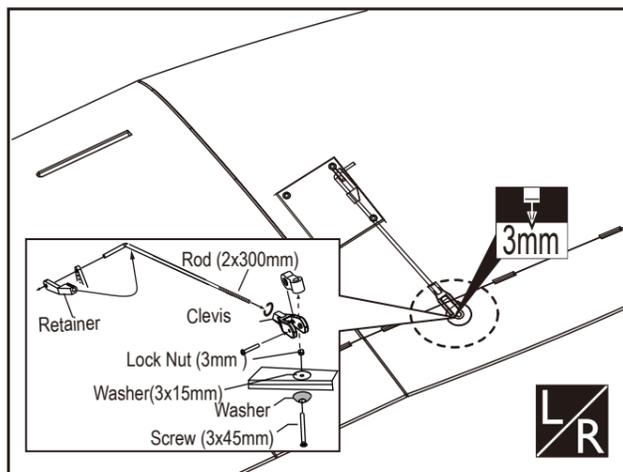
Apply epoxy glue. Assemble left and right sides the same way. Pay close attention here! Do not overlook this symbol!

Apply instant glue (CA glue, super glue). Ensure smooth non-binding movement while assembling. Cut off shaded portion.

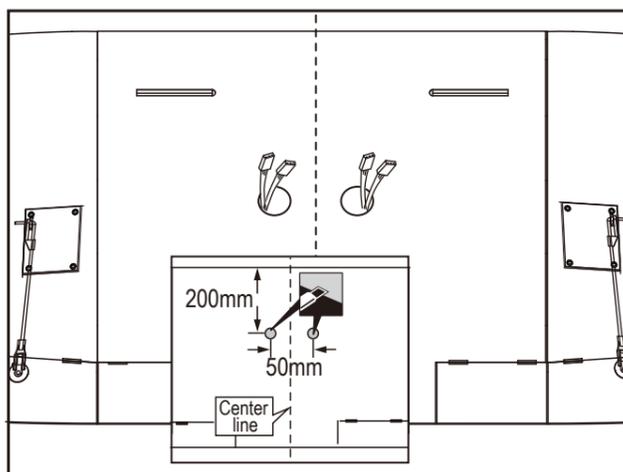
Apply epoxy glue. Assemble left and right sides the same way. Pay close attention here! Do not overlook this symbol!

Apply instant glue (CA glue, super glue). Ensure smooth non-binding movement while assembling. Cut off shaded portion.

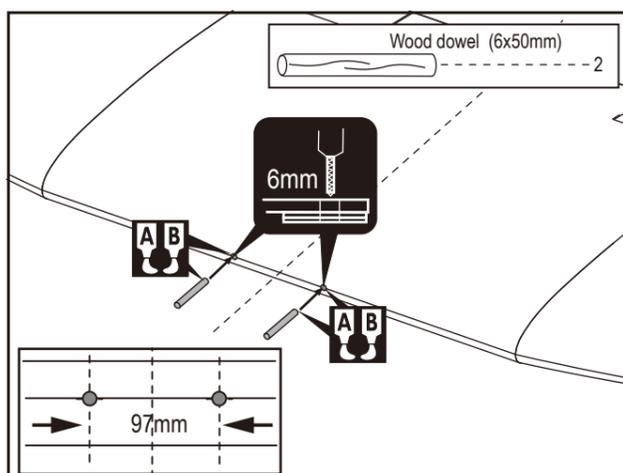
16 Assemble the arms in the flaps the servo arms to them with rods as below.



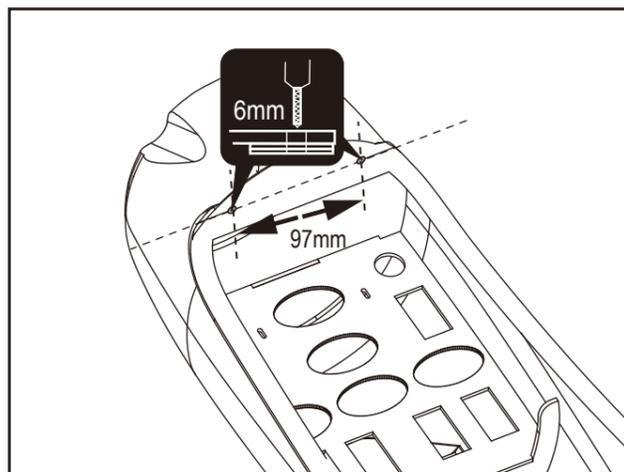
17 Trim two holes to pull the servo extension lines and fuel tube from the holes.



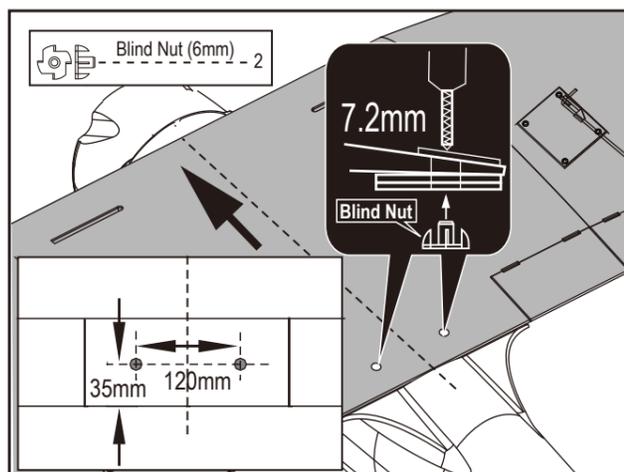
18 Epoxy the dowel on the leading edge of wing.



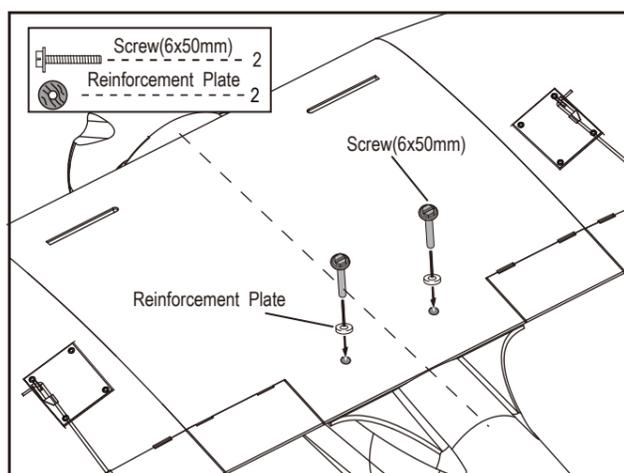
19 Drill holes in the fuselage for installing the wings.



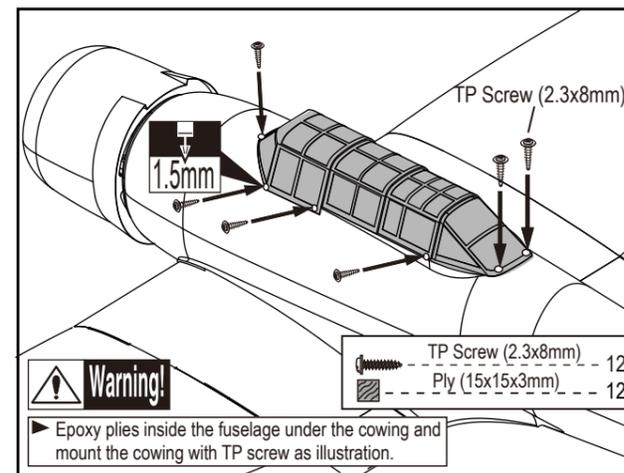
20 Drill holes in the appropriate position through the wing to fuselage, set blind nut in the fuselage.



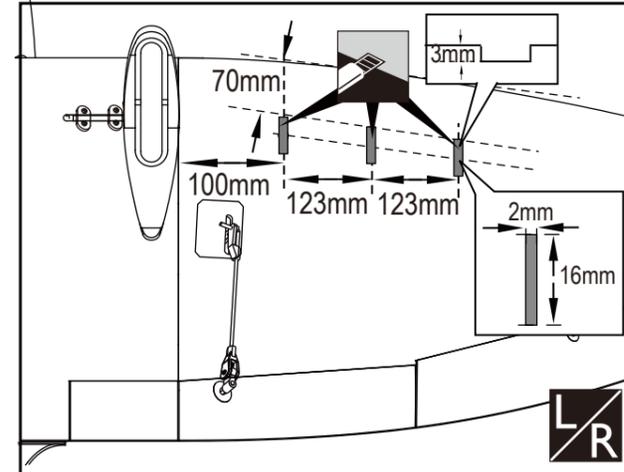
21 Put the reinforcement plate on the holes and fix the wings to the fuselage with screws as illustration.



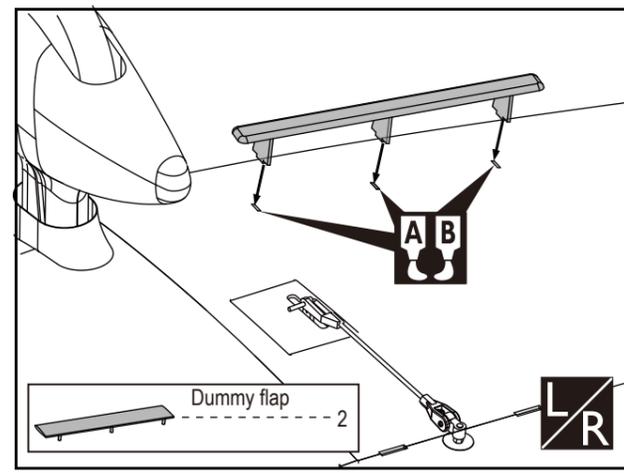
65 Epoxy plies under the canopy and assemble the canopy to fuselage with screw.



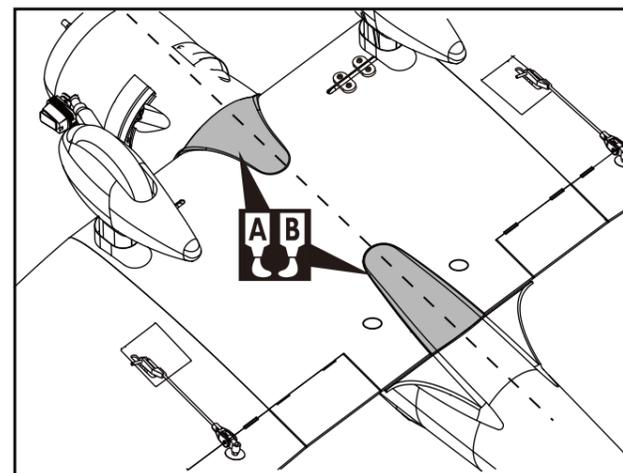
66 Trim slots in right position in the bottom wing.



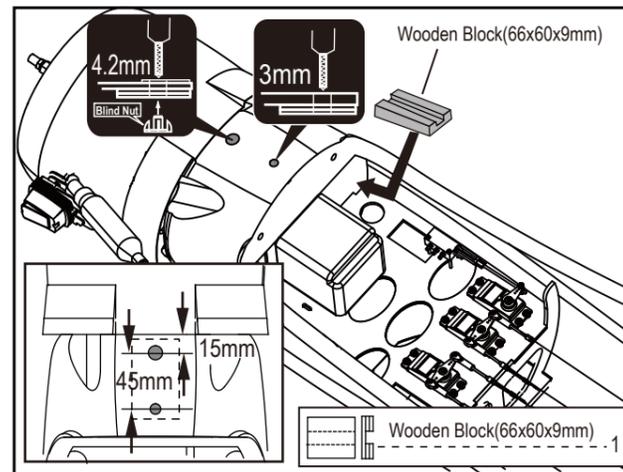
67 Epoxy the dummy flaps to the wings.



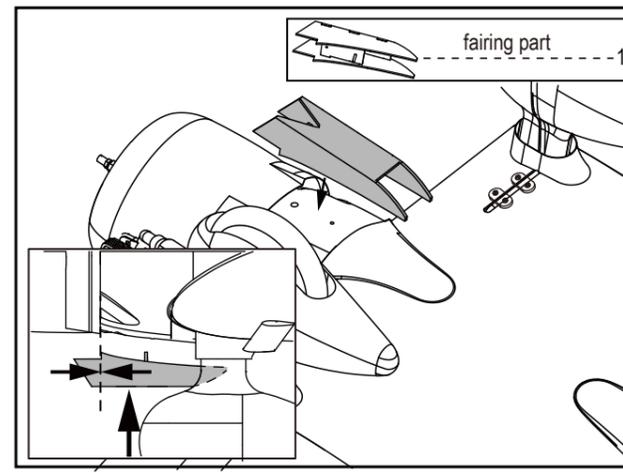
68 Epoxy the dummy parts to the appropriate position in the mid wing.



69 Epoxy the wooden block to the appropriate position in the fuselage, drill holes through the the wooden block from the dummy fairing and set blind nut in the big hole as illustration.



70 Epoxy the fairing part to the fuselage.



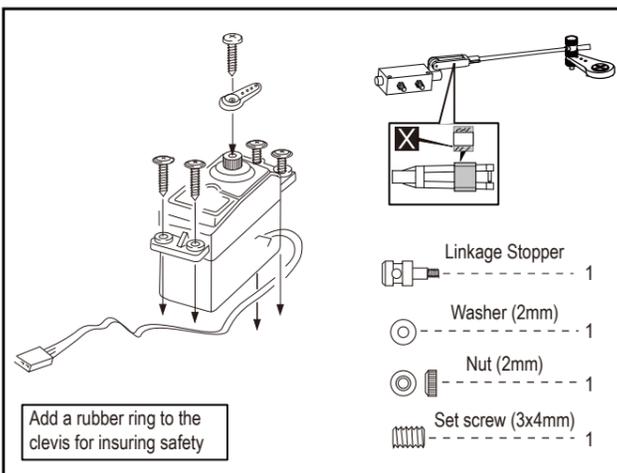
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

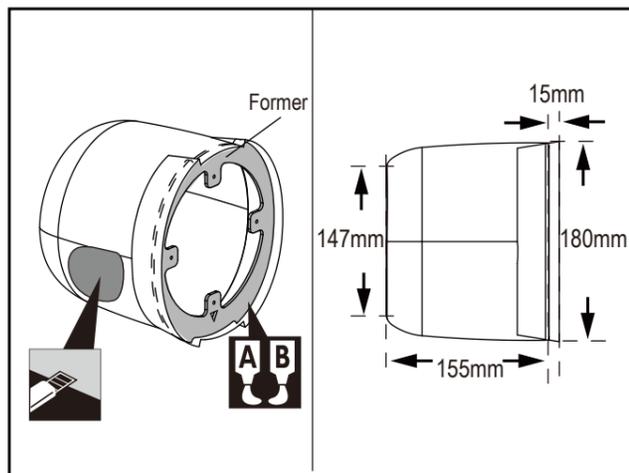
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

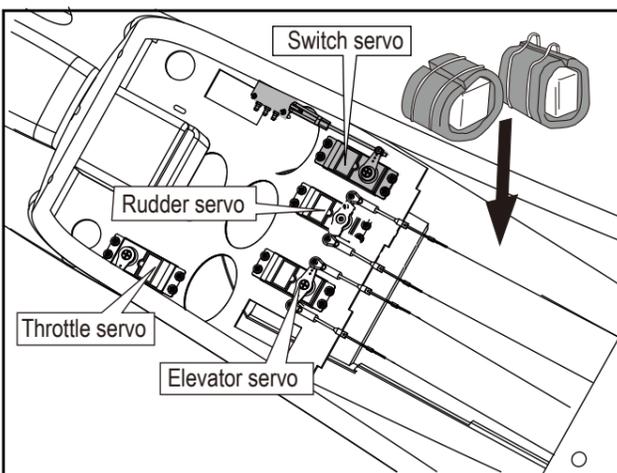
60 Assembly of the switch servo.



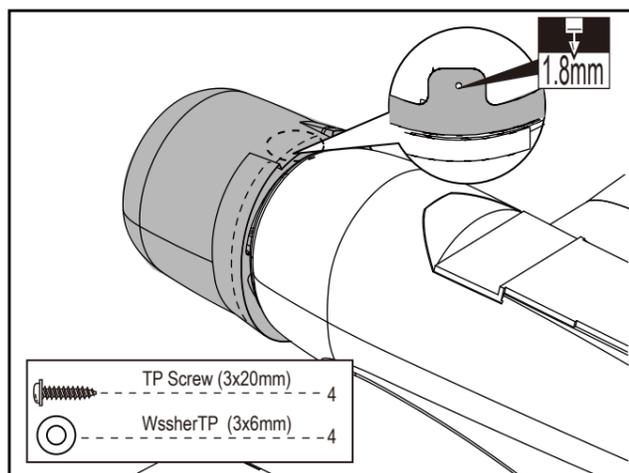
62 Epoxy the wooden form to appropriate in the cowling.



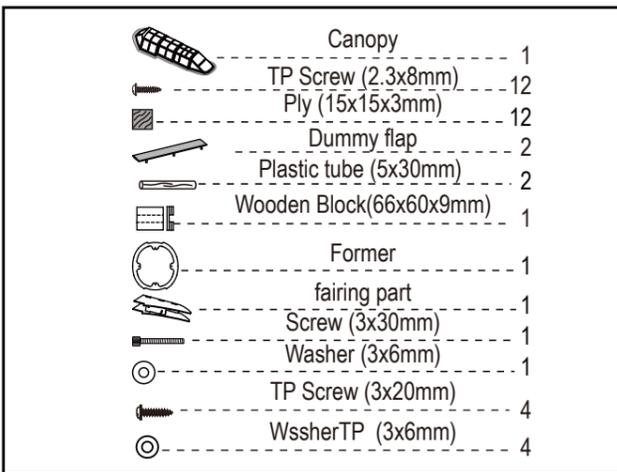
61 Mounting of the receiver and the battery.



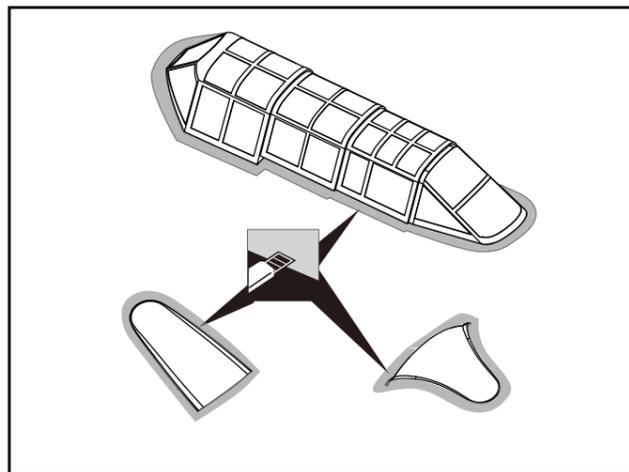
63 Assemble the cowl to the fuselage with TP screws.



Accessory list for the coming installation steps.



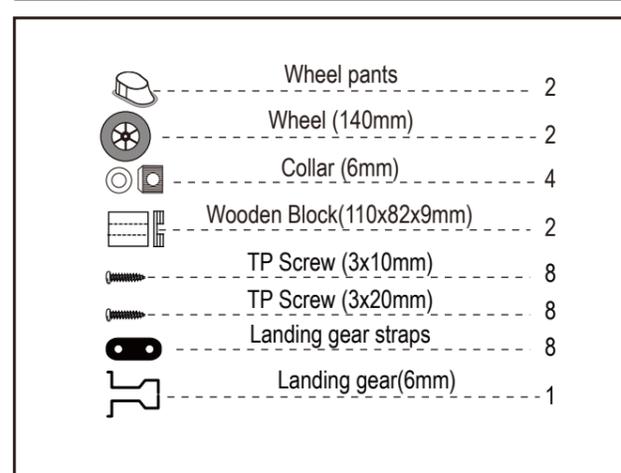
64 Cut off the surplus parts along the shaded line of the canopy.



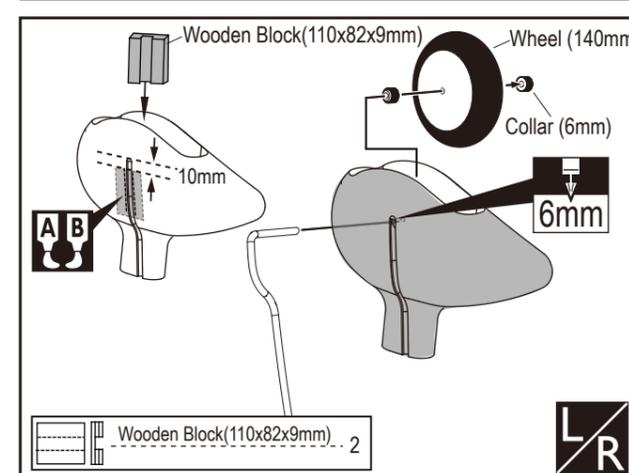
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

CA Apply instant glue (CA glue, super glue). **Hand icon** Ensure smooth non-binding movement while assembling. **Scissors icon** Cut off shaded portion.

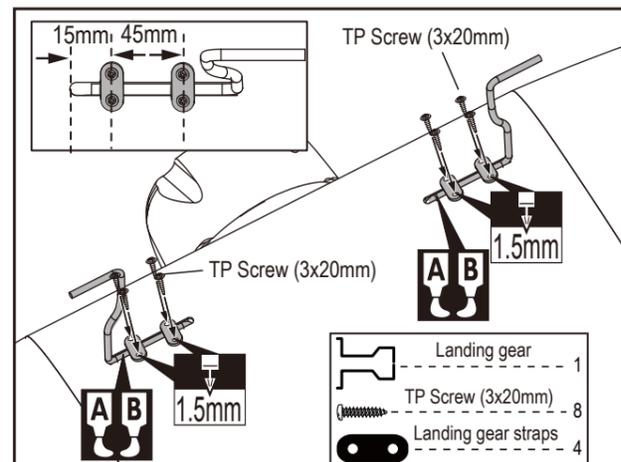
Accessory list for the coming installation steps.



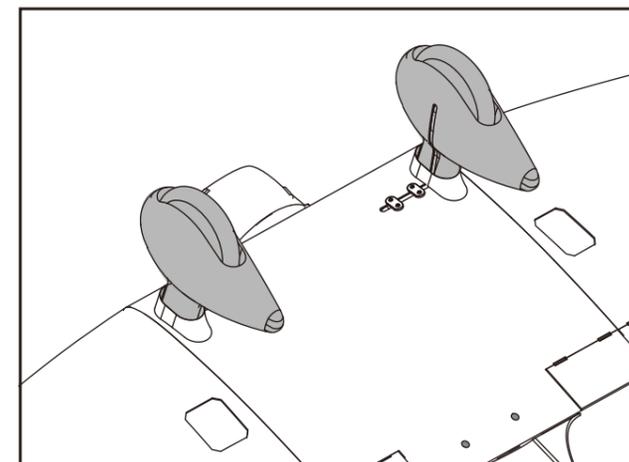
24 Mount wheel pant and tire.



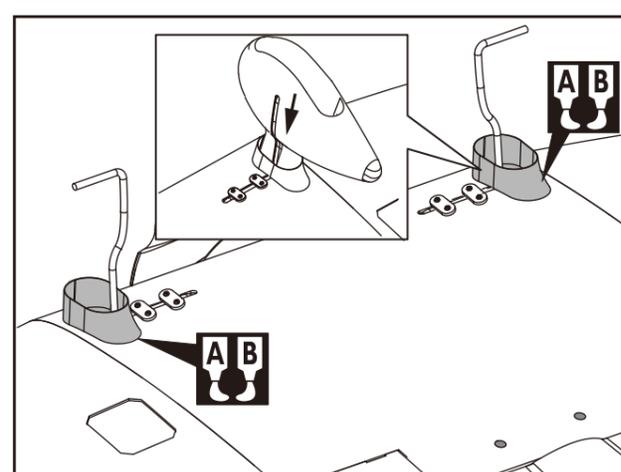
22 Mount landing gear on the underside of wing.



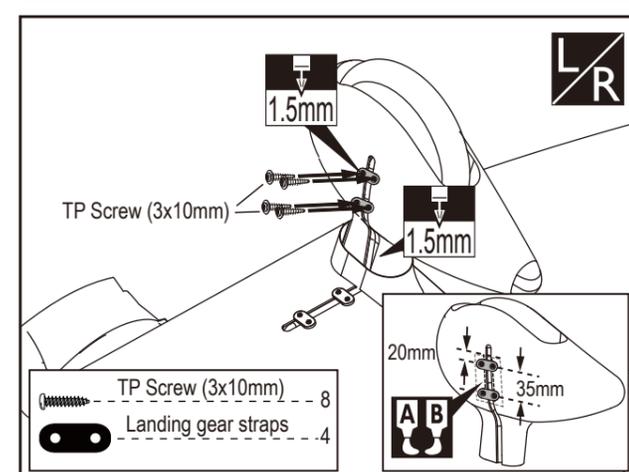
25 Mount wheel pant and tire.



23 According to the back steps, epoxy the Wheel pants to the appropriate place.



26 Attach landing wire to wheel pant steadily.



AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

CA Apply instant glue (CA glue, super glue). **Hand icon** Ensure smooth non-binding movement while assembling. **Scissors icon** Cut off shaded portion.

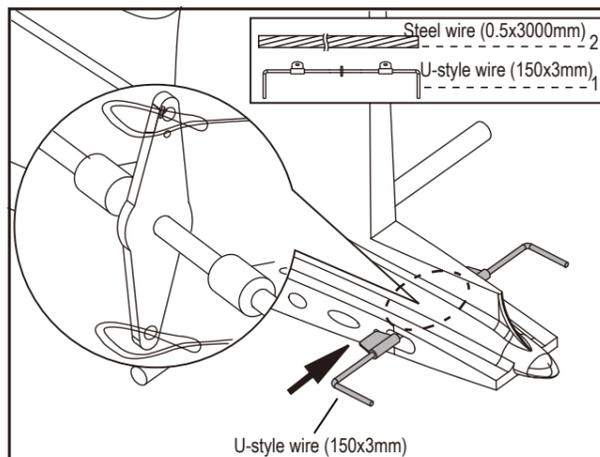


Accessory list for the coming installation steps.

- Stab joiner (12x280mm) ----- 1
- Wood dowel (4x30mm) ----- 4
- Rib template (2mm ply) ----- 1
- Pin hinge(24x24mm) ----- 6
- Steel wire (0.5x3000mm) ----- 2
- U-style wire (150x3mm) ----- 1
- Clevis ----- 2
- Copper joiner ----- 2
- Screw (2x10mm) ----- 2
- Nut (2mm) ----- 2
- Washer(2x5mm) ----- 2

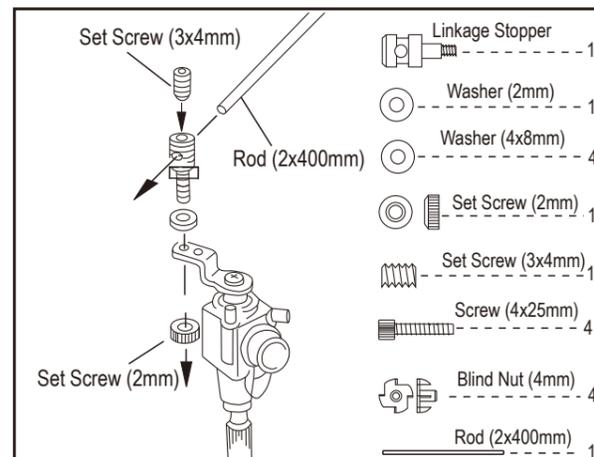
29

Set the U-style wire through the tail of fuselage as below.



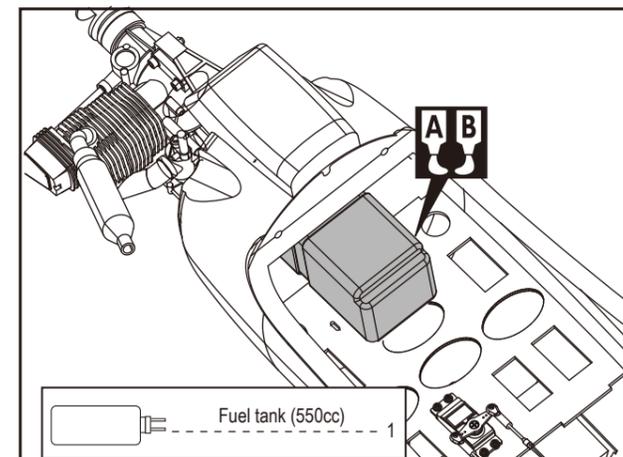
54

Assemble the throttle linkage.



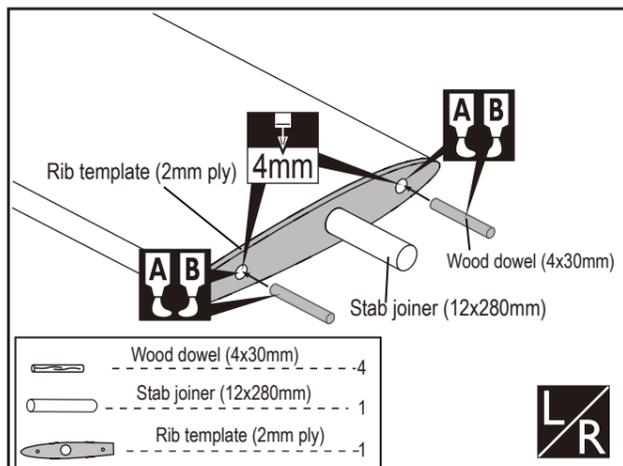
57

Mount the fuel tank into the fuselage.



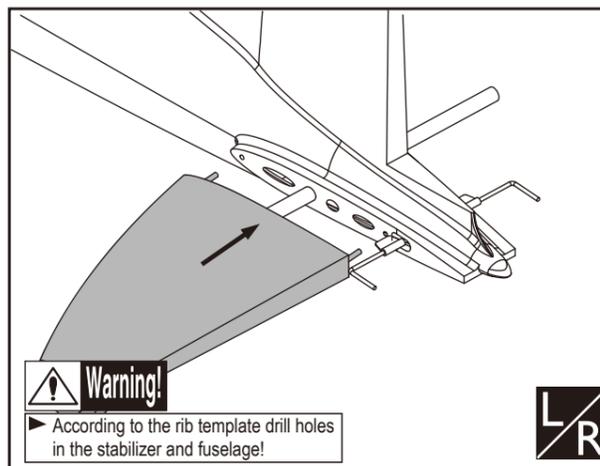
27

Drill holes in the stabilizer root base on rib template and epoxy the wood dowel in them.



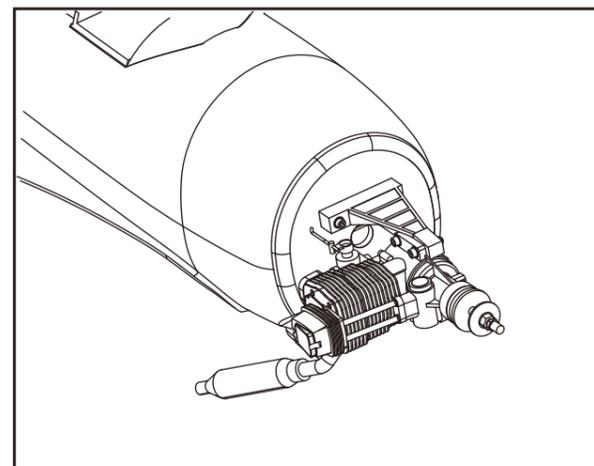
30

Epoxy the horizontal to fuselage and take care to keep all the surface clean.



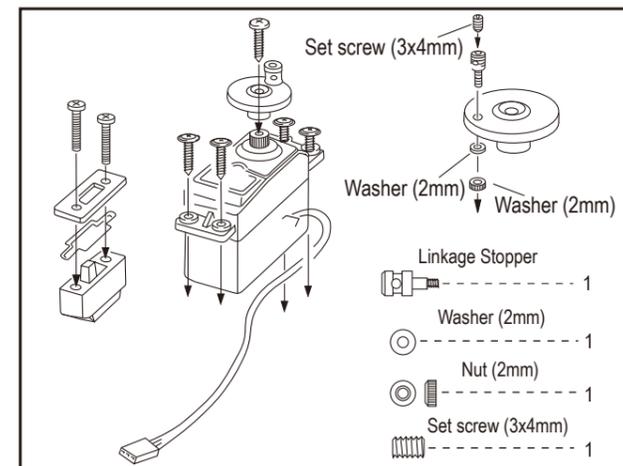
55

Install the engine.



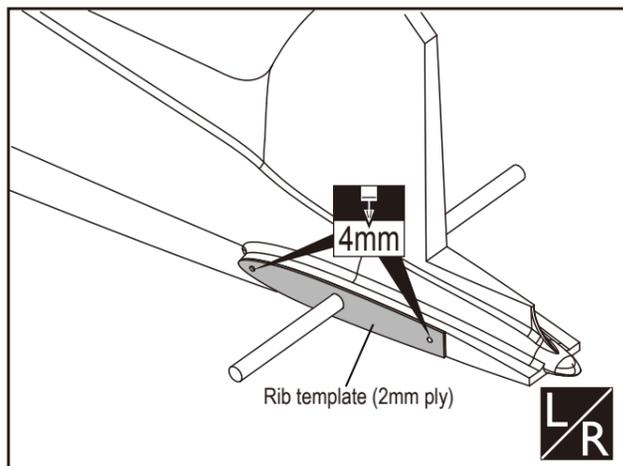
58

Assemble the servos and switch.



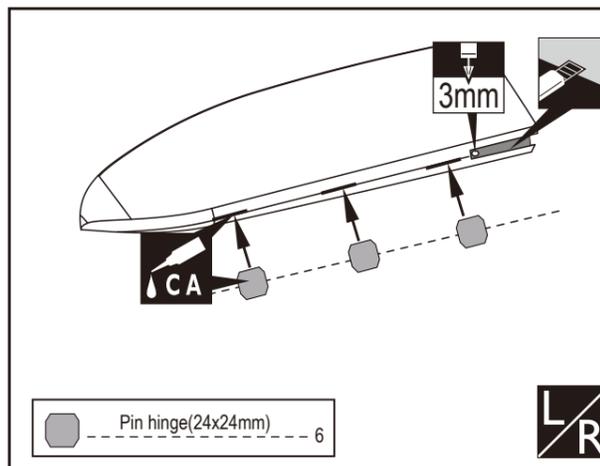
28

According to the rib template drill holes to the tail of fuselage as below.



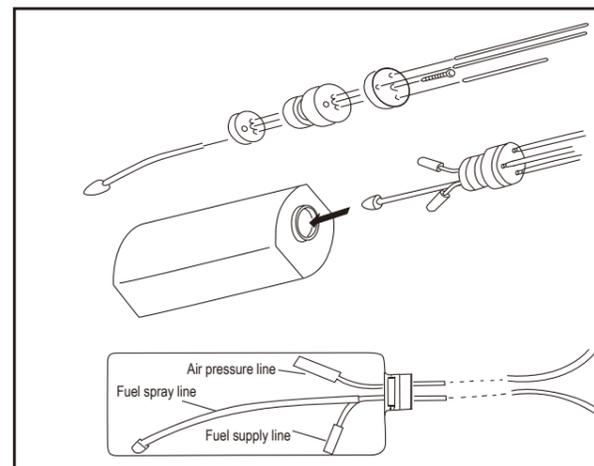
31

Glue the pin hinges to the elevator and trim slot in the right position for fitting the U-style wire.



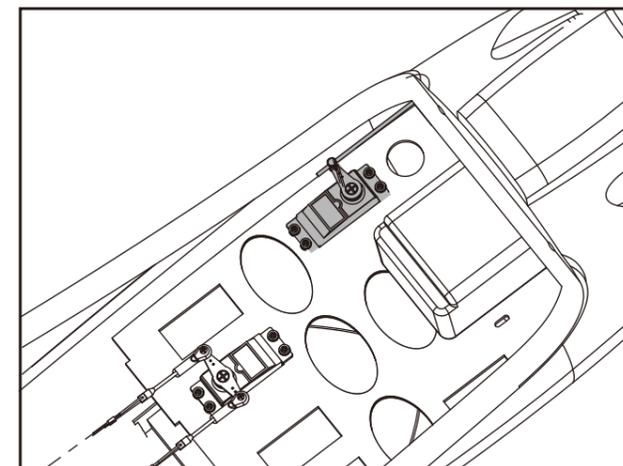
56

Assembly of the fuel tank.



59

Assemble the servo to fuselage.



Apply epoxy glue.



Assemble left and right sides the same way.



Pay close attention here!

Do not overlook this symbol!



Apply instant glue (CA glue, super glue).



Ensure smooth non-binding movement while assembling.



Cut off shaded portion.



Apply epoxy glue.



Assemble left and right sides the same way.



Pay close attention here!

Do not overlook this symbol!



Apply instant glue (CA glue, super glue).



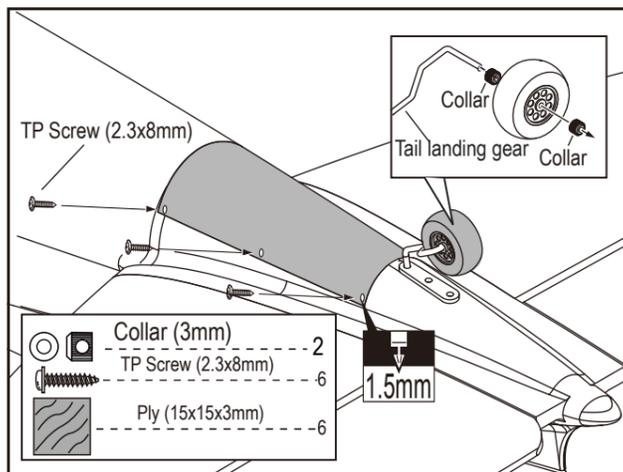
Ensure smooth non-binding movement while assembling.



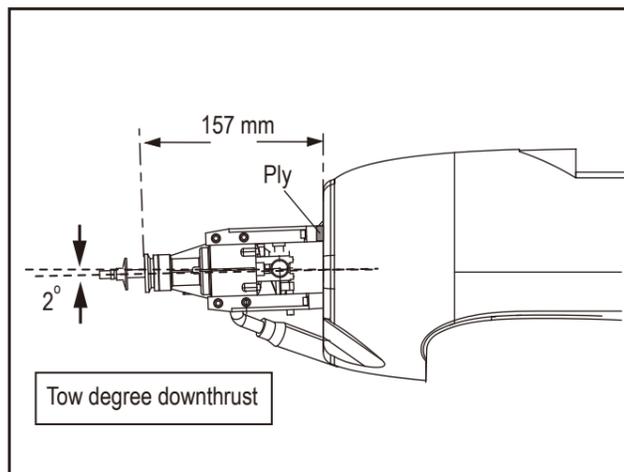
Cut off shaded portion.



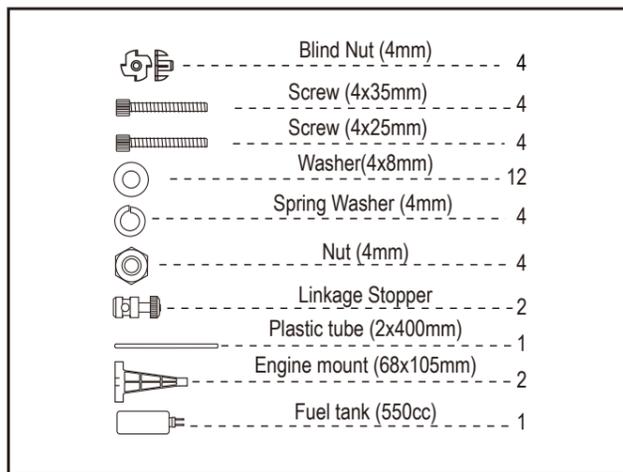
49 Epoxy plies to appropriate position in the fuselage. Then assemble the wheel as illustration.



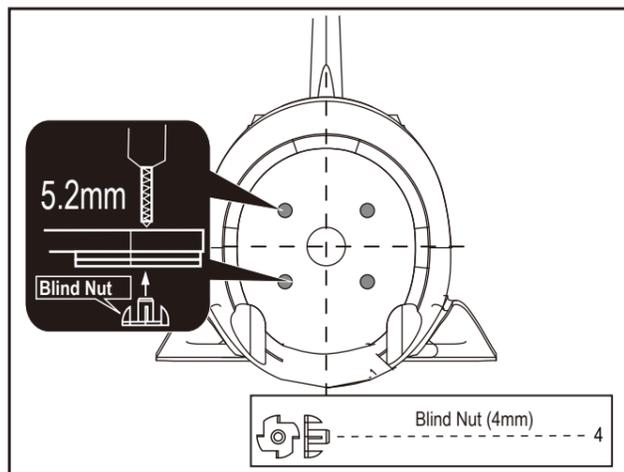
51 The side view of the engine install completion.



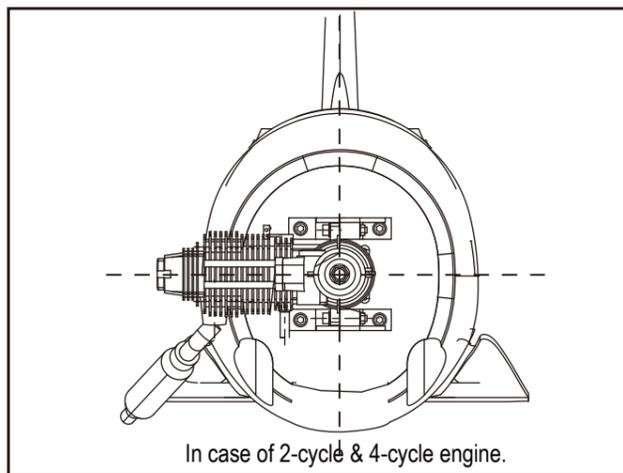
Accessory list for the coming installation steps.



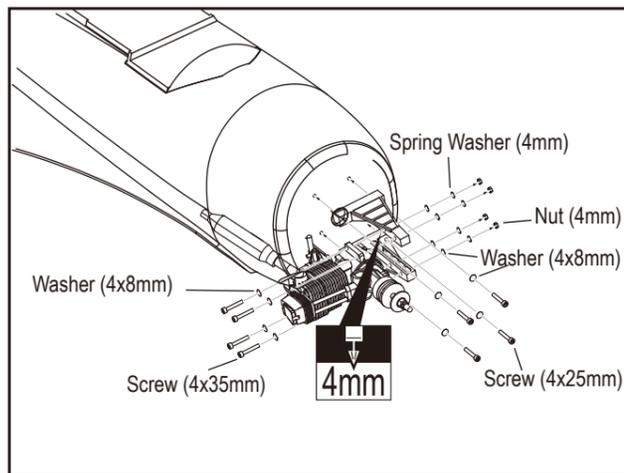
52 Drill four holes at the diameters as shown for engine mount.



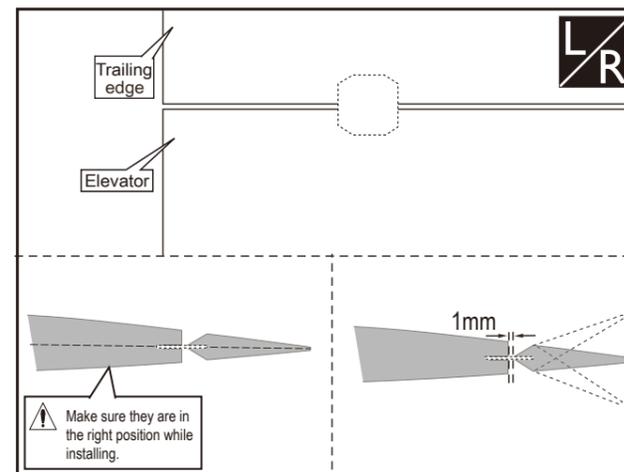
50 The front view of the engine install completion.



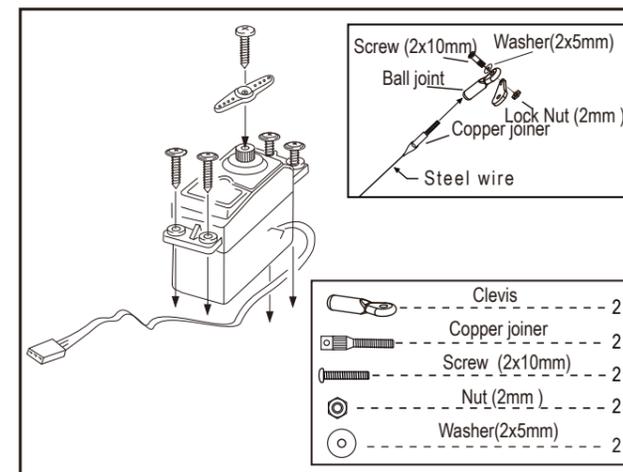
53 Assemble the engine.



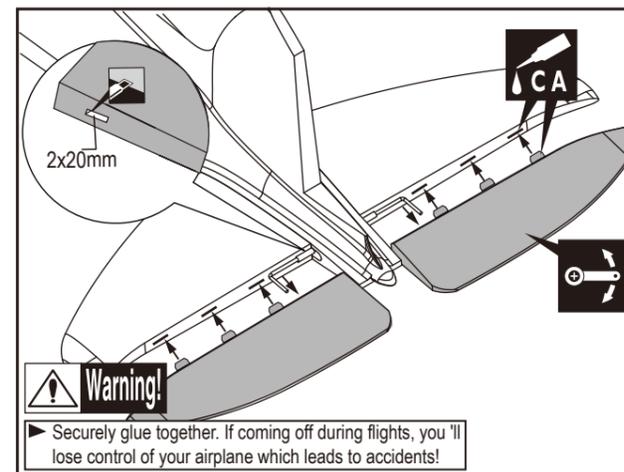
32 Keep some space about 1mm width between the elevator and horizontal tail edge.



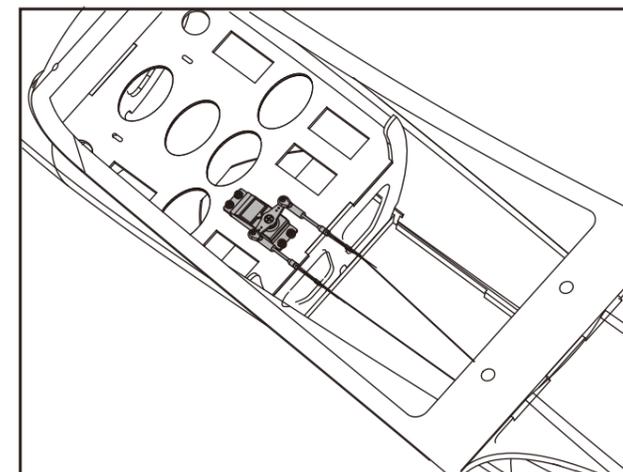
35 Install the nylon control ring for switch and connect the linkage.



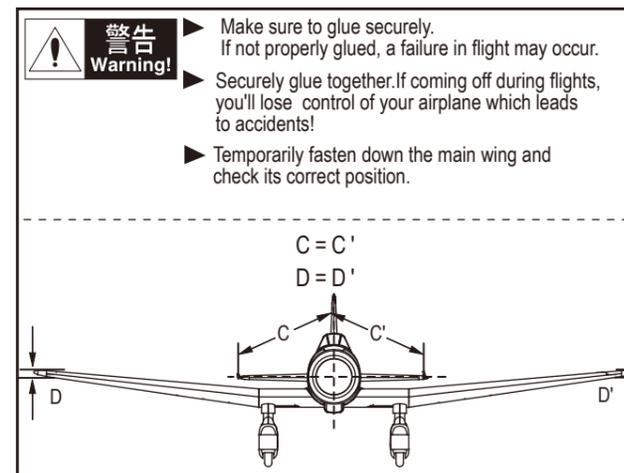
33 Glue the elevator to the stabilizer by CA and epoxy.



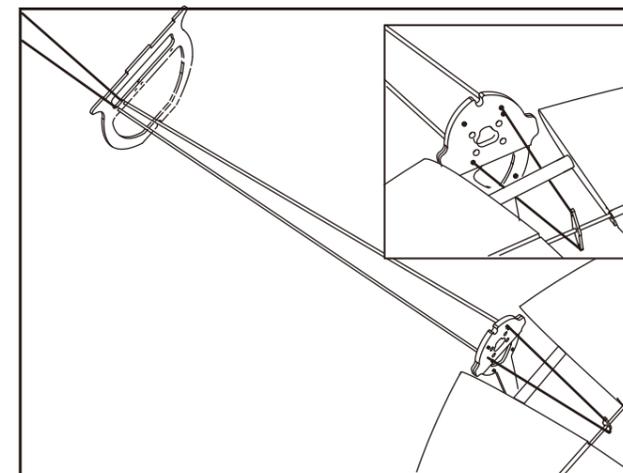
36 Assemble the elevator servo to the appropriate position in the fuselage.



34 Assemble horizontal tail, vertical tail, tail gear separately.



37 The sketch map for the wires of elevator servo in the fuselage.



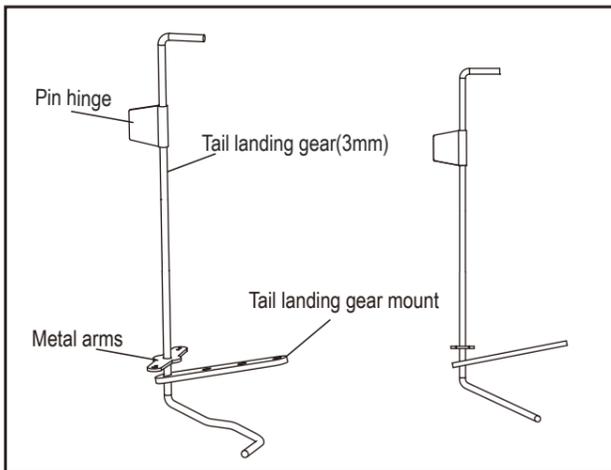
	Apply epoxy glue.		Assemble left and right sides the same way.		Pay close attention here!	Do not overlook this symbol!
	Apply instant glue (CA glue, super glue).		Ensure smooth non-binding movement while assembling.		Cut off shaded portion.	

	Apply epoxy glue.		Assemble left and right sides the same way.		Pay close attention here!	Do not overlook this symbol!
	Apply instant glue (CA glue, super glue).		Ensure smooth non-binding movement while assembling.		Cut off shaded portion.	

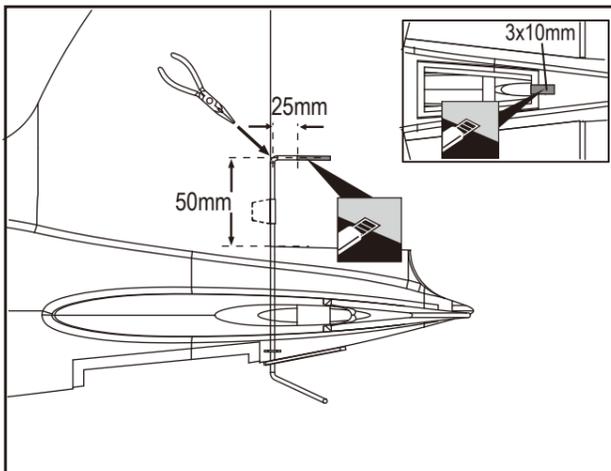
Accessory list for the coming installation steps.

- Tail landing gear mount 1
- Pin hinge 1
- Tail landing gear(3mm) 1
- Tail wheel (45mm) 1
- Collar (3mm) 2
- TP Screw(3x10mm) 2
- Washer (3x6mm) 2
- TP Screw (2.3x8mm) 2
- Ply (15x15x3mm) 6
- Wooden Block (3mm Ply) 1
- Steel wire (0.5x3000mm) 2
- Pin hinge 3

38 The sketch map when assemble the tail landing gear to the wheel steeling mount.



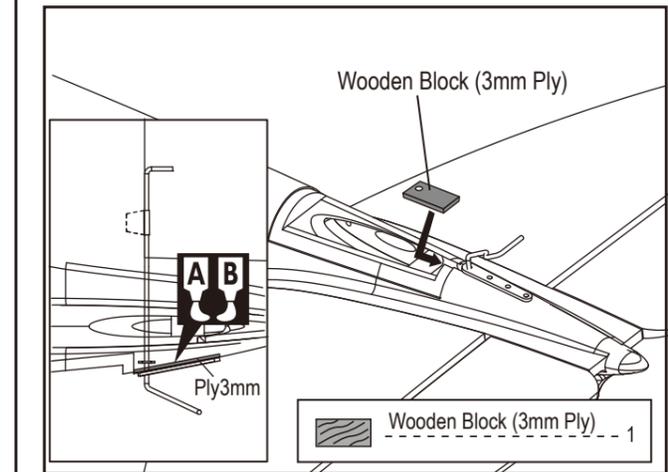
39 Let the tail landing gear go through the fuse tail until to the proper position, and cut off the surplus parts of the landing gear as illustration.



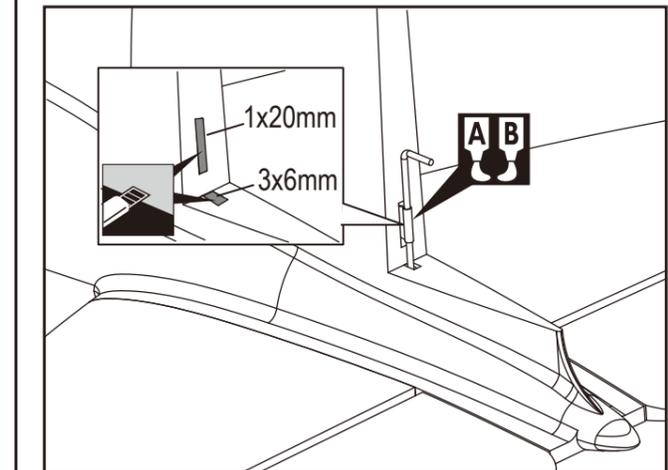
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning icon** Do not overlook this symbol!

CA Apply instant glue (CA glue, super glue). **Arrow icon** Ensure smooth non-binding movement while assembling. **Scissors icon** Cut off shaded portion.

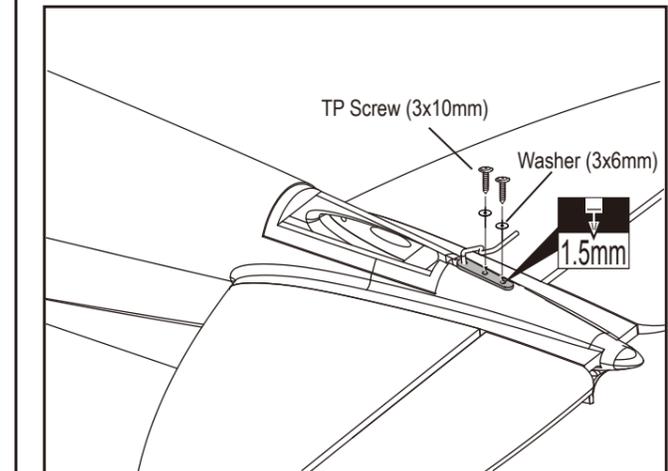
40 Epoxy a wooden block to inner fuse tail for helping fix the landing gear mount.



41 Trim a slot in the vertical fin for epoxying the pin hinge of tail landing gear in it.



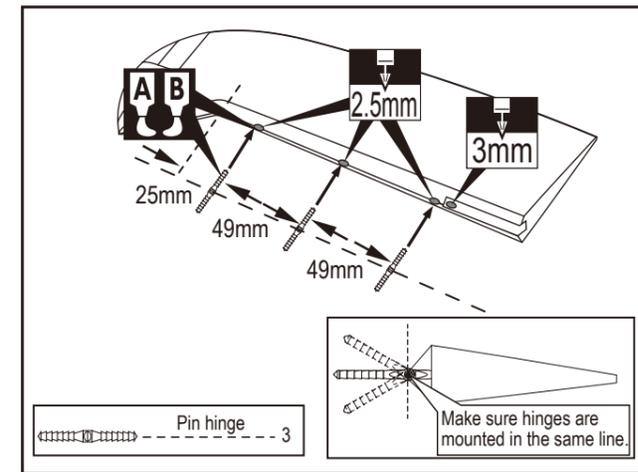
42 Fix the tail landing gear mount with TP screws.



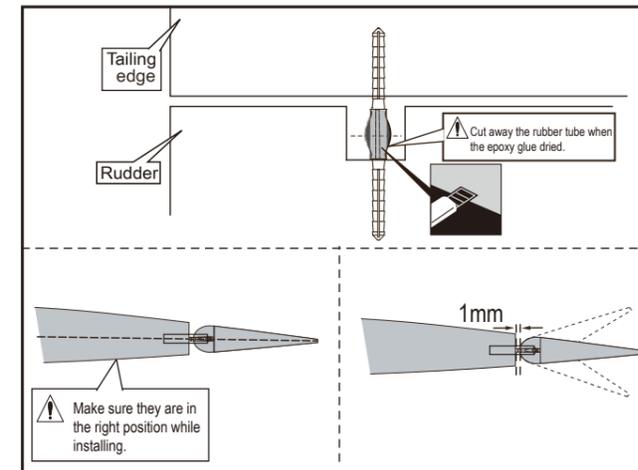
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning icon** Do not overlook this symbol!

CA Apply instant glue (CA glue, super glue). **Arrow icon** Ensure smooth non-binding movement while assembling. **Scissors icon** Cut off shaded portion.

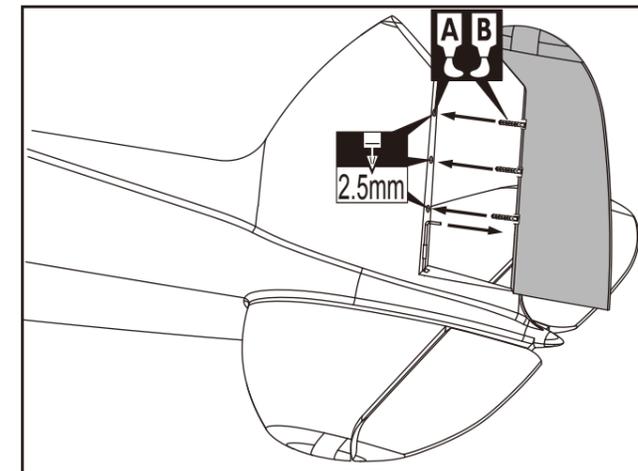
43 Epoxy pin hinges to rudder.



44 Epoxy the pin hinge to the rudder steady.



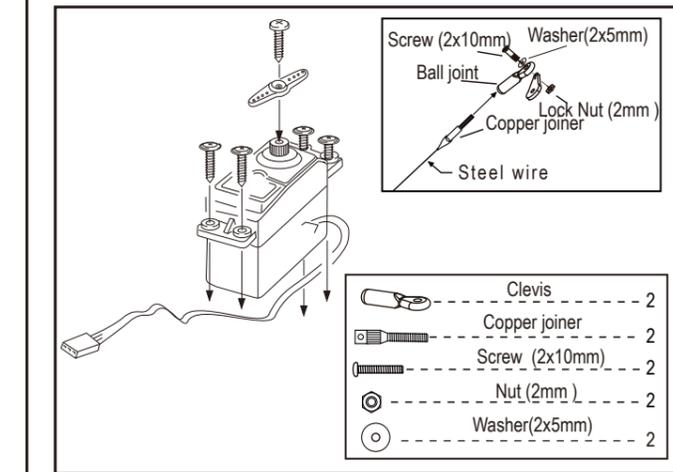
45 Drill holes to appropriate position in the vertical tail and epoxy the rudder to the vertical tail steadily.



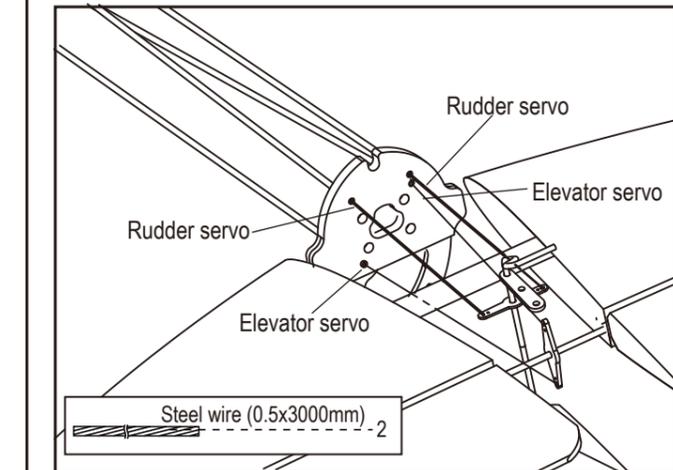
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning icon** Do not overlook this symbol!

CA Apply instant glue (CA glue, super glue). **Arrow icon** Ensure smooth non-binding movement while assembling. **Scissors icon** Cut off shaded portion.

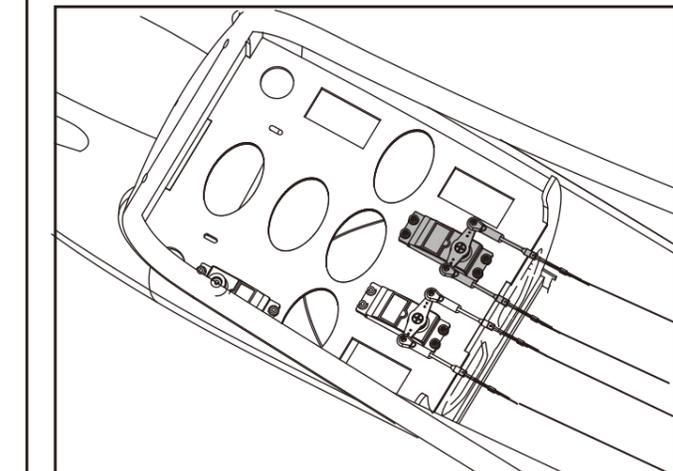
46 Install the rudder servo.



47 The sketch map of the steel wires run through in the fuselage.



48 Install the rudder servo in the fuselage.



AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning icon** Do not overlook this symbol!

CA Apply instant glue (CA glue, super glue). **Arrow icon** Ensure smooth non-binding movement while assembling. **Scissors icon** Cut off shaded portion.