

REQUIRED FOR OPERATION (Purchase separately!)

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

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.

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.

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 : 80—100cc

Muffler Glow Plug

Fuel Pump Booster Cord 4 D-size Batteries Plug Wrench

6 Glue Instant Glue Epoxy Glue

7 Other equipment for enhancing airplane operation & performance

Powerer Engine Starter 12V Battery (for starter)

3 Propeller Spinner Purchase a propeller that will match your engine.

4 inch Spinner

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:

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.

Must be purchased separately!

Apply instant glue (CA glue, super glue).

Cut off shade portion.

Ensure smooth non-binding movement while assembling.

Do not overlook this Symbol!

Warning!

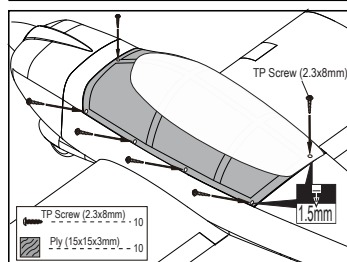
Warning
Remove the covering with proper pressure to cut through only the covering itself. Otherwise, cutting down into the balsa structure may weaken the model part and cause accident.

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

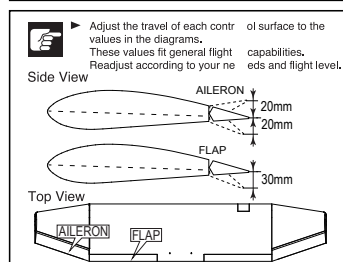
low setting
with cover(cloth)

► 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.

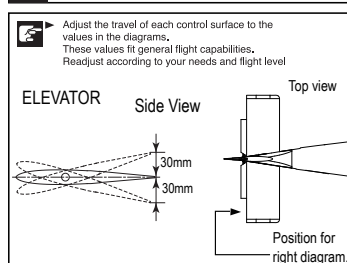
65 Epoxy plies to appropriate position on the fuselage which under the canopy and assemble the canopy to fuselage with TP screws.



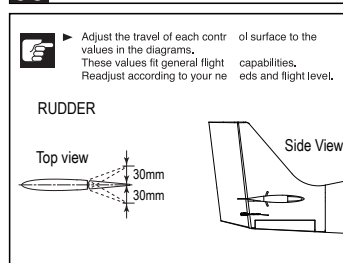
66 Adjustment.



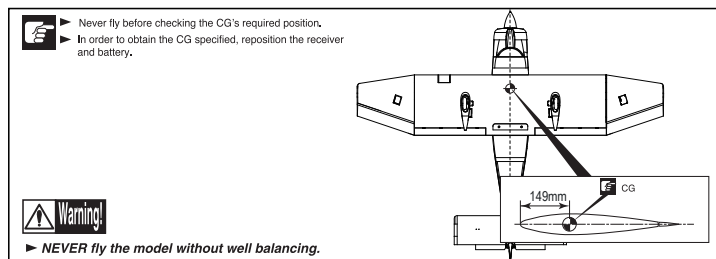
67 Adjustment.



68 Adjustment.



69 Centre of Gravity.



Apply epoxy glue.

Apply instant glue (CA glue, super glue).

Assemble left and right sides the same way.

Pay close attention here!

Ensure smooth non-binding movement while assembling.

Cut off shaded portion.

Do not overlook this symbol!

Warning!

60

The sketch map when the servos install completion.

61

Mount the receiver and the battery to the fuselage.

62

Trim the cowl for engine and muffler.

63

Epoxy plies to appropriate position on the fuselage which under the cowl and assemble the cowl to the fuselage with TP screws.

64

Cut off the surplus portion careful along the shaded line.

⚠

Accessory list for the coming installation steps.

	TP Screw (2.3x8mm)	18
	Ply (15x15x3mm)	18
	Canopy	1

⚠

Do not overlook this symbol!

⚠

Warning!

⚠

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

⚠

Accessory list for the coming installation steps.

	Clevis	2
	Retainer	2
	Rod (2x300mm)	2
	TP Screw (2.3x12mm)	8
	Screw (3x60mm)	2
	Servo tray (68.5x56.5x2mm)	2
	Wooden Block (20x20x8mm)	4
	Pin hinge (24x24mm)	8
	Washer (3x15mm)	2
	Lock Nut (3mm)	2
	Washer (3x15mm)	2

⚠

Do not overlook this symbol!

1

Apply instant type CA glue to aileron and pin hinge.

⚠

Make sure hinges are mounted in the same line.

2

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

⚠

Make sure they are in the right position while installing.

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!

4

Install the servo as the illustration below

5

Install the nylon control horn and connect the linkage.

⚠

Accessory list for the coming installation steps.

	TP Screw (2.3x8mm)	18
	Ply (15x15x3mm)	18
	Canopy	1

⚠

Do not overlook this symbol!

⚠

Warning!

⚠

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

6

Secure the servo into the servo tray and connect the linkage.

TP Screw (2.3x12mm)
1.5mm
3mm
Rod (2x300mm)
Clevis
Lock Nut (3mm)
Washer (3x15mm)
Washer
Screw (3x50mm)

8

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

Trailing edge
Flap
1mm
Make sure they are in the right position while installing.

Accessory list for the coming installation steps.

	Clevis	2
	Retainer	2
	Rod (2x300mm)	2
	TP Screw (2.3x12mm)	8
	Screw (3x50mm)	2
	Servo tray (68.5x56.5x2mm)	2
	Wooden Block (20x20x8mm)	4
	Pin hinge (36x20x1mm)	8
	Washer (3x15mm)	2
	Lock Nut (3mm)	2
	Washer (3x15mm)	2

9

Epoxy the flaps to the wings as illustration.

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

7

Epoxy the pin hinges to the flap.

Pin hinge (36x20x1mm) - 6

10

Install the servo.

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.

55

Drill a hole slot to the rod and glue the wire to them and wrap it with tape.

ELEVATOR

2x150mm Rod
Heat-shrink Tube (L)
Adjustable Rod
Ball joint
Lighter
6x650mm Rod
100mm
Completed

► Be careful not to scorch the heat-shrink tube!
⚠ Beware of the flame!

56

Connect the arms of the stabilizer and the servo of stabilizer.

Ball joint
Metal arms

57

Assemble the tail fuselage cover with TP screws.

TP Screw (2.3x8mm)
1.5mm
TP Screw (2.3x8mm) - 8
Ply (15x15x3mm) - 8

58

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

Linkage Stopper
Clevis
Aluminum tube (3x6mm)
Screw (2x10mm)
Nut (2mm)
Washer (2x5mm)

59

Assemble the servo of stabilizer.

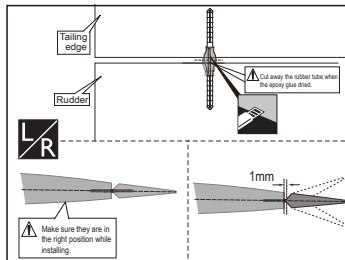
Set screw (3x4mm)
Washer (2mm)
Linkage Stopper
Washer (2mm)
Nut (2mm)
Set screw (3x4mm)

Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!

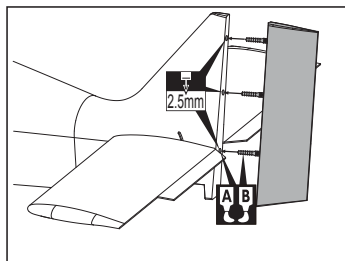
Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

Do not overlook this symbol!

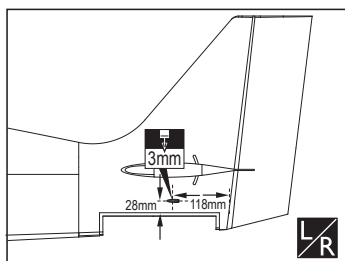
49 Keep some space about 1mm width between the trailing edge and the rudder.



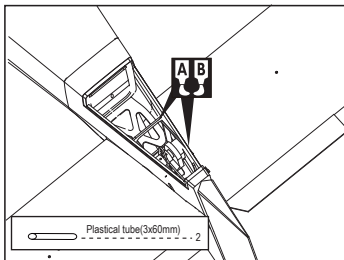
50 Drill holes to relevant position in the vertical fin and assemble the rudder to the fuselage with epoxy glue.



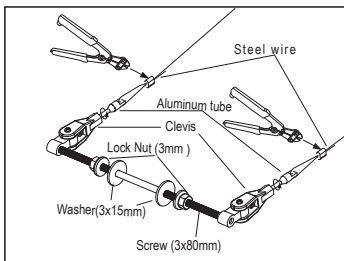
51 Drill holes to appropriate position in the tail fuselage for connect the rudder and rudder servo.



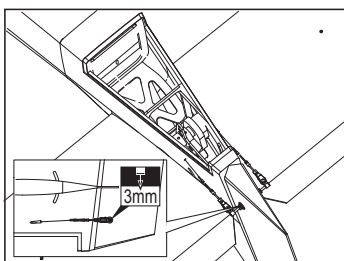
52 Epoxy the plastical tubes to the holes as illustration.



53 The sketch map once the connection between the rudder and rudder servo assemble completion.



54 Drill holes to the relevant position in the rudder for assembling the shaft for control the rudder.

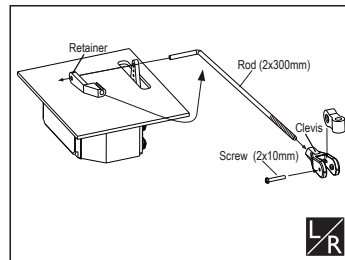


Apply epoxy glue.
 Apply instant glue (CA glue, super glue).

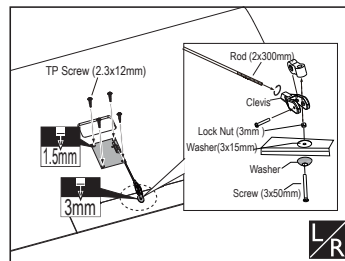
Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

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

11 Install the nylon control horn and connect the linkage.



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



Accessory list for the coming installation steps.

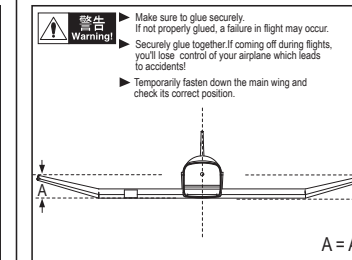
Wheel (100mm)	2	Reinforcement Plate	1
Collar (8x4mm)	2	PVC oleo strut	1
Screw (20mm)	2	Screw (4x16mm)	8
Lock Nut (4mm)	2	Washer (4x12mm)	8
Main wing joiner (25x270mm)	2	Rib template	1
Main wing joiner (16x270mm)	2	Screw (8x60mm)	2
Wood dowel (8x60mm)	2	Blind Nut (8mm)	2
Fiber board (100x15x2mm)	2	Washer (3x6mm)	4
TP Screw (2.3x12mm)	6	Screw (3x15mm)	4
		Ply (9mm)	2

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

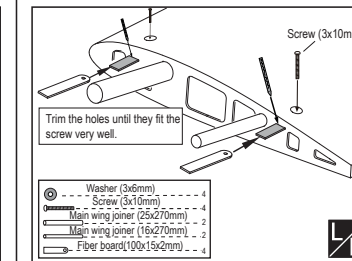
Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

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

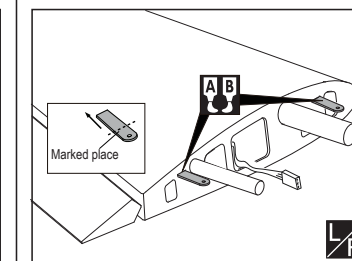
13 The sketch map when the wings assemble completion.



14 Put the fiber boards into the main wing until the screw can fix them very well and mark the position as illustration.



15 Epoxy the fiber board to the side wing until the marked position.

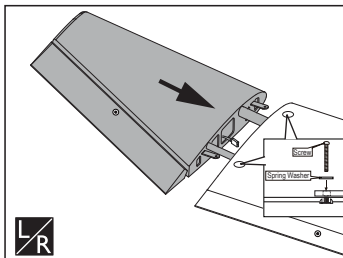


Apply epoxy glue.
 Apply instant glue (CA glue, super glue).

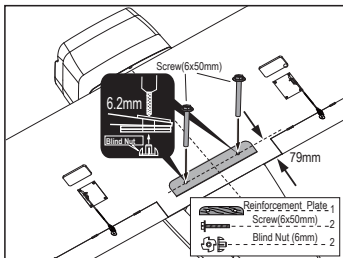
Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

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

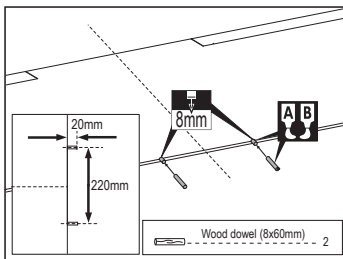
16 Assemble the side wing to the main wing and fix them with screws.



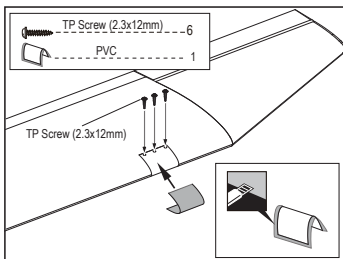
19 Assemble the wings to the fuselage and fix it with the reinforcement plate and screws.



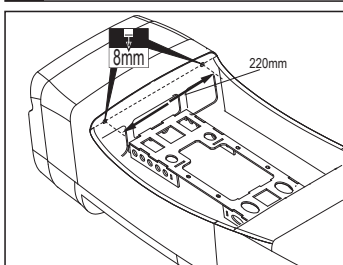
17 Drill holes to the appropriate position in leading edge and epoxy the wood dowel in them.



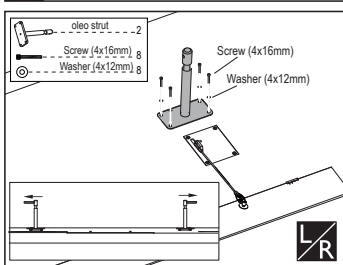
20 Trim the surplus parts from the PVC and fix the PVC to the fuselage with TP screw.



18 Drill holes to the relevant position in the fuselage.

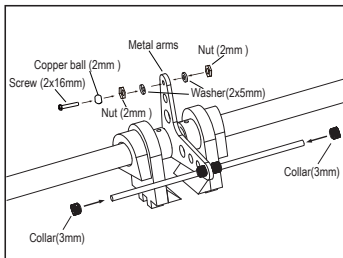


21 Mount the cleo strut to appropriate position on the wing and make sure they are in right direction.

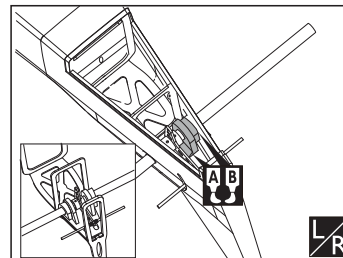


Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!
 Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

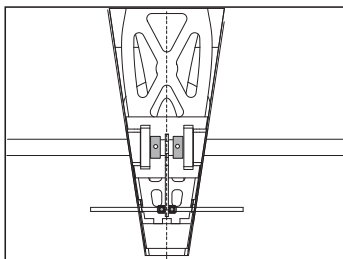
43 Put the metal arms, wheel adapters & wood mount in the tail fuselage, let the stab tube through all these parts.



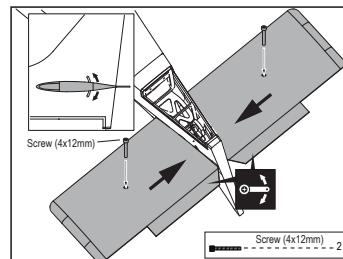
46 Fix the wheel adapters with set screw and wood mount with epoxy glue.



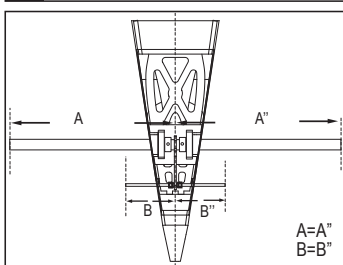
44 Fix wheel adapters and avoid the tube from movement. Fix the collar and avoid the metal rod from movement.



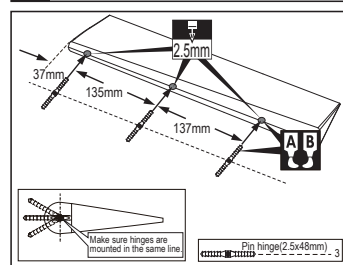
47 Assemble the stabilizer to the stab tube and fix it with screw as illustration.



45 The sketch map of the tail fuselage should be like illustration when the tail assembled completion.



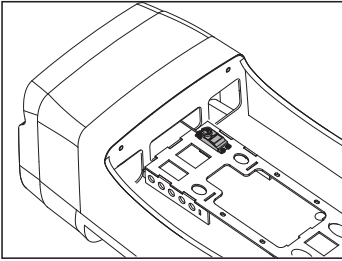
48 Drill holes to appropriate position in the rudder and epoxy the pin hinges to the rudder.



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.

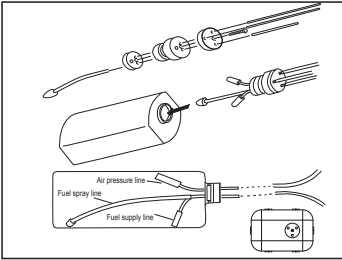
38

Assemble the throttle servo in the fuselage.



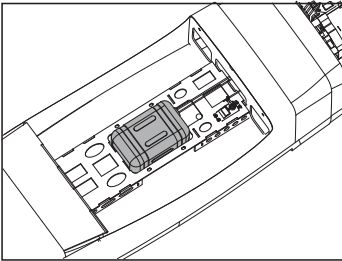
39

Assembly of the fuel tank.



40

Mount the fuel tank to appropriate position in the fuselage.



Apply epoxy glue.



Assemble left and right sides the same way.



Pay close attention here!

Do not overlook this symbol!



Apply instant glue (CA glue, super glue).



Ensure smooth non-binding movement while assembling.



Cut off shaded portion.

8

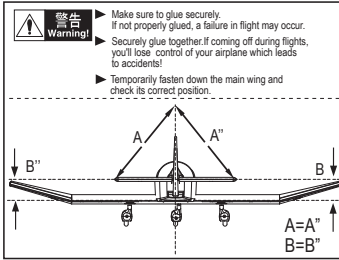


Accessory list for the coming installation steps.

Pin hinge(2.5x48mm)	3	Clevis	2
Slab tube(16x690mm)	1	TP Screw (2.3x8mm)	8
wheel adapters	2	Ply (15x15x3mm)	8
Triangle wood block	2	Wood pushrod(8x800mm)	1
Ply	2	Metal arms	1
Metal rod(3x390mm)	1	Rod (2x100mm)	3
Metal rod(3x390mm)	2	Rod (2x150mm)	1
Steel wire (0.5x3000mm)	2	Lock Nut (3mm)	2
Washer(3x15mm)	2	Screw (3x80mm)	1
Nut (2mm)	2	Clevis	1
Washer(2x5mm)	2	Screw (2x16mm)	1
Collar (3mm)	2	Plastic tube(3x60mm)	1
		Screw (4x12mm)	2
		Screw (3x15mm)	1

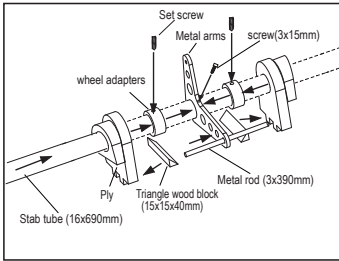
41

The standard sketch map when the horizontal tail & vertical tail install completion.



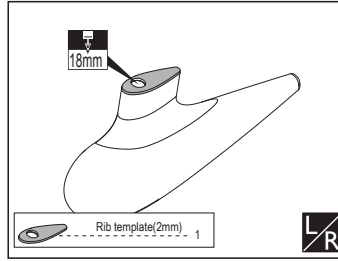
42

Put the metal arms, wheel adapters & wood mount in the tail fuselage, let the stab tube through all these parts.



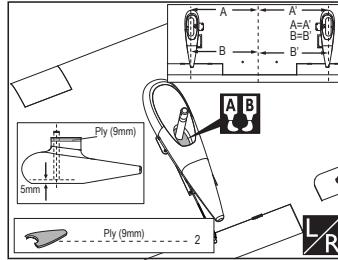
22

According to the rib template drill a hole one the main wheel pants.



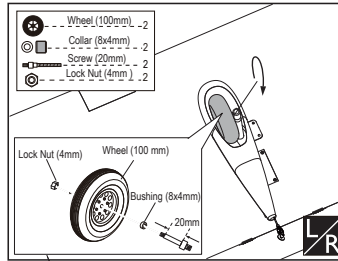
23

Assemble the wheel pants to the oleo strut and it them with plies and epoxy glue.



24

Assemble the wheels to the oleo struts 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.

5

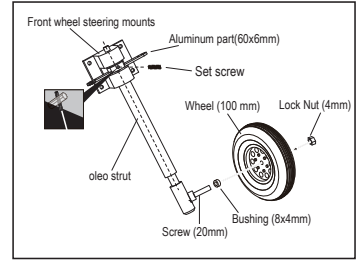


Accessory list for the coming installation steps.

Wheel (100mm)	1	Aluminum tube(3x6mm)	2
Collar (8x4mm)	1	Copper joiner	2
Screw (20mm)	1	Steel wire (0.5x1500mm)	2
Lock Nut (4mm)	1	Washer (3x6mm)	4
Front wheel steering mounts	1	TP Screw(3x20mm)	4
oleo strut	1	Plastic tube(3x50mm)	2
Aluminum part(60x6mm)	1	ply (9mm)	1
Clevis	1	Rib template (2mm)	1

25

The accessories of the nose gear.



26

Assemble the front wheel steering mounts to appropriate position on the firewall with screw.

