

Before start ,please carefully read the explanations!

DC-3



Specification:

Length	:1790 mm(70.5")
Wing Span	:2640 mm(103.9")
Wing Area	:77.39 sq. dm 8.33 sq. ft
Wing Loading	:116.3 g/sq. dm 38.1 oz/sq. ft
Flying Weight	:9 kg(19.8 lbs)
Radio	:6ch&12 servos
Engine	:70 2-cycle 91 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.

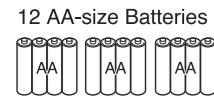
Fly only in open areas and preferably at a dedicated R/C flying site. We suggest having a qualified instructor carefully inspect your airplane before its first flight.Please carefully read and follow all instructions included with this airplane,your radio control system and any other components purchased 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 12 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.

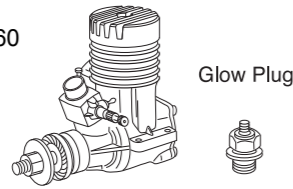


A minimum 6 channel transmitter for airplanes.

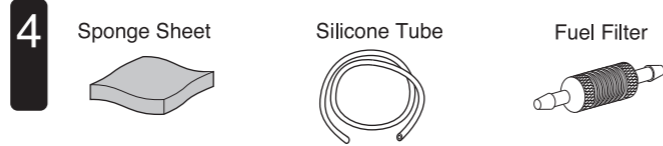
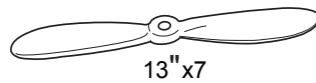
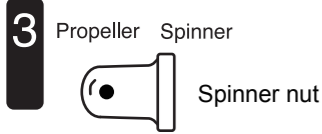


For handling the radio properly, refer to its instruction manual.

2 Engine and Muffler
Model Airplane Engine: 2-cycle .90-160
For float plane, 160 size engine (2C) is highly recommended

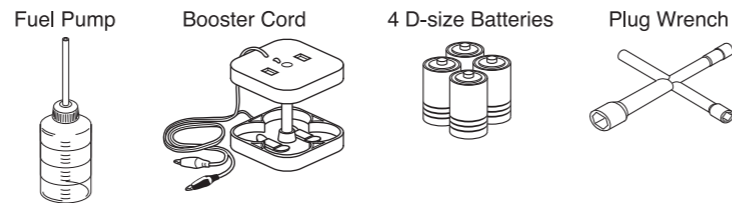
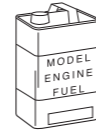


Purchase a propeller that will match your engine.

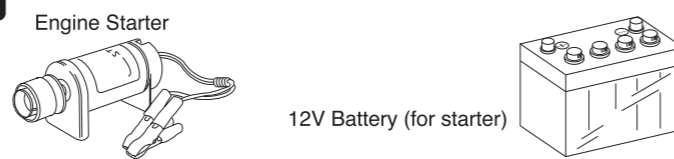


5 Required for engine starting: Glow engine fuel only.

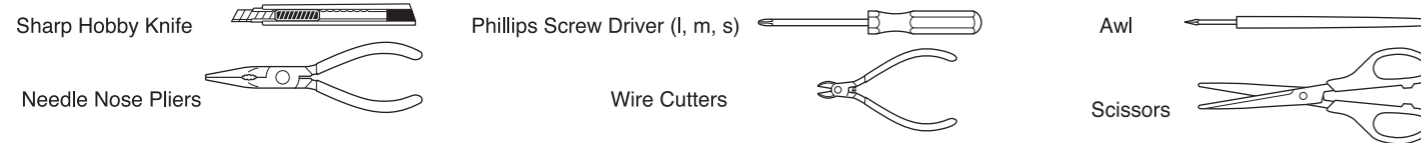
WARNING: Normal gasoline cannot be used with glow engines.



7 Other equipment for enhancing airplane operation & performance



TOOLS REQUIRED (Purchase separately!)

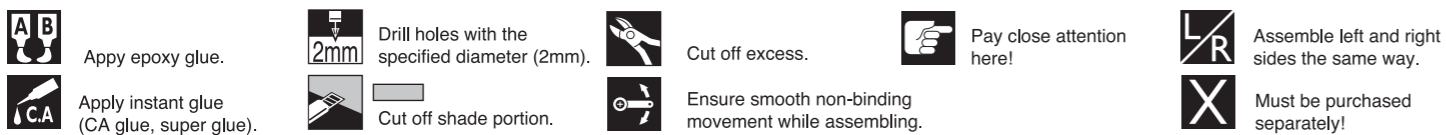


BEFORE YOU BEGIN

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:

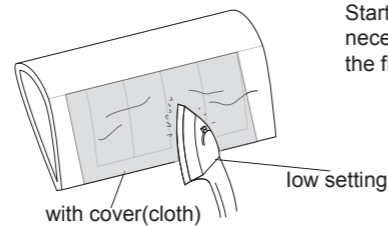


Do not overlook this Symbol!



Warning
Remove the covering with proper pressure to cut through only the covering itself. Otherwise, cutting down into the balsa structure may weaken the model part and cause accident.

The pre-covered film on ARF kits may wrinkle due to variations of temperature. Smooth out as explained right.



► Pre-cover the covering with clean cloth! Start at low setting. Increase the setting if necessary. If it is too high, you may damage the film.

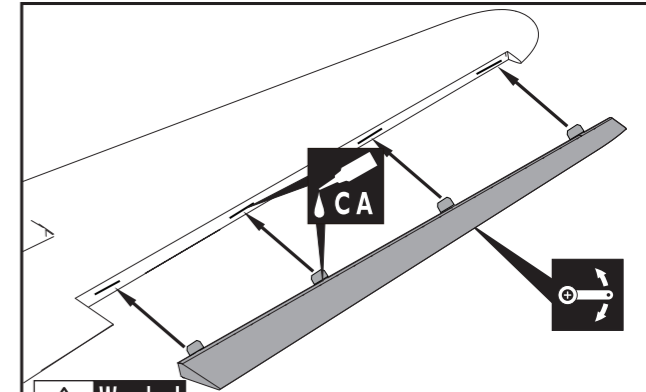


Accessory list for the coming installation steps.

	Clevis	2
	Retainer	2
	Rod (2x300mm)	2
	TP Screw (2.3x12mm)	8
	Screw (3x35mm)	2
	Servo tray(68.5x56.5x2mm)	2
	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.

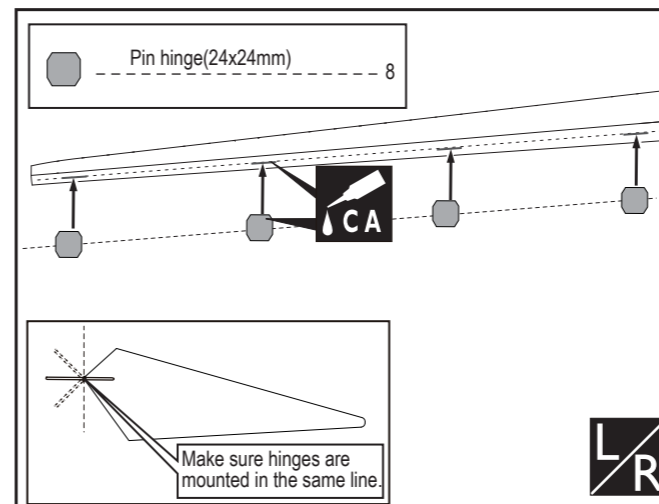


Warning! Securely glue together. If coming off during flights, you'll lose control of your airplane which leads to accidents!



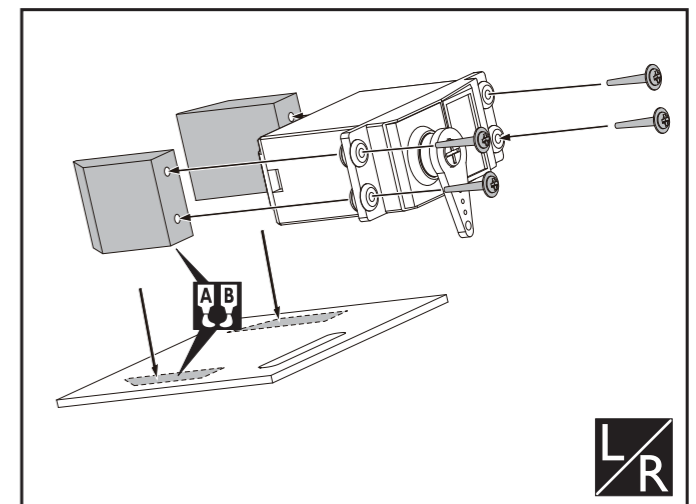
1

Apply instant type CA glue to aileron and pin hinge.



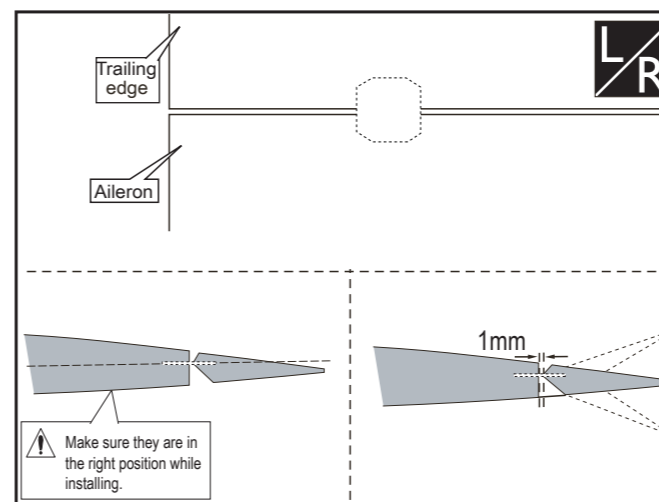
4

Install the servo as the illustration below



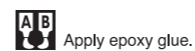
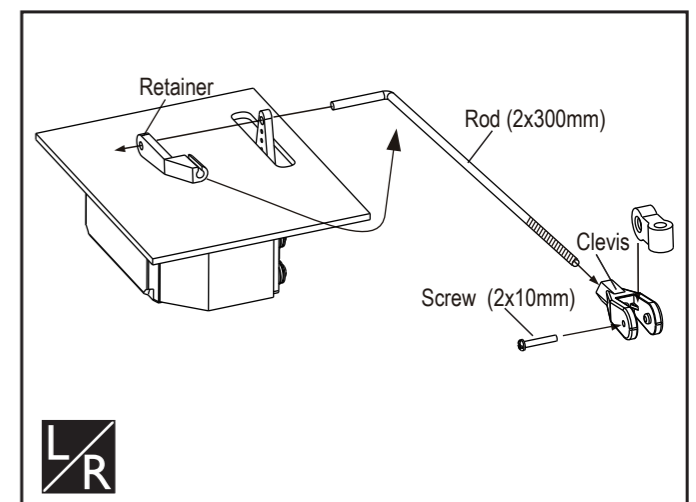
2

Keep 1mm width space 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!



Apply instant glue (CA glue, super glue).



Ensure smooth non-binding movement while assembling.



Cut off shaded portion.

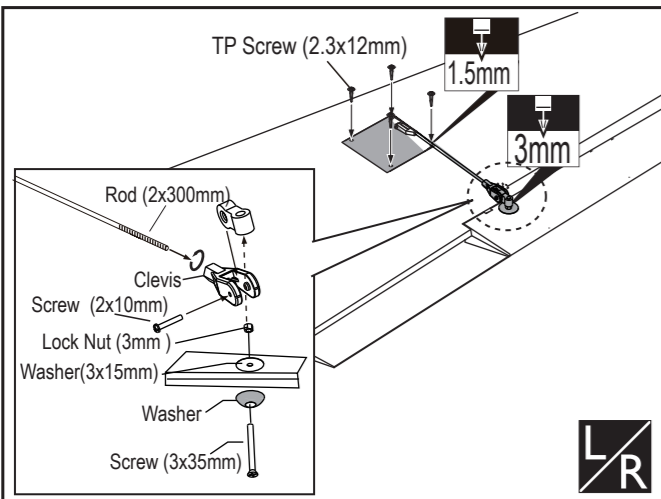


Must be purchased separately!

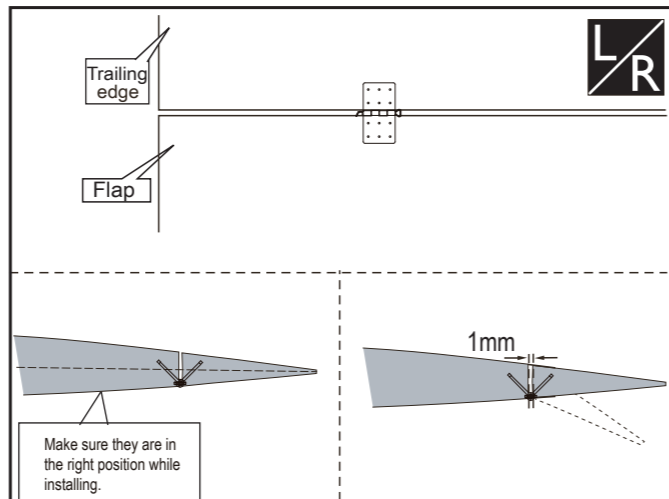


Do not overlook this symbol!

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



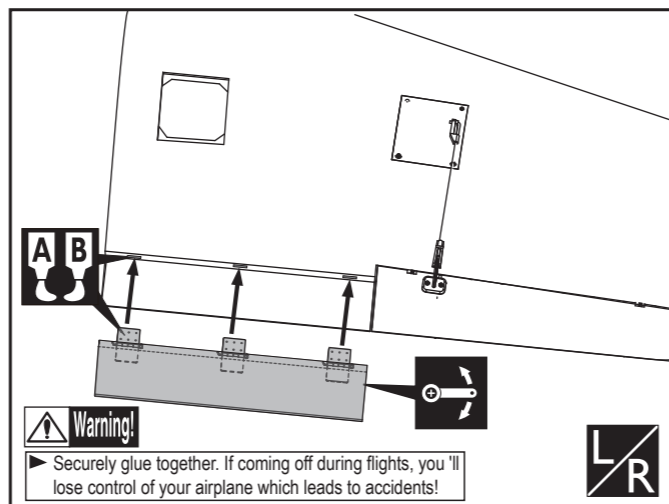
8 Leave some space with width of 1mm between trailing edge and flap.



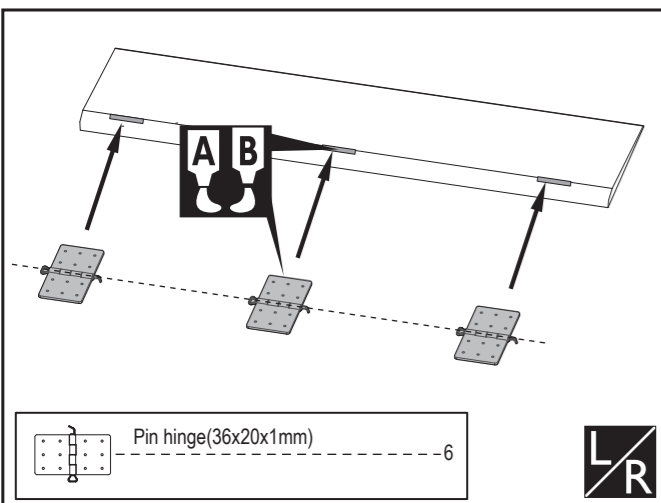
Accessory list for the coming installation steps.

	Clevis	2
	Retainer	2
	Rod (2x300mm)	2
	TP Screw (2.3x12mm)	8
	Screw (3x35mm)	2
	Servo tray(68.5x56.5x2mm)	2
	Wooden Block(20x20x8mm)	4
	Washer(3x15mm)	2
	Lock Nut (3mm)	2
	Washer(3x15mm)	2
	Pin hinge(36x20x1mm)	6

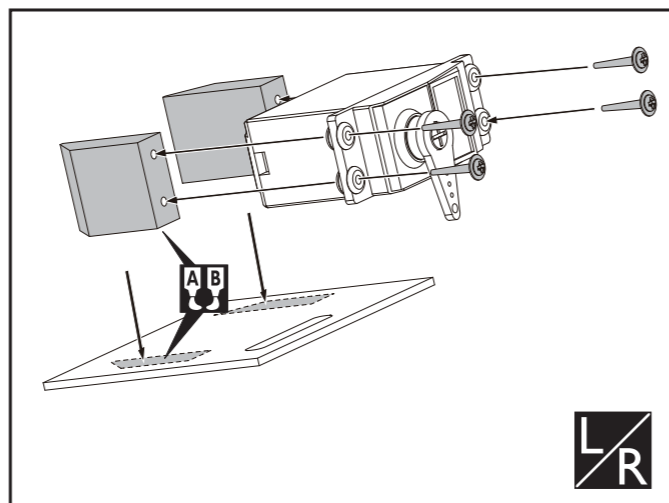
9 Be careful to ensure the moving parts of the hinges are able to move freely. Epoxy the flap to the main wings.



7 Epoxy the pin hinges to the flap.

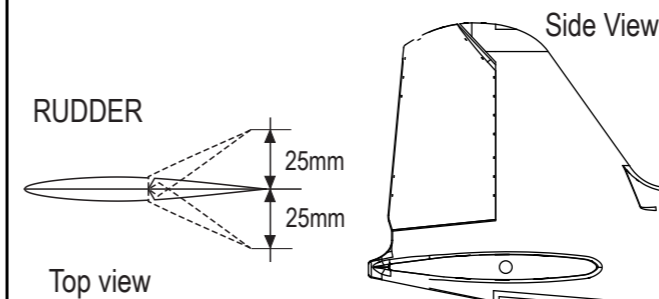


10 Install the servo as the illustration below



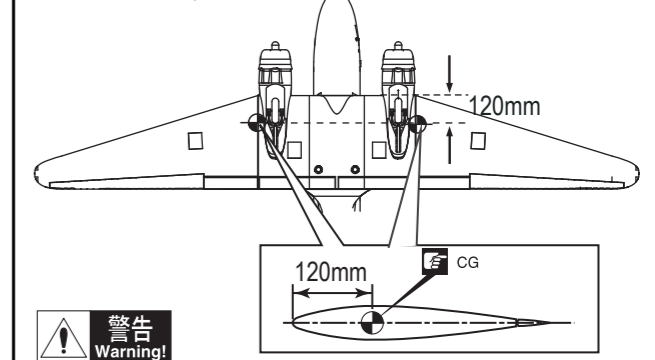
75 Adjustment.

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.



76 Centre of Gravity.

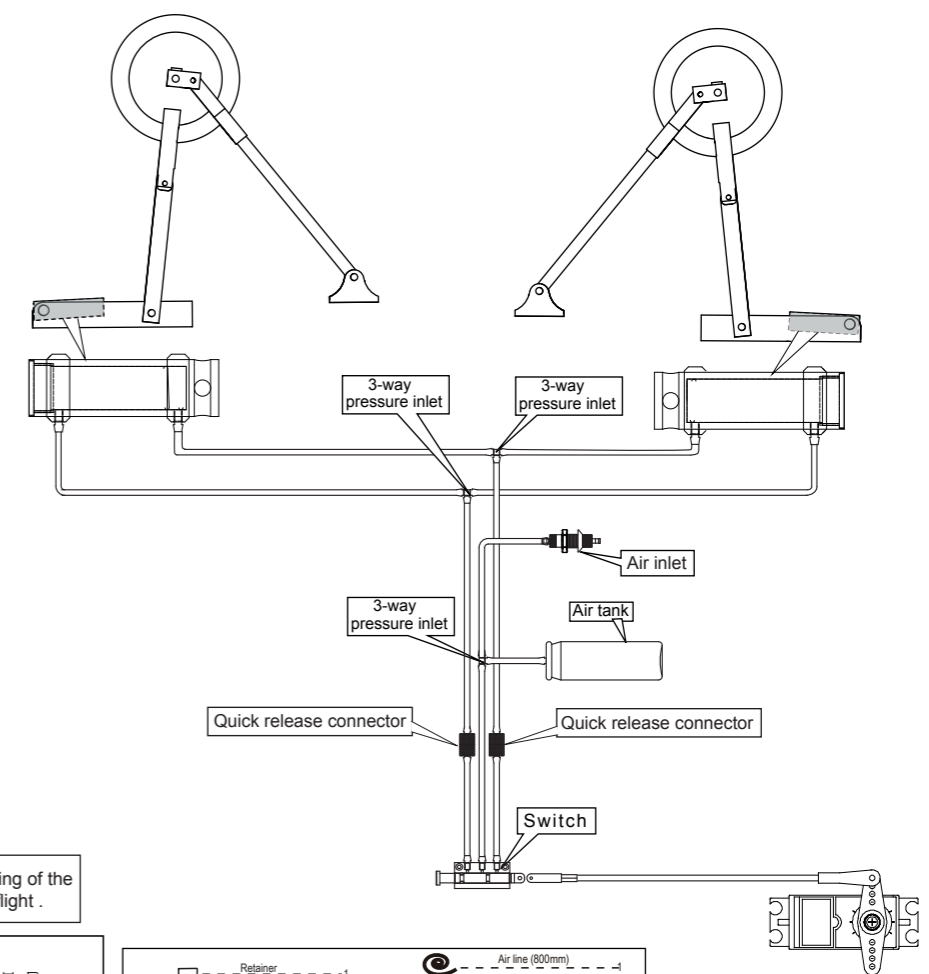
Never fly before checking the CG's required position. In order to obtain the CG specified, reposition the receiver and battery.



NEVER fly the model without well balancing.

Three wheel retract system

Warning! Make sure to assemble retracts as instructed below.



Warning! Please insure the sealing of the retract system before flight.

	Air valve	1		Air line (800mm)	1
	Retainer	1		3-way pressure inlet	3
	Clevis	1		Air tank	1
	Rod (2x300mm)	1		Air inlet	1
	TP Screw(2x14mm)	2		Air inlet	2
	Strut	2		Switch	1

The status when the gear up

Pull out length of 8mm to make gear down





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. **Hand icon** Cut off shaded portion.

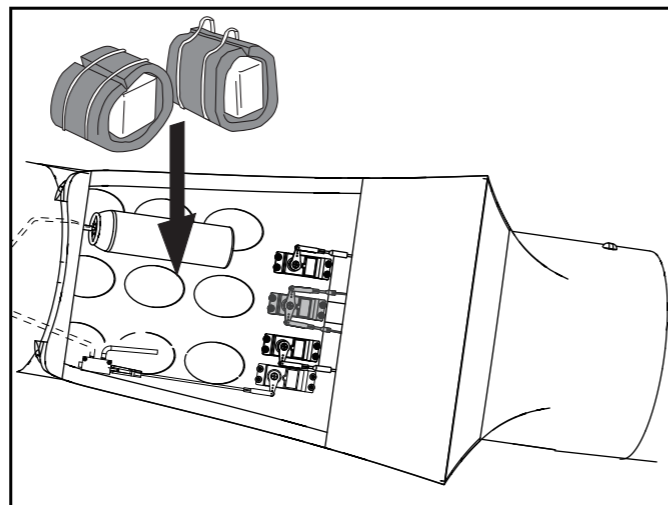
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

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

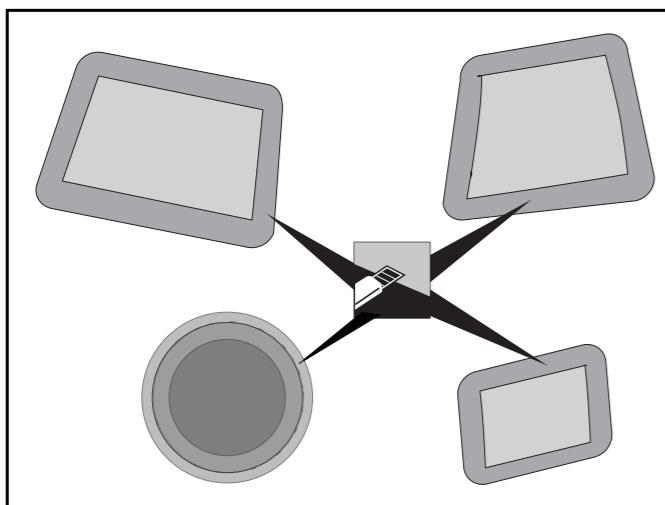
! Accessory list for the coming installation steps.

-  PVC Part 2
-  PVC Part 2
-  PVC Part 14
-  PVC Part 1

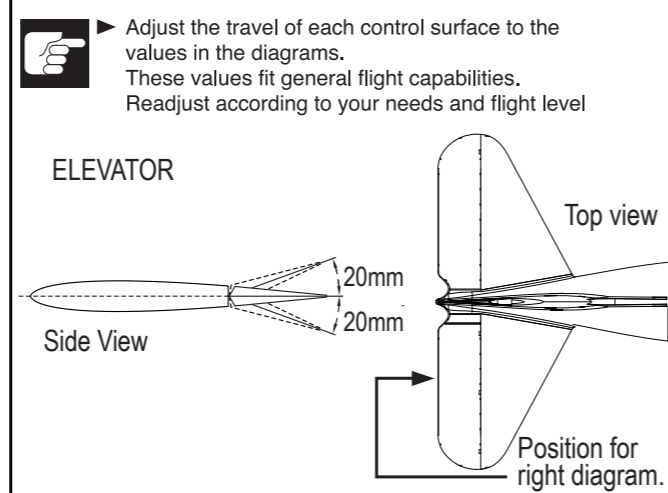
72 Mount the receiver and the battery to the fuselage.



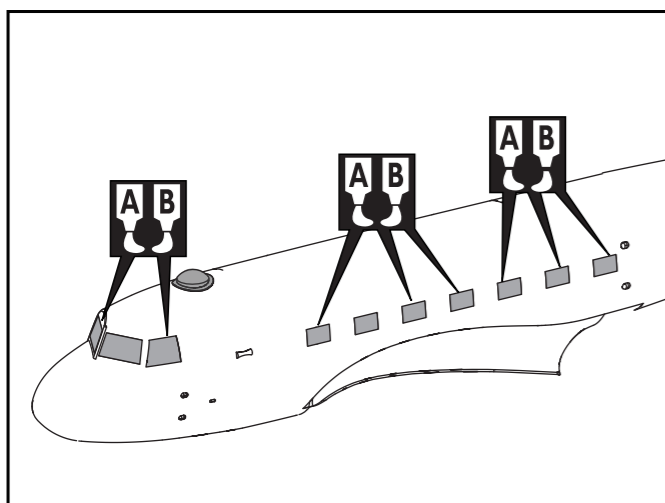
70 Cut off the shaded portion.



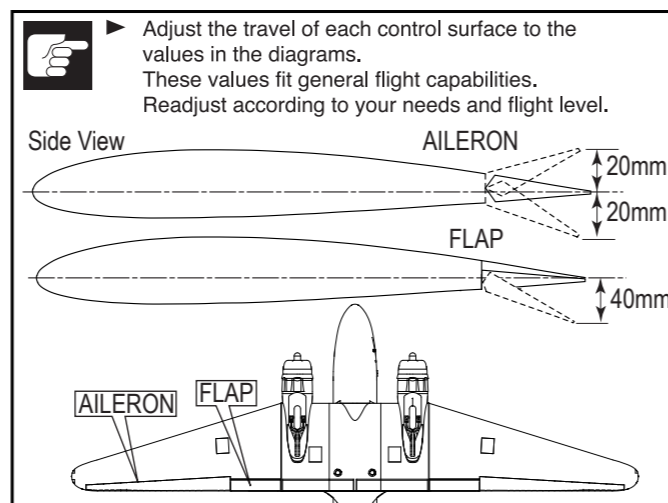
73 Adjustment.



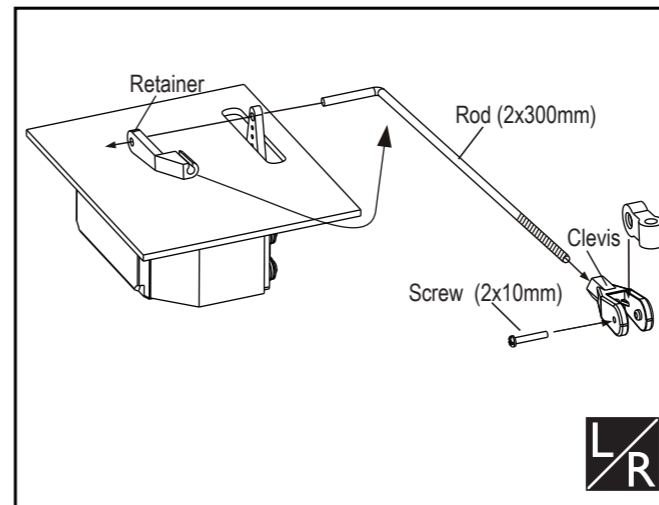
71 Epoxy the canopy to the fuselage as below.



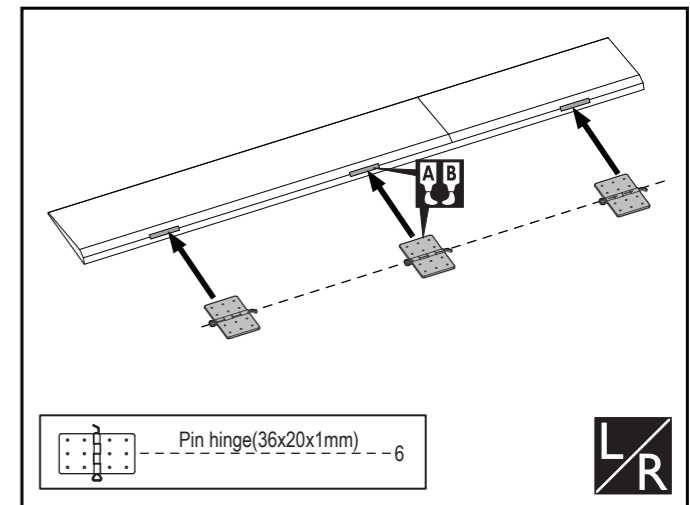
74 Adjustment.



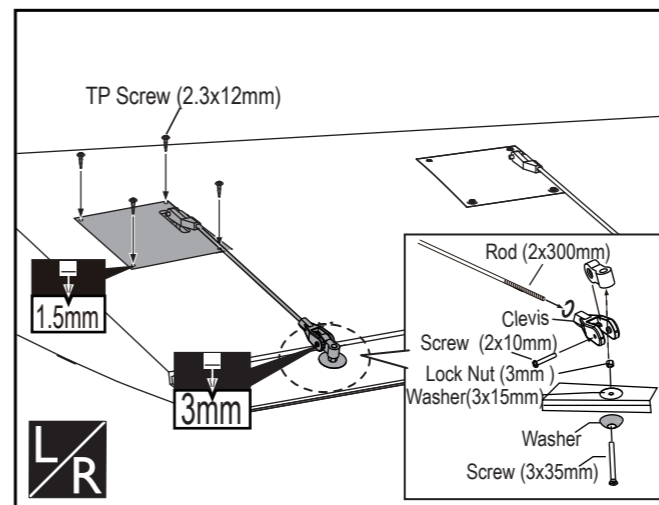
11 Install the nylon control horn and connect the linkage.



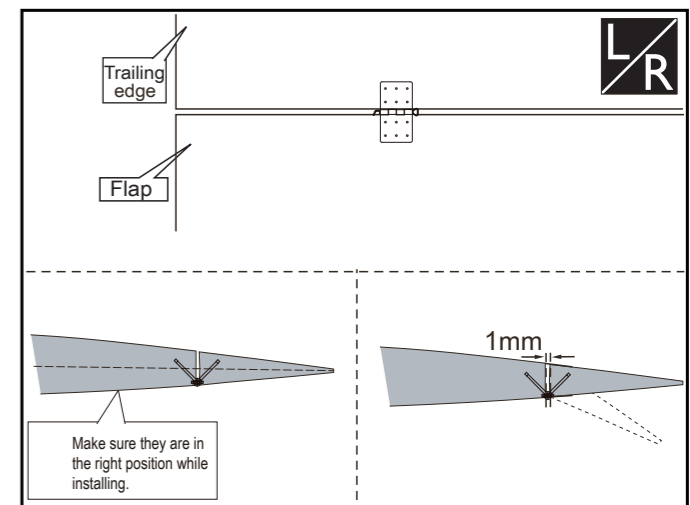
13 Epoxy the flap to the main wings.



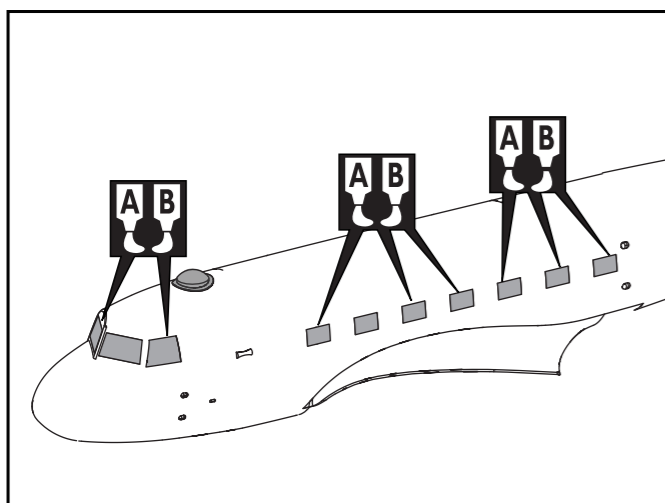
12 Secure the servo. Install the nylon control horn and connect the linkage.















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



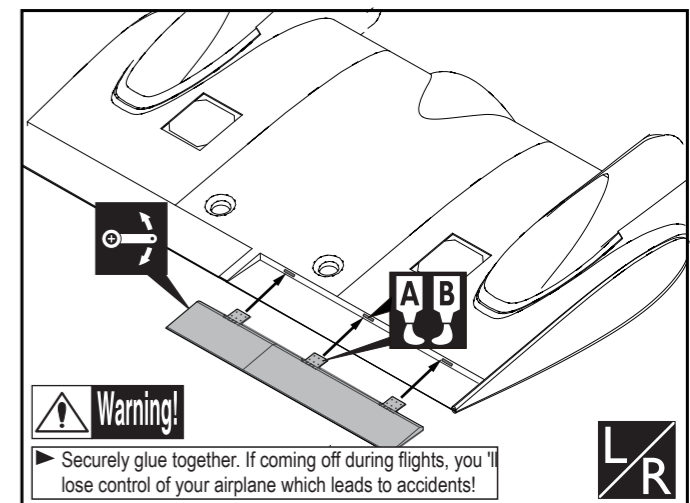
71 Epoxy the canopy to the fuselage as below.



! Accessory list for the coming installation steps.

-  Servo tray(68.5x56.5x2mm) 2
-  Wooden Block(20x20x8mm) 4
-  Wooden Block(20x16x2mm) 4
-  Clevis 2
-  Retainer 2
-  Rod (2x300mm) 2
-  TP Screw (2.3x12mm) 8
-  Screw (3x35mm) 2
-  Washer(3x15mm) 2
-  Lock Nut (3mm) 2
-  Washer(3x15mm) 2
-  Pin hinge(36x20x1mm) 6

15 Epoxy the flap to the mid wing.



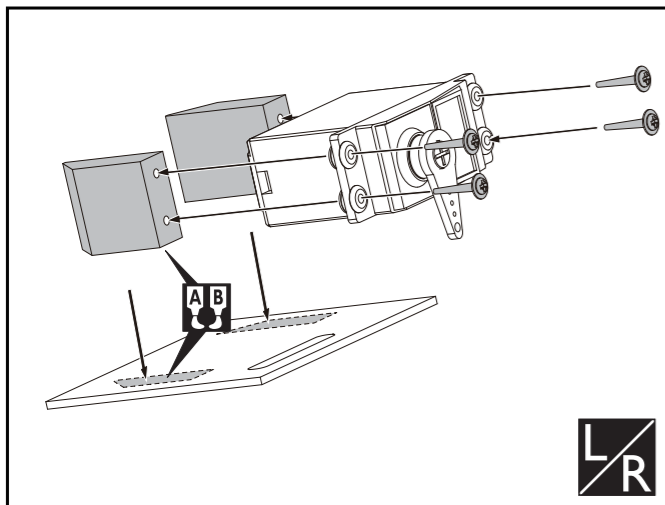
AB Apply epoxy glue. **L/R** Assemble left and right sides the same way. **!** Pay close attention here! **!** Do not overlook this symbol!

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

AB Apply epoxy glue. **L/R** 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!

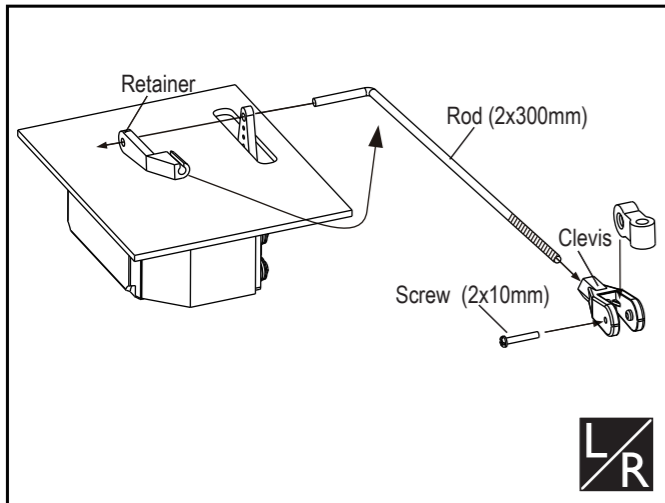
16 Install the servo as the illustration below



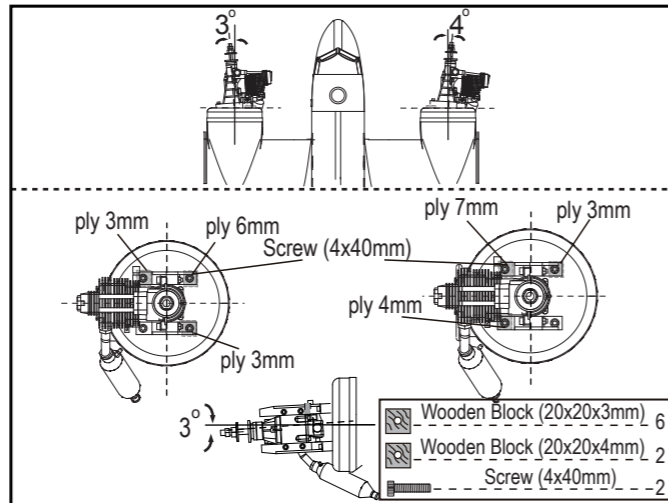
Accessory list for the coming installation steps.

	Screw (4x40mm)	2
	Screw (4x35mm)	8
	Screw (4x30mm)	8
	Washer(4x8mm)	24
	Spring Washer (4mm)	8
	Nut (4mm)	8
	Linkage Stopper	4
	Plastic tube (2x400mm)	2
	Engine mount (52x92mm)	4
	Fuel tank (488cc)	2
	Blind Nut (4mm)	8
	Wooden Block (20x20x3mm)	6
	Wooden Block (20x20x4mm)	2

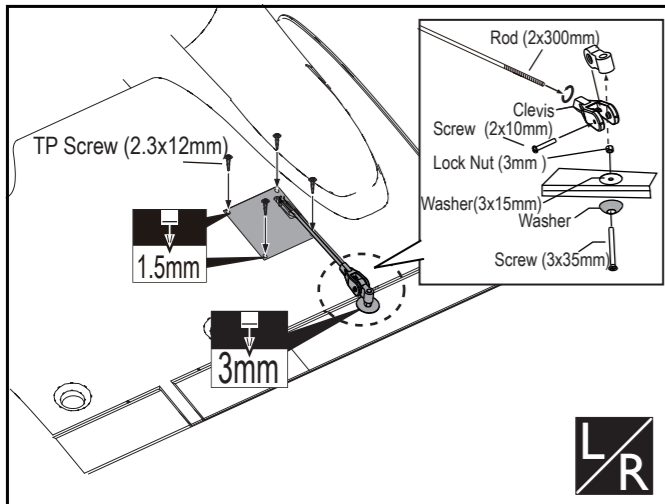
17 Install the nylon control horn and connect the linkage.



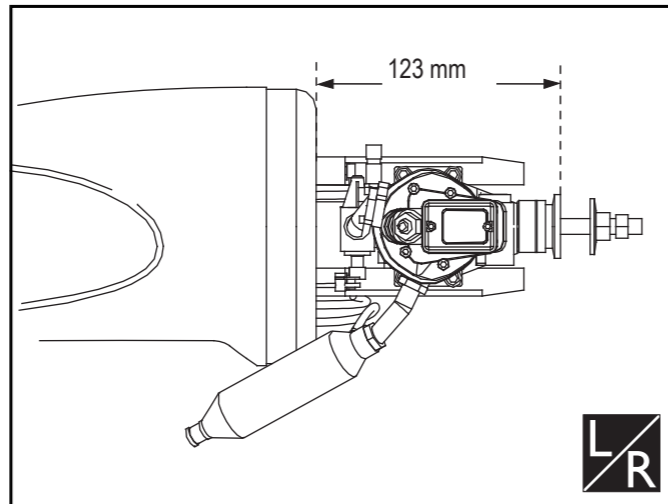
19 Please read the illustration below carefully before assemble the engine to fuselage.



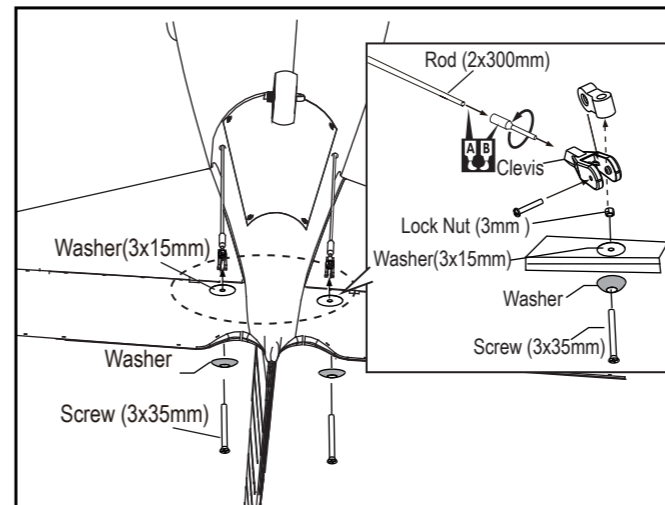
18 Secure the servo. Install the nylon control horn and connect the linkage.



20 The side view when the engine install completion.



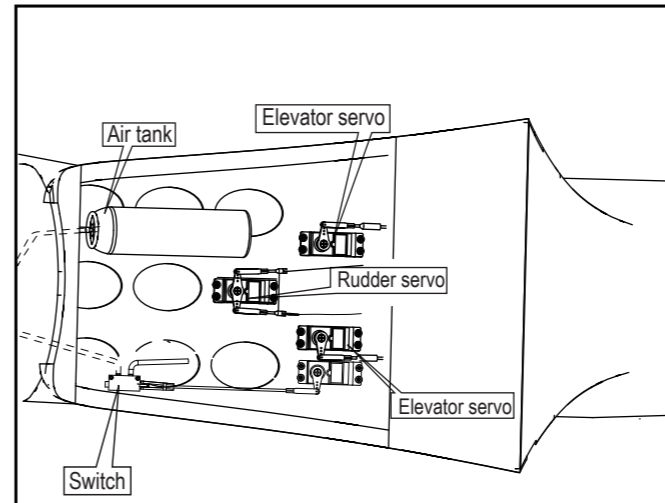
65 Connect the linkage rod to the horn.



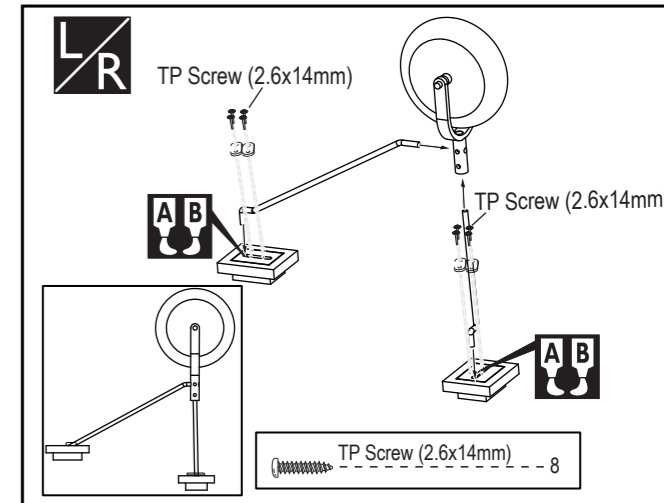
Accessory list for the coming installation steps.

	Wheel (100 mm)	2
	Landing gear(5mm)	1
	Landing gear(5mm)	1
	Wooden Block(40x30x17mm)	4
	Landing gear straps	8
	TP Screw (2.6x14mm)	16

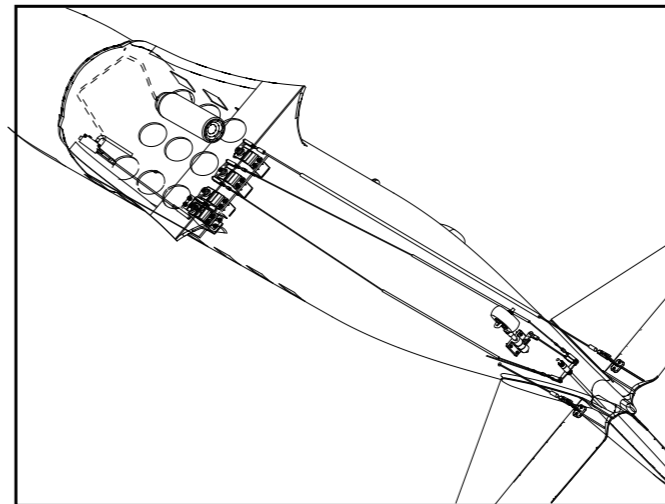
66 The sketch map of the servos install completion.



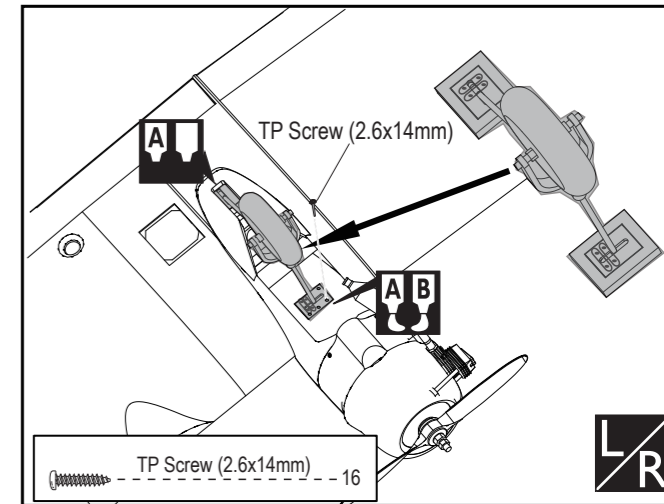
68 Assemble the wheel to the retract.



67 The structure sketch map in the fuselage.



69 Assemble the retract to the side fuselage.



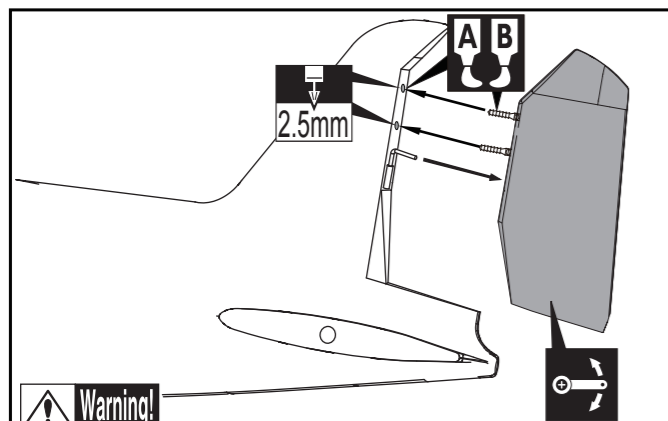
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

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

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!

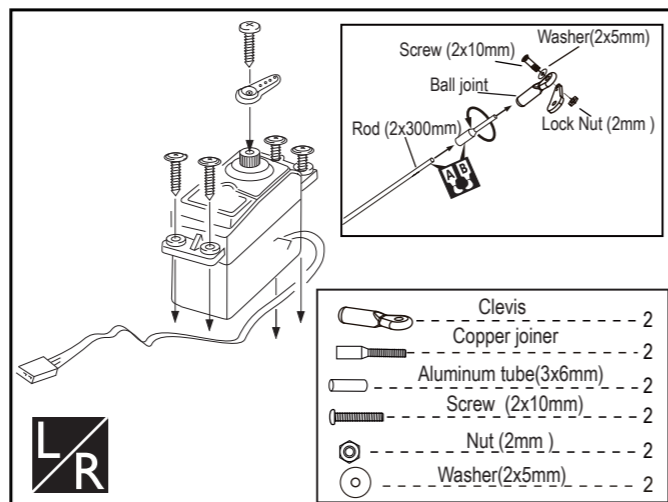
CA Apply instant glue (CA glue, super glue). **Arrow icon** Ensure smooth non-binding movement while assembling. **Scissors icon** Cut off shaded portion.

59 Assemble the rudder to the vertical tail with AB glue.

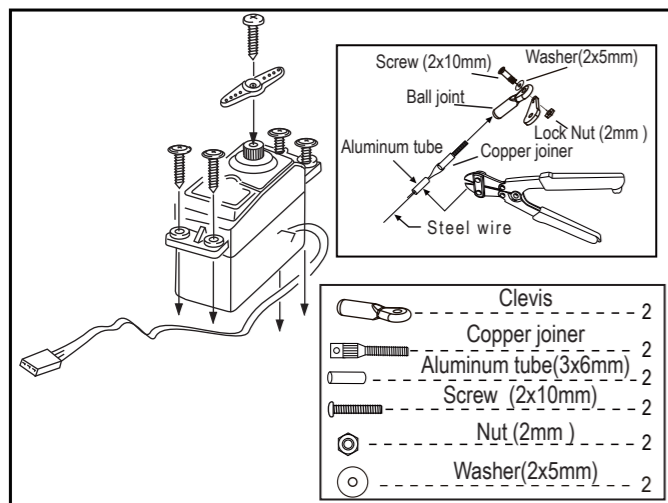


Warning!
Securely glue together. If coming off during flights, you'll lose control of your airplane which leads to accidents!

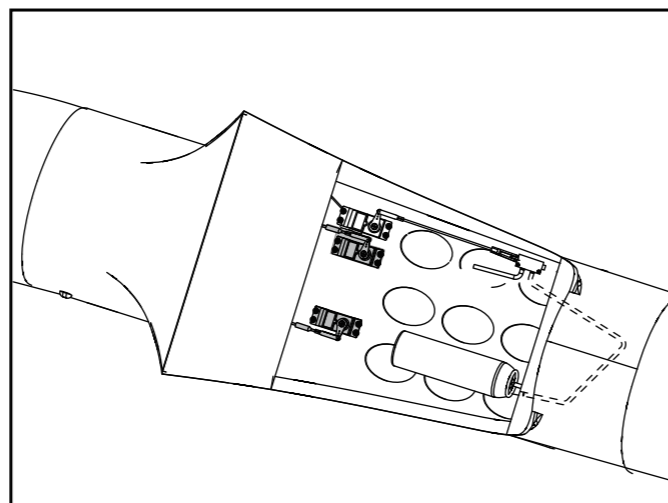
62 The sketch map of the elevator servo.



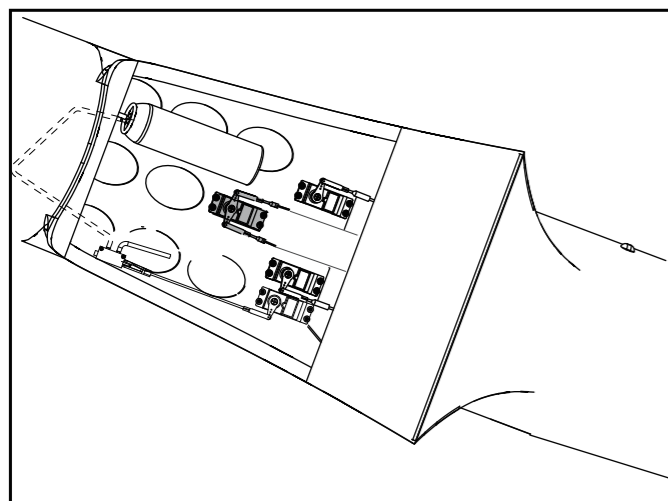
60 The sketch map of the rudder servo.



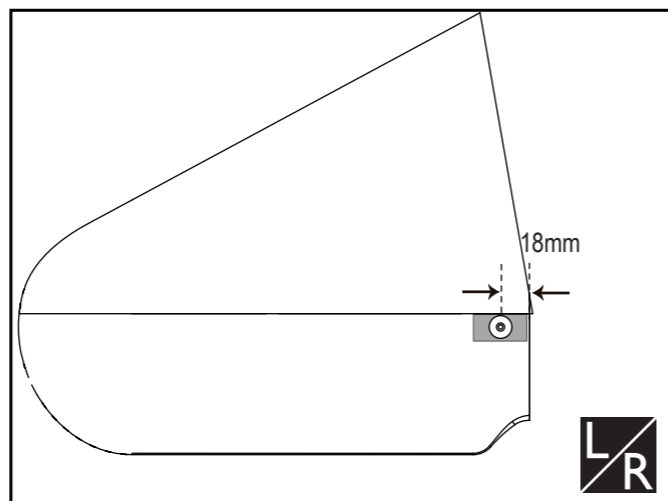
63 Install the elevator servo in the fuselage.



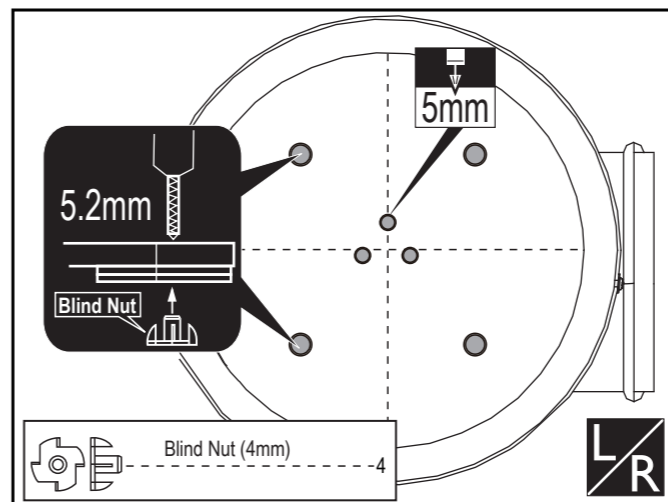
61 Install the rudder servo in the fuselage



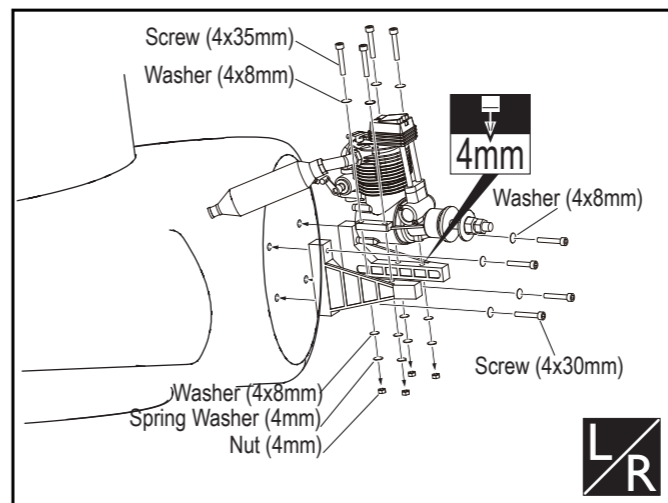
64 The position of the control horn in elevator



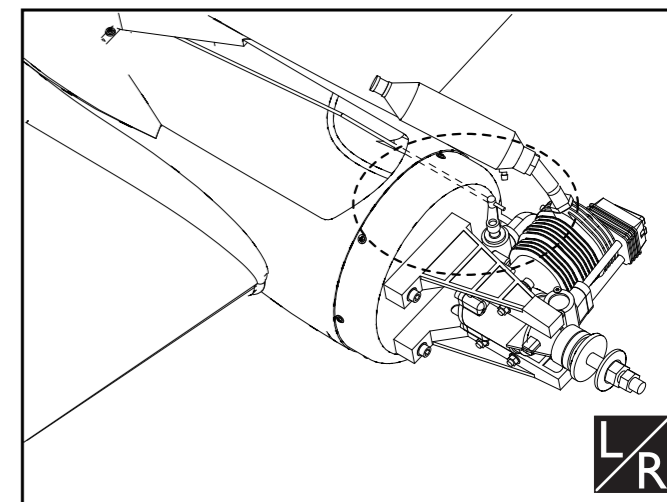
21 Drill seven holes as show for engine mount.



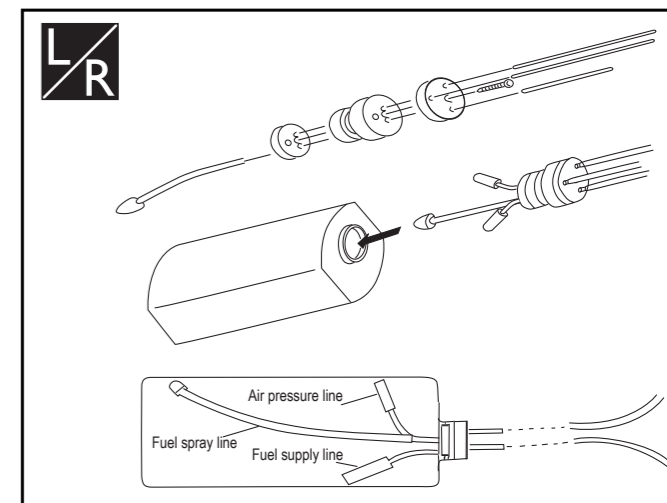
22 Assemble the engine as below.



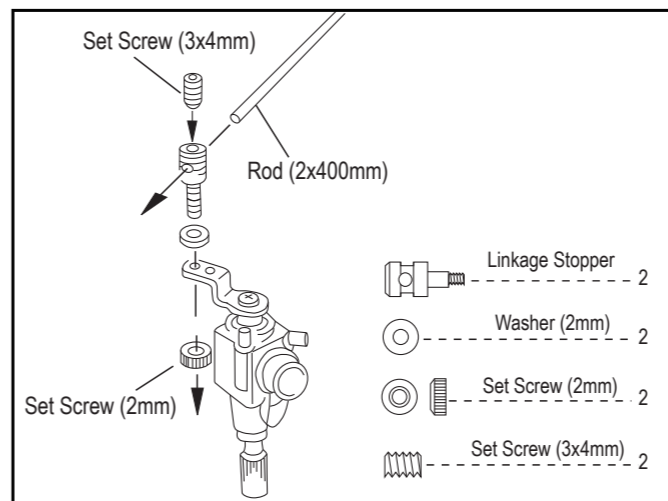
24 The sketch map of the the push rod assemble completion



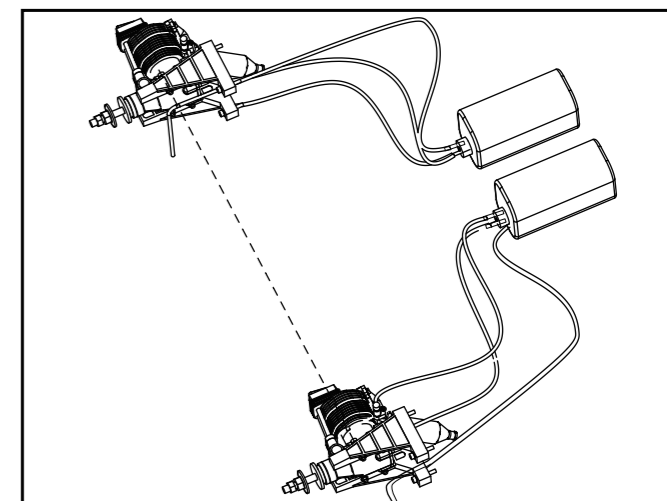
25 Assembly of the fuel tank.



23 Assemble the accelerator push rod to the engine.



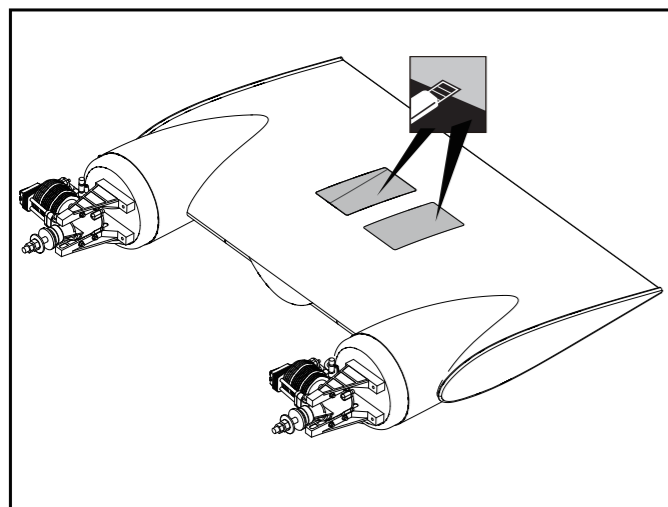
26 The sketch map of the fuel tanks and the engines connect completion.



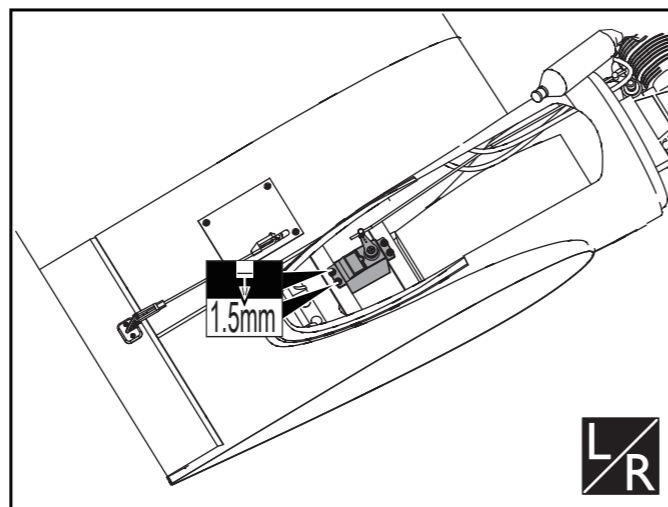
AB Apply epoxy glue. **L/R** Assemble left and right sides the same way. **Hand** Pay close attention here! **Warning!** Do not overlook this symbol!
CA Apply instant glue (CA glue, super glue). **Hand** Ensure smooth non-binding movement while assembling. **Hand** Cut off shaded portion.

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). **Hand** Ensure smooth non-binding movement while assembling. **Hand** Cut off shaded portion.

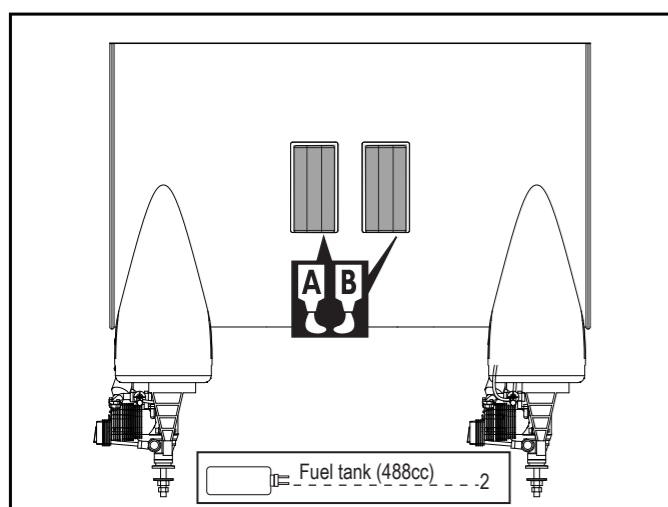
27 Cut off the shaded portion in the Mid wing.



30 Assemble the throttle servos in the fuselage.



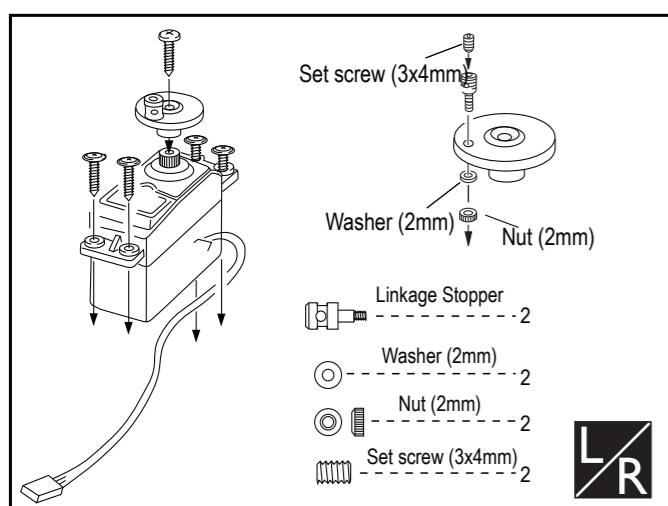
28 Epoxy the tanks to the appropriate position.



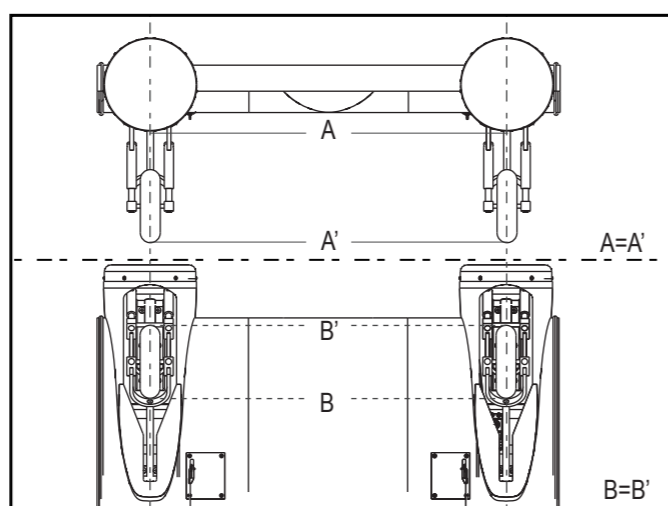
Accessory list for the coming installation steps.

	TP Screw (2.3x8mm)	22
	TP Screw (2.3x12mm)	22
	TP Screw (3x20mm)	16
	Screw(6x50mm)	2
	Wood dowel (468x50x3mm)	2
	Wood dowel (6x50mm)	6
	Ply (15x15x3mm)	12
	Blind Nut (6mm)	2
	Wood dowel (6x30mm)	4
	Rib template (2mm ply)	1

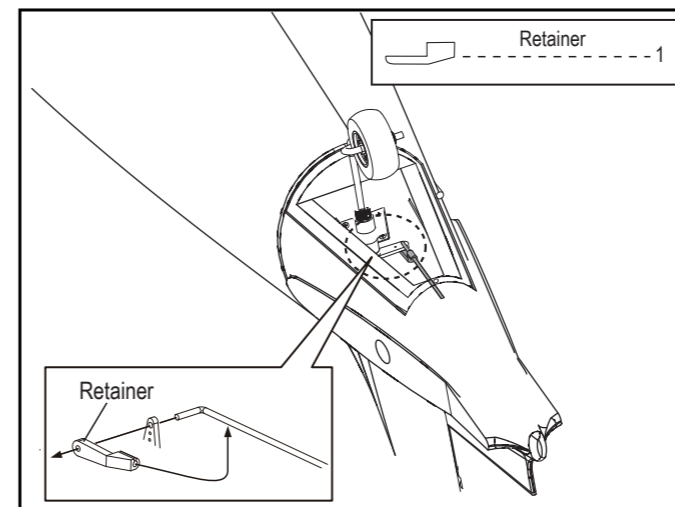
29 Install the servo.



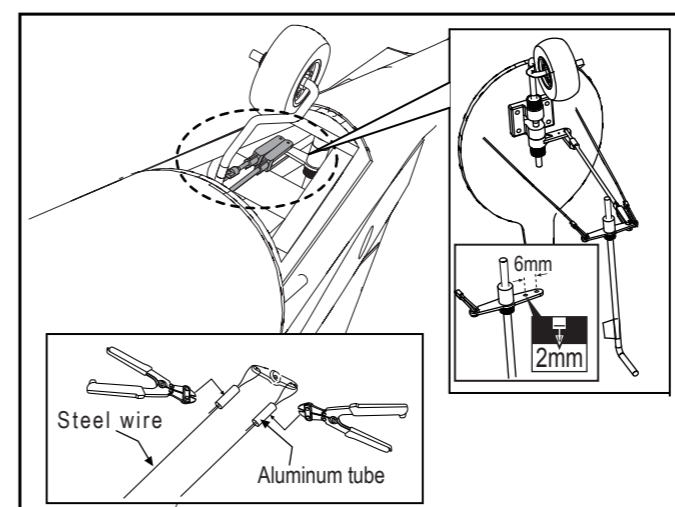
31 The sketch map when landing install completion.



54 The sketch map of the the tail wheel install completion.



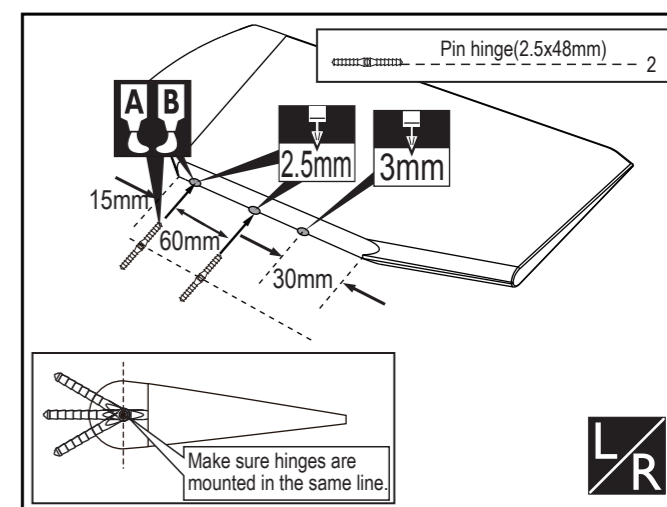
55 The inner structure of the tail landing gear.



Accessory list for the coming installation steps.

	Washer(2x5mm)	4
	Clevis	4
	Copper joiner	4
	Aluminum tube(3x6mm)	4
	Screw (2x10mm)	4
	Nut (2mm)	4
	Rod (2X300mm)	1
	Retainer	1
	Clevis	2
	Pin hinge(2.5x48mm)	2
	Copper joiner	2
	Fiberglass pushrod (3x890mm)	2
	TP Screw (2.3x8mm)	48
	Clevis	2
	Washer(3x15mm)	2
	Lock Nut (3mm)	2
	Washer(3x15mm)	2
	Screw (3x35mm)	2

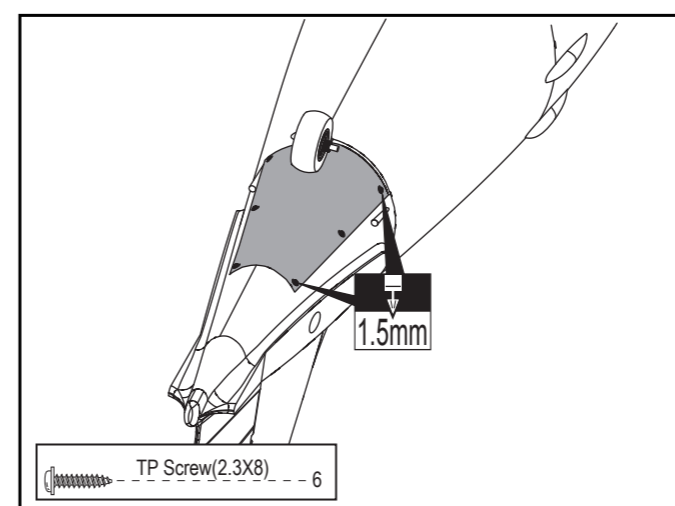
57 Apply instant type CA glue to rudder and pin hinge and glue them together.



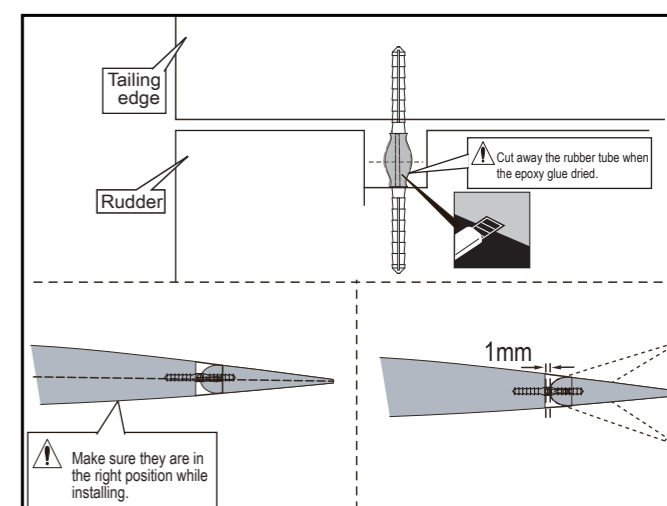
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand** Pay close attention here! **Warning!** Do not overlook this symbol!

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

56 Assemble the tail wheel covering with TP screw.



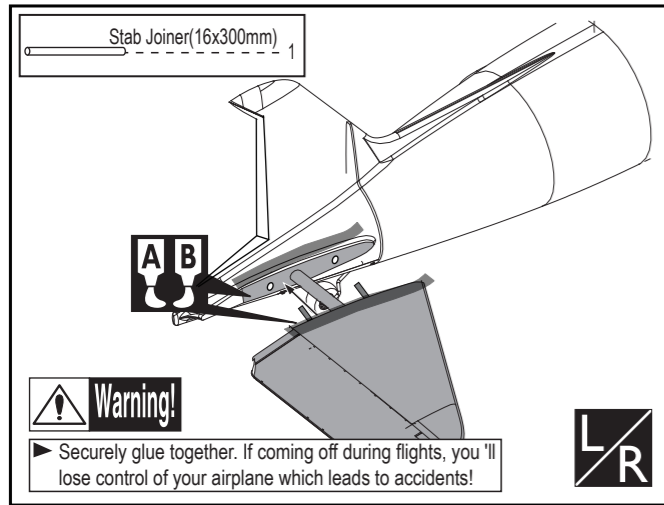
58 Keep some space of 1mm width between the rudder and the vertical tail.



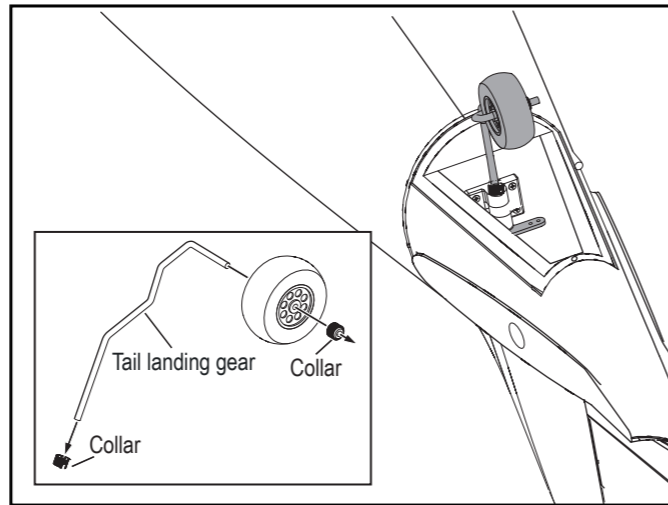
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand** Pay close attention here! **Warning!** Do not overlook this symbol!

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

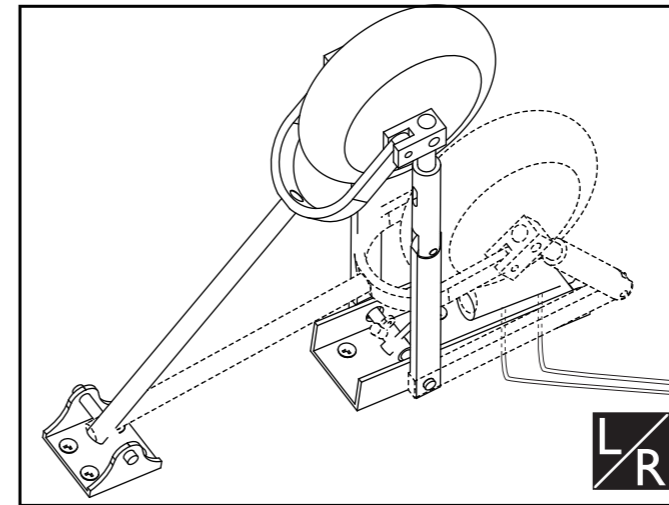
49 Make sure the horizontal tail are cleanly before epoxy it to fuselage and make sure it be assemble to the right position .



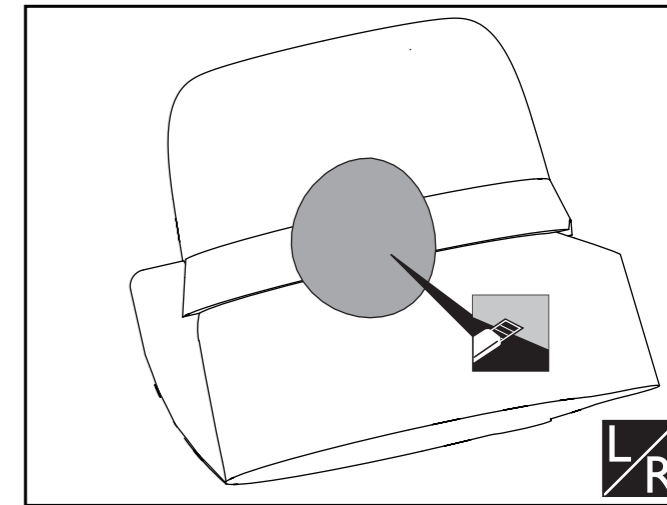
51 Assemble the tail landing gear



32 The working sketch map of the retract.



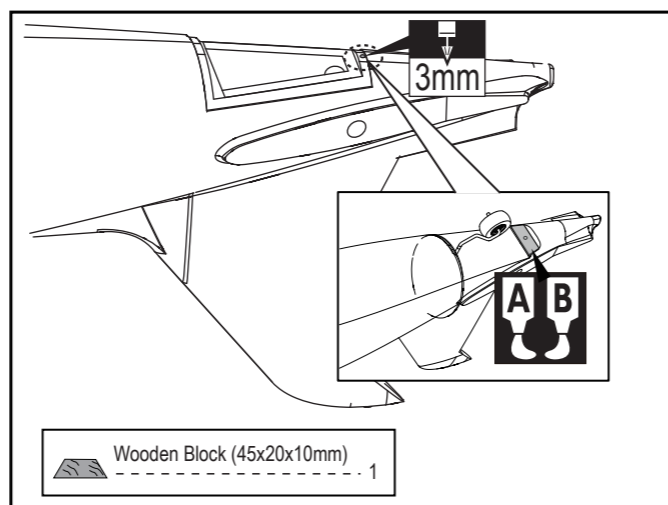
35 Trim the cowling for engine and muffler.



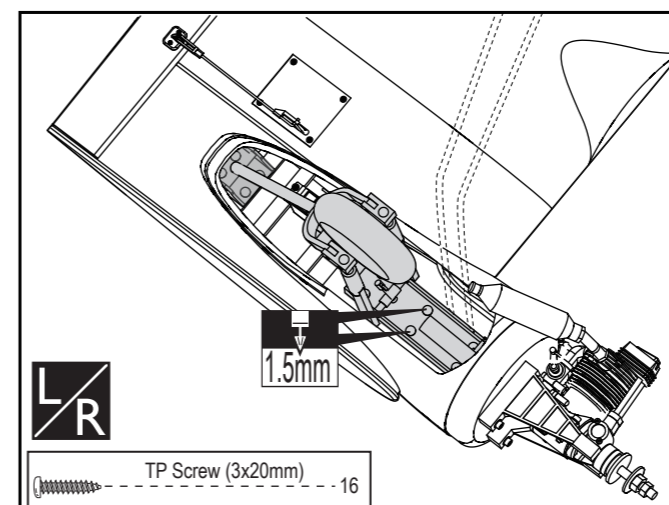
Warning! Accessory list for the coming installation steps.

- | | |
|-----------------------------------|--------------------------------|
| TP Screw (2.3x8mm) ----- 6 | Washer (3x6mm) ----- 4 |
| Aluminum tube(3x6mm) ----- 2 | TP Screw(3x20mm) ----- 4 |
| Retainer ----- 1 | Tail landing gear(3mm) ----- 1 |
| Clevis ----- 1 | Tail wheel (45mm) ----- 1 |
| Wooden Block (45x20x10mm) ----- 1 | Collar (3mm) ----- 2 |
| Nose arm (3mm) ----- 1 | Rod (2X200mm) ----- 1 |
| Steel wire (0.5x1500mm) ----- 2 | Rod (3x210mm) ----- 1 |

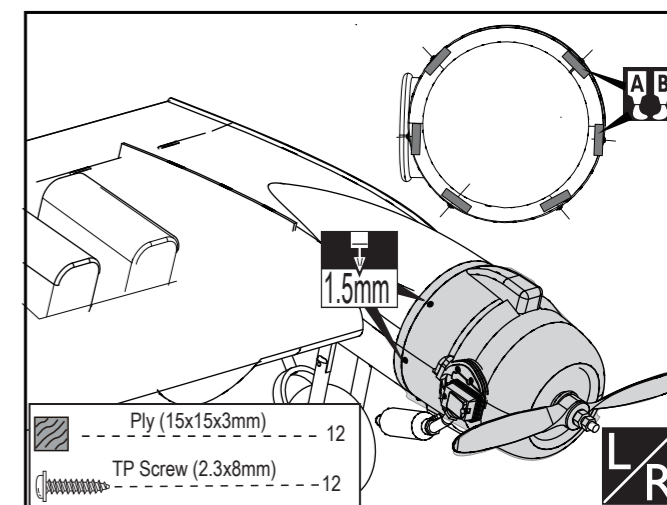
52 Drill a hole to the appropriate position as below and joint the ally nose arm.



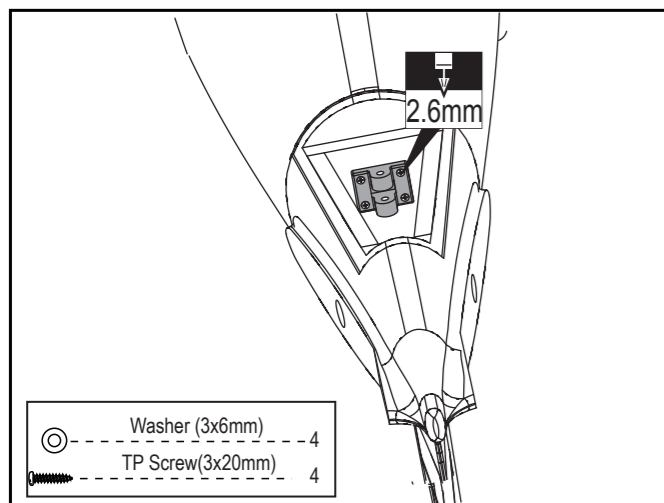
33 Assemble the retract to the right position .



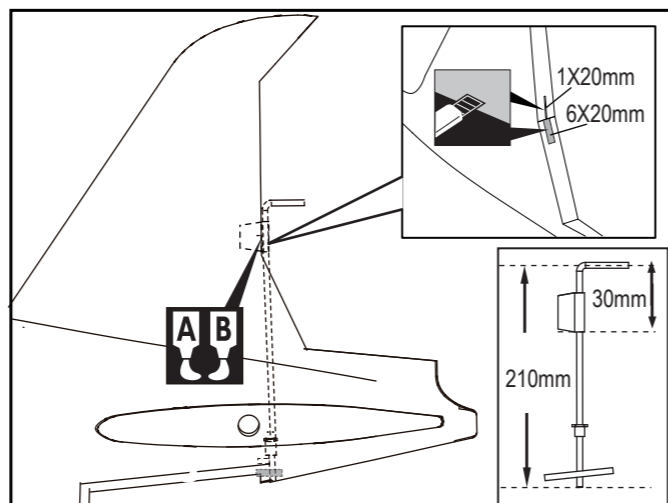
36 Assemble the cowling.



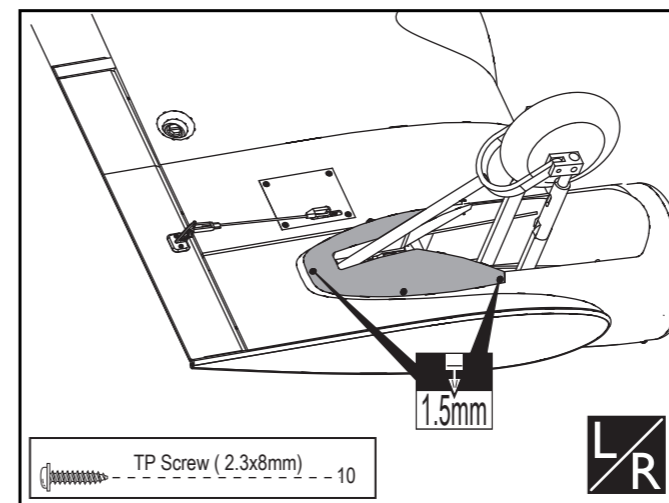
50 Assemble the tail wheel steering mounts.



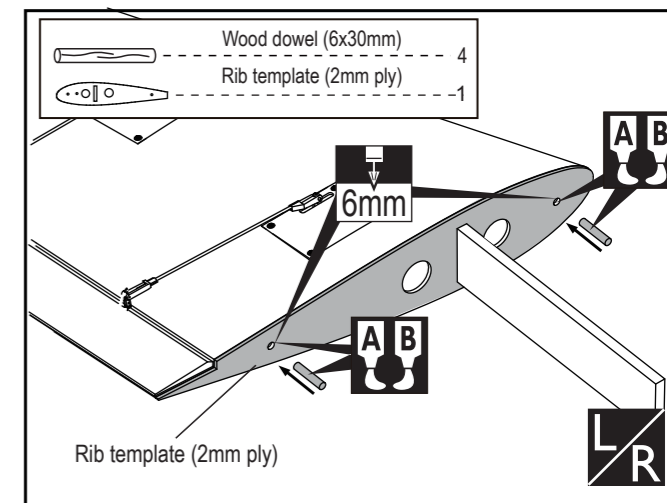
53 Drill slots and assemble the rudder metal wire through the fuselage as illustration below.



34 Fix the wheel pants with TP screw.



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



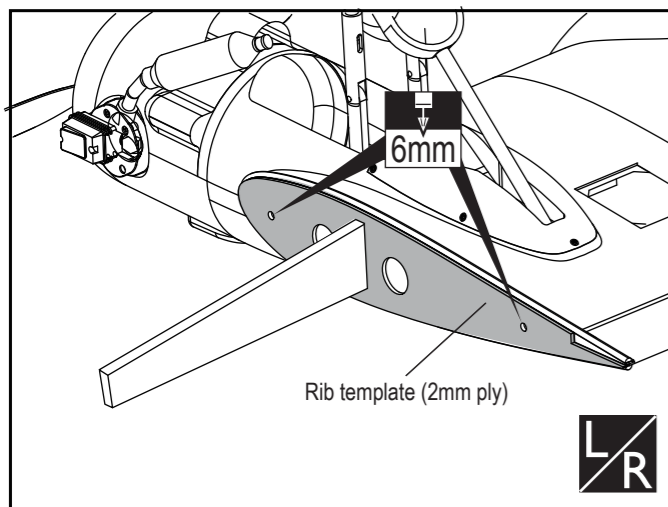
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

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

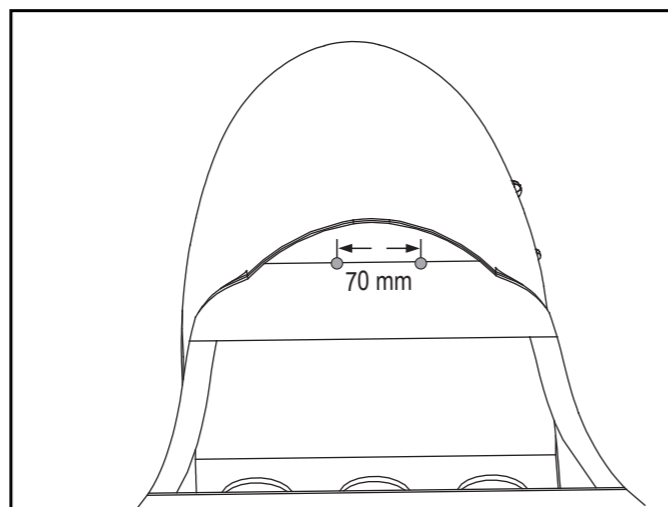
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

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

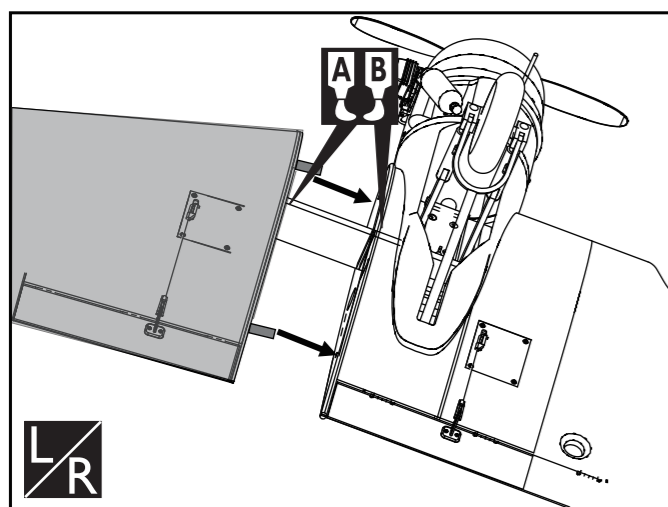
38 According to the rib template drill holes to the mid wing.



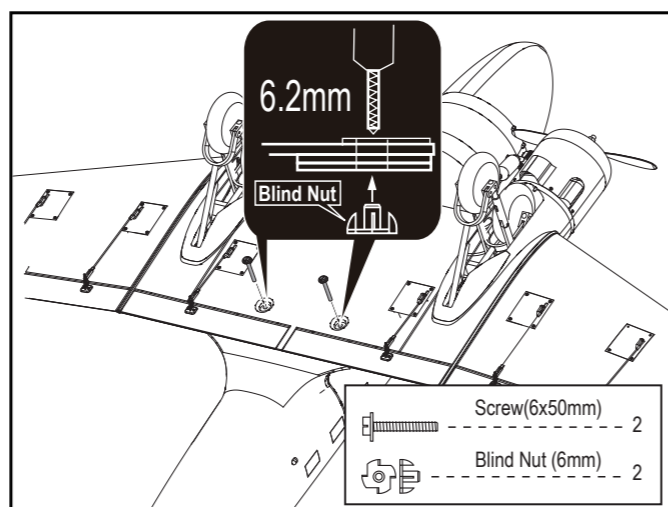
41 Drill holes to relevant position in the fuselage as below.



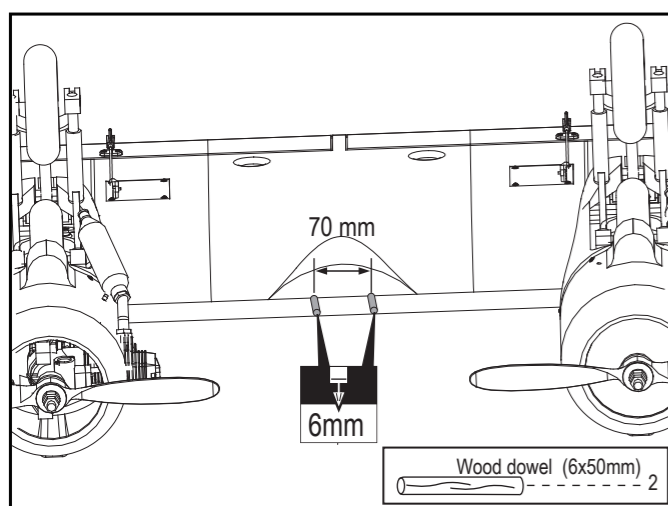
39 Assemble the wing to the side fuselage.



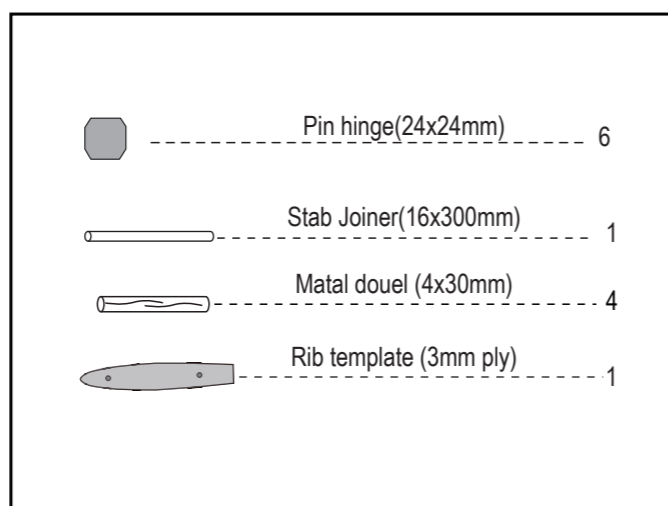
42 Drill holes to the appropriate position in the mid wing. Mount the wing to the fuselage with blind nut and screw.



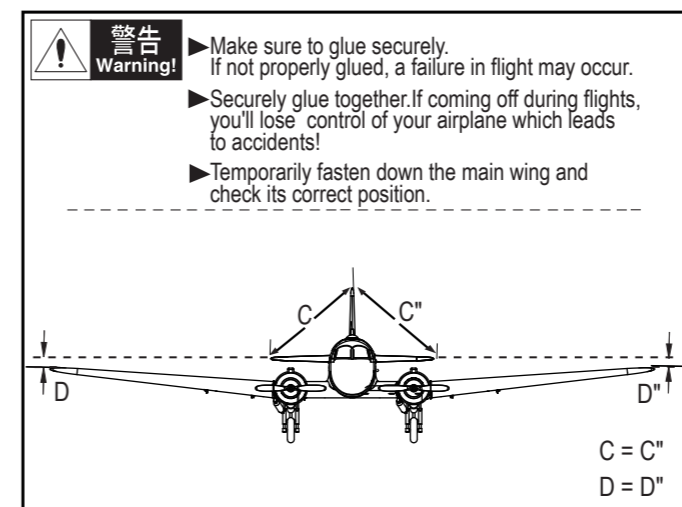
40 Drill holes in the mid wing and epoxy the wood dowel in them as below.



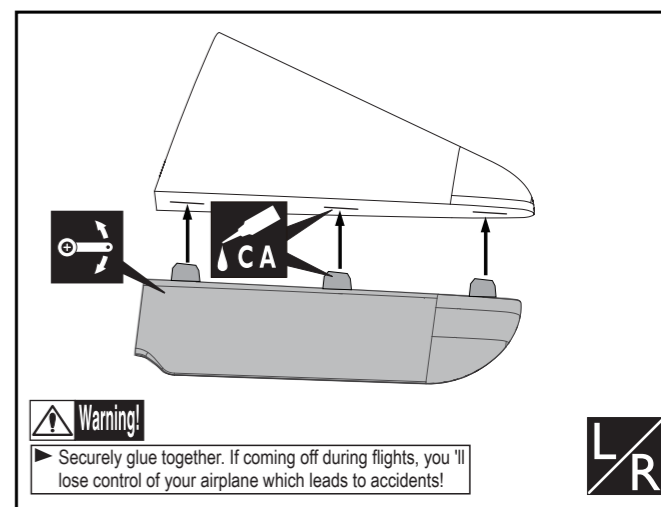
Warning! Accessory list for the coming installation steps.



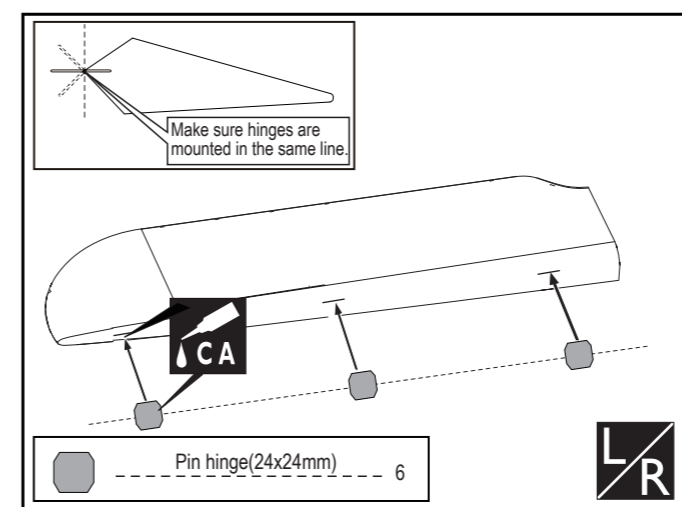
43 The standard sketch map when the horizontal install completion.



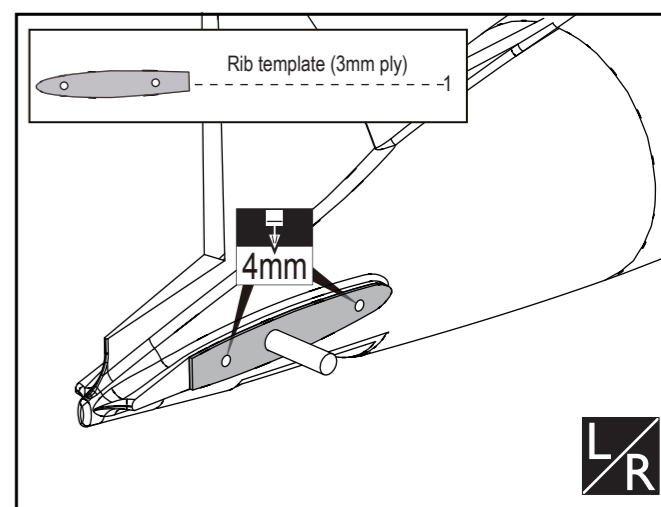
46 Assemble the elevator to the horizontal tail by CA glue.



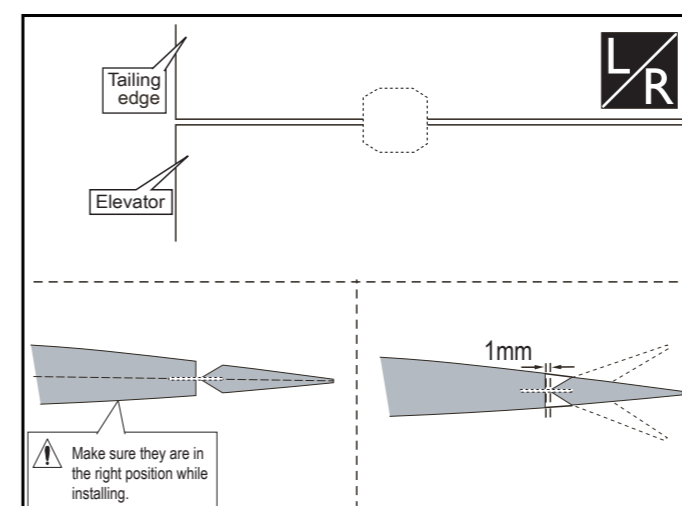
44 Please notice the illustration below when epoxy the pin hinges to the rudder.



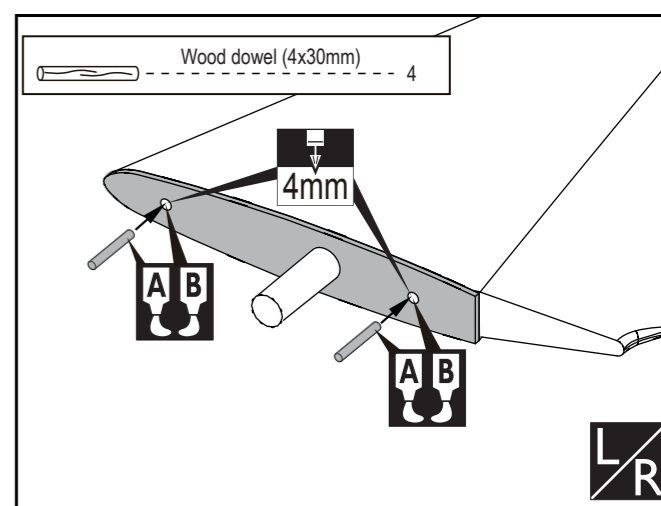
47 According to the rib template drill holes to the tail of fuselage as below.



45 Keep 1mm width space between horizontal tail and elevator.



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



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.