

Before start ,please carefully read the explanations!

# FAIREY SWORDFLSH



## Specification:

Length	:1700 mm(67")
Wing Span	:2160 mm(85.4")
Wing Area	:129/sq. dm 13.9/sq.ft
Wing Loading	:69.8g/sq. dm 22.8oz/sq. ft
Flying Weight	:9000g(19.8 lbs)
Radio	:6ch & 7servos
Engine(a pair)	:180 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.

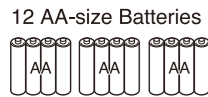
Fly only in open areas and preferably at a dedicated R/C flying site. We suggest having a qualified instructor carefully inspect your airplane before its first flight.Please carefully read and follow all instructions included with this airplane,your radio control system and any other components purchased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

**REQUIRED FOR OPERATION (Purchase separately!)**

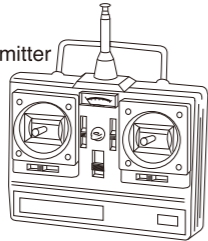
**CAUTION:** For details concerning the equipment listed below (size, maker, etc.), check with your hobby shop.

**1** A minimum 6 channel radio for airplanes (with 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.



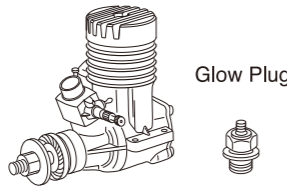
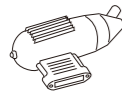
A minimum 6 channel transmitter for airplanes.



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

**2** Engine and Muffler  
Model Airplane Engine : 4-cycle .180

Muffler

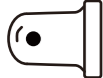


Glow Plug

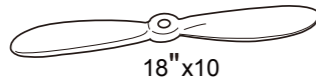


Purchase a propeller that will match your engine.

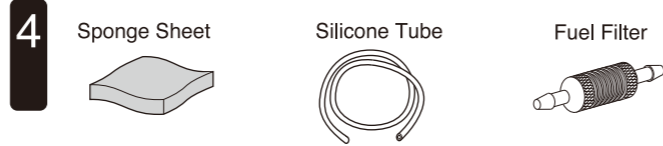
**3** Propeller Spinner



Spinner nut

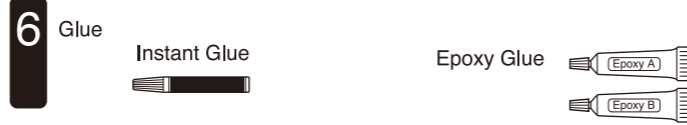
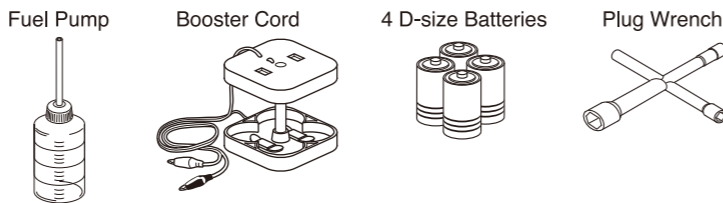


18" x10

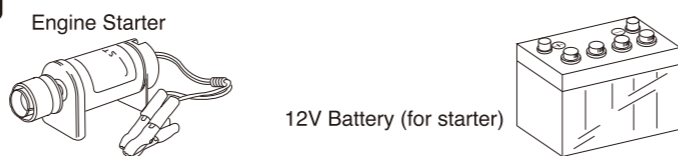


**5** Required for engine starting:      Glow engine fuel only.

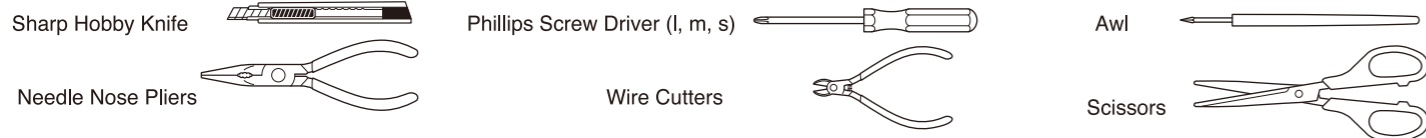
**WARNING:** Normal gasoline cannot be used with glow engines.



**7** Other equipment for enhancing airplane operation & performance



**TOOLS REQUIRED (Purchase separately!)**



**BEFORE YOU BEGIN**

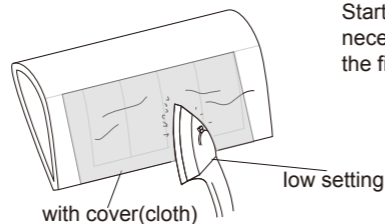
- 1 Read through the manual before you begin, so you will have an overall idea of what to do.
- 2 Check all parts. If you find any defective or missing parts, contact your local dealer.
- 3 Symbols used throughout this instruction manual, comprise:

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!**

**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.

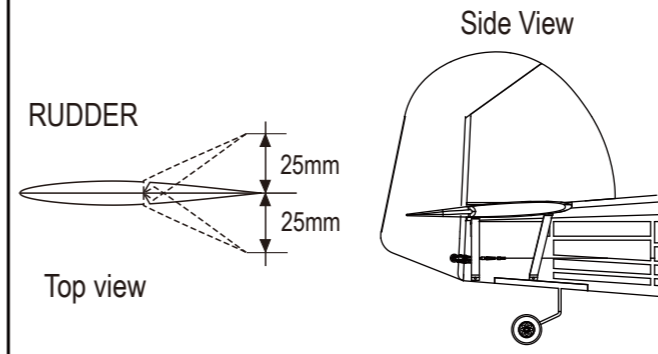
The pre-covered film on ARF kits may wrinkle due to variations of temperature. Smooth out as explained right.



► 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.

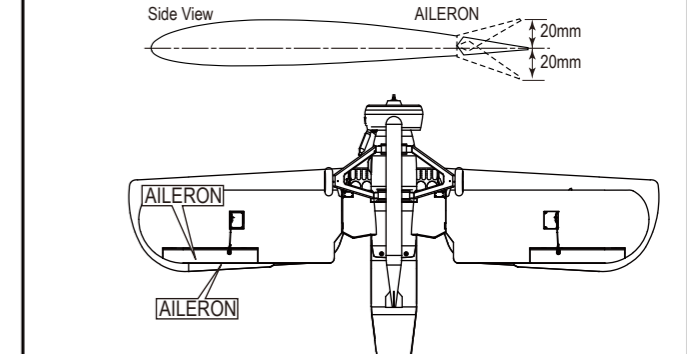
**89** Adjustment.

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.



**90** 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.

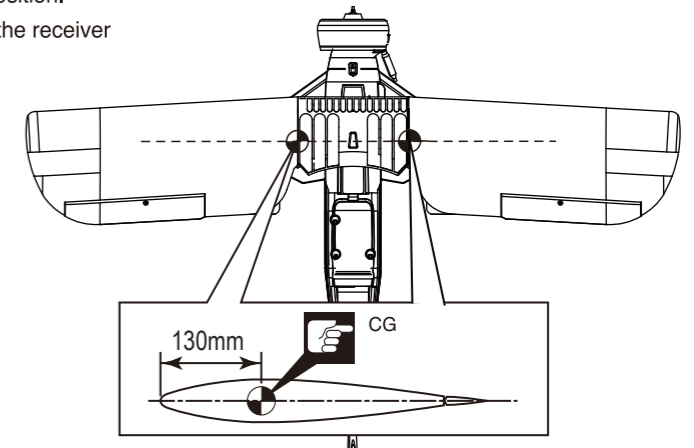


**91** Centre of Gravity.

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

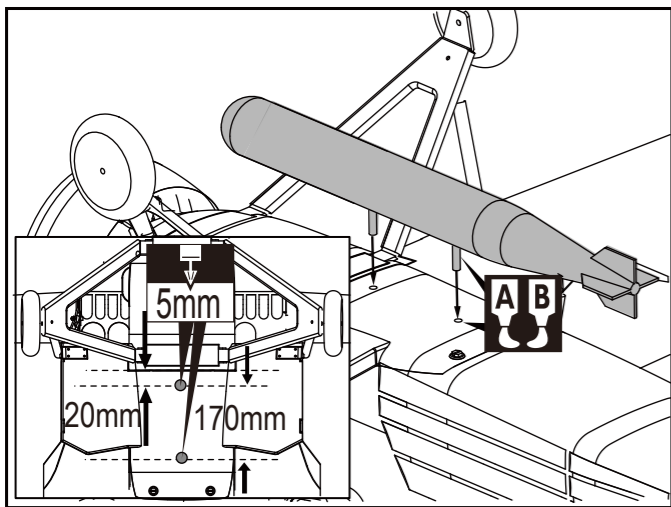
**警告**  
**Warning!**

► **NEVER fly the model without well balancing.**

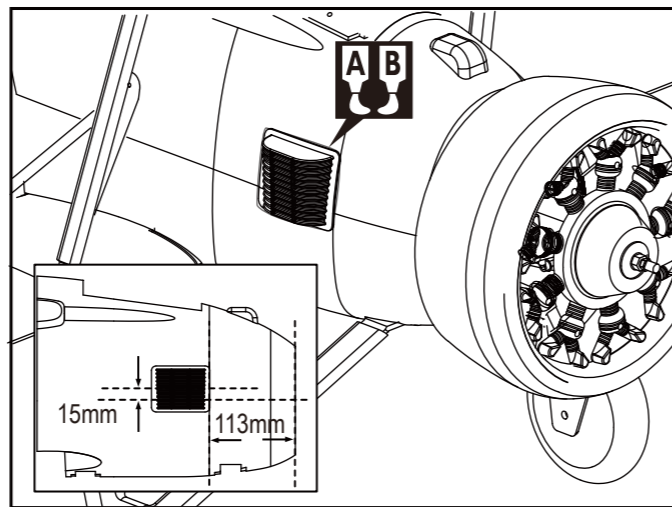


Apply epoxy glue.	Assemble left and right sides the same way.	Pay close attention here!	Do not overlook this symbol! <b>Warning!</b>
Apply instant glue (CA glue, super glue).	Ensure smooth non-binding movement while assembling.	Cut off shaded portion.	

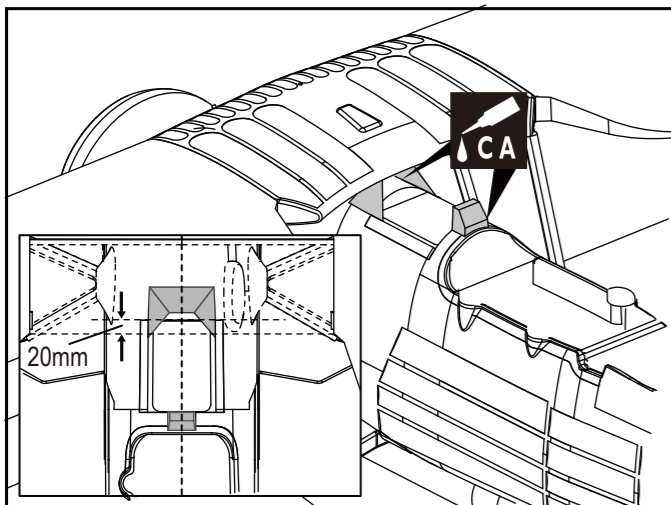
**83** Drill holes to relevant position on the fuselage and epoxy the dummy bomb in it steadily.



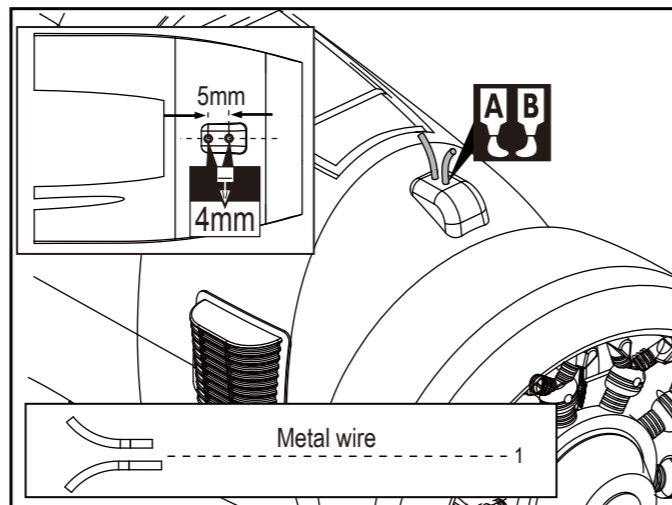
**86** Trim the dummy radiator careful along the shaded line and epoxy it to relevant position on the fuselage.



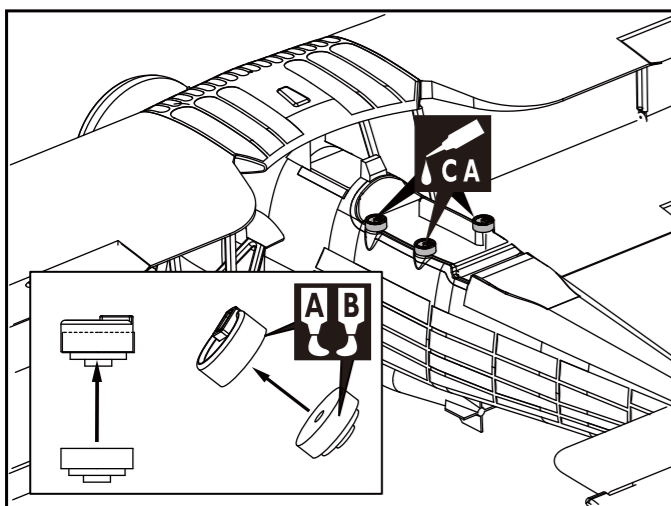
**84** Epoxy the small fairings to appropriate position on the fuselage.



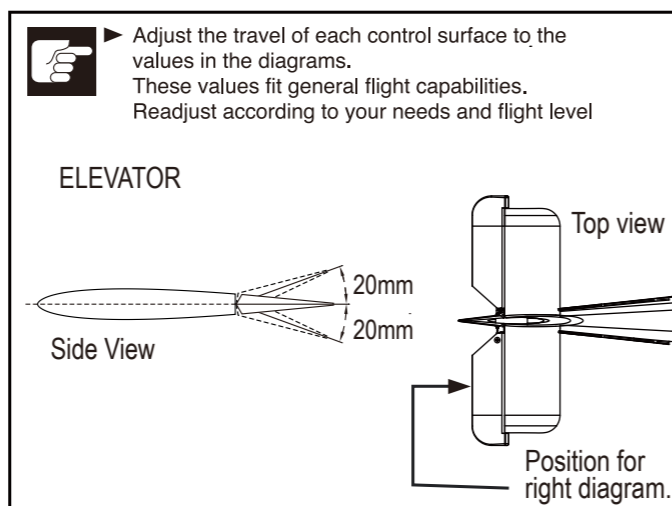
**87** Epoxy the wire to the relevant holes as illustration.



**85** Epoxy the PVC to the ply and glue it to the fuselage as illustration.



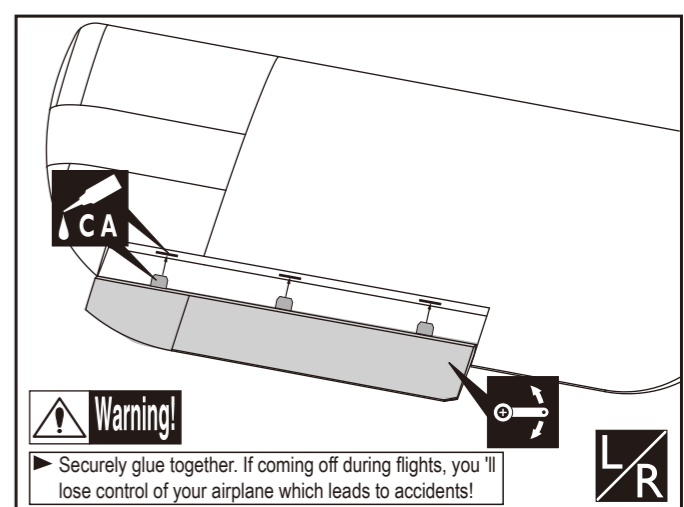
**88** Adjustment.



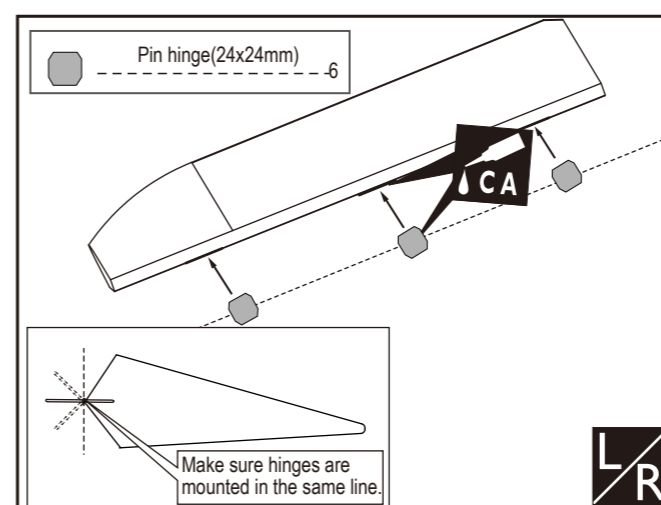
**Warning!** Accessory list for the coming installation steps.

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

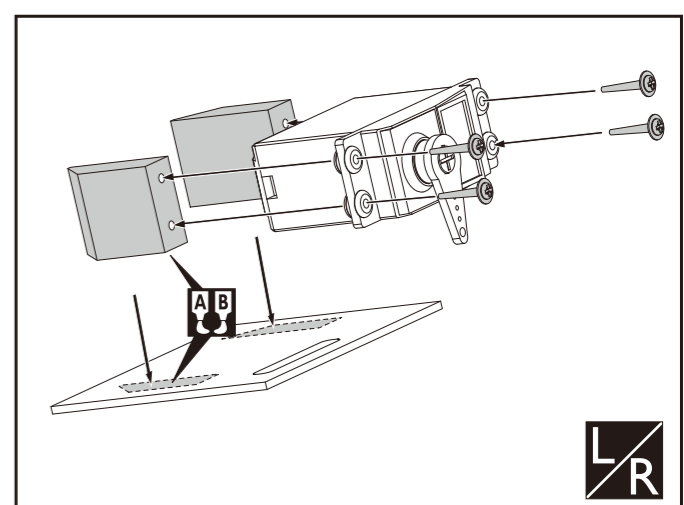
**3** Assemble the aileron to main wing with instant type CA glue.



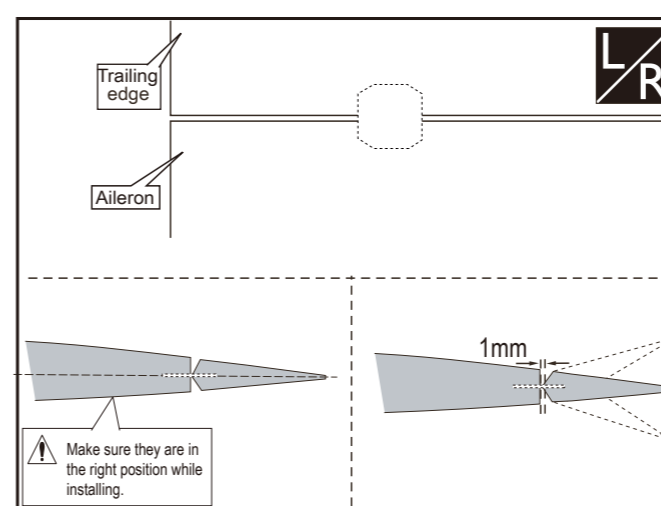
**1** Apply instant type CA glue to the aileron of top wing and pin hinge..



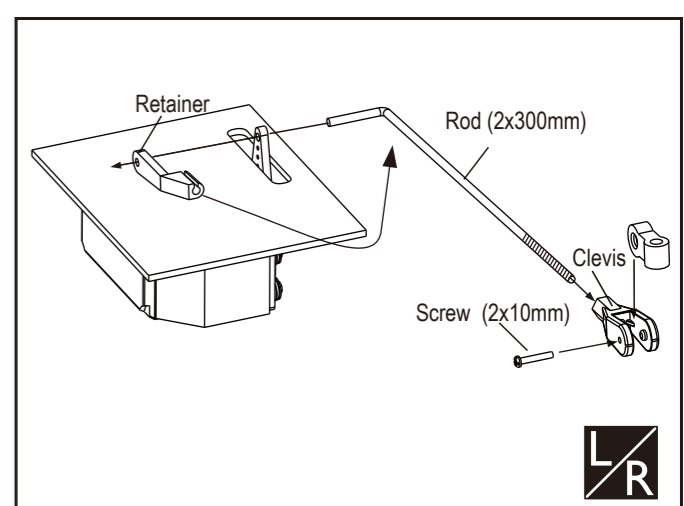
**4** Install the servo as the illustration below



**2** Keep 1mm width space between aileron and trailing edge.



**5** Install the nylon control horn and connect the linkage.



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

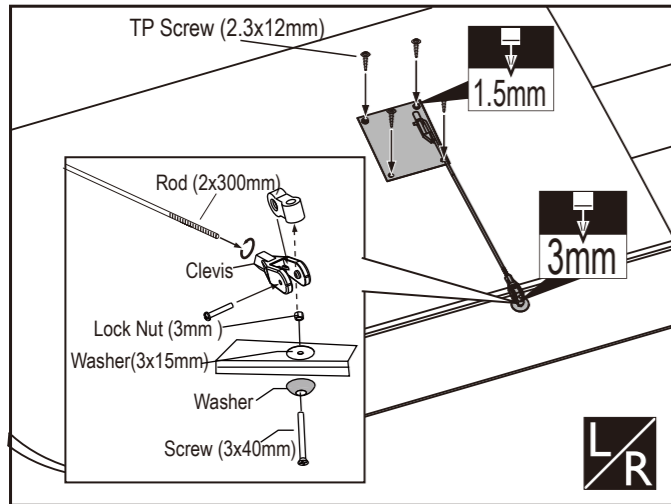
**CA** Apply instant glue (CA glue, super glue). **Arrow icon** Ensure smooth non-binding movement while assembling. **Scissors icon** Cut off shaded portion.

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

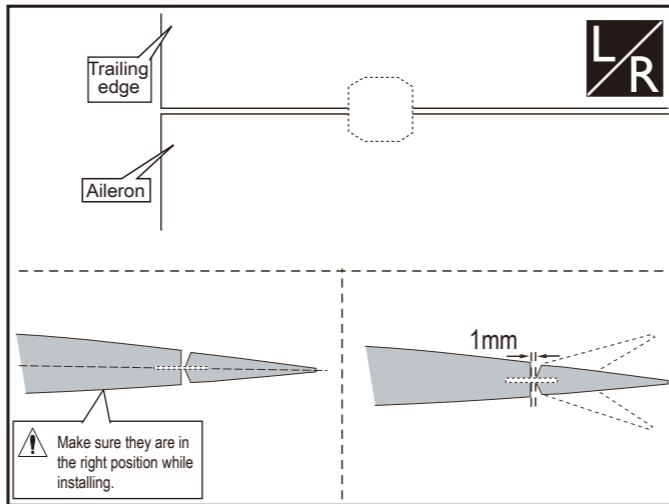
**CA** Apply instant glue (CA glue, super glue). **Arrow icon** Ensure smooth non-binding movement while assembling. **Scissors icon** Cut off shaded portion. **X icon** Must be purchased separately!



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



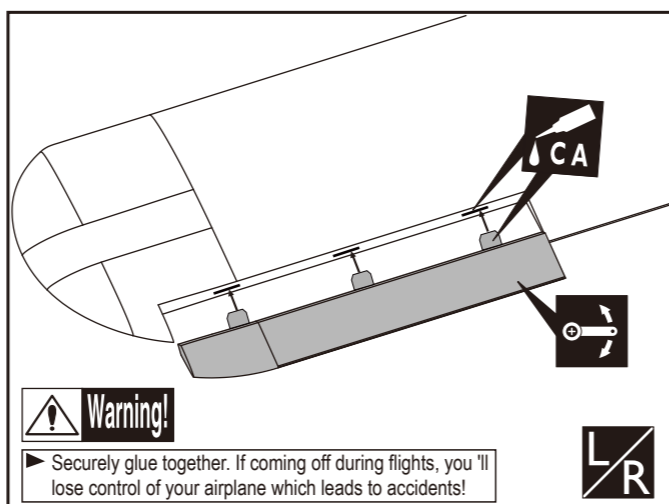
**8** Keep about 1mm width space between aileron and trailing edge.



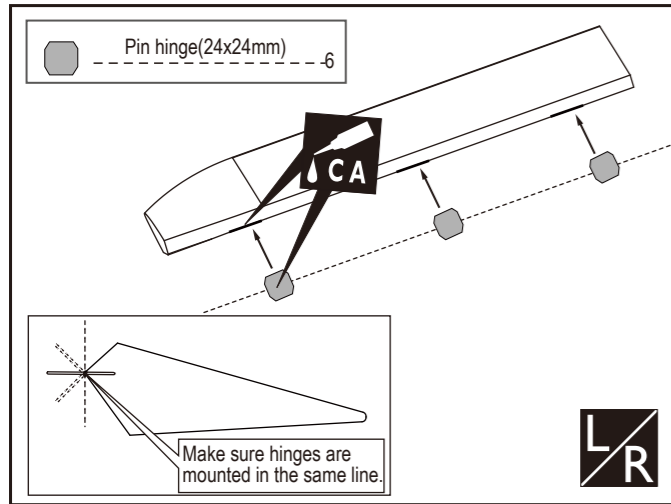
**Accessory list for the coming installation steps.**

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

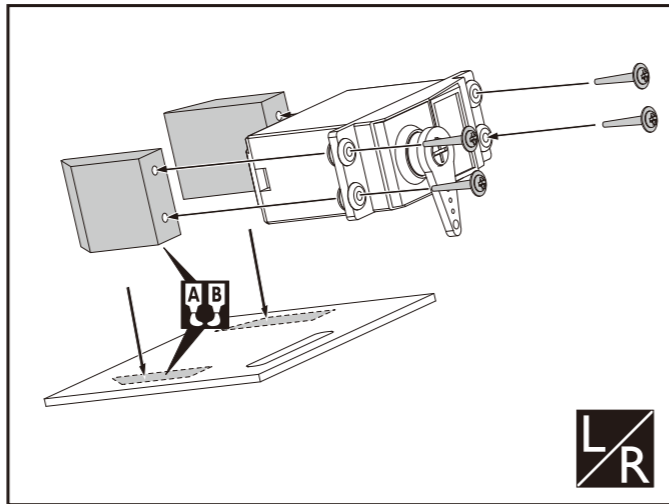
**9** Assemble the aileron to main wing with instant type CA glue.



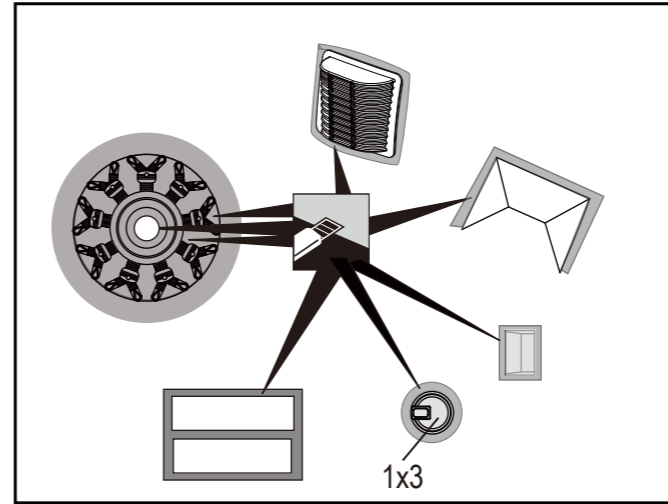
**7** Apply instant type CA glue to the aileron of bottom wing and pin hinge.



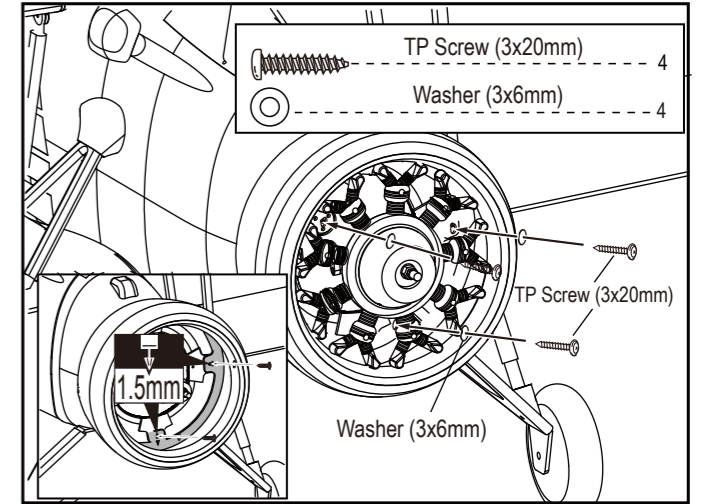
**10** Install the servo as the illustration below



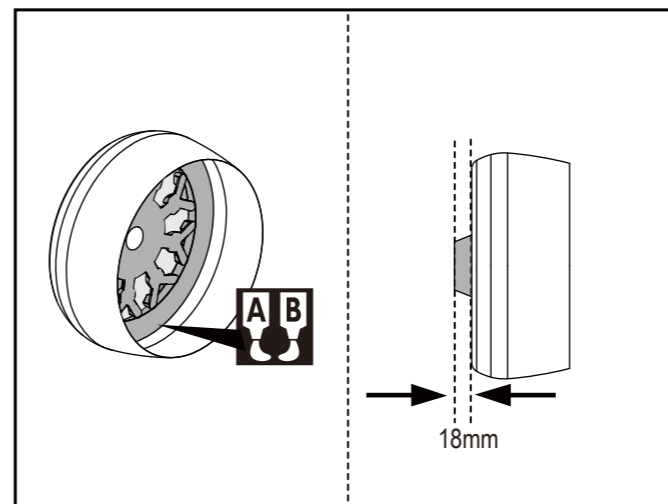
**77** Cut the surplus portion off the dummy engine carefully.



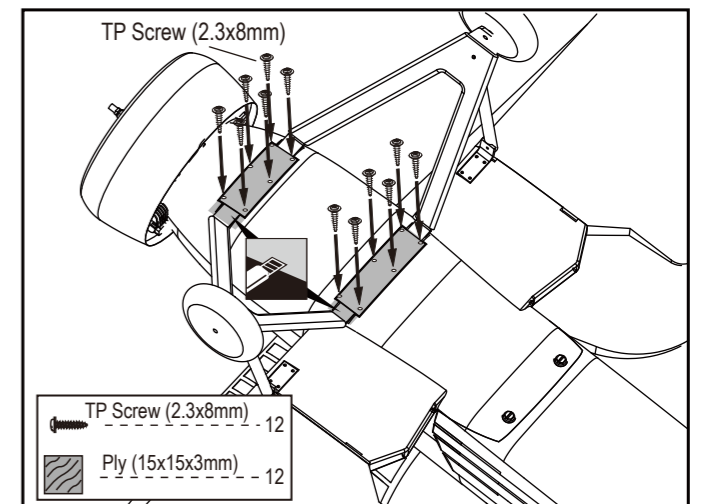
**80** Epoxy the dummy engine to appropriate position in the cowl.



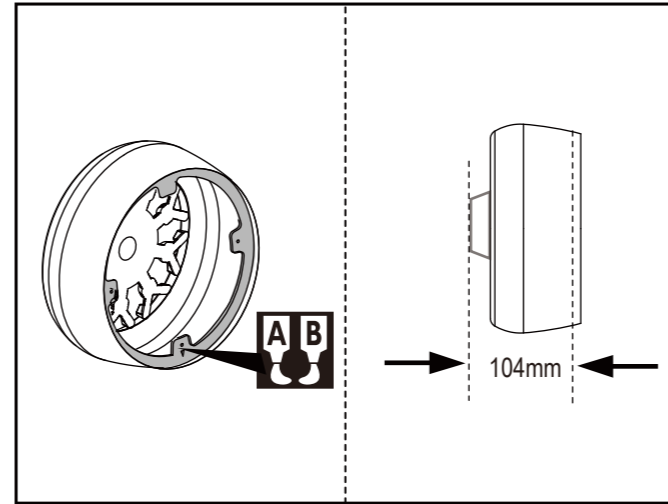
**78** Epoxy the cowl frame to appropriate position in the cowl.



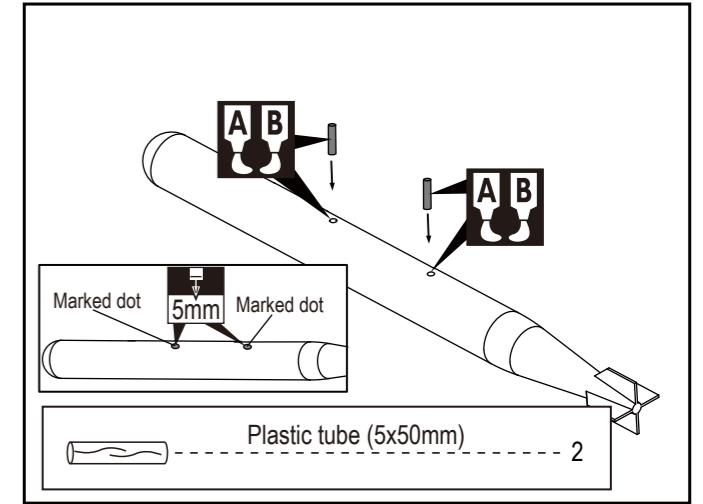
**81** Covering the landing gear section which on the fuselage with PVC parts.



**79** Epoxy the cowl frame to appropriate position in the cowl.



**82** Drill holes to appropriate position in the dummy bomb and epoxy the wood dowel in them.



**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!

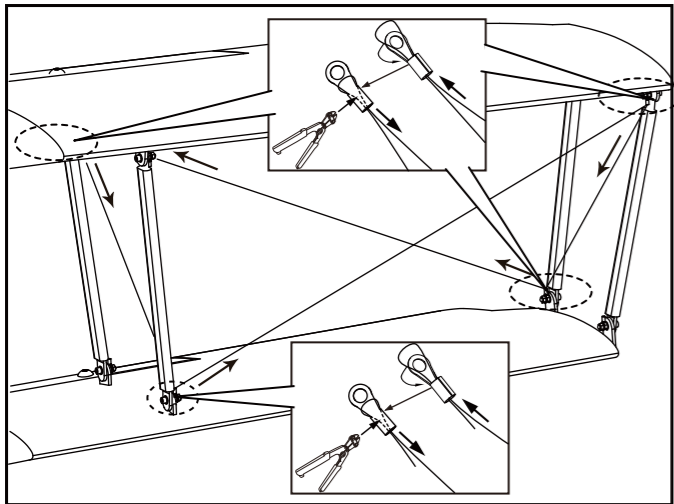
**CA** Apply instant glue (CA glue, super glue). **Arrow icon** Ensure smooth non-binding movement while assembling. **Scissors icon** Cut off shaded portion.

**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!

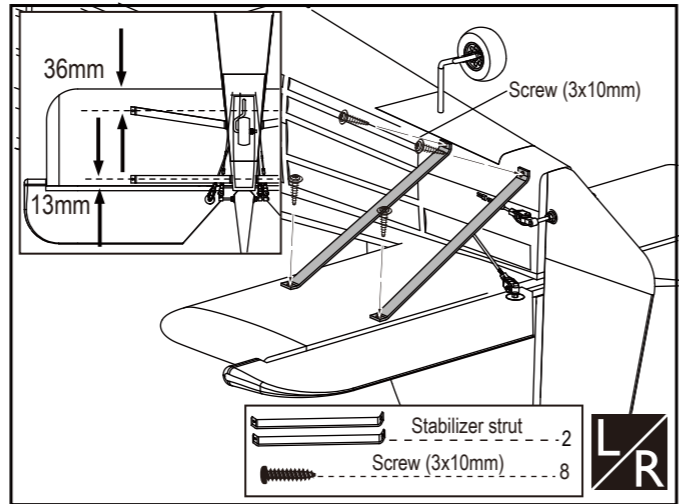
**CA** Apply instant glue (CA glue, super glue). **Arrow icon** Ensure smooth non-binding movement while assembling. **Scissors icon** Cut off shaded portion.



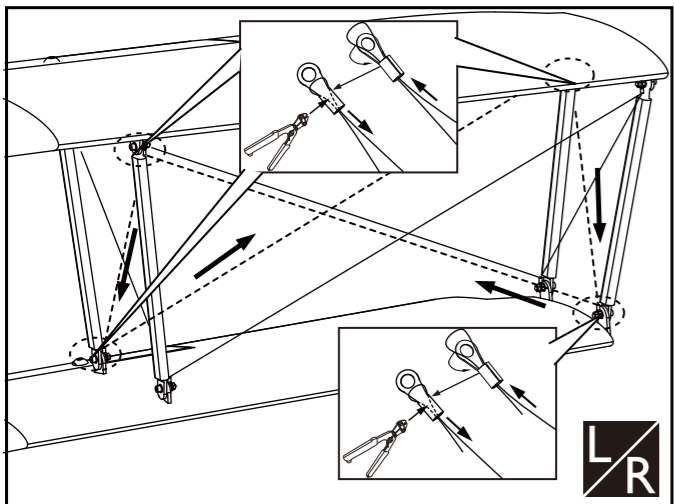
**72** Notice the alignment of the steel wire when assemble it.



**75** Assemble the stabilizer strut.



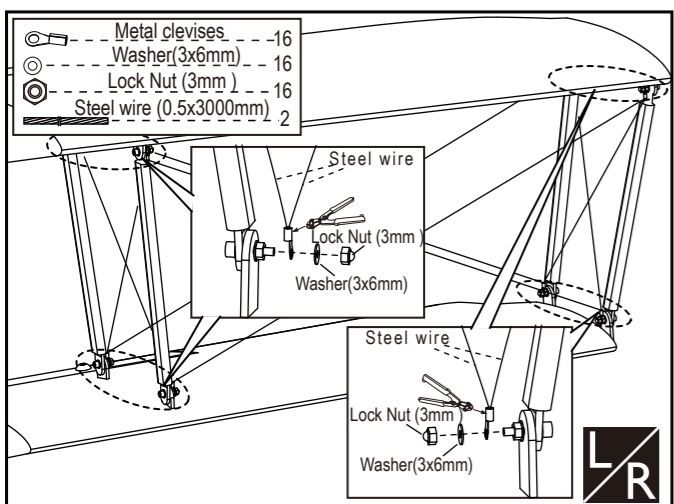
**73** Notice the alignment of the steel wire when assemble it.



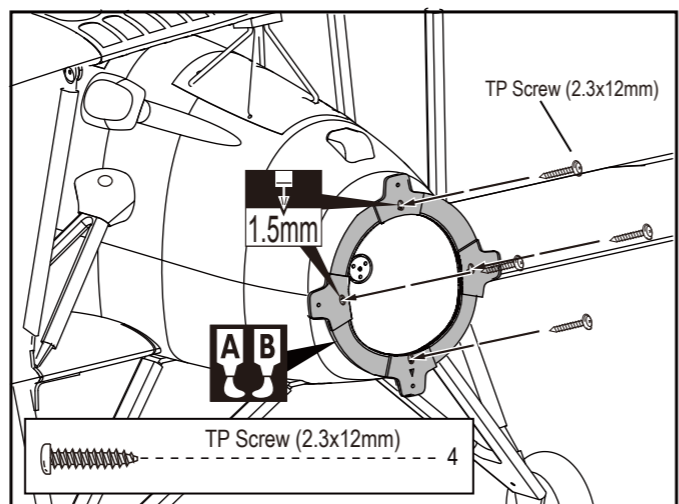
**Warning!** Accessory list for the coming installation steps.

Plastic tube (5x50mm) - 2	Metal wire - 1
Cowl mount - 1	TP Screw (2.3x8mm) - 12
Cowl mount - 1	Ply (15x15x3mm) - 12
Dummy engine - 1	Ply (9mm) - 3
TP Screw (2.3x12mm) - 4	TP Screw (3x20mm) - 4
PVC - 1	Washer (3x6mm) - 4
PVC - 1	PVC - 3
PVC - 1	PVC - 1

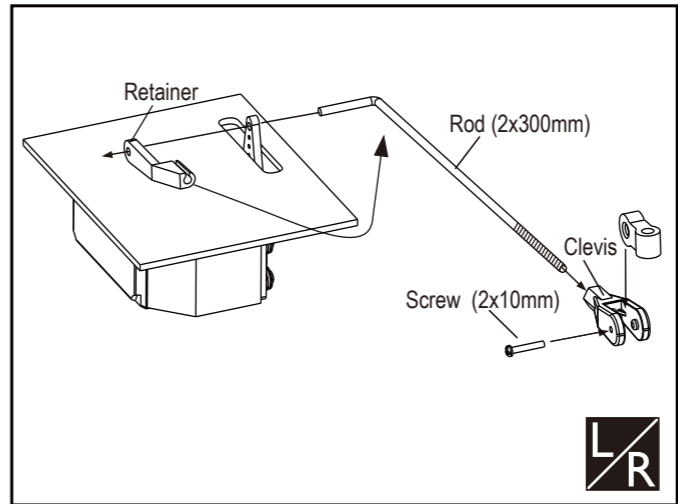
**74** Connect the steel wire to the wing strut and fix them with lock nut.



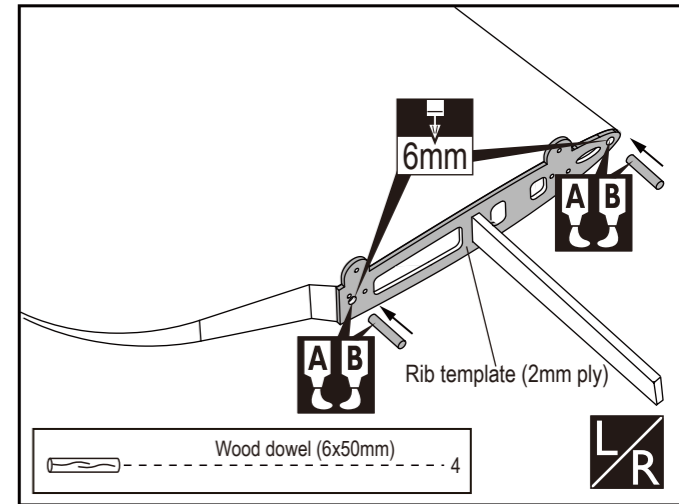
**76** Assemble the cowl mount to the head of fuselage.



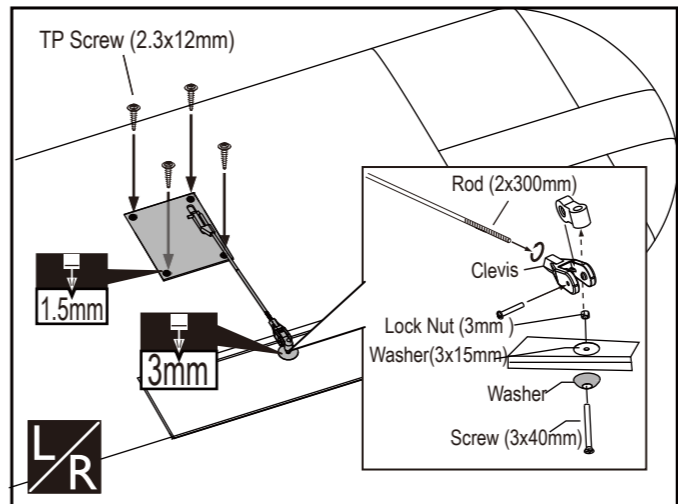
**11** Install the nylon control horn and connect the linkage.



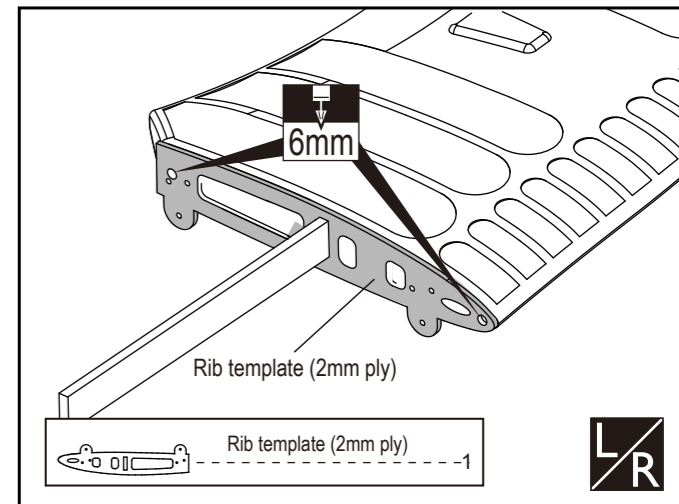
**13** According to the rib template drill holes to the top outer wing and epoxy wood dowel in them.



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



**14** According to the rib template drill holes to the top mid-wing.



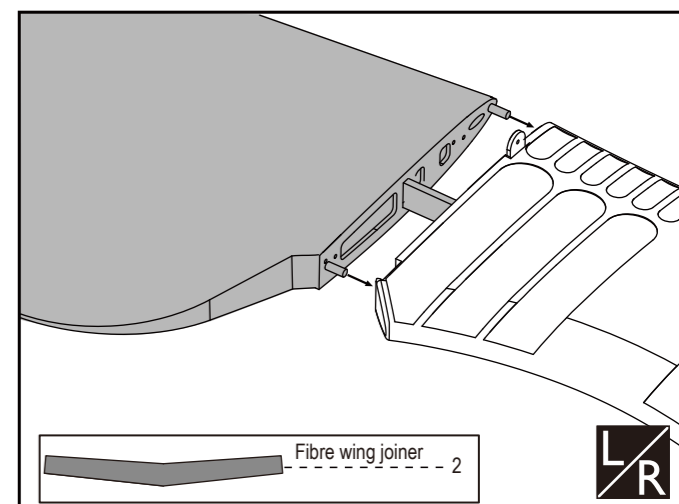
**AB** Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

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

**Warning!** Accessory list for the coming installation steps.

Wood dowel (6x50mm) - 10	Screw (3x20mm) - 16
Rib template (2mm ply) - 1	Washer (3x6mm) - 34
Fibre wing joiner - 2	Nut (3mm) - 16
Rib template (2mm ply) - 1	Screw (3x16mm) - 16
Main wing joiner (20x980mm) - 1	Screw (4x40mm) - 2
Screw(6x50mm) - 2	TP Screw (2.3x8mm) - 1
Blind Nut (6mm) - 2	3x20mm TP Screw - 16
Matel wing struts - 2	Landing gear straps - 8
Matel wing struts - 2	Matel wing struts - 4
Matel wing struts - 2	Matel wing struts - 2
Matel wing struts - 2	Matel wing struts - 2
Aluminum block - 1	Wood wing struts(3mm) - 1

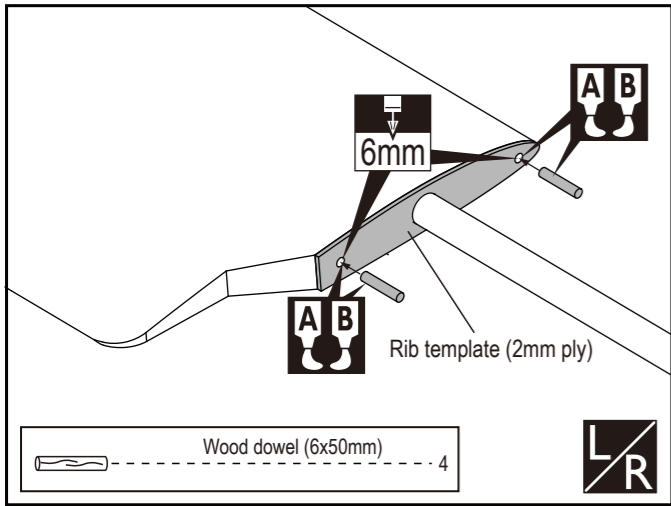
**15** Assemble the top wings hardly together by the wing joiner.



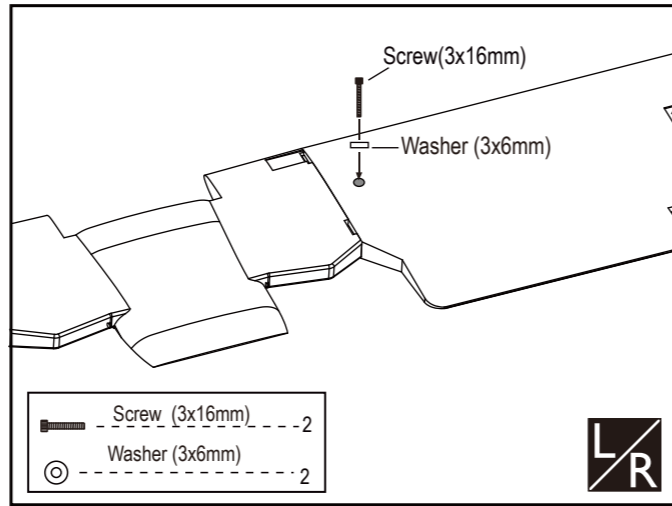
**AB** Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

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

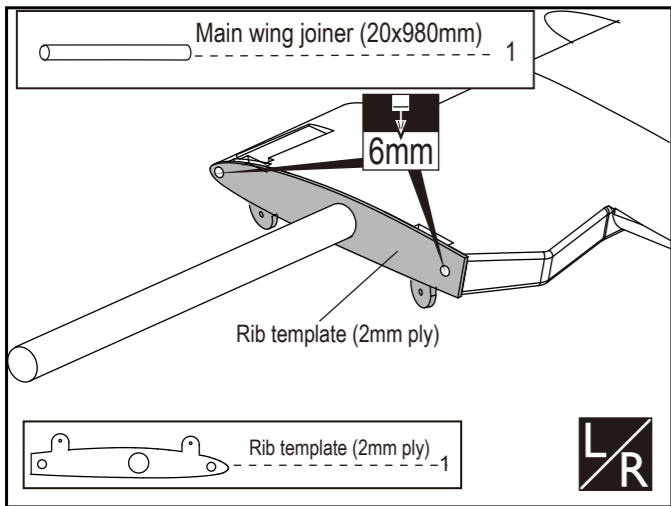
**16** According to the rib template drill holes to the bottom outer wing and epoxy wood dowel in them.



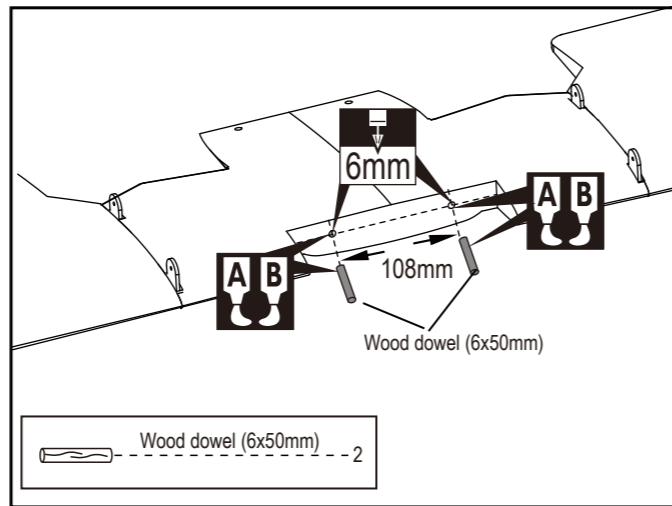
**19** Fix the wings steadily with screw.



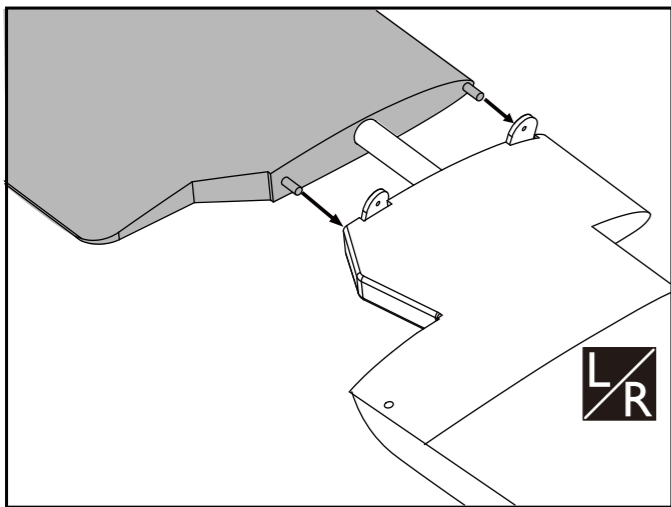
**17** According to the rib template drill holes to the bottom mid-wing.



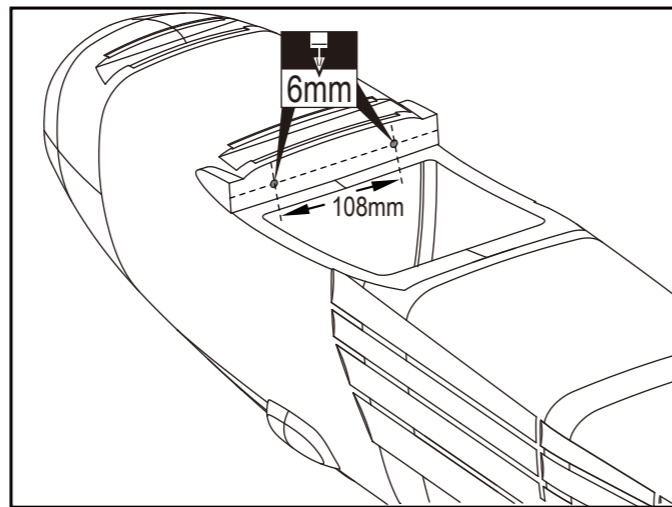
**20** Drill holes to appropriate position in the front of the bottom mid-wing.



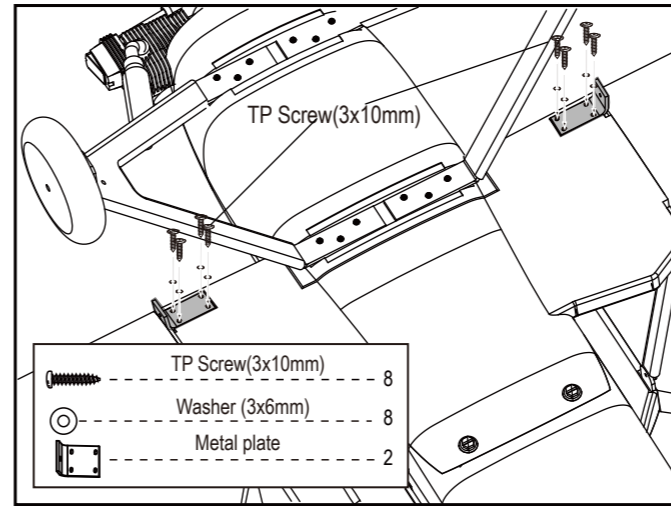
**18** Assemble the bottom wings hardy together by the main wing joiner.



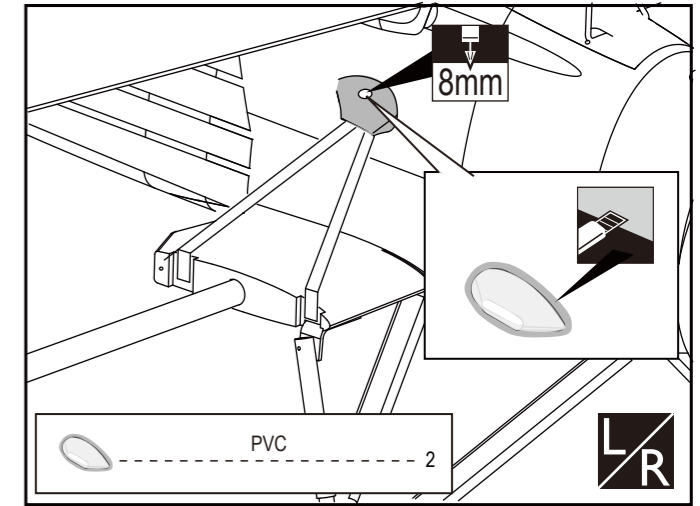
**21** Drill holes to relevant position in the fuselage.



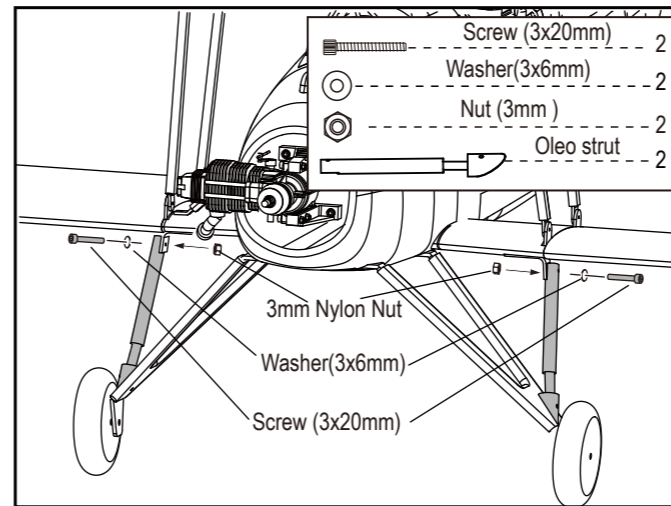
**65** Fix the metal plate to the appropriate position steadily on the bottom of the lower wing.



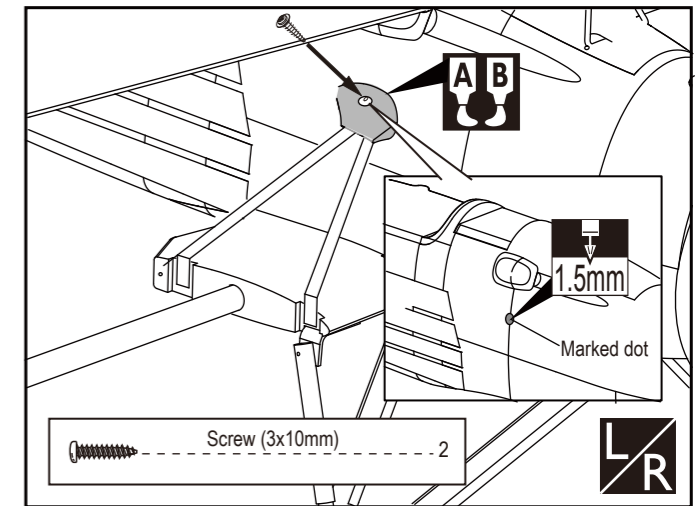
**68** Fix another side of the lower wing strut to the fuselage and glue the PVC parts to it as illustration.



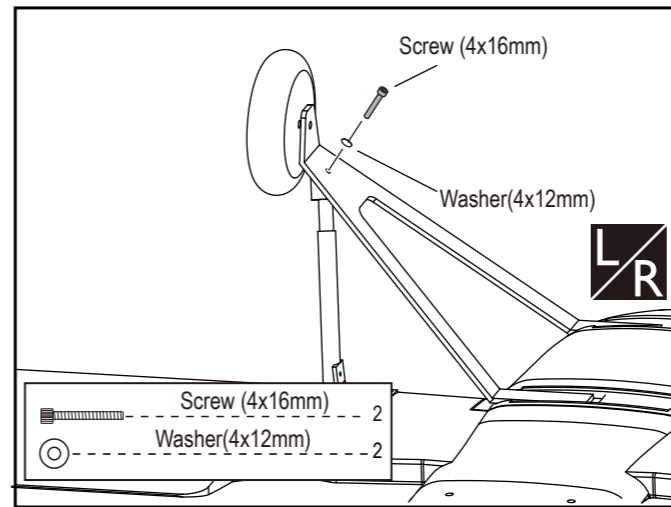
**66** Fix the oleo strut to the main landing gear and the metal plate as plan.



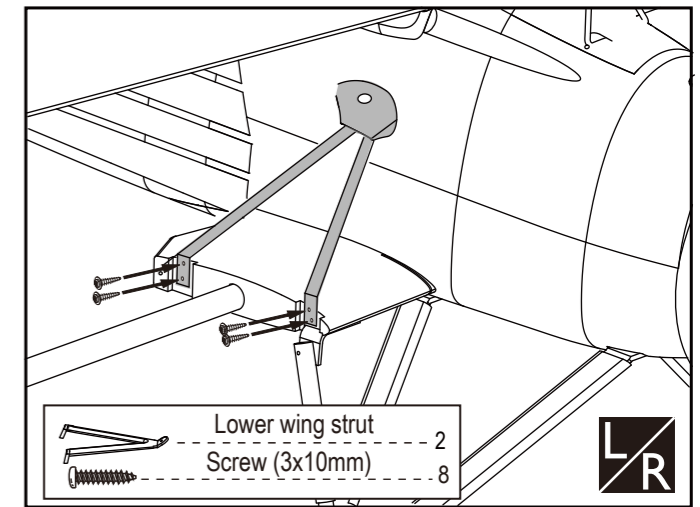
**69** Fix another side of the lower wing strut to the fuselage and glue the PVC parts to it as illustration.



**67** Fix the oleo strut to the main landing gear and the metal plate as plan.



**70** Fix one side of the lower wing strut to appropriate position on the lower centre wing root.



**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!

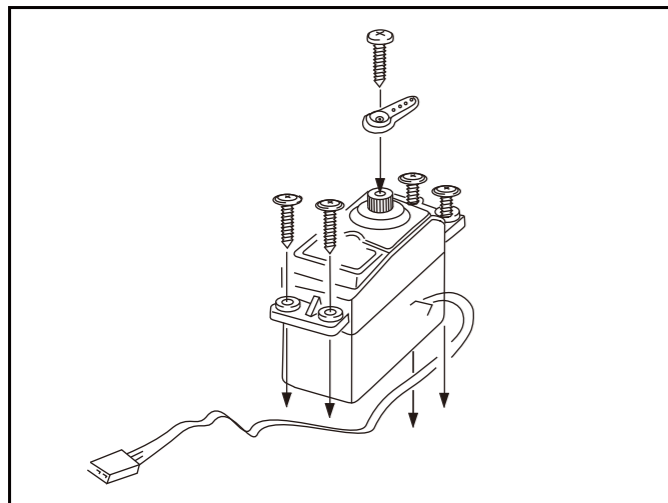
**CA** Apply instant glue (CA glue, super glue). **Arrow** Ensure smooth non-binding movement while assembling. **Scissors** Cut off shaded portion.

**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.



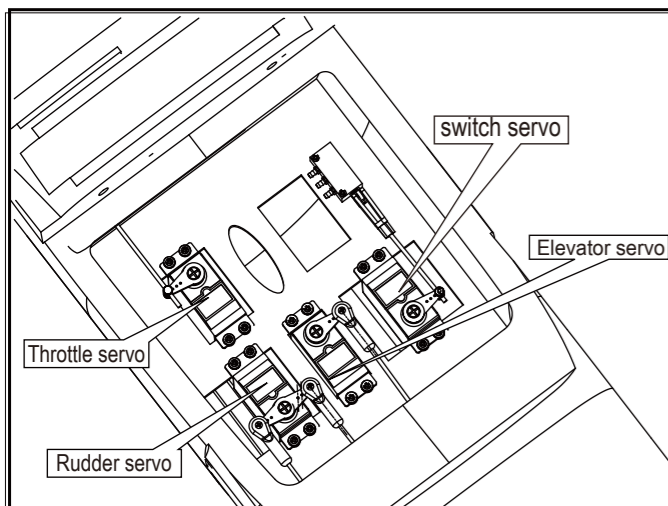
**60** Install the servo of switch.



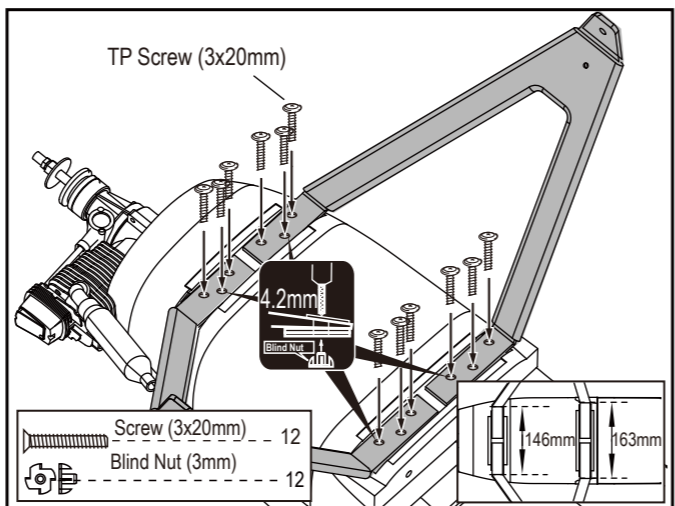
**Accessory list for the coming installation steps.**

	1		2
	2		2
	2		2
	2		8
	4		2
	2		18
	2		26
	2		16
	8		18
	12		2
	12		2
	2		2

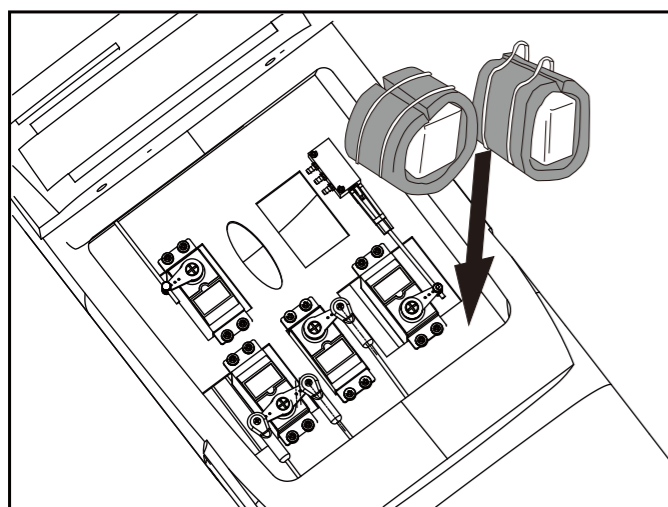
**61** The sketch map when the servos install completion.



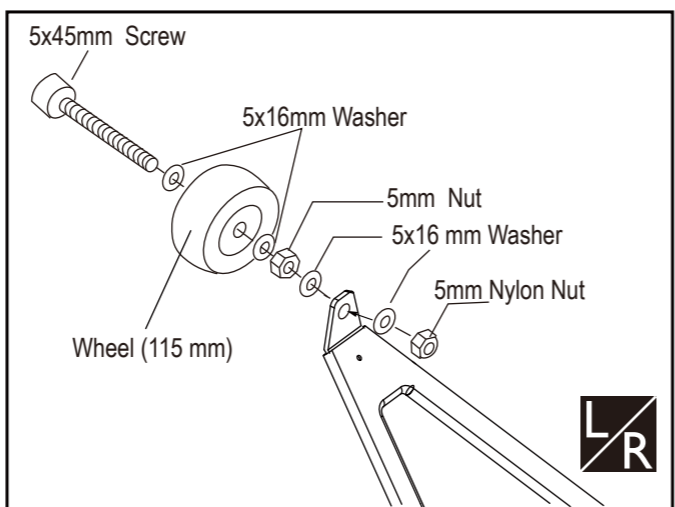
**63** Assemble the main landing gear to fuselage with screw.



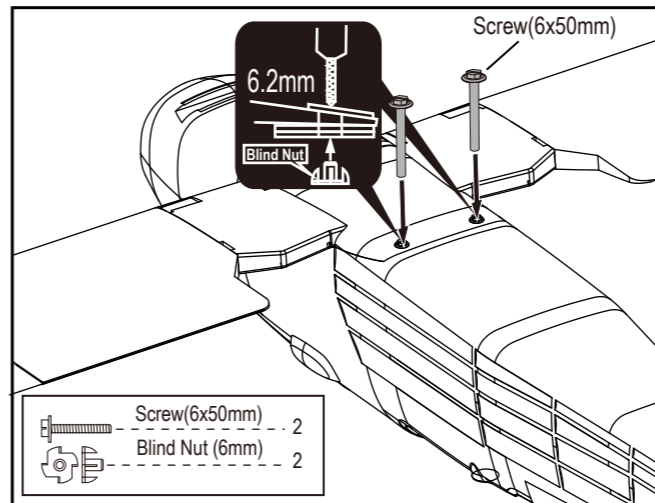
**62** Assemble the receiver and the battery to appropriate position in the fuselage.



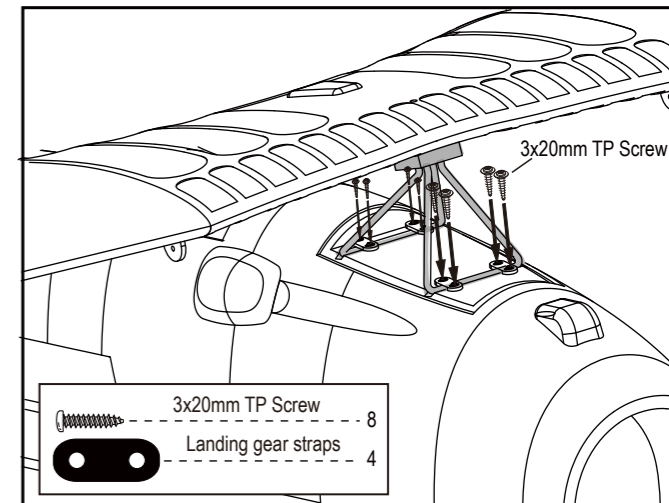
**64** Assemble the wheel to the main landing gear as illustration.



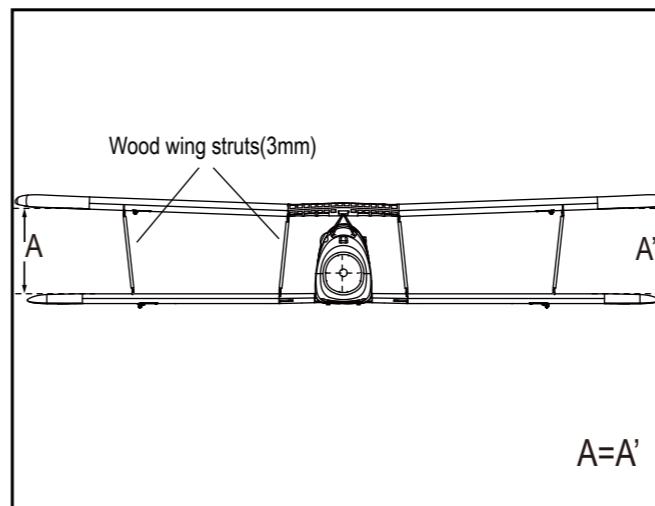
**22** Set blind nut to appropriate position in the fuselage and assemble the bottom wings to fuselage with screw as illustration.



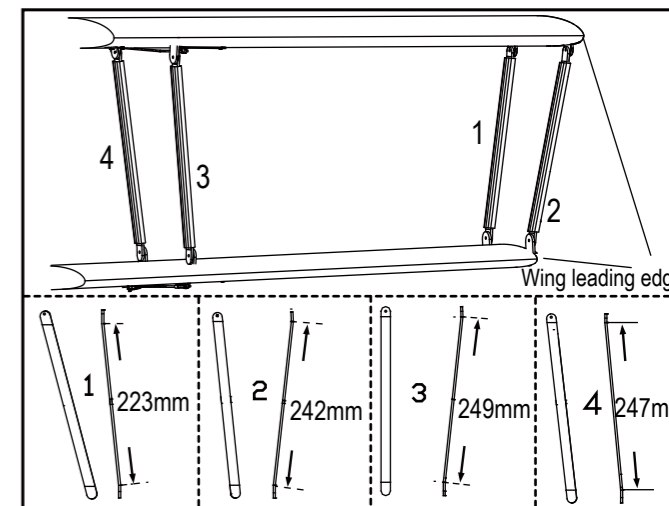
**25** Fix the top mid wing struts to the fuselage with gear plates as illustration.



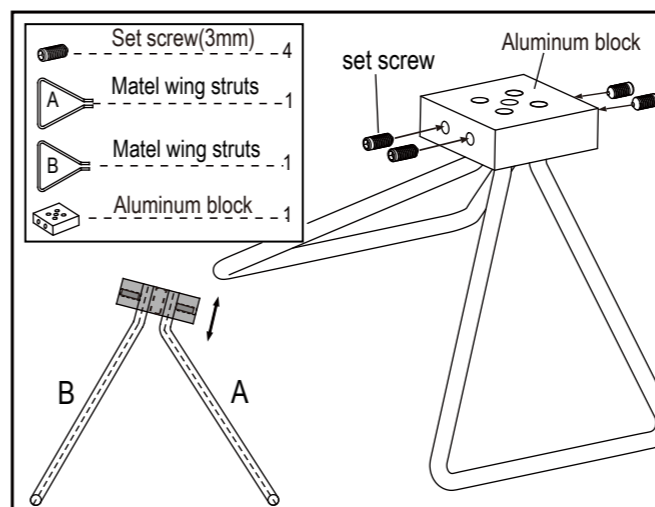
**23** The front view when the wings strut assembled completely.



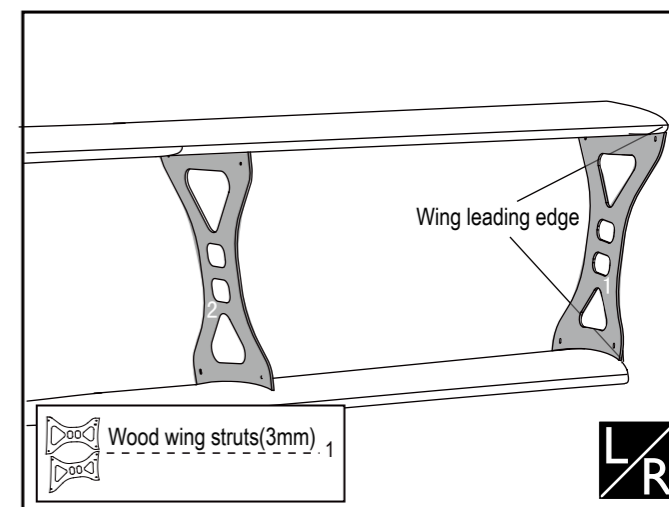
**26** The sketch map when the wing strut assembly completion.



**24** Assemble the top mid-wing struts to the aluminum block until right position and fix them with set screw.



**27** Using the wood wing struts to hold the wings first in appropriate position.



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

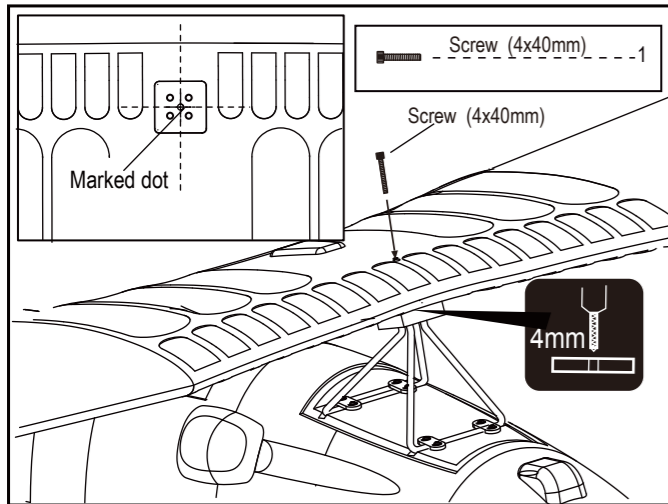
**CA** Apply instant glue (CA glue, super glue). **Arrow** Ensure smooth non-binding movement while assembling. **Scissors** Cut off shaded portion.

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

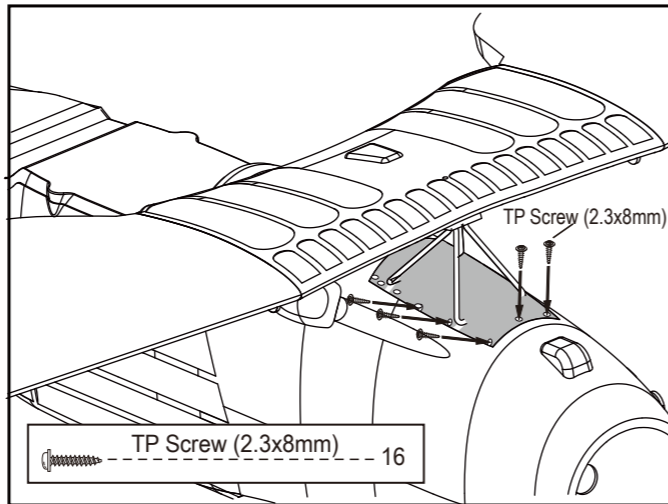
**CA** Apply instant glue (CA glue, super glue). **Arrow** Ensure smooth non-binding movement while assembling. **Scissors** Cut off shaded portion.



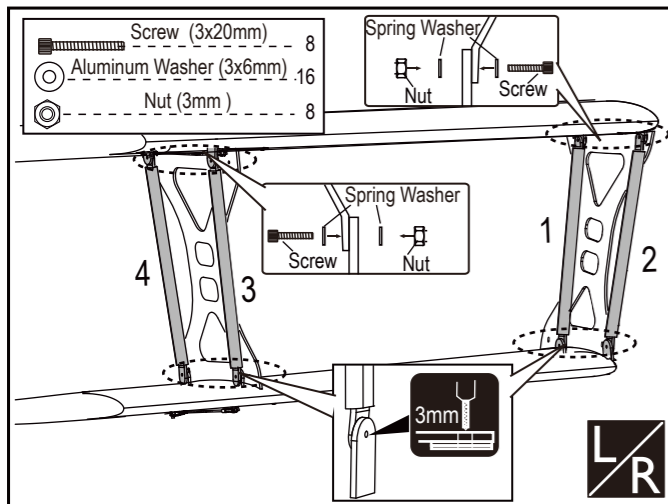
**28** Assemble the aluminum block to appropriate position on bottom of the top wing with screw.



**31** Assemble the fiber cover to fuselage with the top screw as plan.



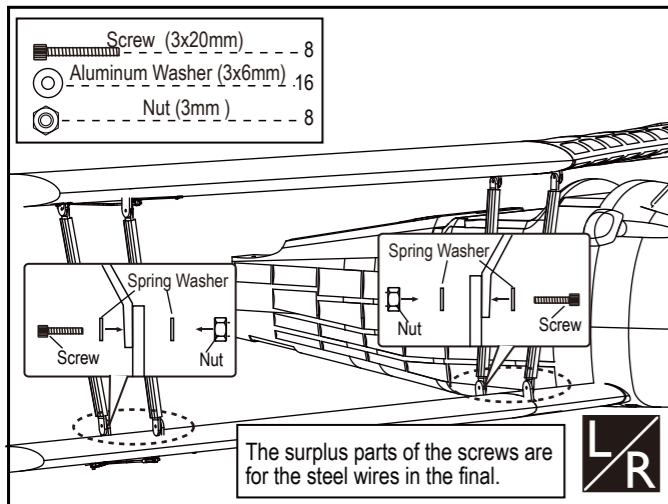
**29** Assemble the metal wing struts to appropriate position in the wing as illustration.



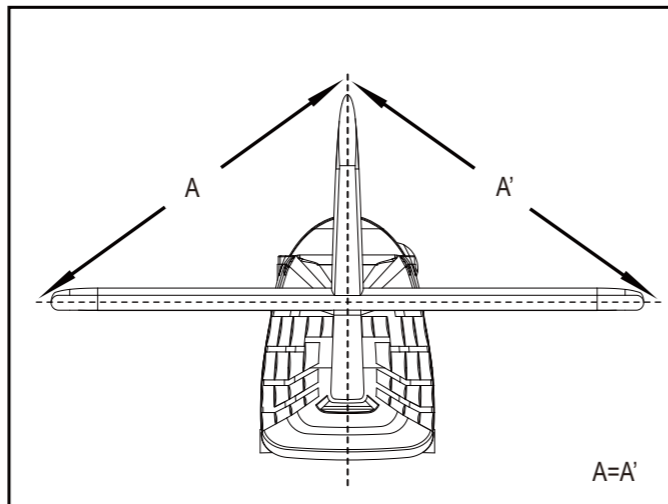
**Warning!** Accessory list for the coming installation steps.

- Pin hinge(24x24mm) ..... 6
- U-style wire (25x140mm) ..... 1
- Pin hinge(2.5x48mm) ..... 3
- Screw (4x90mm) ..... 2
- Washer (4x12mm) ..... 2

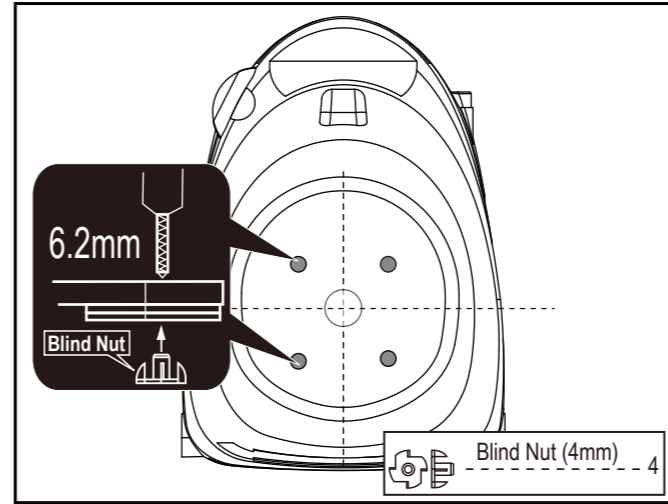
**30** Fix the top and bottom wing strut with screws.



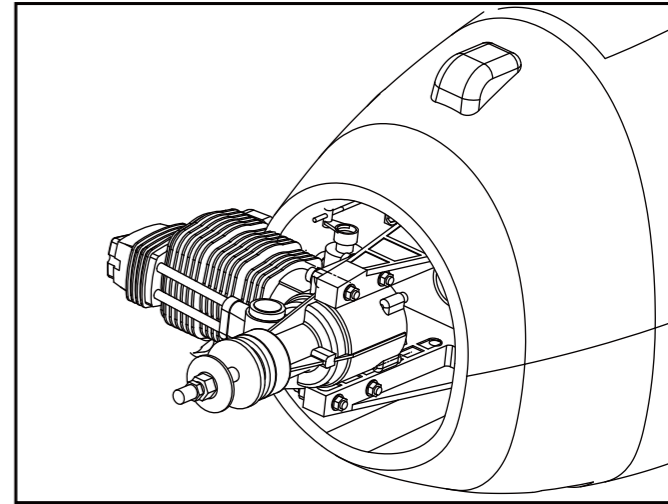
**32** The sketch map when the stabilizer and rudder assembly completion.



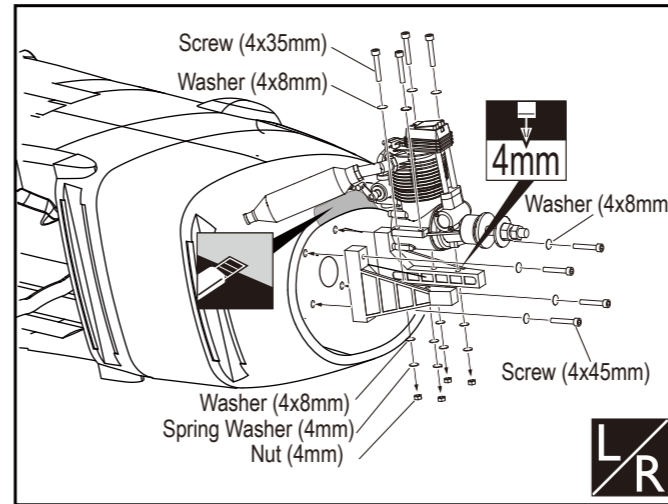
**55** Down action the center line, drilling holes and set blind nut to the appropriate symmetrical position for assembling engine mount.



**58** The sketch map of the the push rod assemble completion



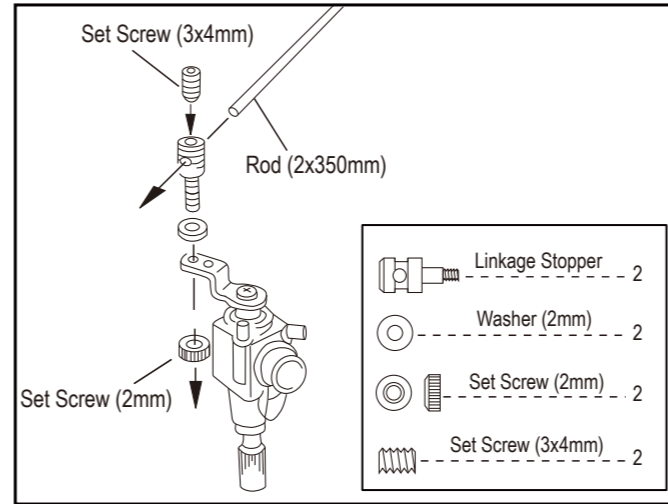
**56** Assemble the engine as below.



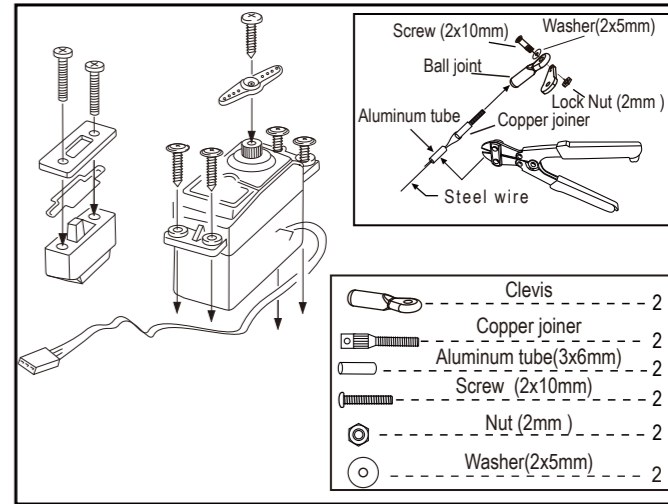
**Warning!** Accessory list for the coming installation steps.

- Retainer ..... 1
- Clevis ..... 2
- Copper joiner ..... 4
- Aluminum tube(3x6mm) ..... 2
- Screw (2x10mm) ..... 3
- Nut (2mm) ..... 3
- Washer(2x5mm) ..... 3
- Rod (2X300mm) ..... 1
- Ring ..... 1
- Switch ..... 1
- Clevis ..... 1

**57** Assemble the accelerator push rod to the engine.



**59** Assembly of the rudder servo.



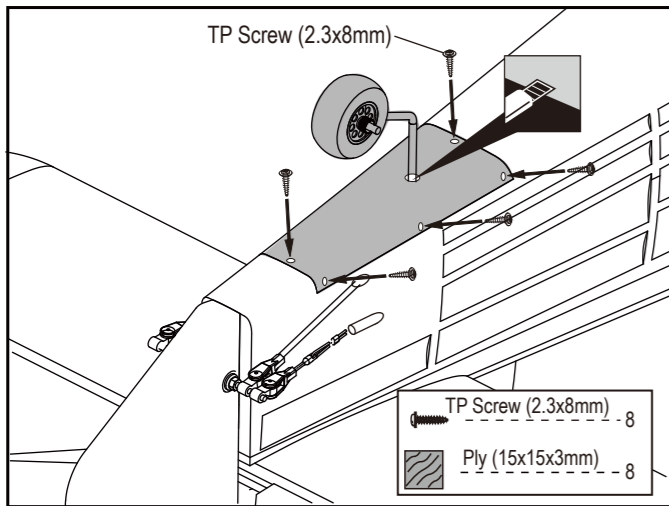
**AB** Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

**CA** Apply instant glue (CA glue, super glue). **7** 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!

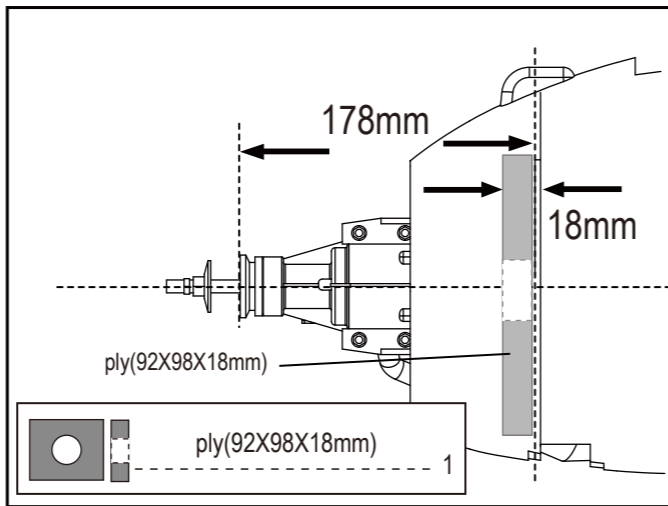
**CA** Apply instant glue (CA glue, super glue). **7** Ensure smooth non-binding movement while assembling. **Scissors icon** Cut off shaded portion. **Polish icon** Polish the surface flat.

**50** Epoxy ply to appropriate position in the fuselage and assemble the tail gear cover with screw.



- TP Screw (2.3x8mm) - 8
- Ply (15x15x3mm) - 8

**52** The side sketch map of the engine installation finished.

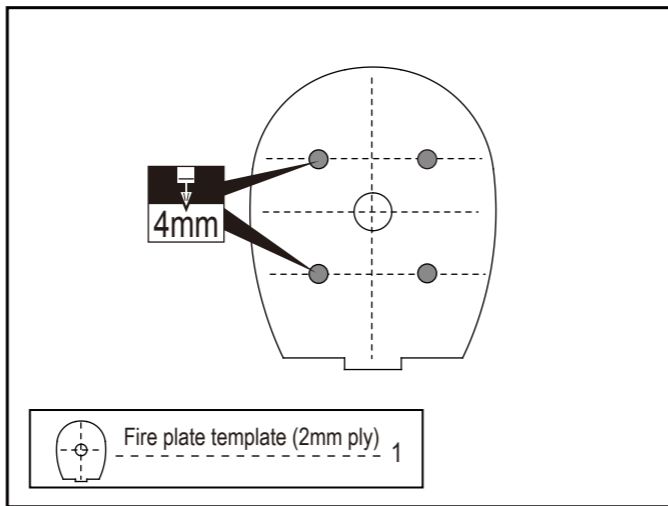


- ply(92X98X18mm) 1

**Accessory list for the coming installation steps.**

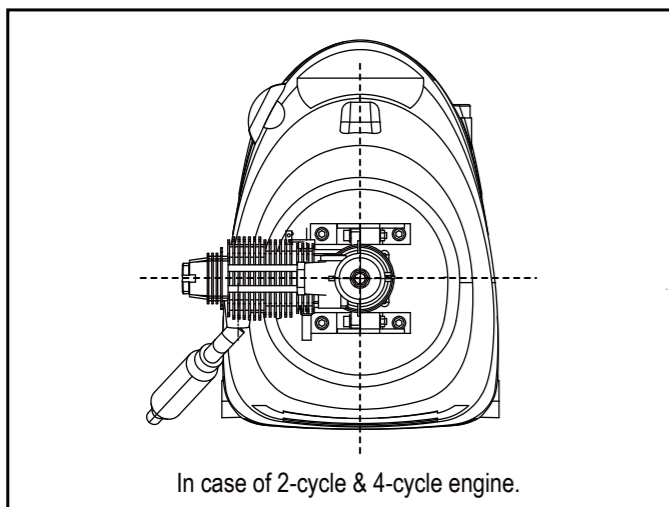
- Blind Nut (4mm) - 4
- Screw (4x35mm) - 4
- Screw (4x45mm) - 4
- Washer(4x8mm) - 12
- Spring Washer (4mm) - 4
- Nut (4mm) - 4
- Linkage Stopper - 2
- Plastic tube (2x400mm) - 1
- Engine mount (68x105mm) - 2
- Fuel tank (550cc) - 1
- Fire plate template (2mm ply) - 1
- ply(92X98X18mm) - 1

**53** Drill holes to appropriate position in the fire plate template according to the engine mount.



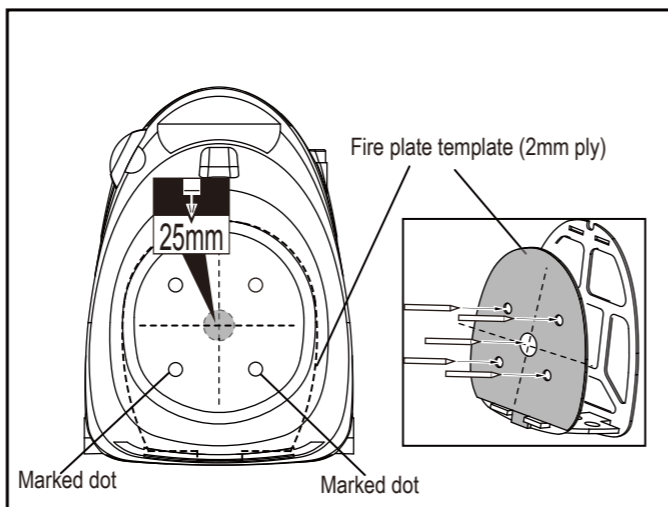
- Fire plate template (2mm ply) 1

**51** The front view of the engine installation finished.



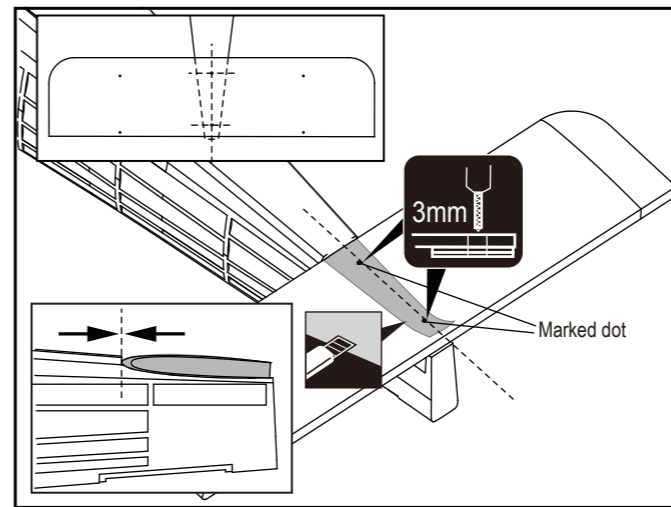
In case of 2-cycle & 4-cycle engine.

**54** According to the fire plate template mark on the fire plate.

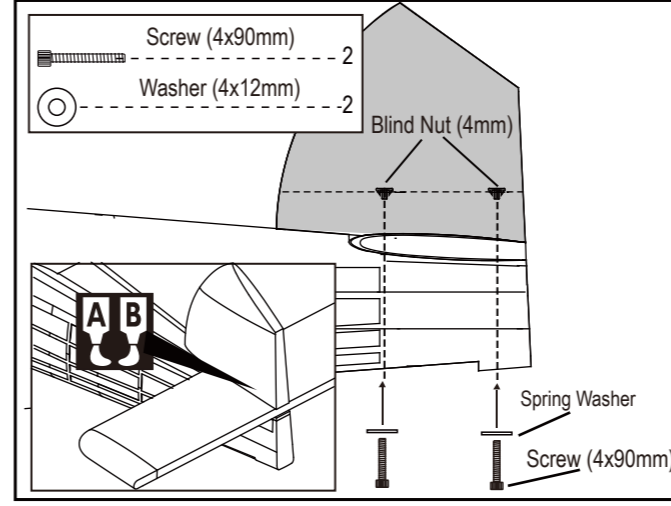


Marked dot

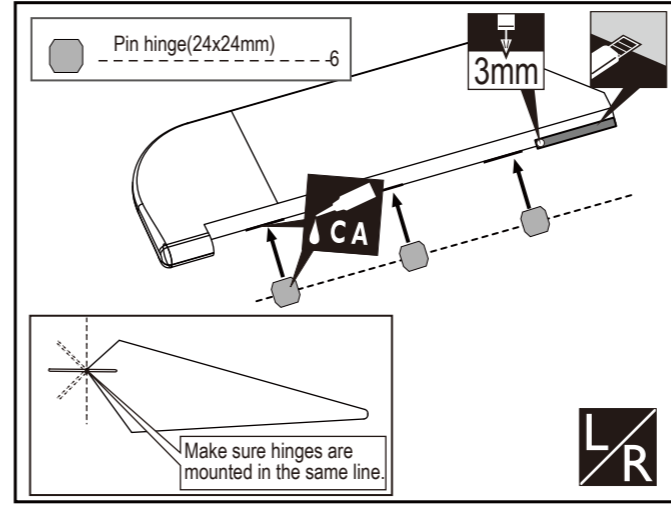
**33** Put the stabilizer to appropriate position on the fuselage and drill holes through the stabilizer and tail fuselage.



**34** Fix the vertical fin to fuselage with screw from the bottom of the tail fuselage.

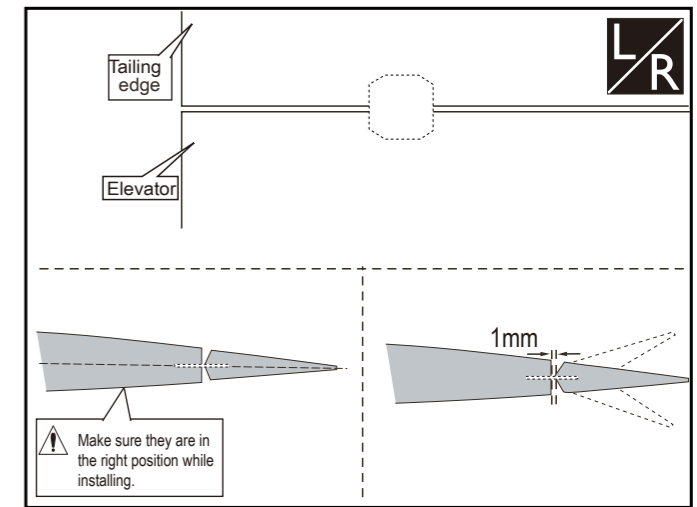


**35** Trim a slot and drill a hole to appropriate position in the elevator, apply instant type CA glue to the stabilizer and pin hinges.

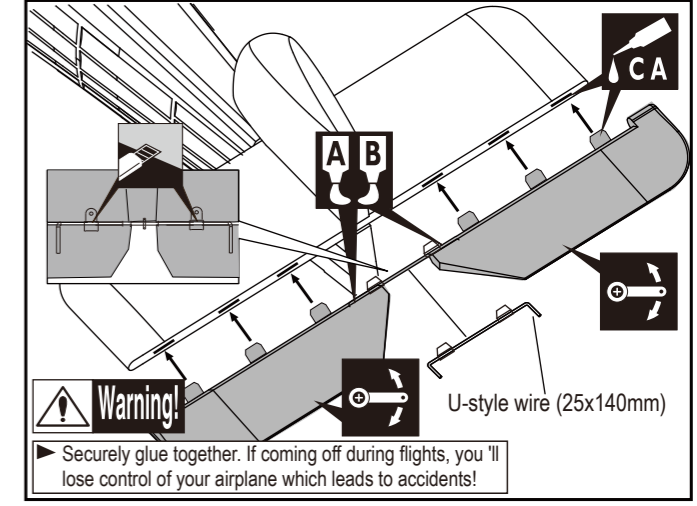


- Apply epoxy glue.
- Assemble left and right sides the same way.
- Pay close attention here!
- Do not overlook this symbol!
- Apply instant glue (CA glue, super glue).
- Ensure smooth non-binding movement while assembling.
- Cut off shaded portion.

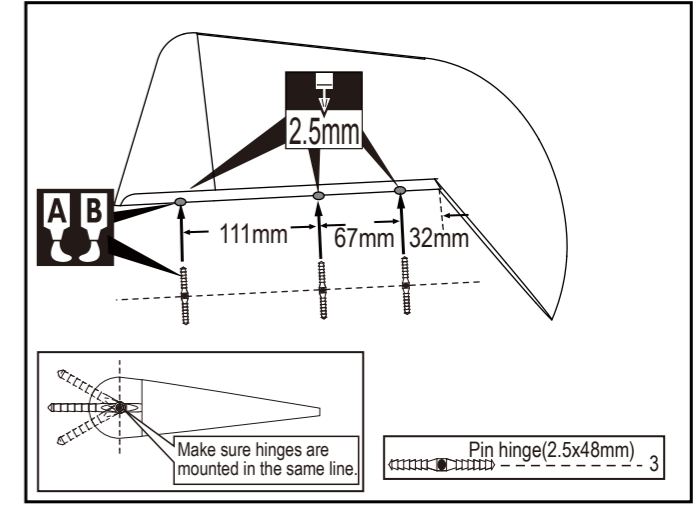
**36** keep about 1mm width space between stabilizer and elevator.



**37** Epoxy the "U" style metal wire to the holes in the elevator first, then epoxy the elevator to the stabilizer as plan.



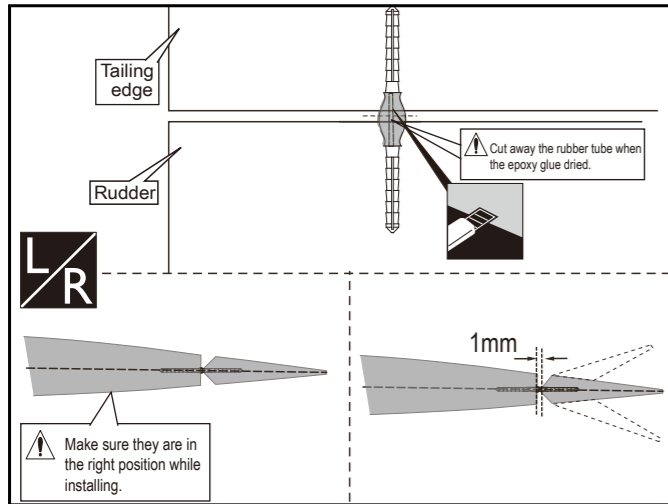
**38** Drill holes to the vertical fin and epoxy the rudder to the fuselage as below.



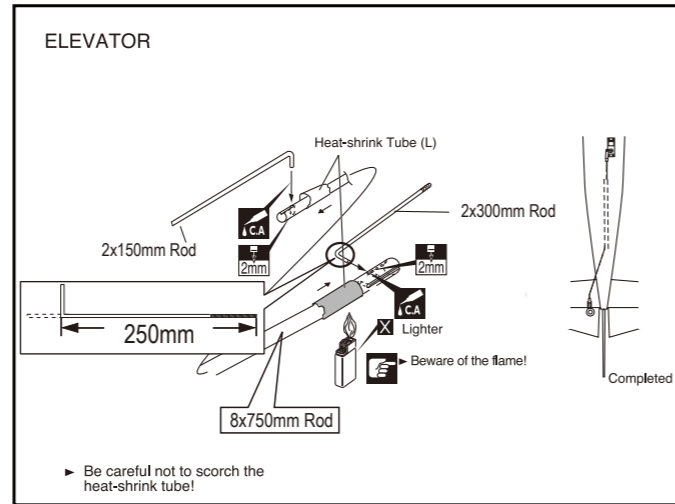
- Apply epoxy glue.
- Assemble left and right sides the same way.
- Pay close attention here!
- Do not overlook this symbol!
- Apply instant glue (CA glue, super glue).
- Ensure smooth non-binding movement while assembling.
- Cut off shaded portion.



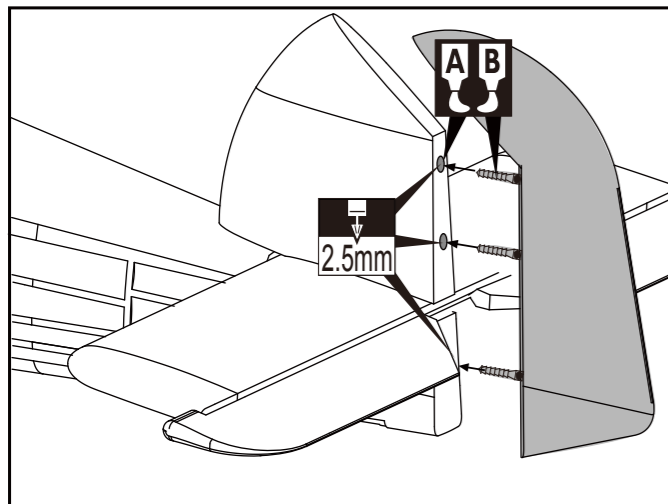
**39** Keep some space about 1mm width between the tailing edge and the rudder.



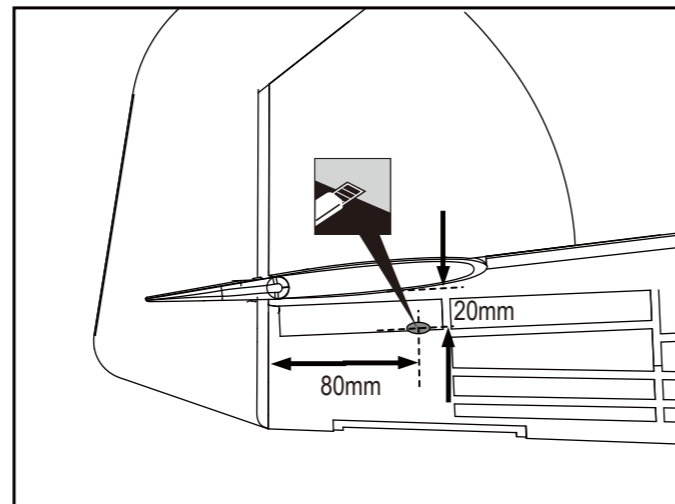
**41** Assemble the linkage rods for elevator and rudder.



**40** Drill holes to the relevant position in the tailing edge and epoxy the rudder to them.



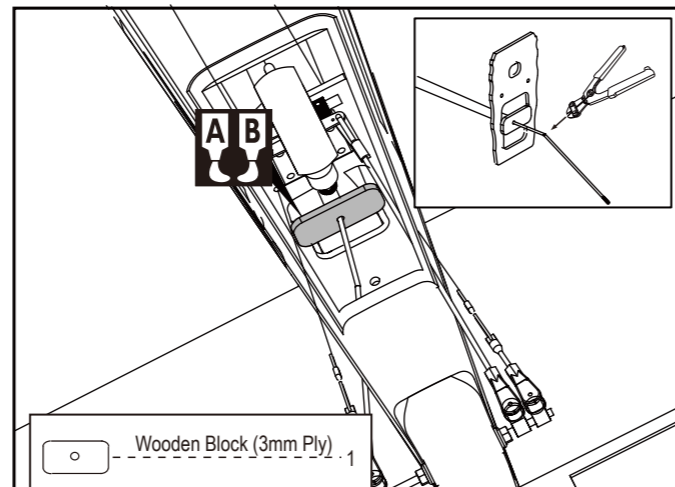
**42** Trim a small hole to appropriate position in the tail fuselage for connecting elevator.



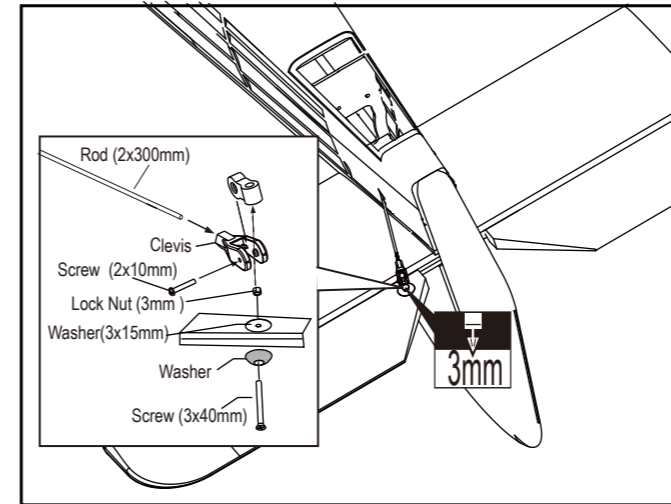
**Accessory list for the coming installation steps.**

Retainer	1	Steel wire (0.5x3000mm)	2
Nose arm(3mm)	1	Clevis	3
Washer (3x6mm)	4	Washer(3x15mm)	3
TP Screw(3x20mm)	4	Lock Nut (3mm)	3
Tail landing gear(3mm)	1	Screw (3x80mm)	1
Tail wheel (45mm)	1	Copper joiner	2
Collar (3mm)	3	Plastical tube(3x30mm)	2
Rod (2X300mm)	2	Ply (15x15x3mm)	8
TP Screw (2.3x8mm)	8	Heat-shrink Tube(12x30mm)	4
Fiberglass pushrod (8x750mm)	1	Plastic tube (2x150mm)	1
Washer(3x15mm)	1	Screw (3x40mm)	1
		Wooden Block (3mm Ply)	1

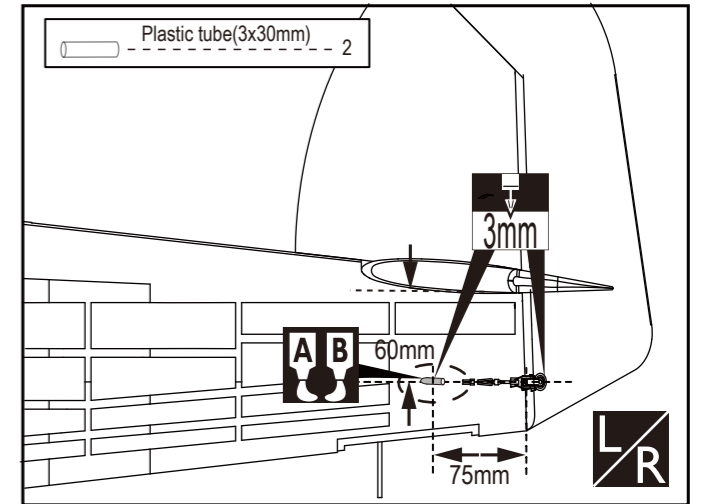
**43** Let the push rod through the wooden block and epoxy the wooden block to appropriate position on the frame.



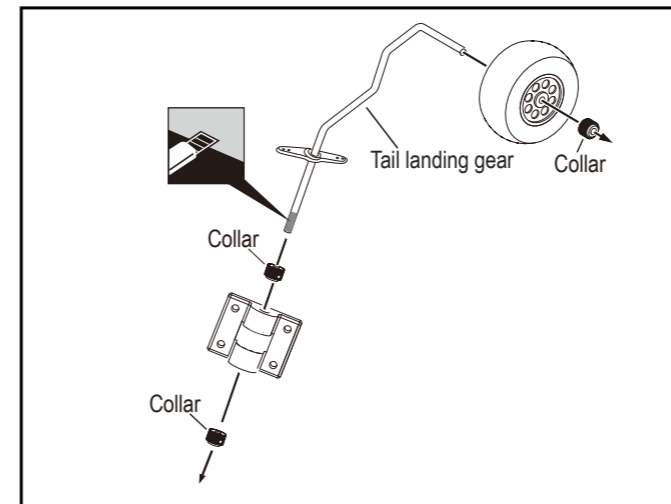
**44** Install the control horn and connect the linkage.



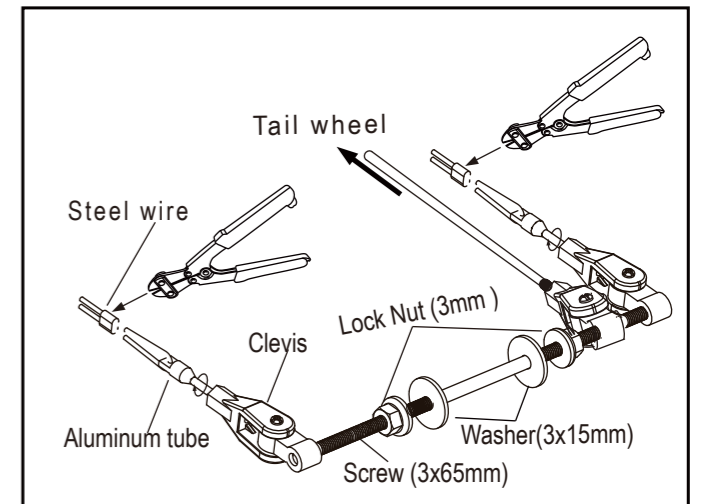
**47** Drill holes to appropriate position in the tail fuselage and rudder for connecting the rudder and rudder servo.



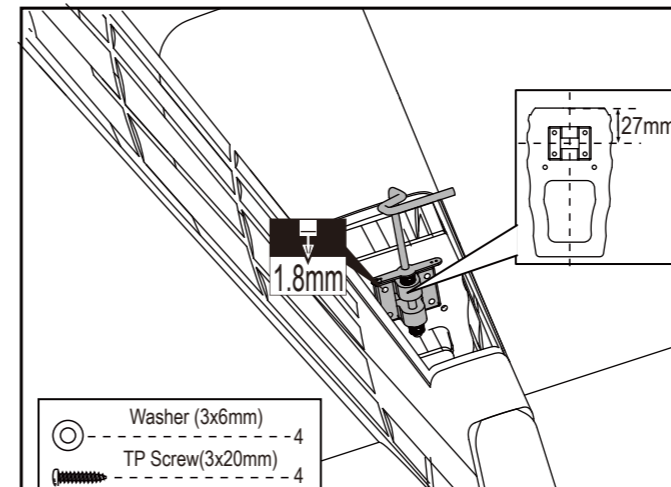
**45** The sketch map when assemble the tail landing gear to the wheel steeling mount.



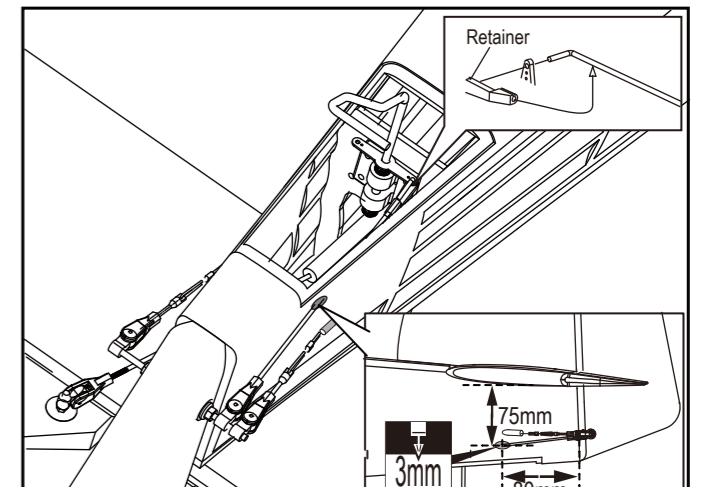
**48** The sketch map of the linkages on the rudder shaft.



**46** Drill holes to appropriate position in the tail fuselage according to tail gear mount and assemble the tail gear mount.



**49** Trim a hole to connect the rudder and arm on the tail gear.



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