

Before start, please carefully read the explanations!

F6F Hellcat



Specification:

Length	:1365 mm(54")
Wing Span	:1829 mm(72")
Wing Area	:64.83 sq. dm 6.99 sq. ft
Wing Loading	:100.3 g/sq. dm 32.9 oz/sq. ft
Flying Weight	:6.5 kg(14.3 lbs)
Radio	:6ch & 8 servos
Engine	:120 4-cycle

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 8 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.

12 AA-size Batteries
A minimum 6 channel transmitter for airplanes.



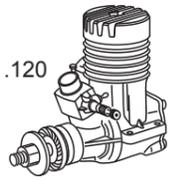
For handling the radio properly, refer to its instruction manual.

2 Engine and Muffler

Model Airplane Engine 4-cycle .120

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

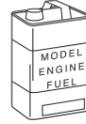


5

Required for engine starting:

Glow engine fuel only.

WARNING: Normal gasoline cannot be used with glow engines.



Fuel Pump



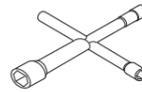
Booster Cord



4 D-size Batteries



Plug Wrench



6

Glue Instant Glue



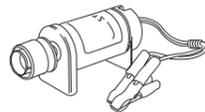
Epoxy Glue



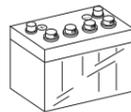
7

Other equipment for enhancing airplane operation & performance

Engine Starter



12V Battery (for starter)



9

Optional parts: rubber wheel with metal hub, oleo struts and retracts system.

TOOLS REQUIRED (Purchase separately!)

Sharp Hobby Knife



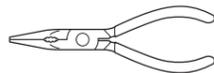
Phillips Screw Driver (l, m, s)



Awl



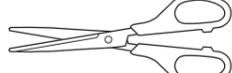
Needle Nose Pliers



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:

AB Apply epoxy glue.

2mm Drill holes with the specified diameter (2mm).

Cut off excess.

Pay close attention here!

LR Assemble left and right sides the same way.

CA Apply instant glue (CA glue, super glue).

Cut off shade portion.

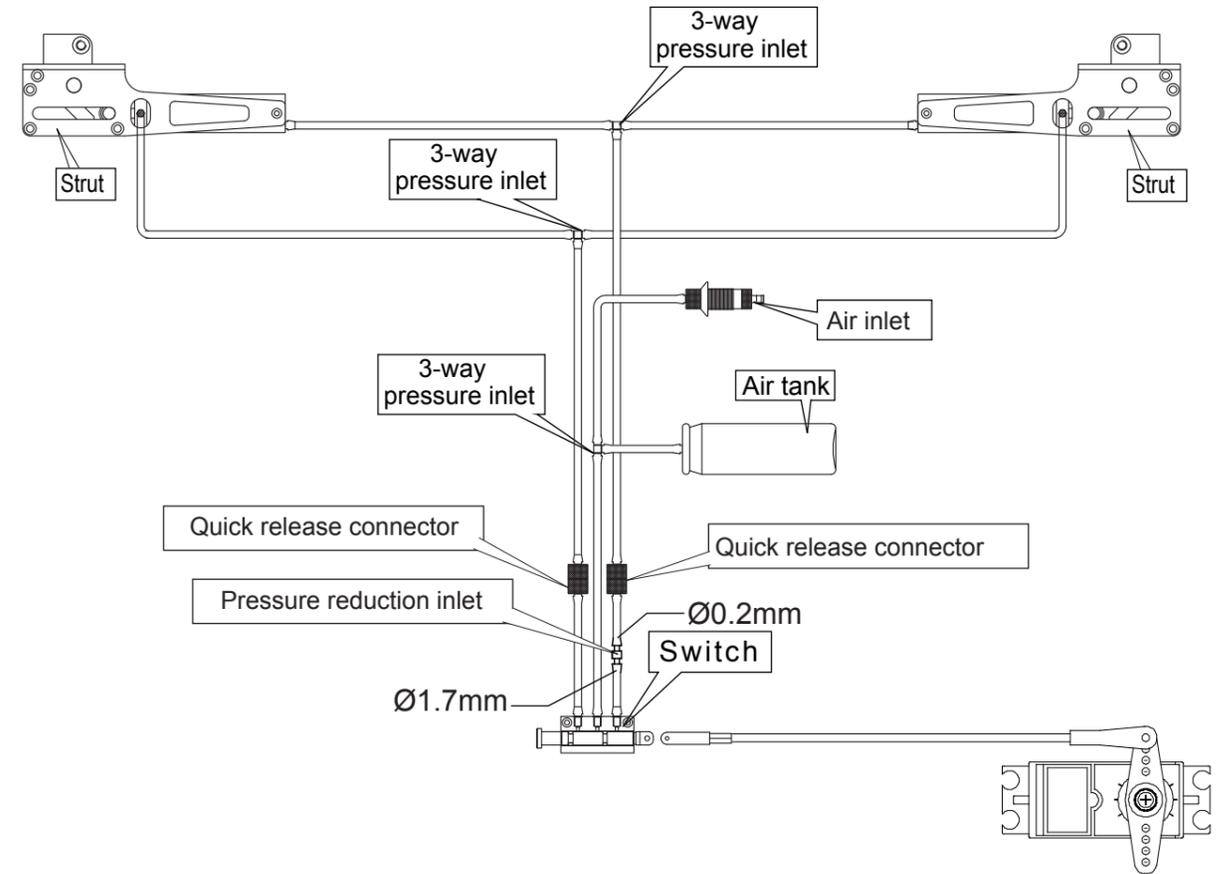
Ensure smooth non-binding movement while assembling.

X Must be purchased separately!

Do not overlook this Symbol!
Warning!

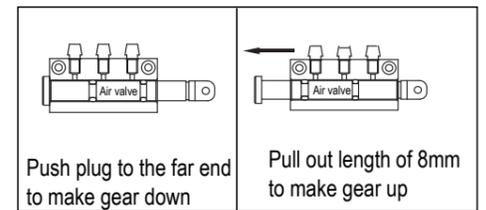
Two wheel retract system

Warning! Make sure to assemble retracts as instructed below.



Warning! Please insure the sealing of the retract system before flight.
Please notice the inner diameter for each side of the pressure reduction inlet.

- | | |
|--------------------------|----------------------------------|
| Strut (90°) ----- 2 | Switch ----- 1 |
| Retainer ----- 1 | Air line (3000mm) ----- 1 |
| Clevis ----- 1 | 3-way pressure inlet ----- 3 |
| Rod (2X300mm) ----- 1 | Air tank ----- 1 |
| TP Screw(2x14mm) ----- 2 | Air inlet ----- 1 |
| | Quick release connector ----- 2 |
| | Pressure reduction inlet ----- 1 |



AB Apply epoxy glue.

LR Assemble left and right sides the same way.

Pay close attention here!

CA Apply instant glue (CA glue, super glue).

Ensure smooth non-binding movement while assembling.

Cut off shaded portion.

Do not overlook this symbol!

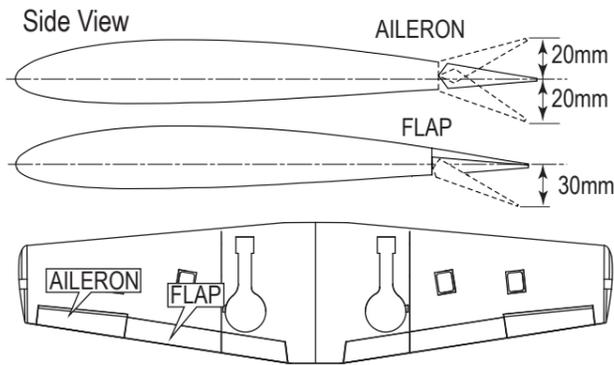
Warning!

81

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.

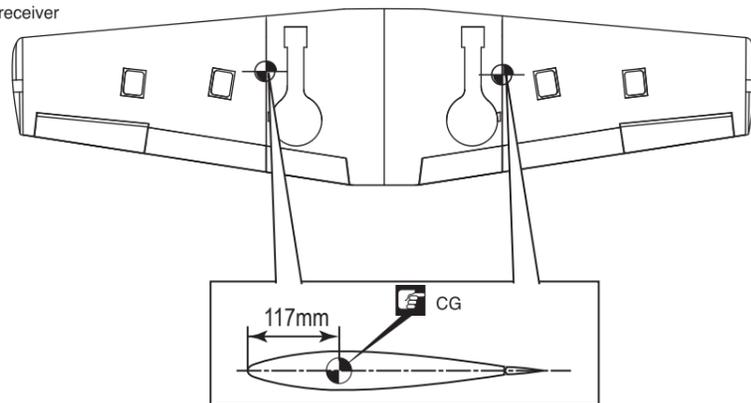


82

The centre of the Gravity.



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



Warning!

NEVER fly the model without well balancing.

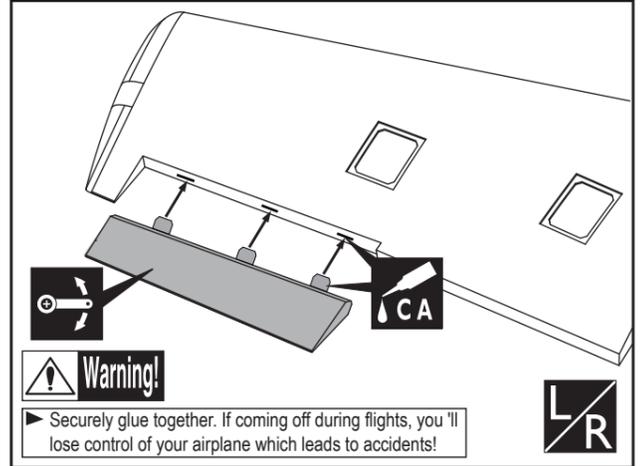


Accessory list for the coming installation steps.

- Clevis ----- 2
- Retainer ----- 2
- Rod (2x300mm) ----- 2
- TP Screw (2.3x12mm) ----- 8
- Screw (3x40mm) ----- 2
- Servo tray(68.5x56.5x2mm) ----- 4
- Wooden Block(20x20x8mm) ----- 4
- Pin hinge(24x24mm) ----- 6
- Washer(3x15mm) ----- 2
- Lock Nut (3mm) ----- 2
- Washer(3x15mm) ----- 2

3

Assemble the aileron to main wing with instant type CA glue. Be careful to ensure the moving parts of the hinges are able to move freely.



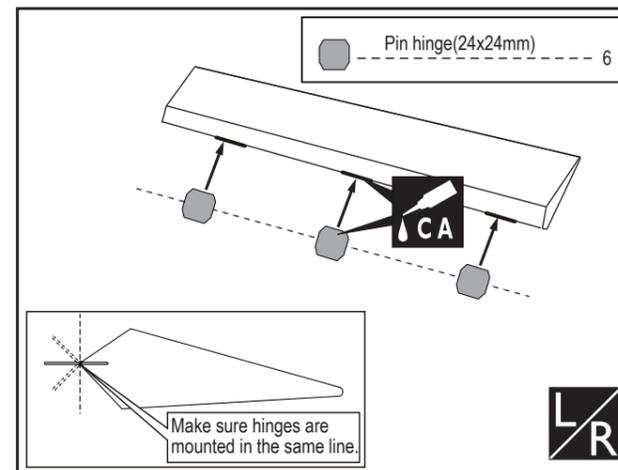
Warning!

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



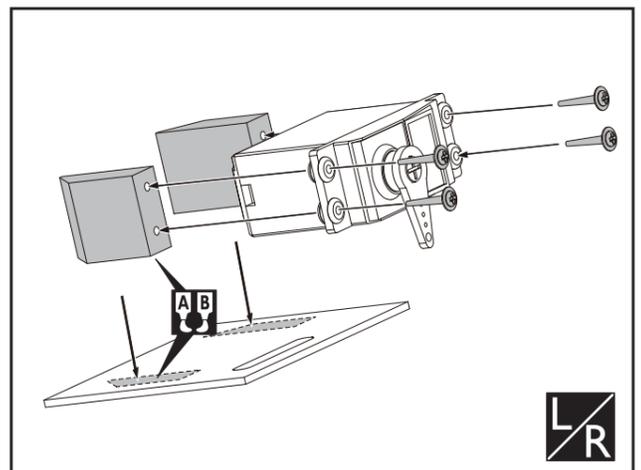
1

Apply instant type CA glue to aileron and pin hinge.



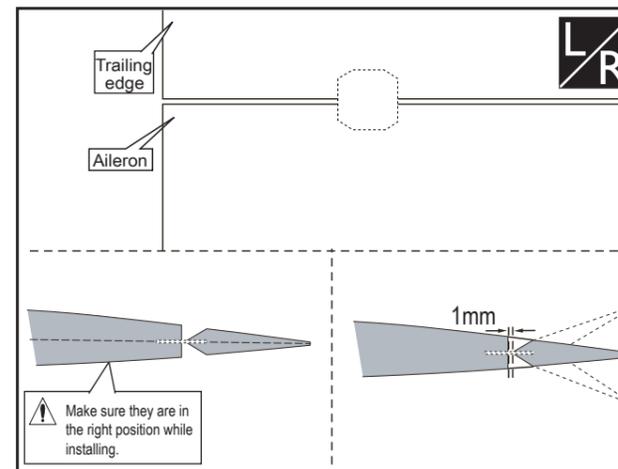
4

Install the servo as the illustration below



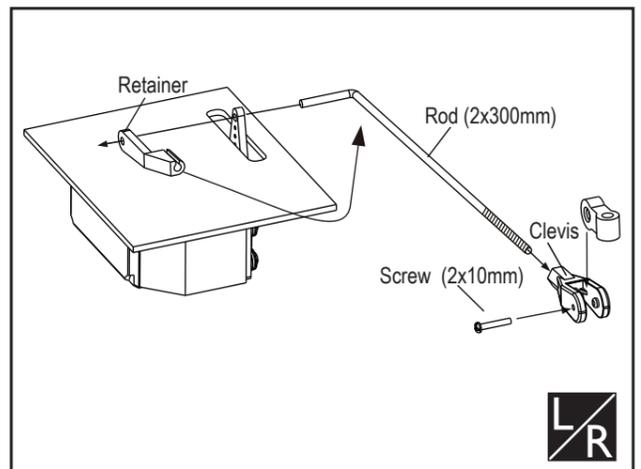
2

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



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!

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).

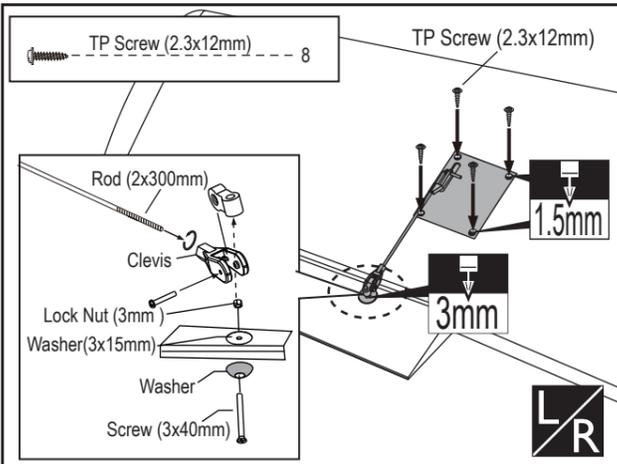


Ensure smooth non-binding movement while assembling.

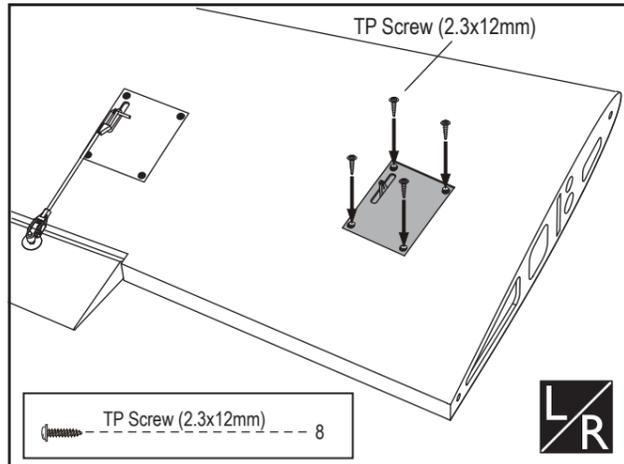


Cut off shaded portion.

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



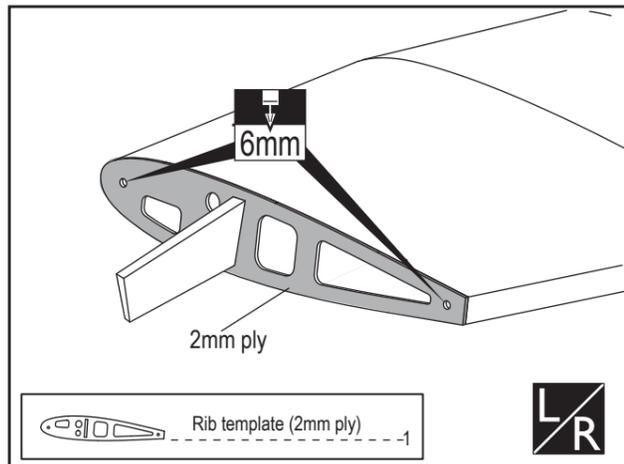
8 Secure the servo with servo tray.



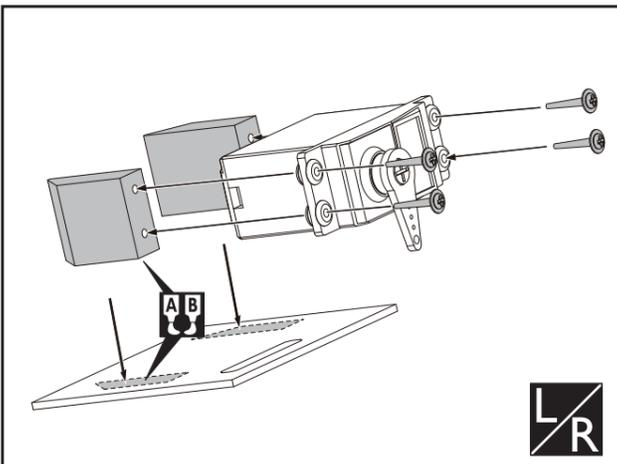
Accessory list for the coming installation steps.

Clevis	2	Washer(3x15mm)	2
Retainer	2	Lock Nut (3mm)	2
Rod (2x300mm)	2	Washer(3x15mm)	2
TP Screw (2.3x12mm)	8	Main wing joiner	2
Screw (3x40mm)	2	Rib template (2mm ply)	2
Servo tray(68.5x56.5x2mm)	4	Wood dowel (6x30mm)	4
Wooden Block(20x20x8mm)	4	Metal wire (1.8x290mm)	2
Pin hinge(36x20x1mm)	10		

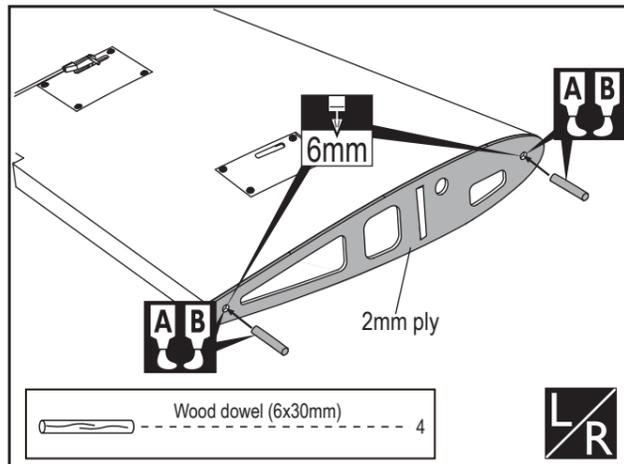
9 According to the rib template drill holes to the relevant position in the mid wing.



7 Install the servo as the illustration below



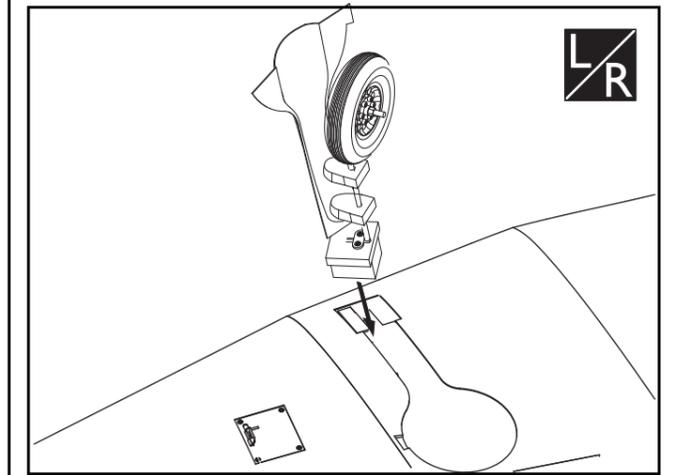
10 According to the rib template drill holes to the wing root and epoxy wood dowel in them.



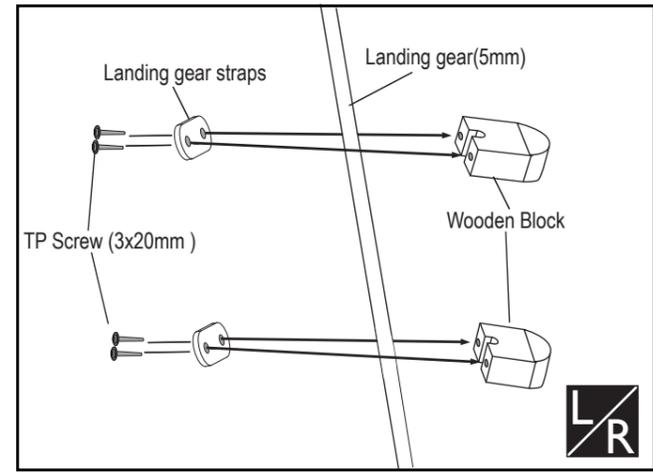
Accessory list for the coming installation steps.

Wheel (100mm)	2
Collar (5mm)	4
Wooden Block(43x28x26mm)	2
Landing gear(5mm)	1
TP Screw (3x20mm)	12
Landing gear straps	6
Gear door	1
Wooden Block(25x15x13mm)	2
TP Screw (2.6x14mm)	4
Washer (3x6mm)	12

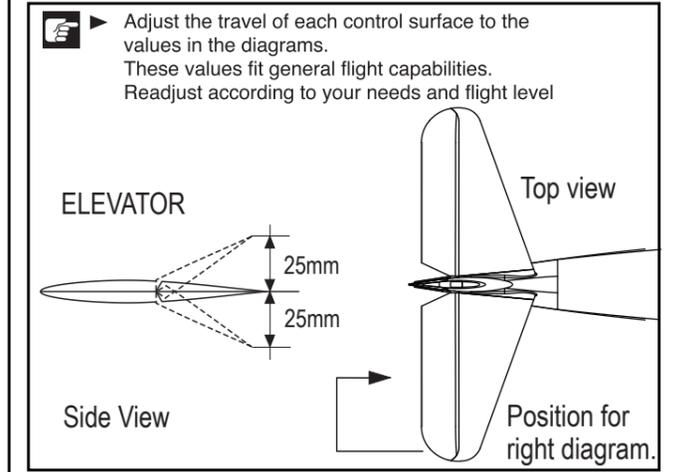
78 Epoxy the wheels to the wings steadily.



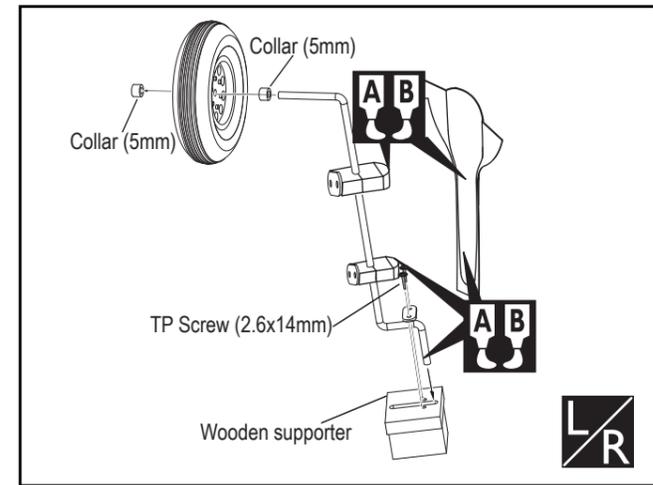
76 Fix the wooden block to appropriate position in the landing gear.



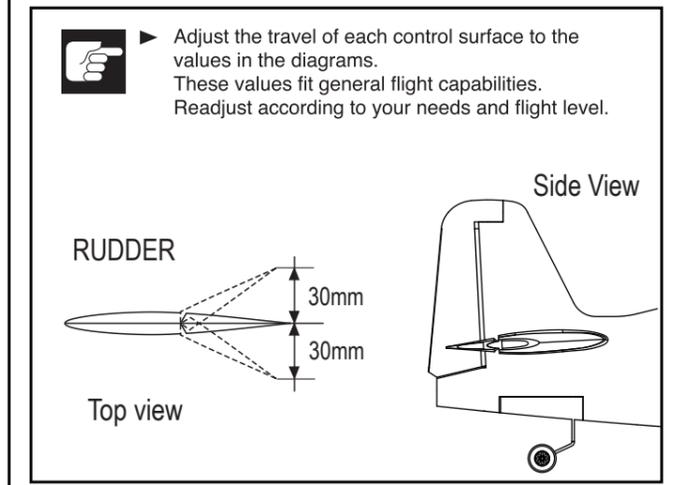
79 Adjustment.



77 Epoxy the wheel pants to the wooden blocks steadily.



80 Adjustment.



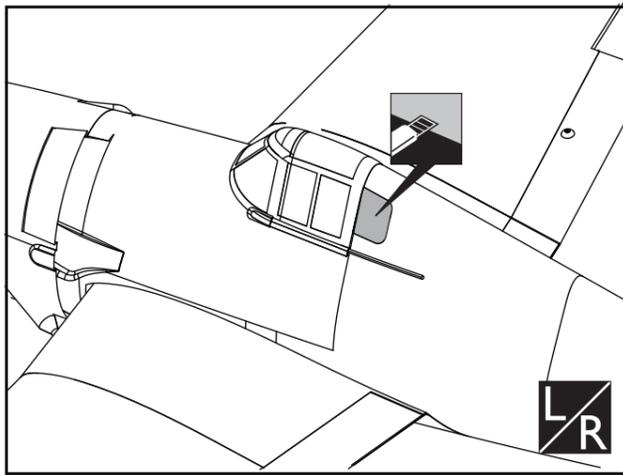
Apply epoxy glue. Assemble left and right sides the same way. Pay close attention here! Do not overlook this symbol!

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

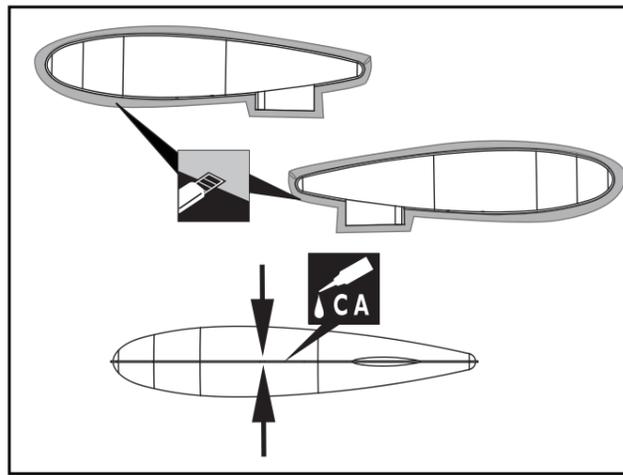
Apply epoxy glue. Assemble left and right sides the same way. Pay close attention here! Do not overlook this symbol!

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

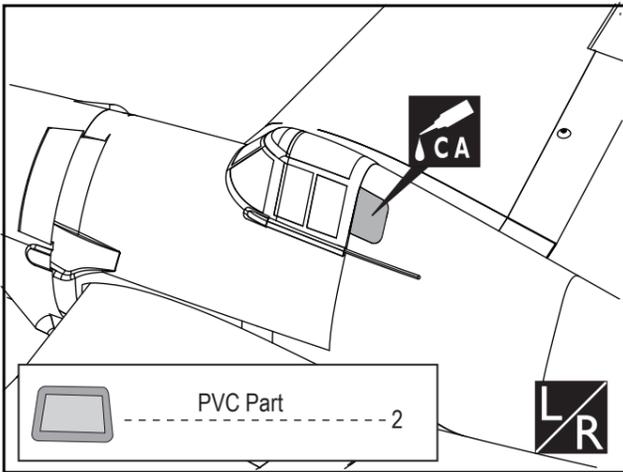
70 Cut off the shaded portion carefully from the fuselage.
(This step decided by customers themselves)



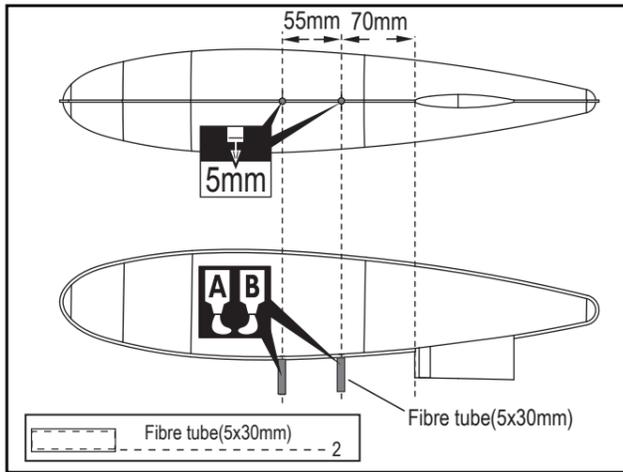
73 Trim the shaded portion carefully and glue the two parts hardly together with CA glue.



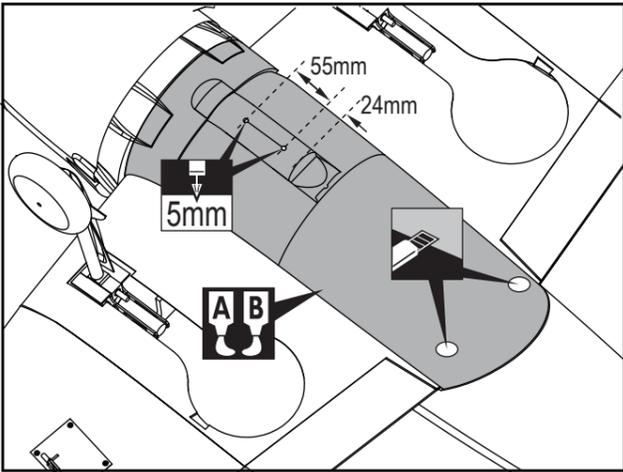
71 Glue the PVC parts to the fuselage carefully.
(This step decided by customer themselves)



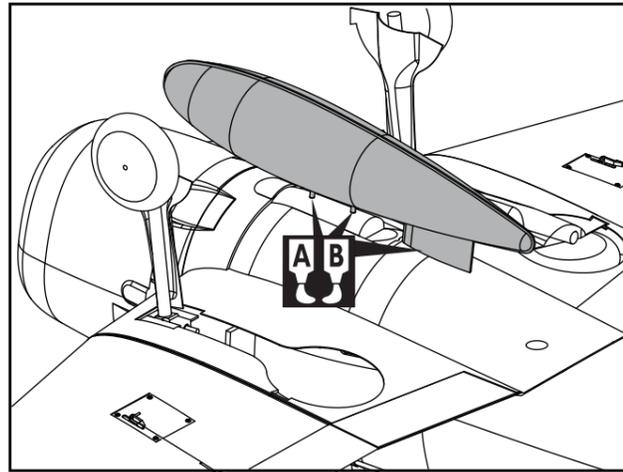
74 Drill holes to appropriate position in the bomb and epoxy fibre tube in them.



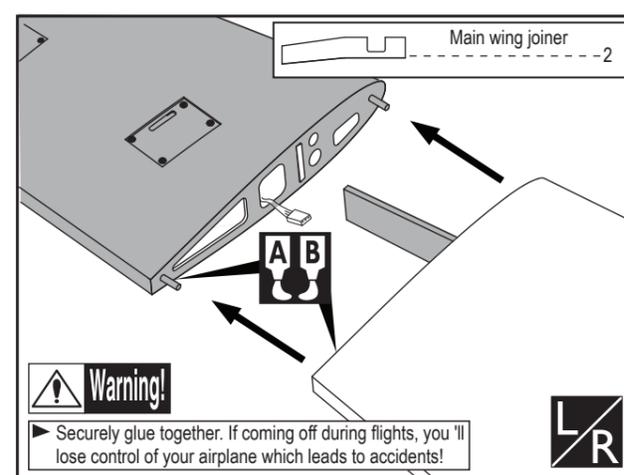
72 Epoxy the bottom cover to mid wing and drill holes to appropriate position.



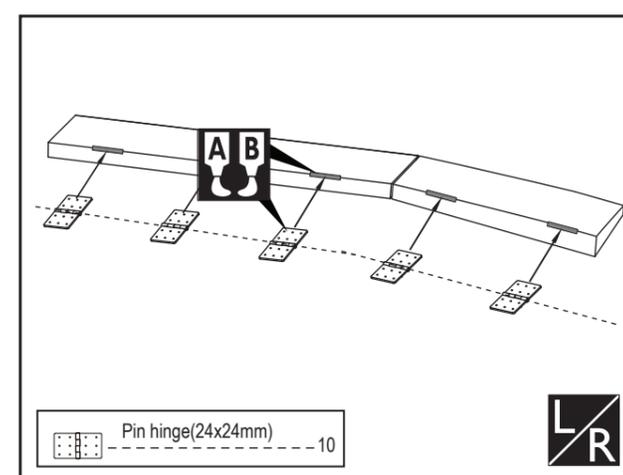
75 Epoxy the drop tank to the bottom cover.



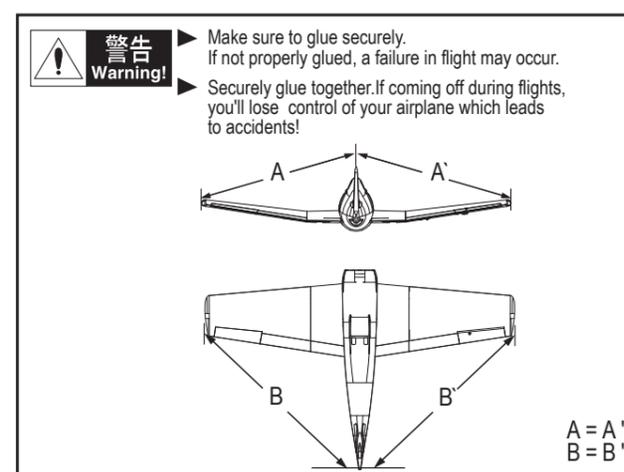
11 Epoxy the main wing to the mid wing through the main wing joiner and wood dowel.



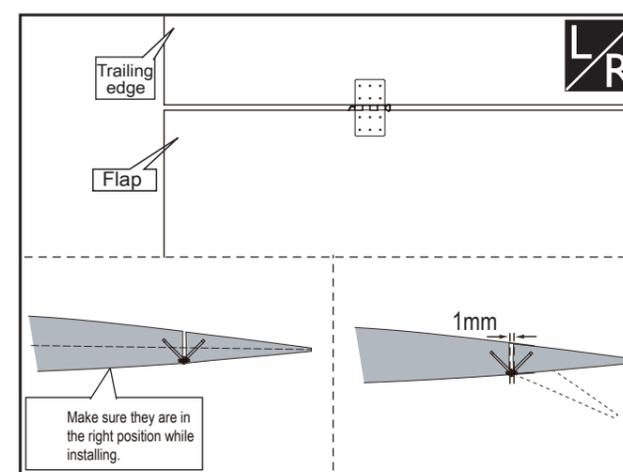
14 Epoxy the pin hinges to the flaps tightly.



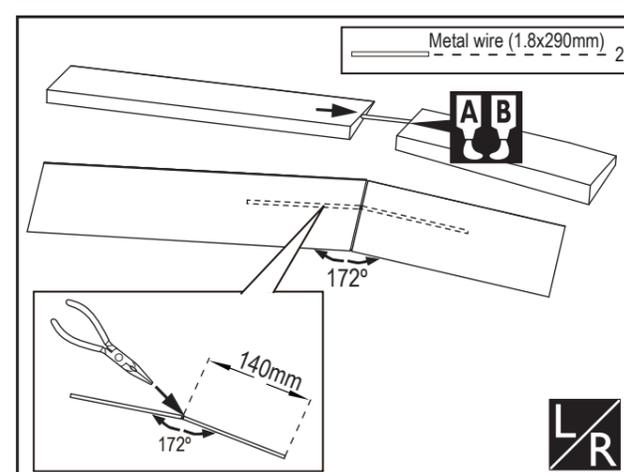
12 Assemble the wings.



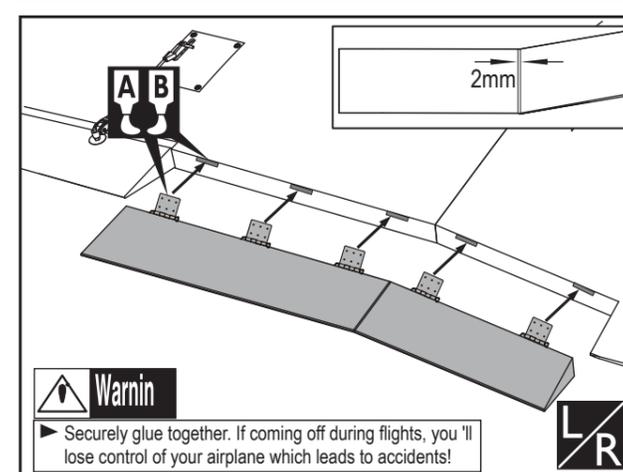
15 Keep some space about 1mm width between trailing edge and flap.



13 Connect the flap by a bended metal wire.



16 Epoxy the flaps to the wings as illustration.



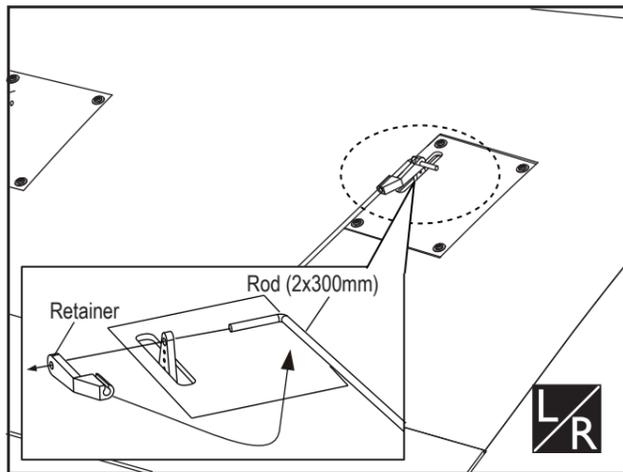
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

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

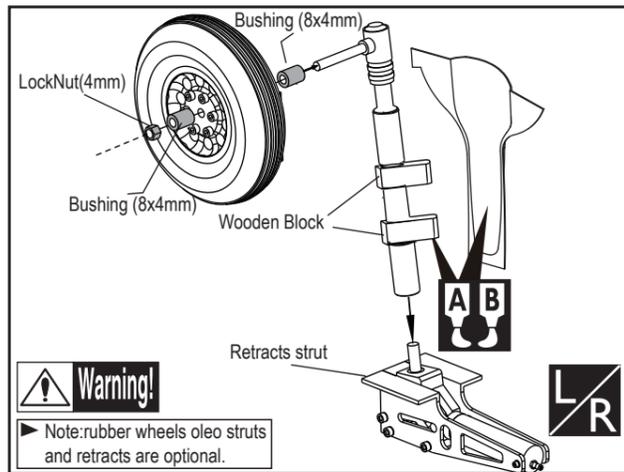
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

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

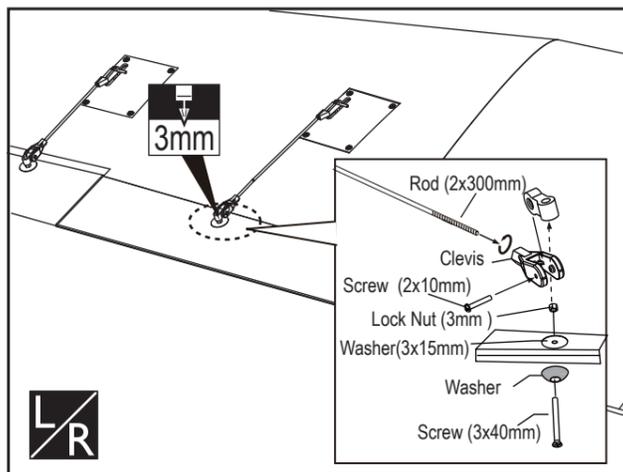
17 Connect the retainer and the servo arm with linkage as below.



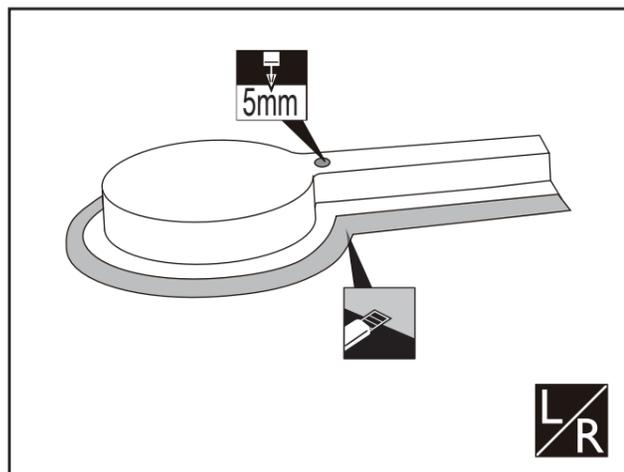
19 Assemble the wheel and the gear door to the retract. Take care to assemble the wheel pants to right sides.



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



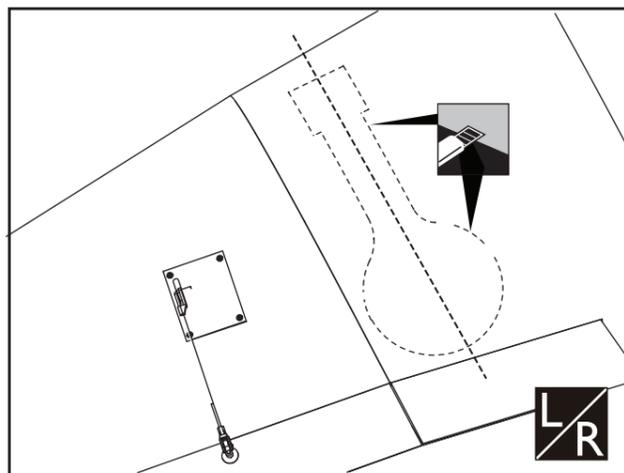
20 Cut away the surplus parts of plastic cover carefully along the shaded line.



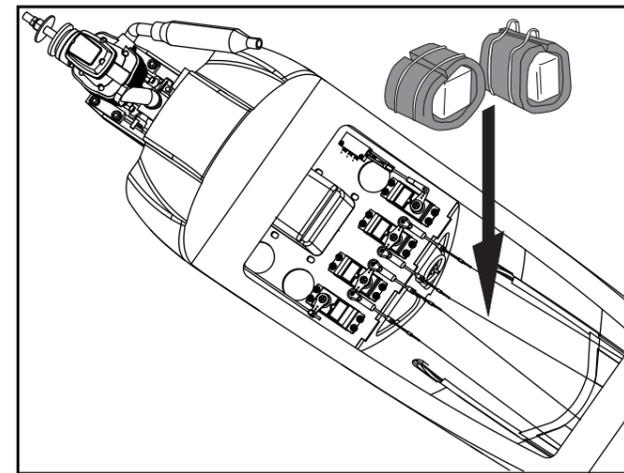
Accessory list for the coming installation steps.

	TP Screw(3x20mm)	8
	Washer(3x6mm)	8
	Wheel (100mm)	2
	Bushing (8X4mm)	4
	LockNut (4mm)	2
	Wooden Block	4
	Gear door	1
	Screw (6x50mm)	2
	Blind Nut (6mm)	2
	Wood dowel (6x50mm)	2

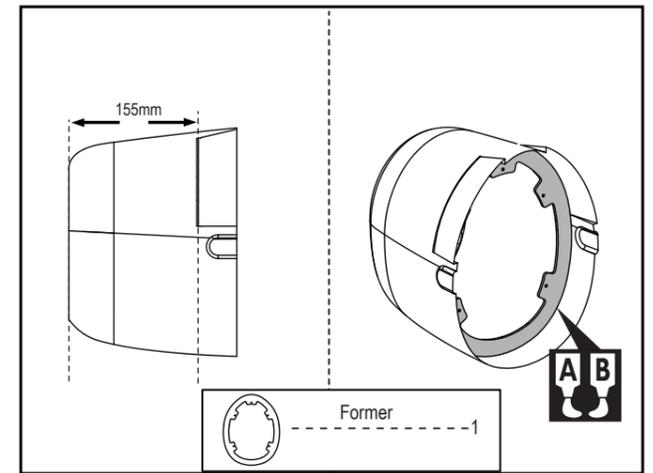
21 Cut away the shaded portion for assembling the gear house.



65 Install the receiver and the battery in the fuselage.



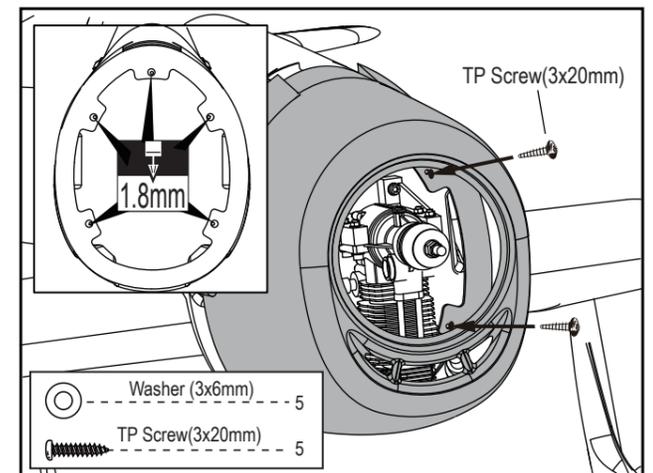
67 Epoxy the former to appropriate position in the cowl.



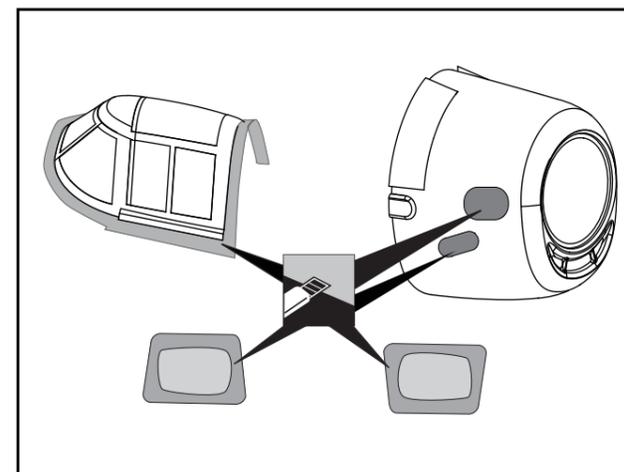
Accessory list for the coming installation steps.

	PVC Part	2
	Canopy	1
	TP Screw (2.3x8mm)	6
	Ply (15x15x3mm)	6
	Drop tank	1
	Bottom cover	1
	Former	1
	Fibre tube(5x30mm)	2
	Washer (3x6mm)	5
	TP Screw(3x20mm)	5

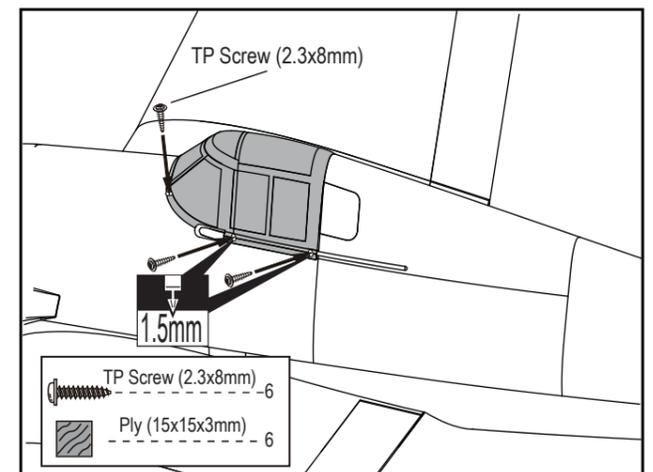
68 Assemble the cowl to fuselage with screw.



66 Cut the shade portion off the canopy and cowl carefully.



69 Epoxy the plies in the inside of the fuselage as below and assemble the canopy to the fuselage with TP screw.



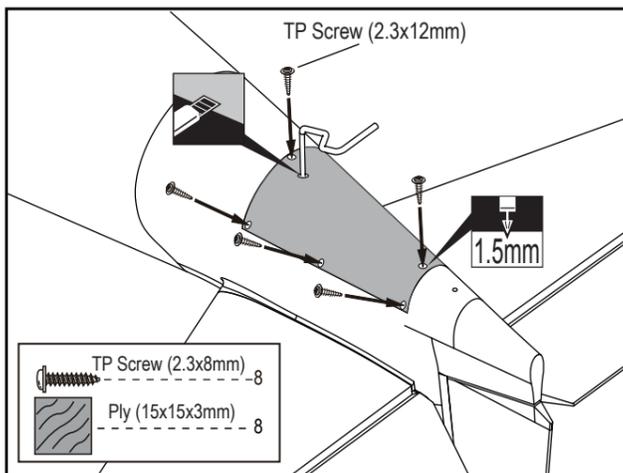
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

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

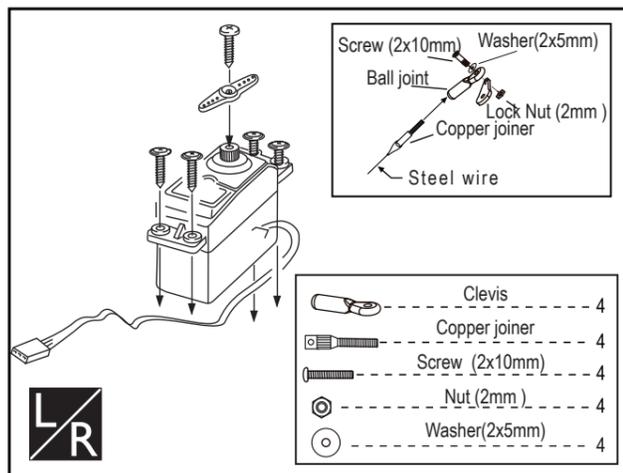
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

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

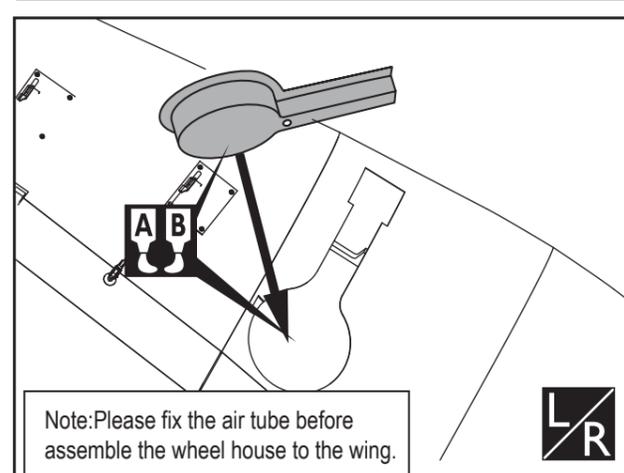
60 Assemble the tail fuselage cover with TP screw.



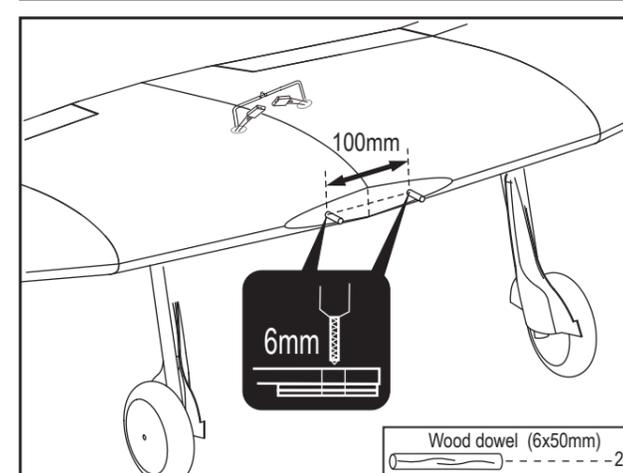
62 Install the servo.



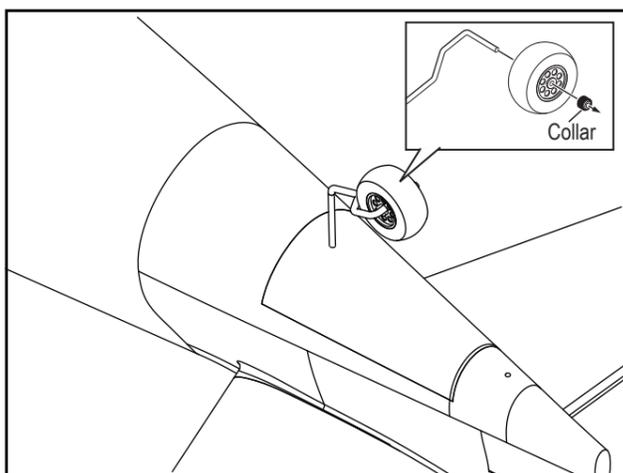
22 Epoxy the gear house to the relevant position.



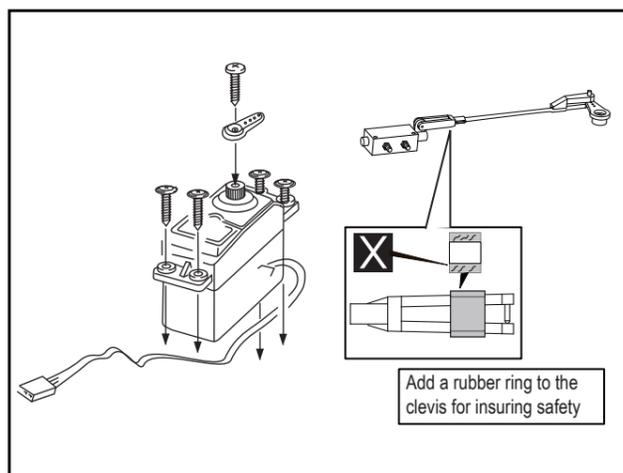
25 Drill holes at appropriate position in the mid wings and fix the wood dowel in them.



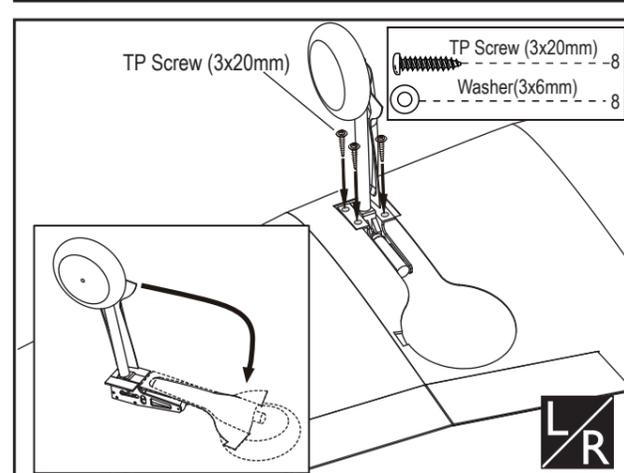
61 Assemble wheel to tail under carriage with collar.



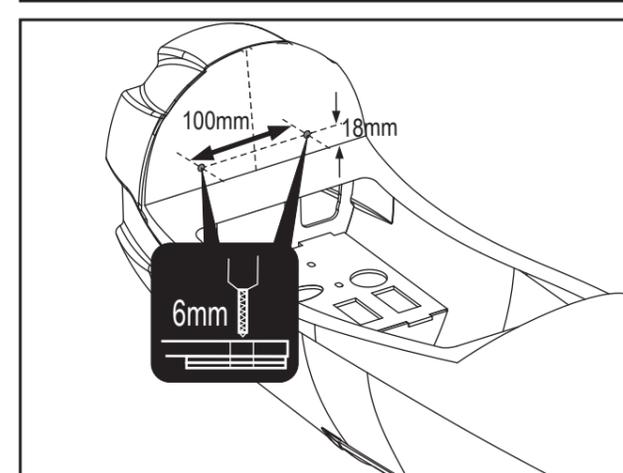
63 Install the servo of swith.



23 Assemble the retract to the mid wing. The sketch maps when the gear up and down.



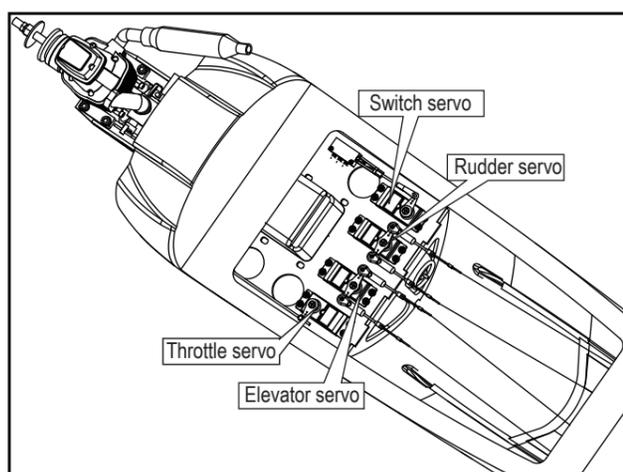
26 Drill holes at relevant position in the fuselage.



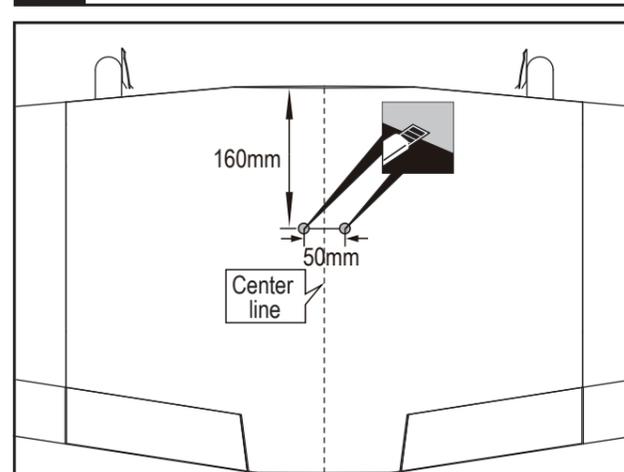
Warning! Accessory list for the coming installation steps.

- Clevis ----- 4
- Copper joiner ----- 4
- Screw (2x10mm) ----- 4
- Nut (2mm) ----- 4
- Washer(2x5mm) ----- 4
- Retainer ----- 1
- Clevis ----- 1
- Rod (2x300mm) ----- 1
- Ring ----- 1
- Air tank ----- 1
- Switch ----- 1

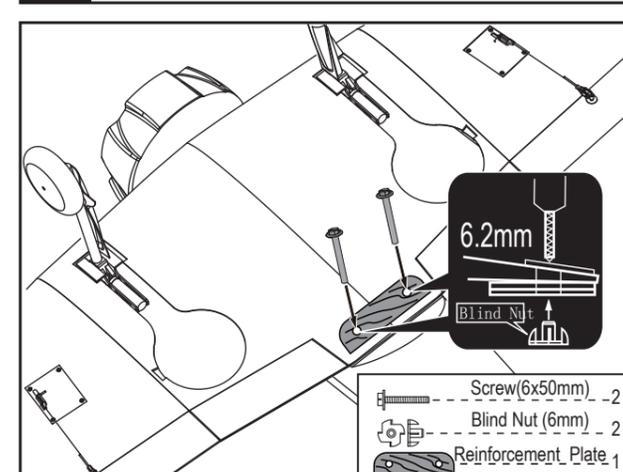
64 The sketch map when the servos install completion.



24 Drill two holes for pulling out the servo extension line.



27 Assemble the wings to the fuselage with screw.



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

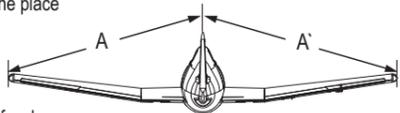
CA Apply instant glue (CA glue, super glue). **Arrow** Ensure smooth non-binding movement while assembling. **Scissors** Cut off shaded portion.

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

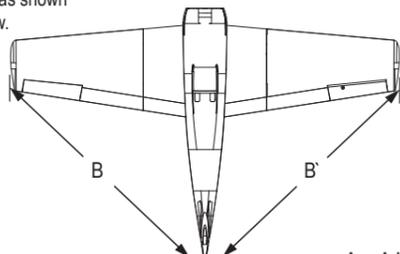
CA Apply instant glue (CA glue, super glue). **Arrow** Ensure smooth non-binding movement while assembling. **Scissors** Cut off shaded portion.

28 Assemble the wings.

▶ Drill 6.2mm holes at the place of main wing.



▶ Install the wing to the fuselage with 6x50mm screws as shown in the diagrams below.

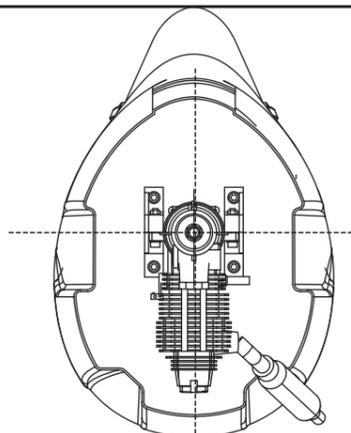


A = A'
B = B'

Accessory list for the coming installation steps.

	Blind Nut (4mm)	4
	Screw (4x35mm)	4
	Screw (4x25mm)	4
	Washer(4x8mm)	12
	Spring Washer (4mm)	4
	Nut (4mm)	4
	Linkage Stopper	2
	Plastic tube (2x400mm)	1
	Engine mount (68x105mm)	2
	Fuel tank (550cc)	1

29 The front view of the engine install completion.



In case of 2-cycle & 4-cycle engine.

Apply epoxy glue.

Assemble left and right sides the same way.

Pay close attention here!

Do not overlook this symbol!

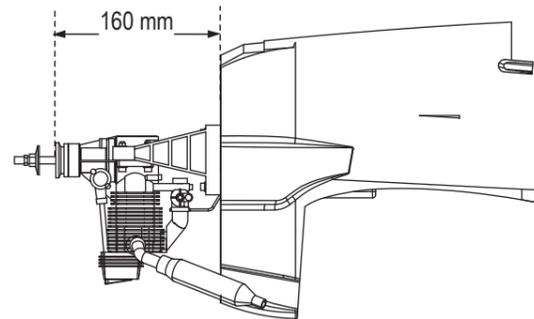
Apply instant glue (CA glue, super glue).

Ensure smooth non-binding movement while assembling.

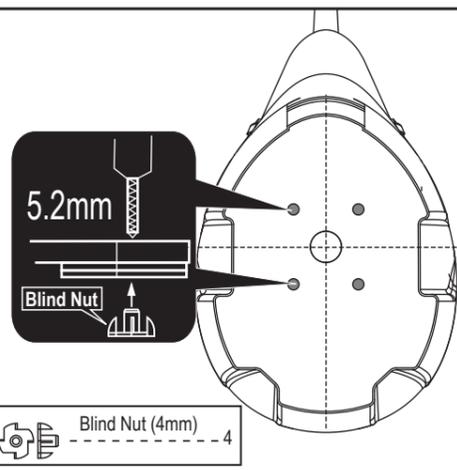
Cut off shaded portion.



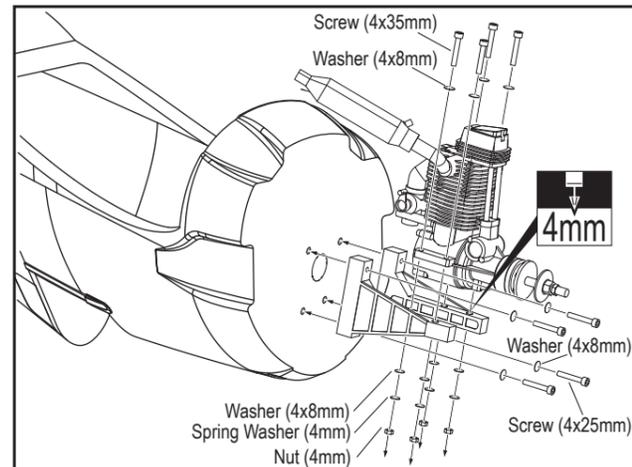
30 The side view of the engine install completion.



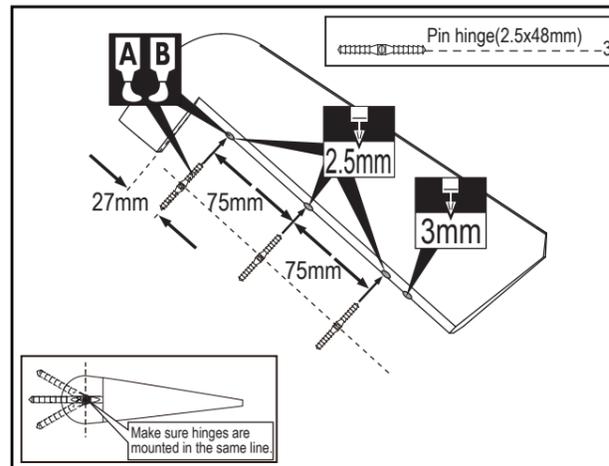
31 Drill four holes and set blind nut at diameter in the firewall for mounting the engine.



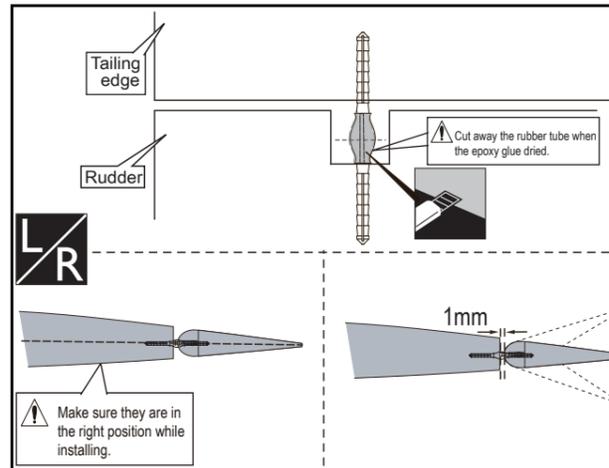
32 Install the engine carefully.



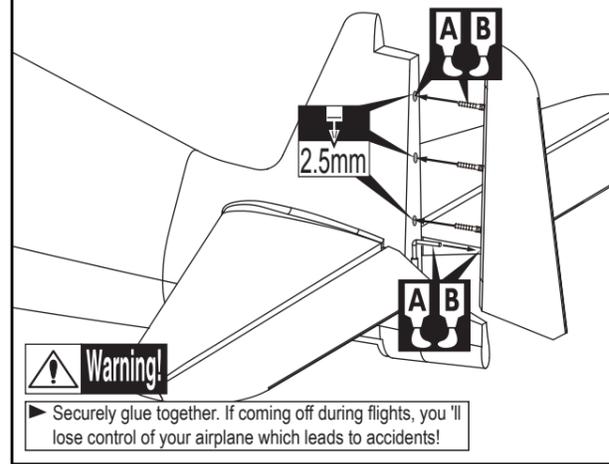
55 Apply instant type CA glue to rudder and pin hinge



56 Keep some space about 1mm width between the tailing edge and the rudder.



57 Epoxy the rudder to the fuselage steadily.



Apply epoxy glue.

Assemble left and right sides the same way.

Pay close attention here!

Do not overlook this symbol!

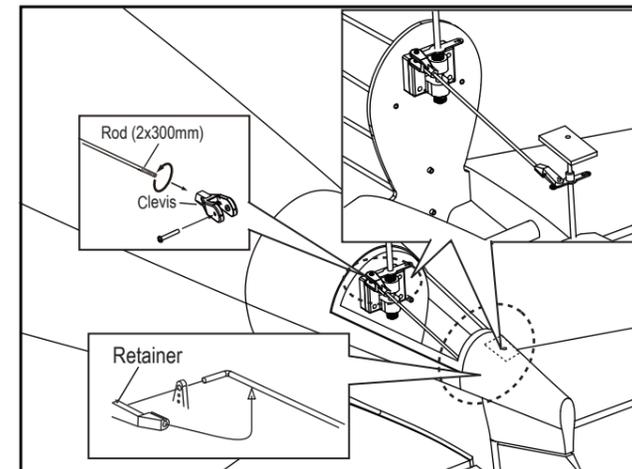
Apply instant glue (CA glue, super glue).

Ensure smooth non-binding movement while assembling.

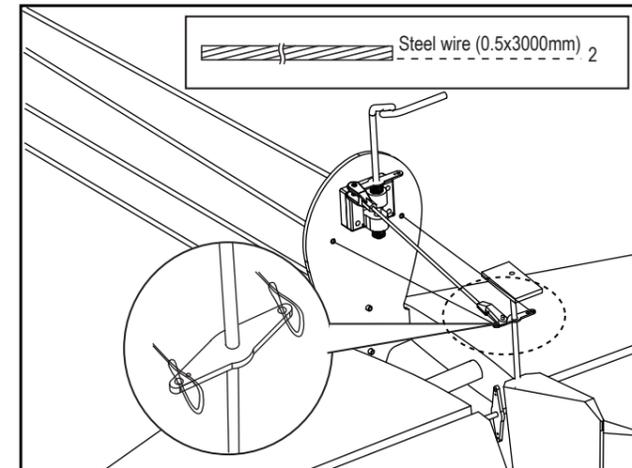
Cut off shaded portion.



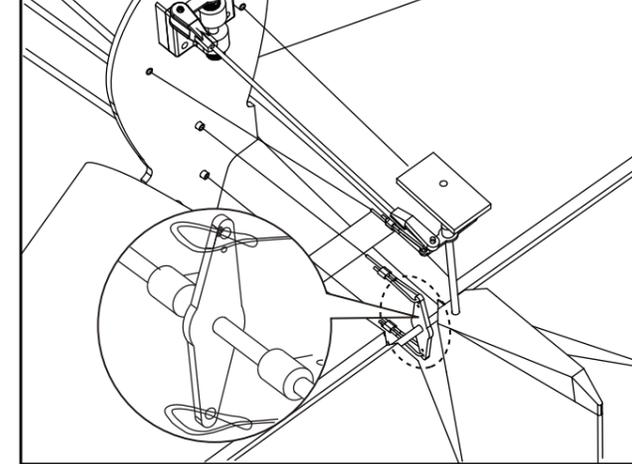
58 The sketch map for connecting the arms in tail landing gear and the arm for rudder.



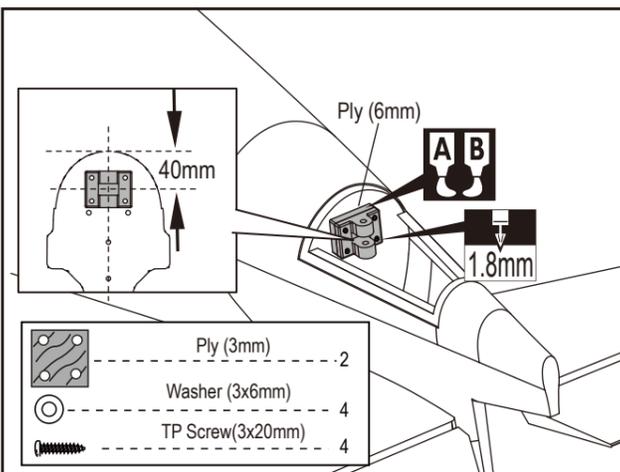
59 The sketch map of steel wire assembled to the arms for rudder.



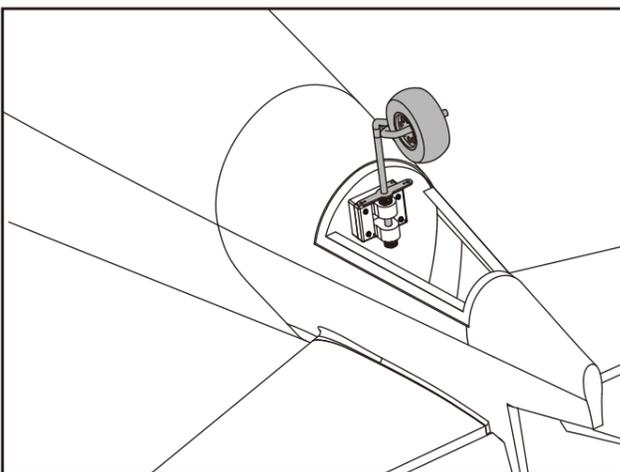
60 The sketch map of steel wire assembled to the arms of U-style wire.



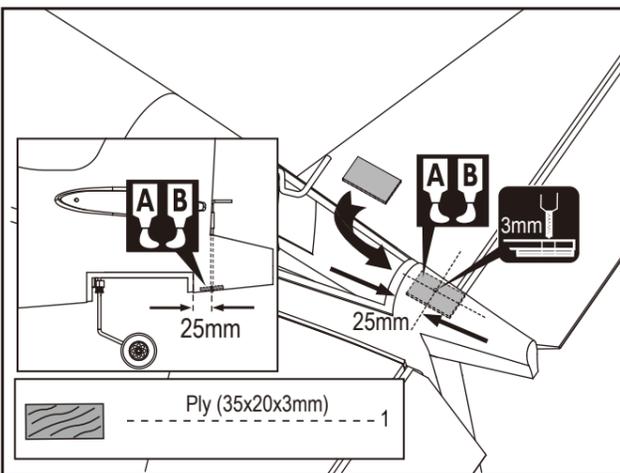
49 The sketch map of assembling the wheel steering mount to appropriate position in the fuselage.



50 The sketch map when tail wheel assemble completion.



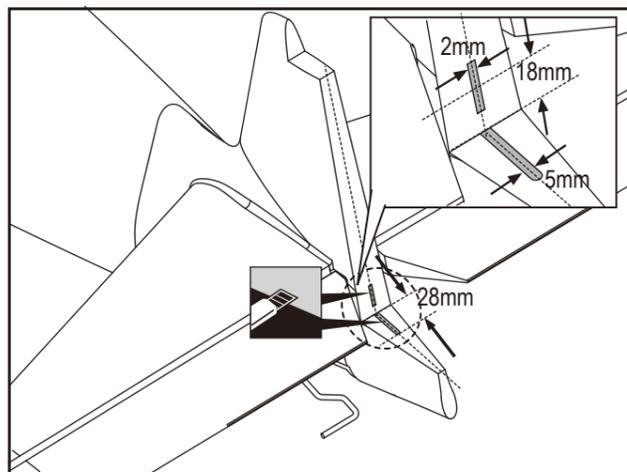
51 Epoxy a ply to appropriate position in the fuselage as below and drill a hole in right point.



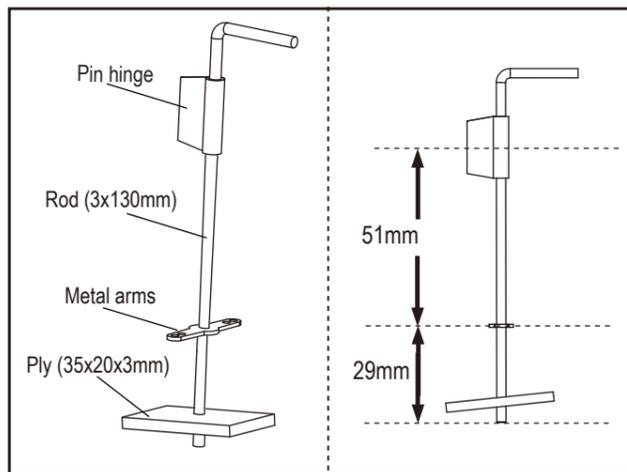
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

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

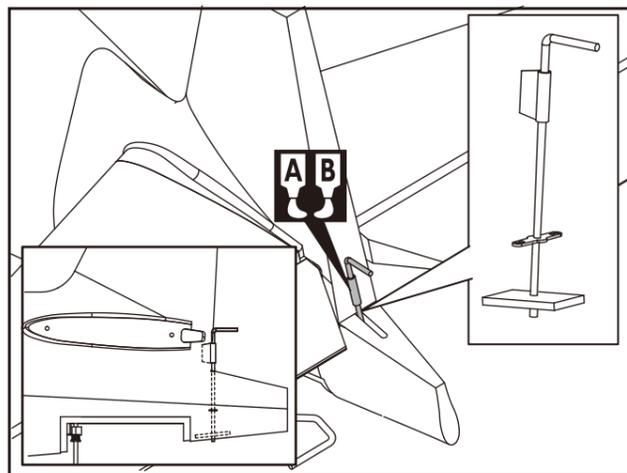
52 Trim slots carefully in the fin and tail fuselage as below.



53 Notice the position of pin hinge, Metal arm on the metal wire.



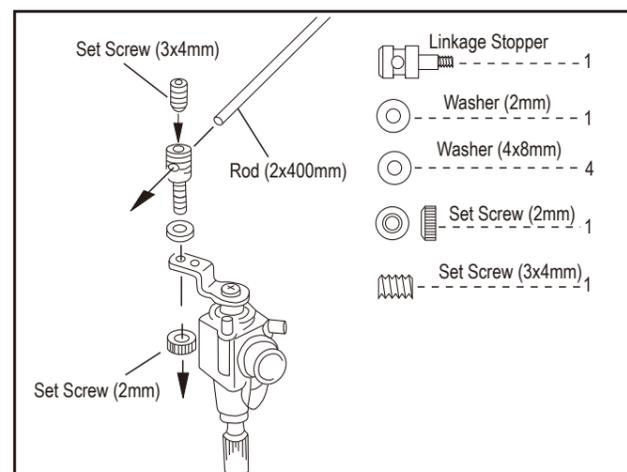
54 Epoxy the pin hinge to the vertical fin as below.



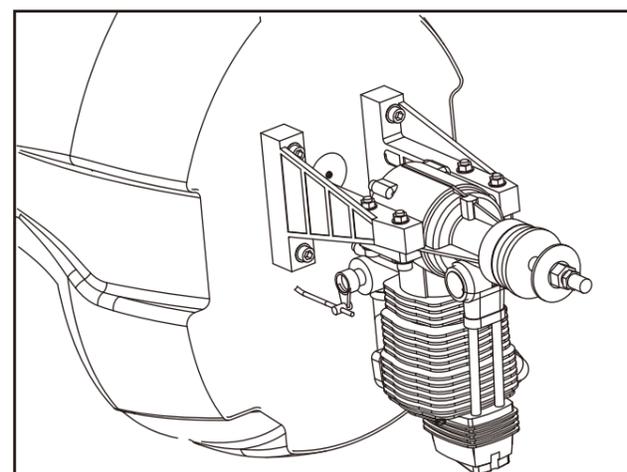
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

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

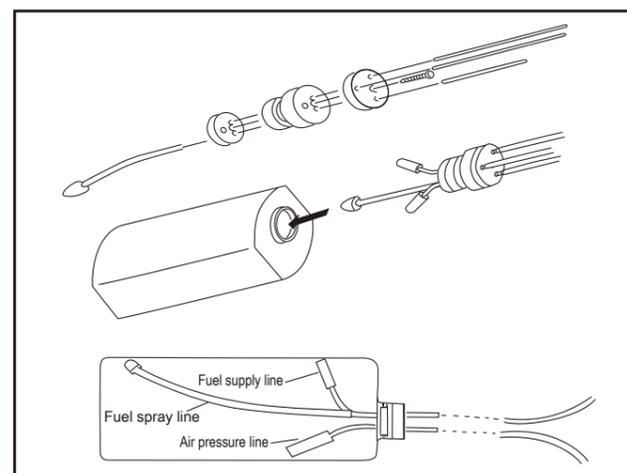
33 Assemble the accelerator push rod to the engine.



34 The sketch map when the engine install completion.



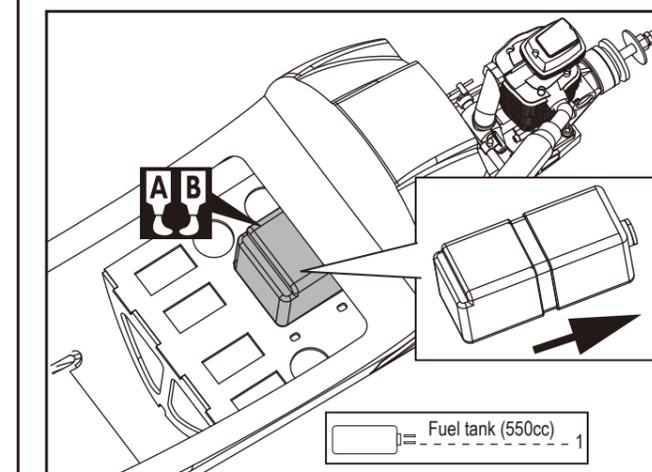
35 Assembly of the fuel tank. Notice the position of the lines in the tank.



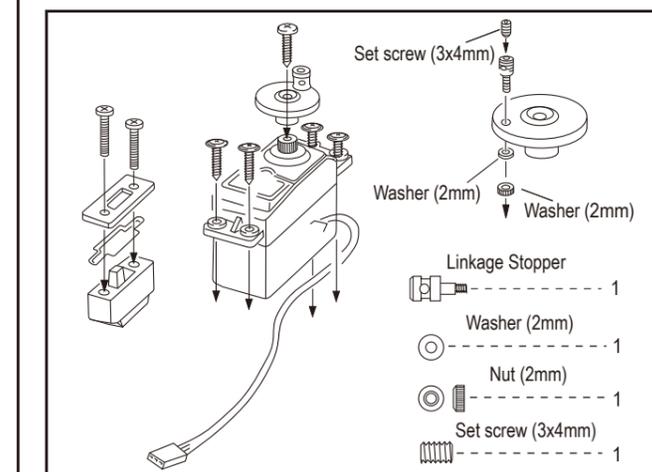
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

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

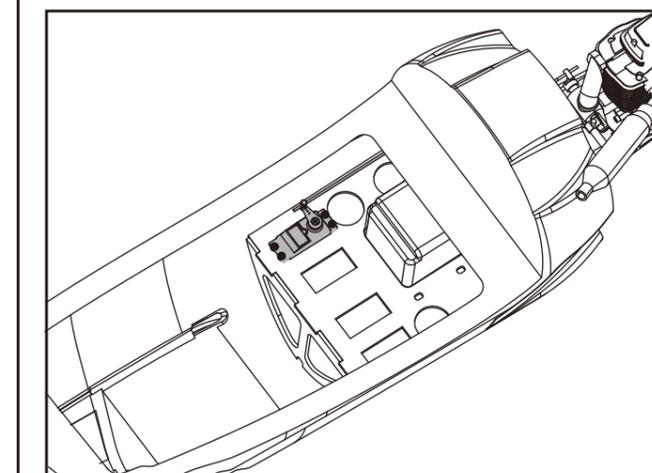
36 Mount the fuel tank to the fuselage.



37 Install the throttle servo.



38 Assemble the throttle servo to the fuselage.



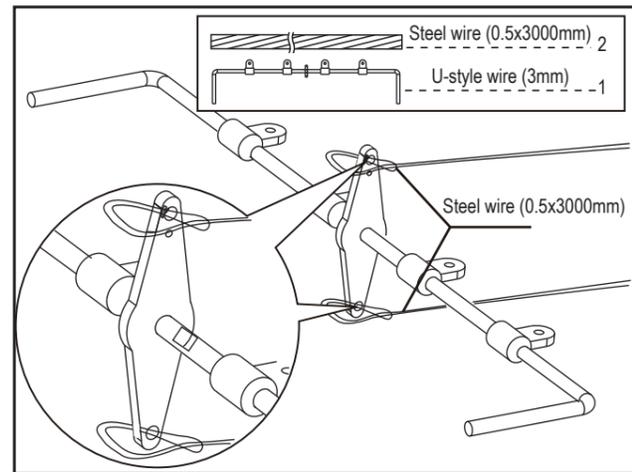
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

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

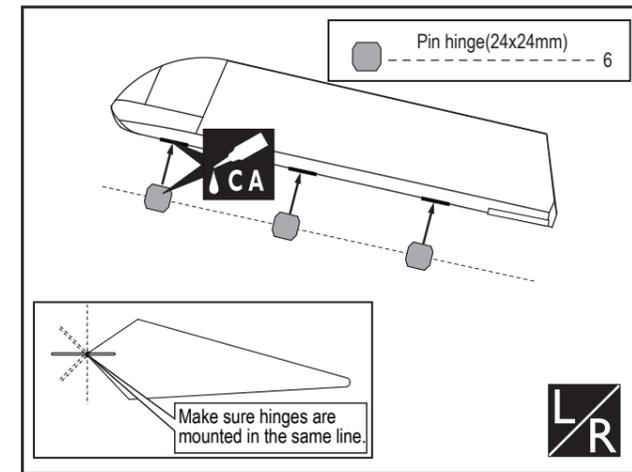
! Accessory list for the coming installation steps.

- Stab joiner(12x230mm) --- 1
- Pin hinge(24x24mm) --- 6
- Metal dowel (4x30mm) --- 4
- Rib template (2mm ply) --- 1
- Steel wire (0.5x3000mm) --- 2
- U-style wire (3mm) --- 1

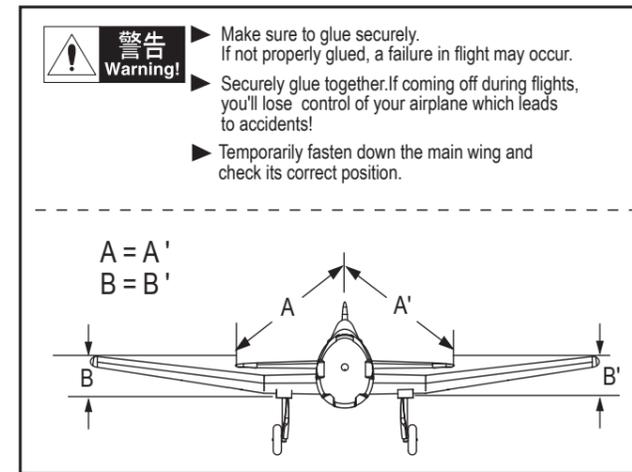
41 connect the fullarm on elevator with steel wire as below.



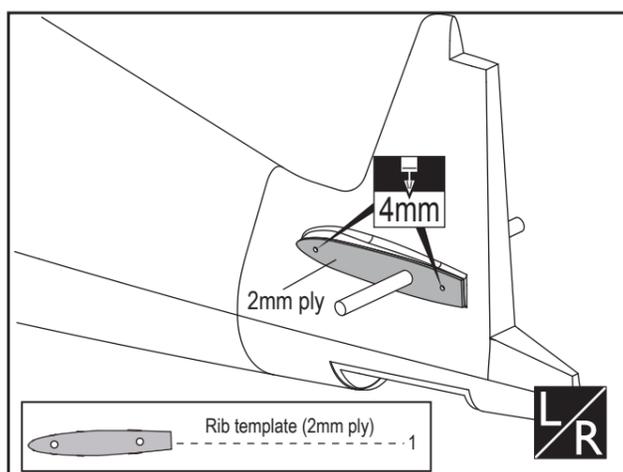
44 Apply instant type CA glue to elevator and pin hinge.



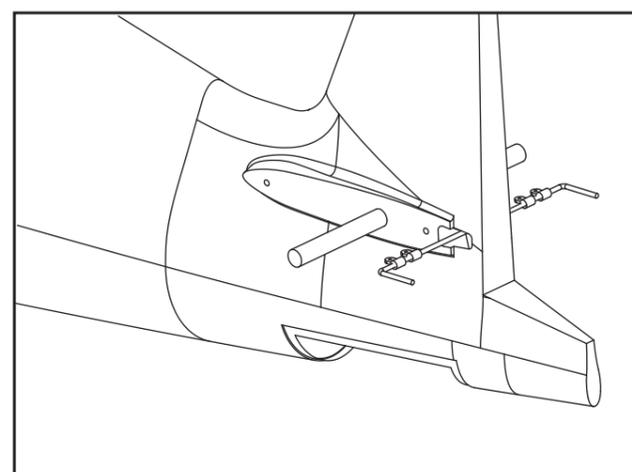
47 Assembly of the stabilizer.



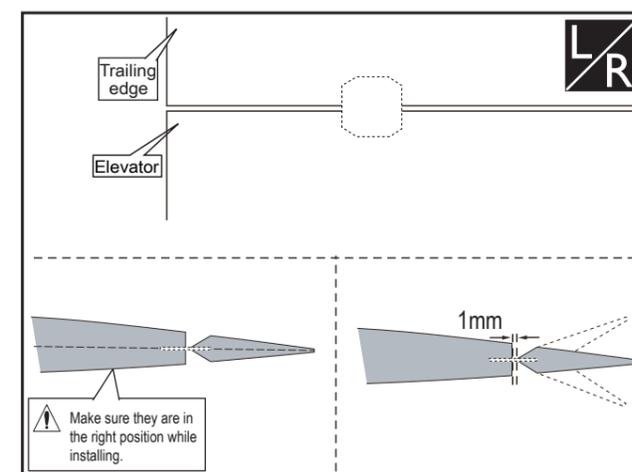
39 According to the rib template drill holes to the tail of fuselage as below.



42 Drill holes to appropriate position in the stabilizer.



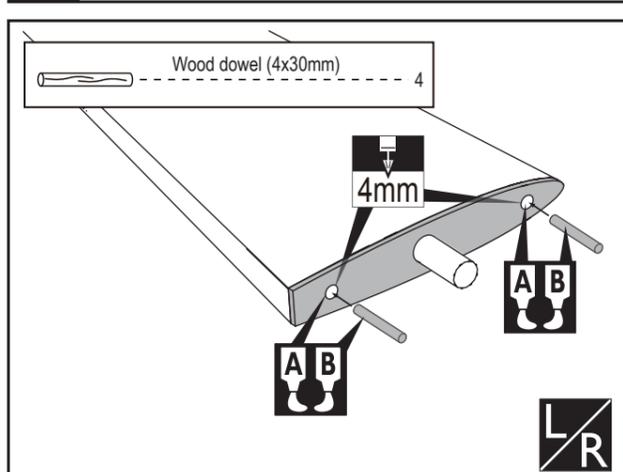
45 Keep some space about 1mm width between elevator and trailing edge.



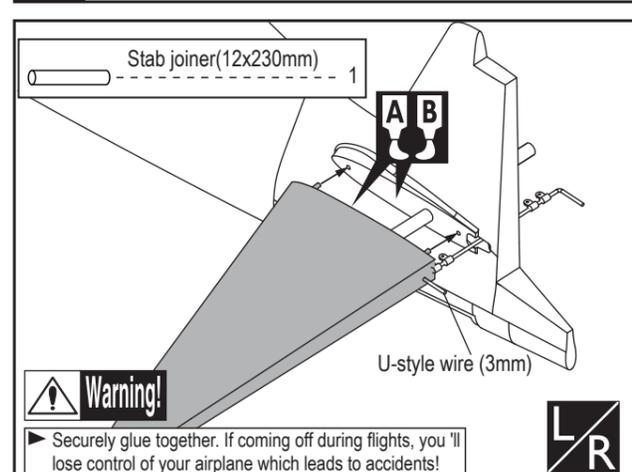
! Accessory list for the coming installation steps.

- TP Screw (2.3x8mm) --- 8
- Rod (2X257mm) --- 1
- Ply (15x15x3mm) --- 8
- Steel wire (0.5x3000mm) --- 2
- Retainer --- 1
- Clevis --- 1
- Nose arm(3mm) --- 1
- Pin hinge(2.5x48mm) --- 3
- Washer (3x6mm) --- 4
- TP Screw(3x20mm) --- 4
- Tail landing gear(3x105mm) --- 1
- Tail landing gear(3mm) --- 1
- Ply (35x20x3mm) --- 1
- Tail wheel (45mm) --- 1
- Collar (3mm) --- 3
- Ply (6mm) --- 1

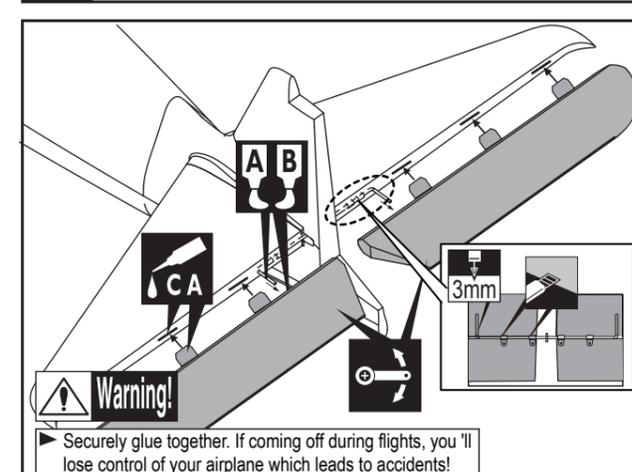
40 Drill two holes at the stabilizer root base on rib template and epoxy the wood dowel in them.



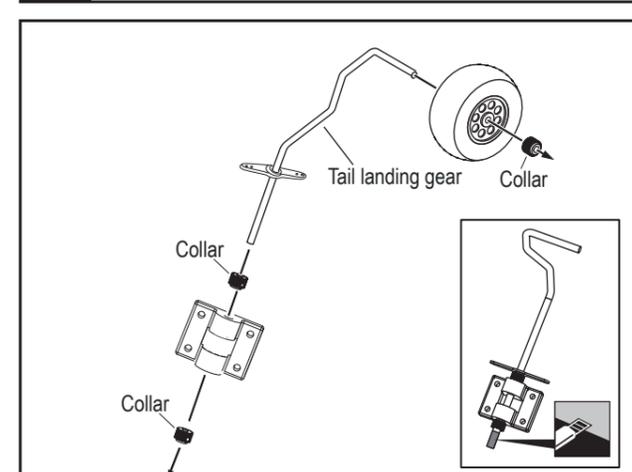
43 Install the U-style wire to appropriate position in the tail of fuselage and assemble the stabilizer to fuselage as illustration.



46 Glue the elevator to the stabilizer by CA glue and epoxy glue.



48 Assemble the tail landing gear to the wheel steeling mounts as below.



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

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

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

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