

### Master Scale kit Edition Cessna 152 Aerobat 80°, 20cc

Code: MSK01.174

### **ASSEMBLY MANUAL**

"Graphics and specifications may change without notice".





#### **Specifications:**

Wingspan	79.9 in	203.0 cm.
Wing area	911.4 sq.in	58.8 sq.dm.
Weight	9.9 lbs	4.5 kg.
Length	55.9 in	142 cm.
Recommended engine size	0.91 cu.in / 2 stroke.	

1.00 - 1.25 cu.in / 4 stroke.

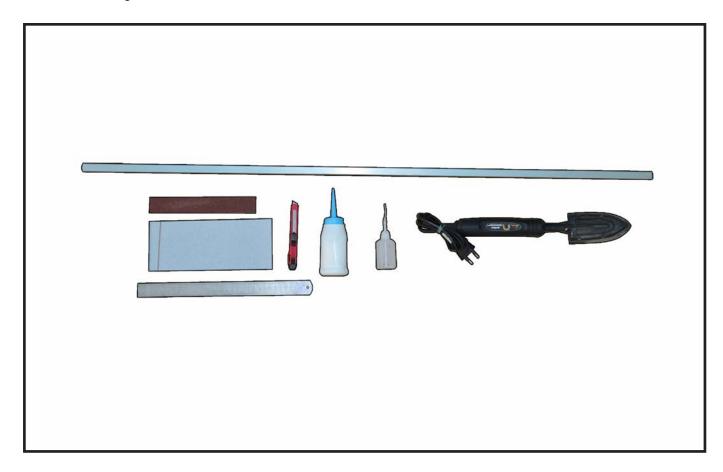
Radio System required 5 channels with 8 servos.

#### **INTRODUCTION**

- Congratulations and thank you for purchasing the Master Scale Kit Edition Cessna 152 Aerobat 80°, 20cc We are pleased to bring you this scale Cessna 152 Aerobat 80°, 20cc. with this kit you can achieve whatever level of detail you like. Just by following the instruction and finishing the plane in scale-looking trim scheme, beginning scale modelers will end up with a model that very much represents and full-size P-51. Experienced builders will find ways to add even more detail, making the Master Scale Kit Edition Cessna 152 Aerobat 80°, 20cc competive in scale contents.

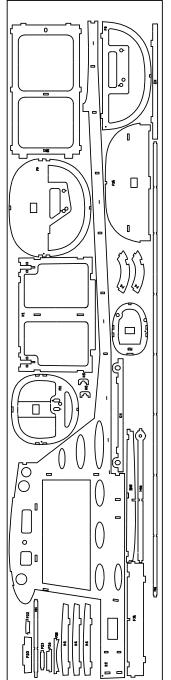
#### GETTING PREPARE TO BUILD AS

- Here is a list of supplies you should have on hand while you are building. Some of these are optional. Use your own experience to decide what you need.
- Getting prepare to build as:
- Flat Iron
- White Glue
- CA Glue
- Epoxy Glue
- Ruler
- Cutter
- Sandpaper Bar
- Aluminium Square Fixed Tool

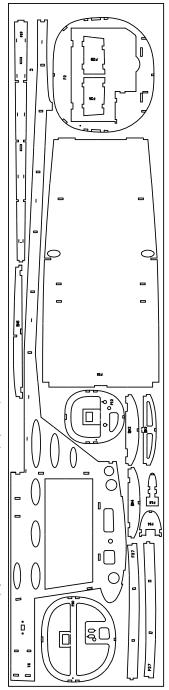


# **DIE-CUT PATTERNS**

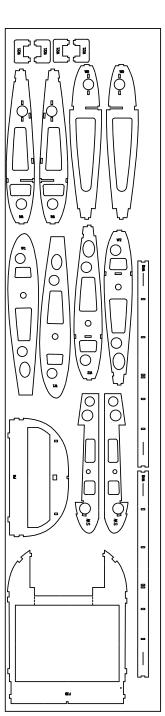
2.7mm balsa plywood 1100mmx250mm (1 per kit)



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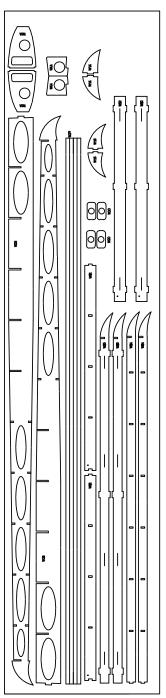


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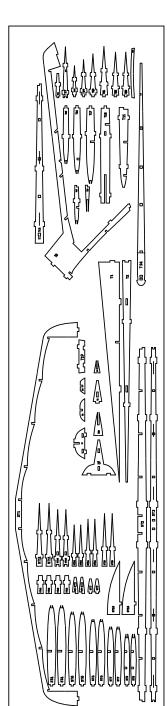


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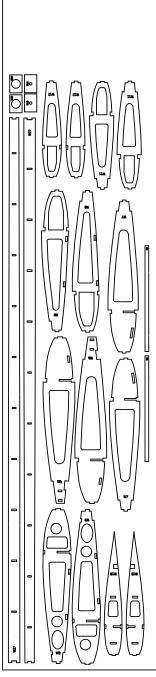
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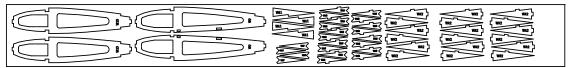


2mm balsa plywood 1100mmx250mm (1 per kit)

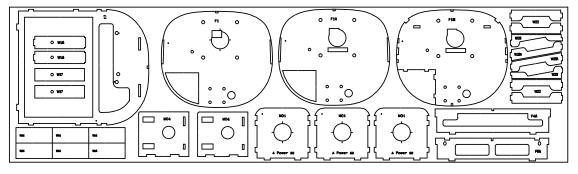


#### **DIE-CUT PATTERNS**

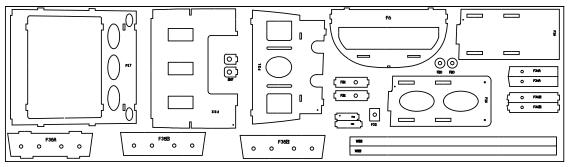
2mm balsa plywood 900mmx100mm (1 per kit)



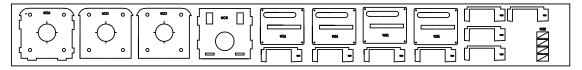
3mm balsa plywood 900mmx250mm (1 per kit)



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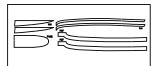
3mm balsa plywood 900mmx100mm (1 per kit)

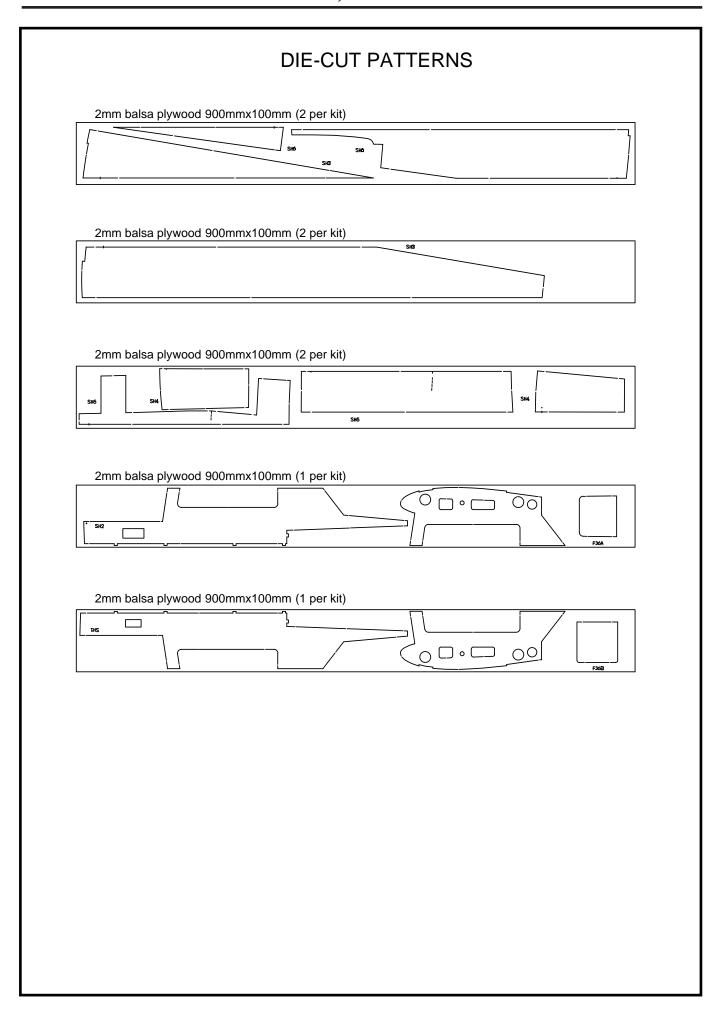


2mm plywood 400mmx100mm(1 per kit)

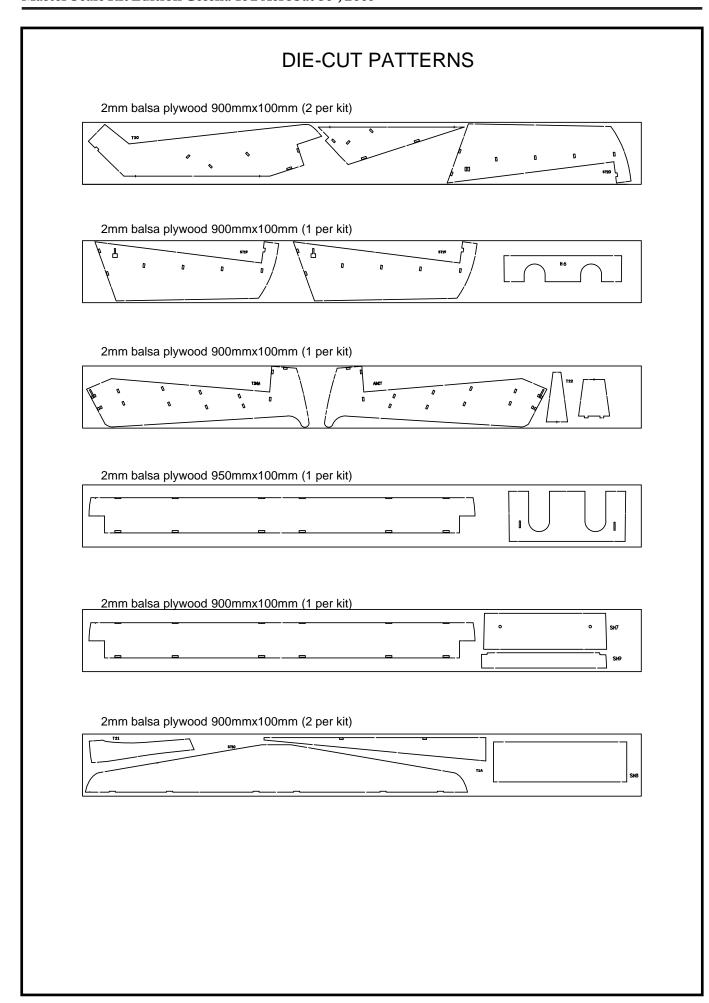


8mm balsa 230mmx100mm(1 per kit)





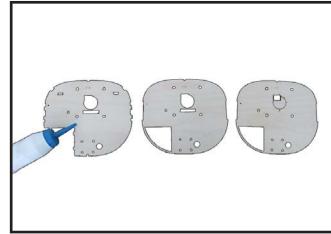
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#### BUILD THE FUSELAGE

- Firewall (3pcs).

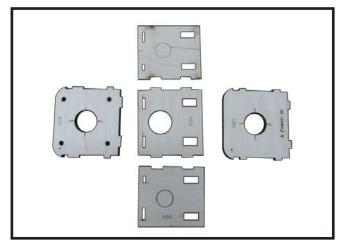
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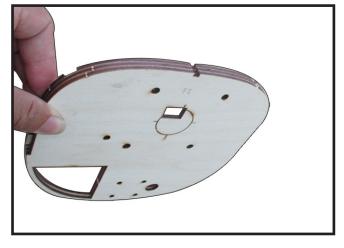
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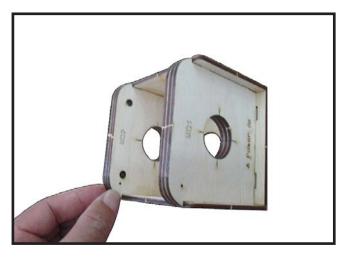
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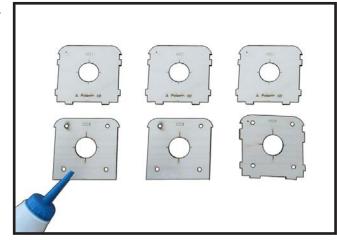


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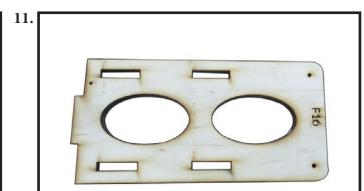


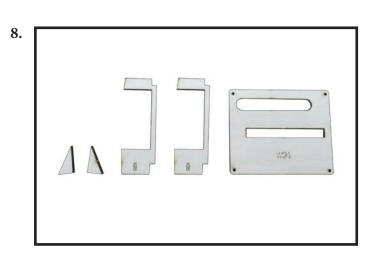
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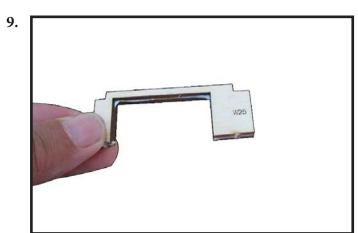


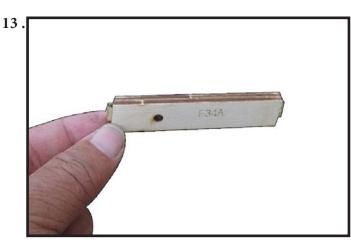




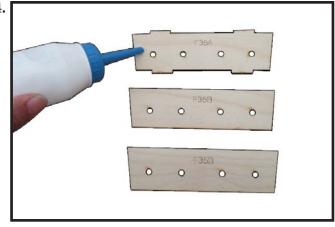


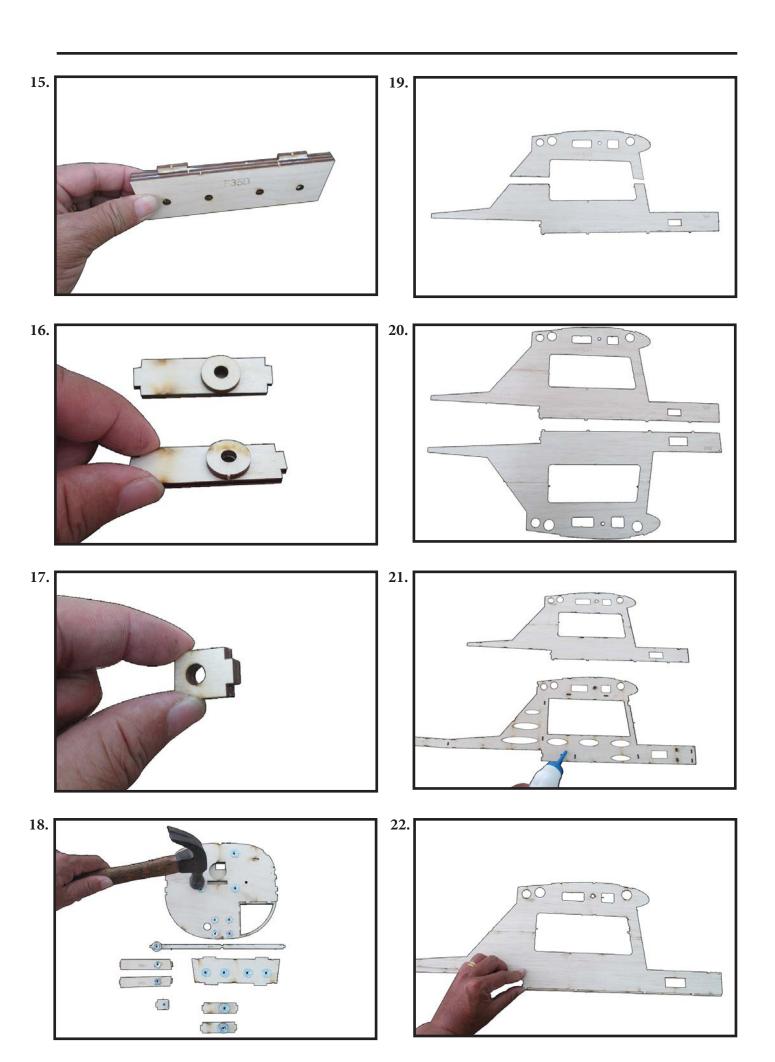


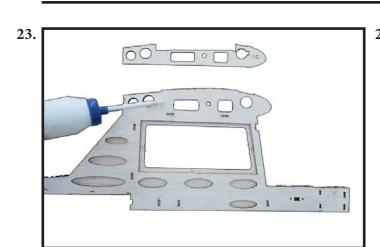


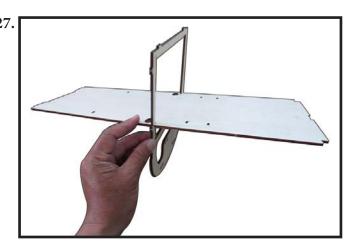


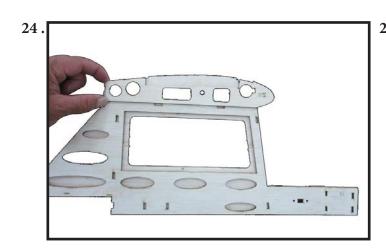


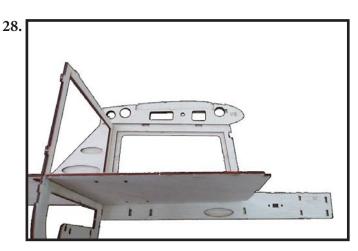


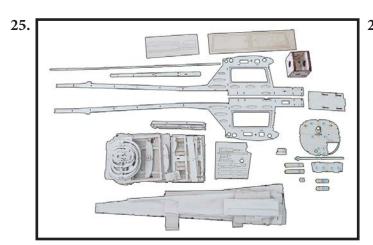


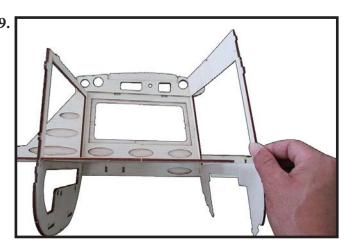


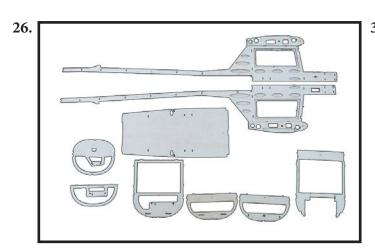


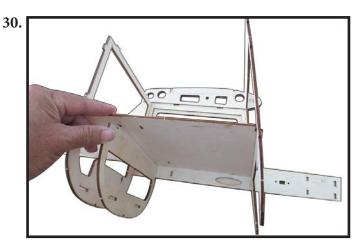


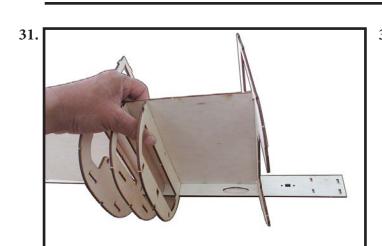


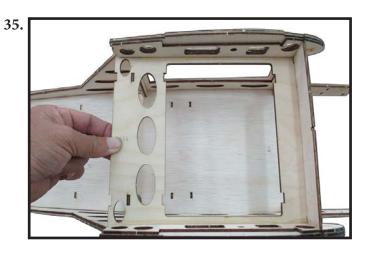


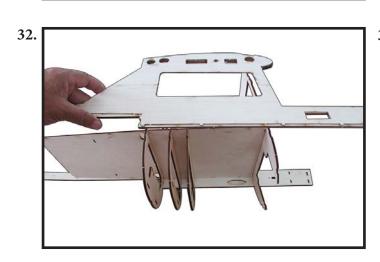


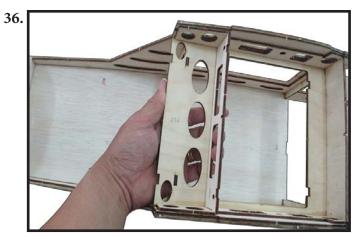


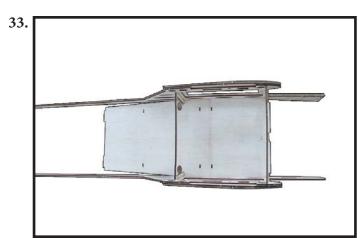


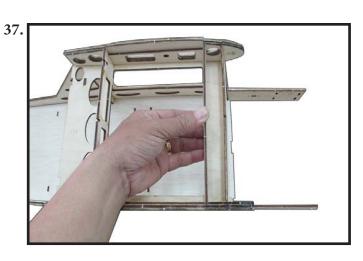


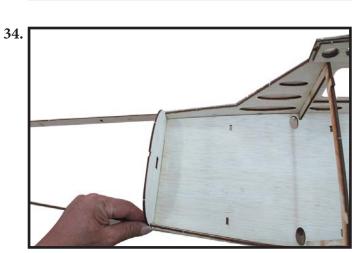


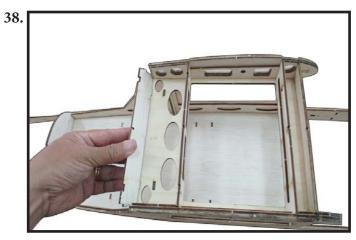


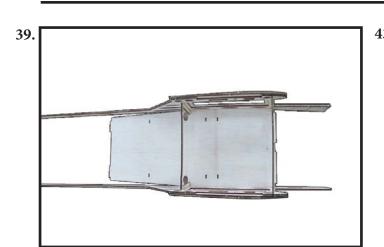


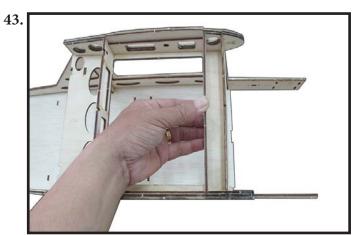


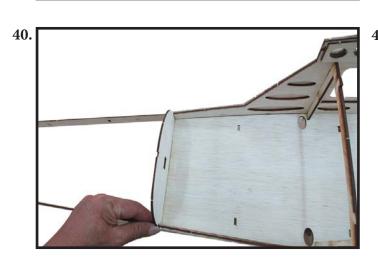


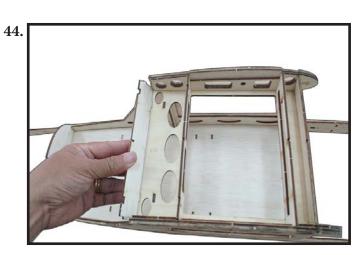


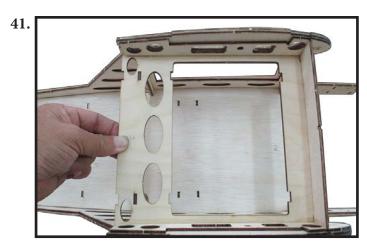


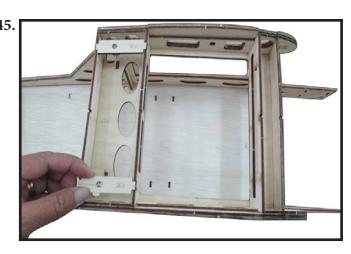


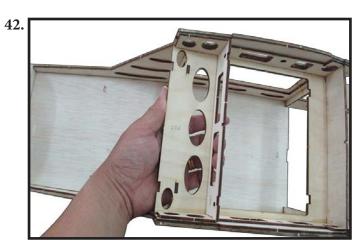


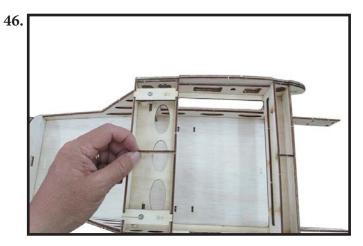


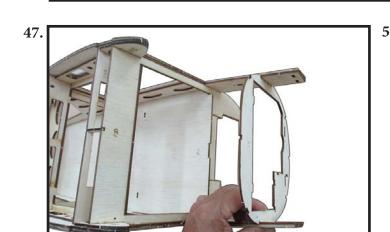


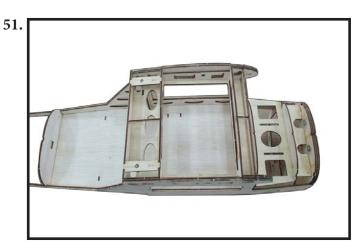


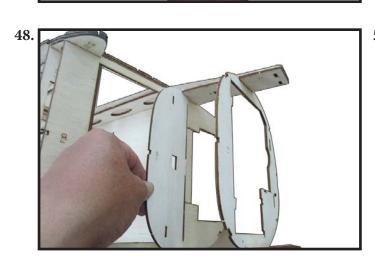


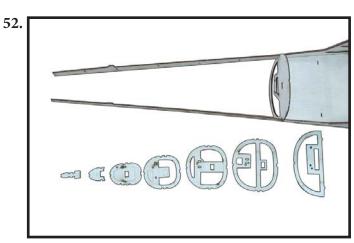


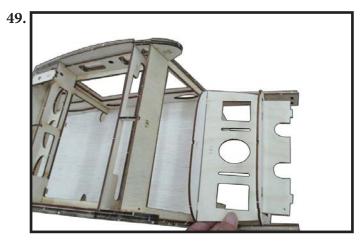


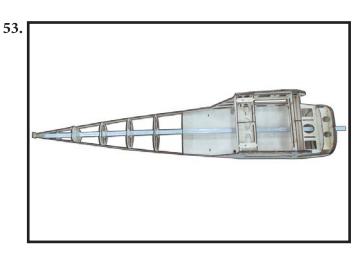


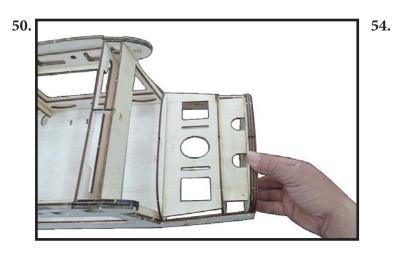


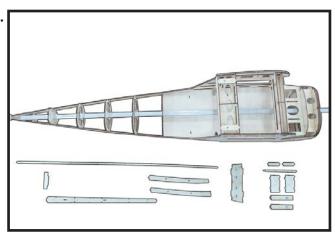


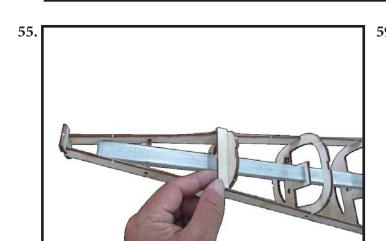


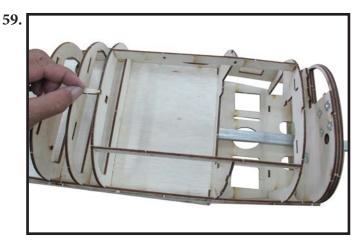


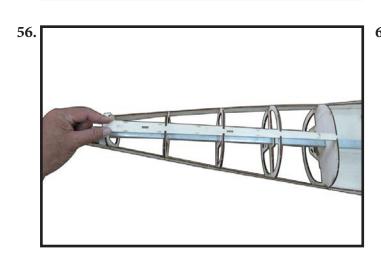


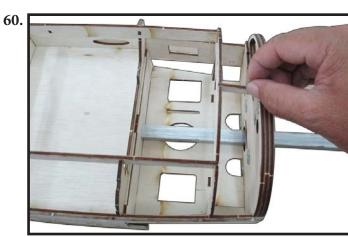


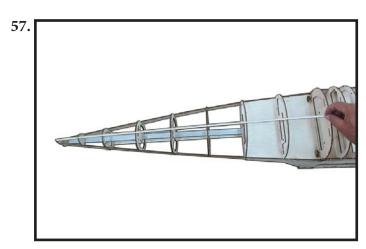


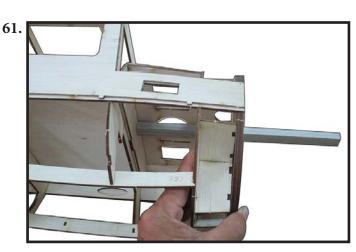




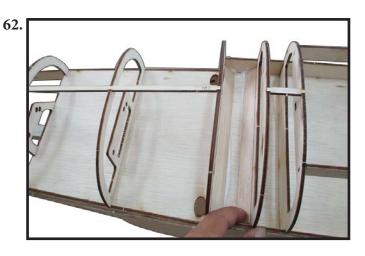


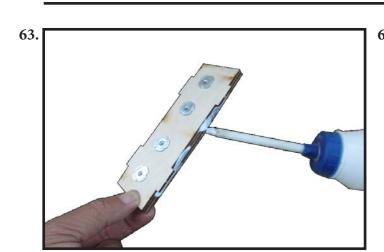


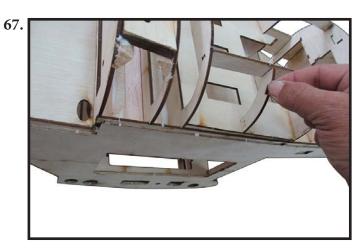


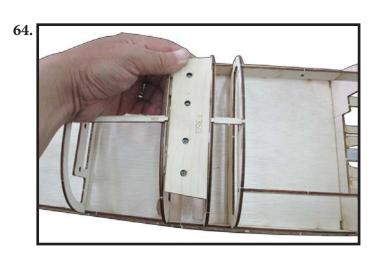


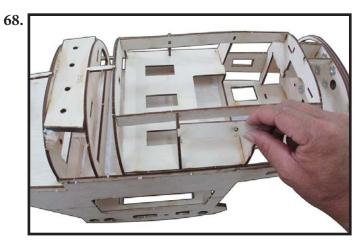


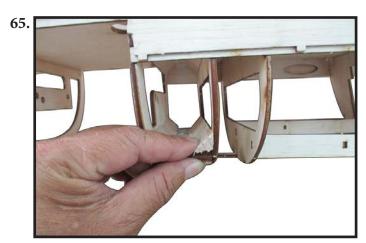


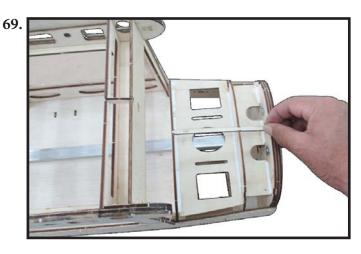


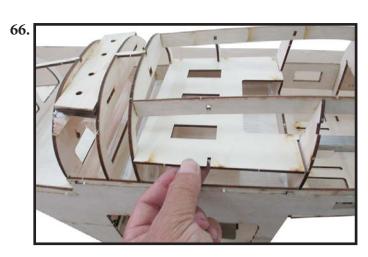


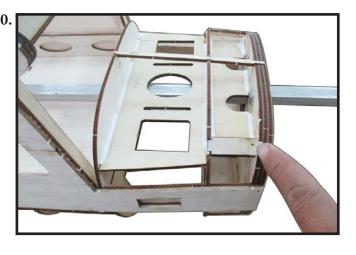


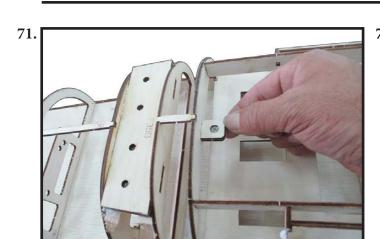


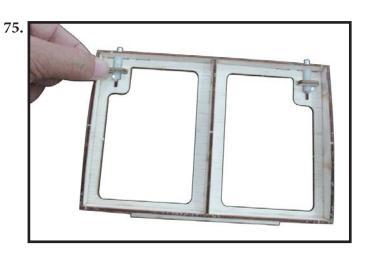


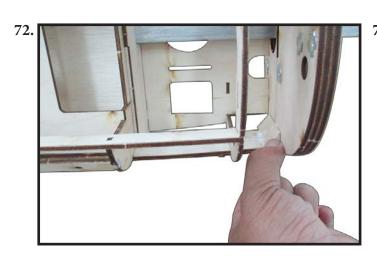


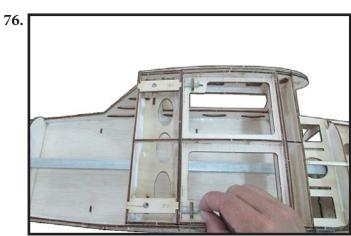


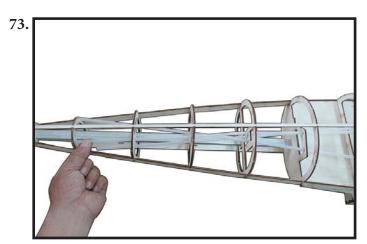


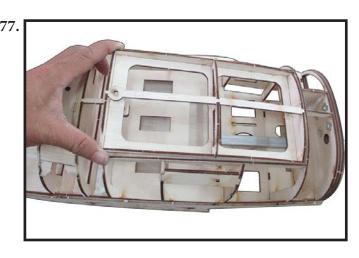


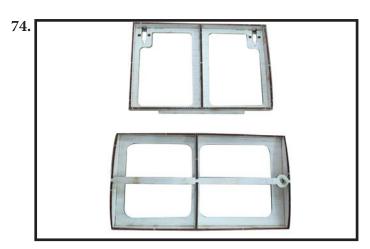


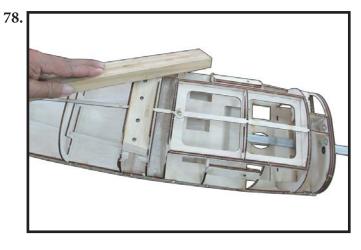




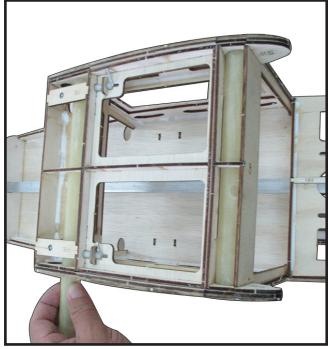




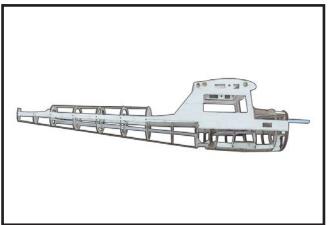




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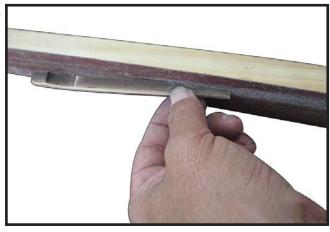
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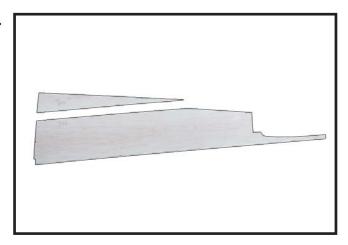
#### COVER TO THE RIBS OF FUSELAGE

If the balsa sheet quite hard, we should use the wet towel so that making soft the balsa sheet.

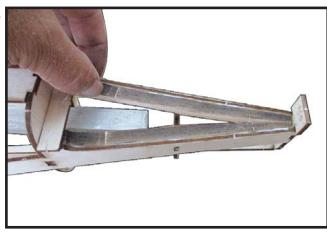


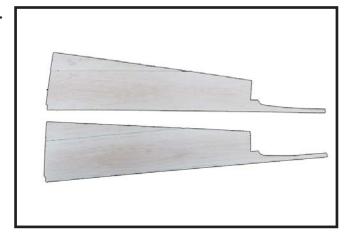


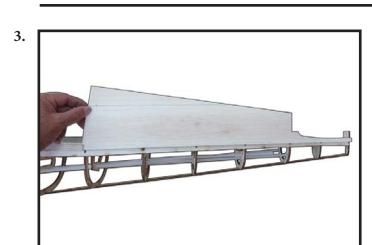
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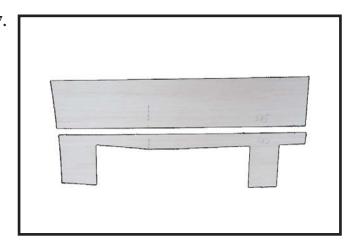


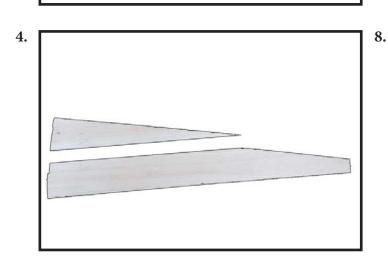
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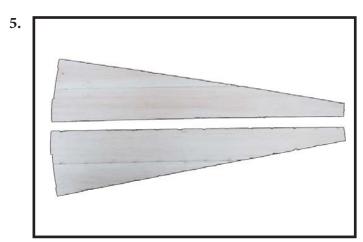


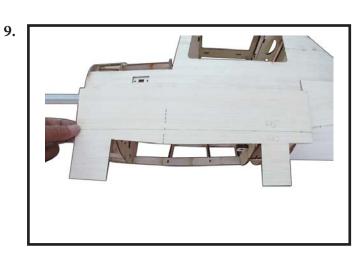


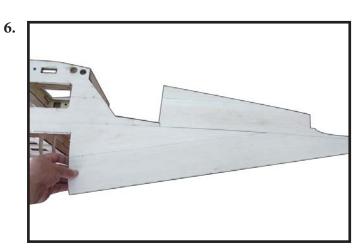


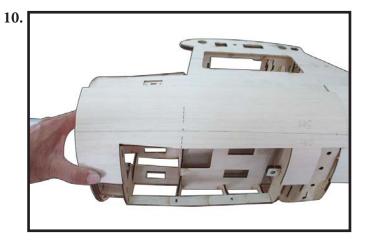


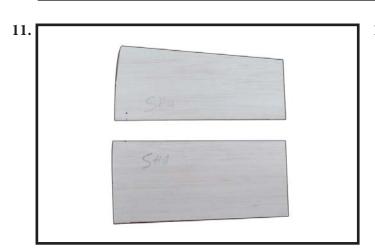


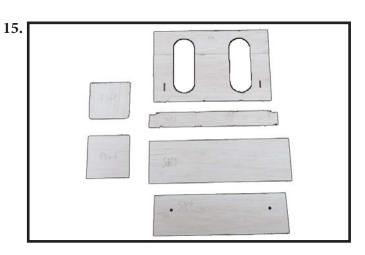


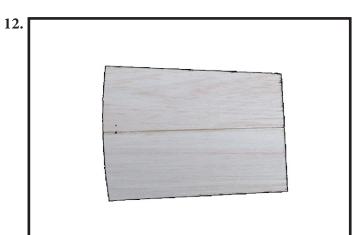




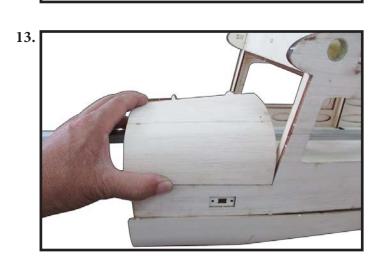


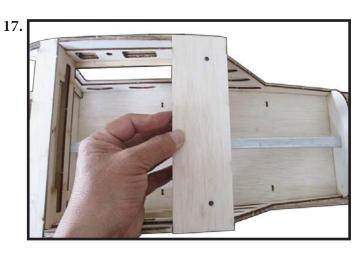


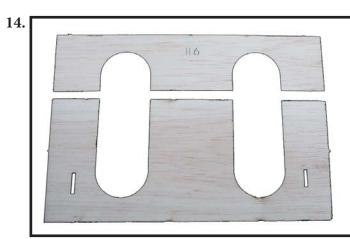


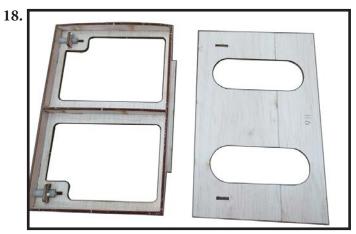


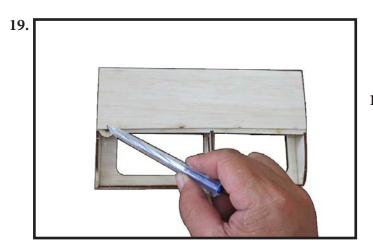




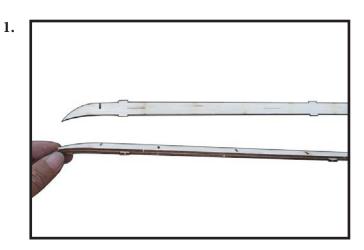


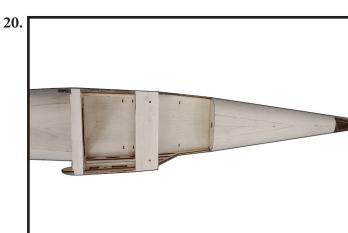


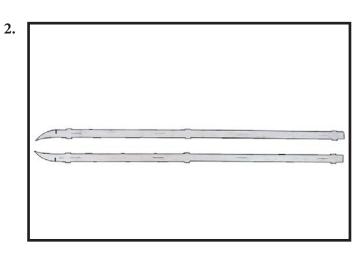


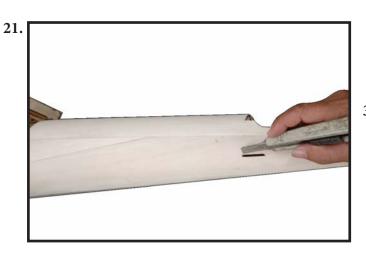


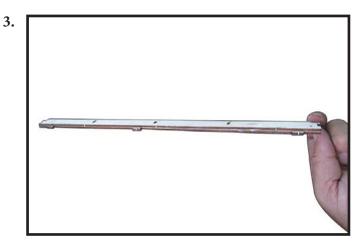
#### **BUILD SET OF THE WING**

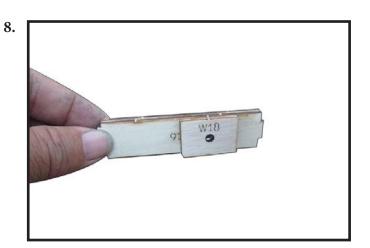


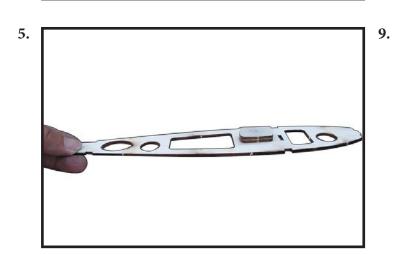


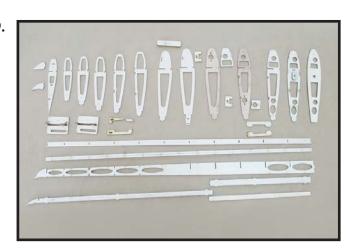


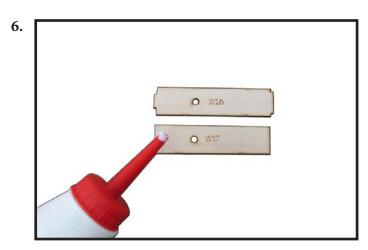


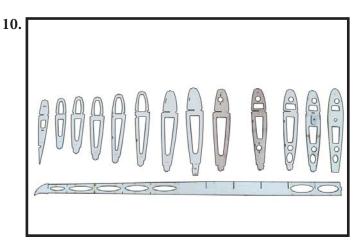


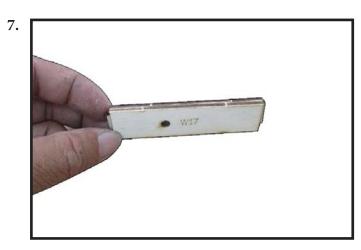


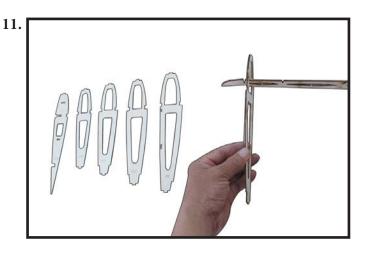


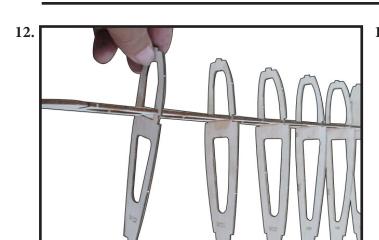




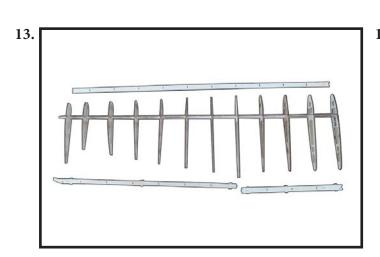


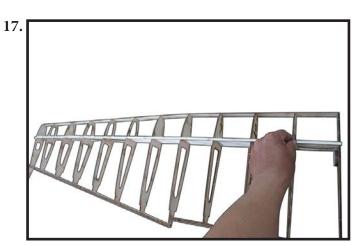


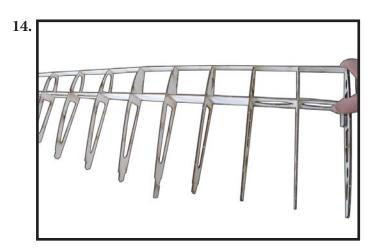


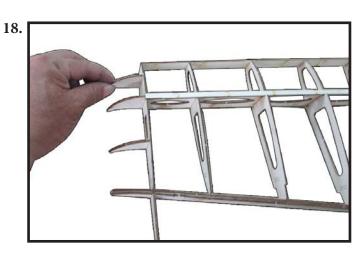


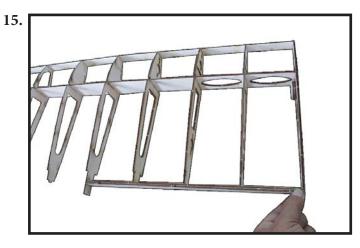


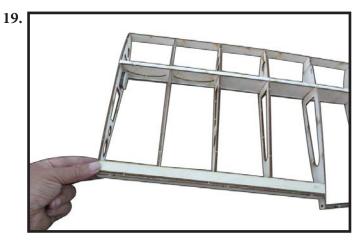


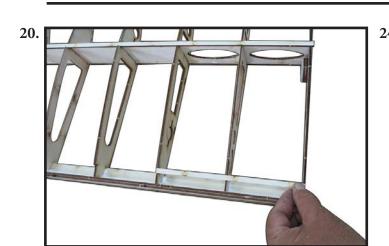


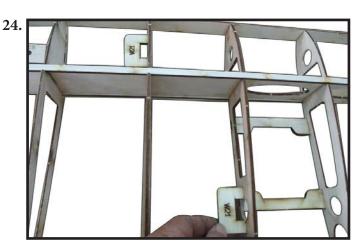


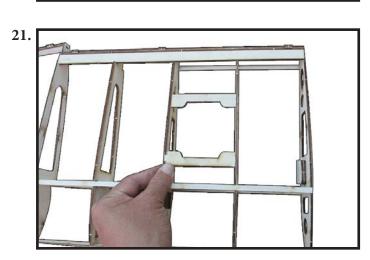


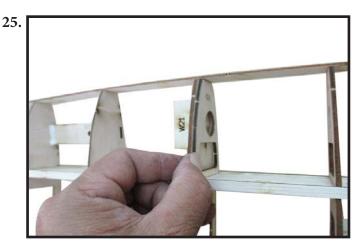


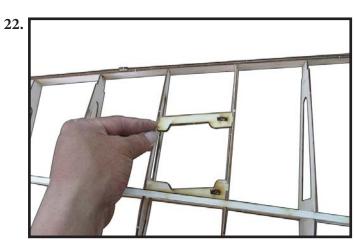


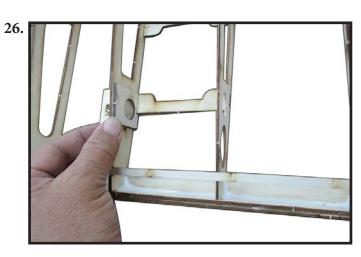


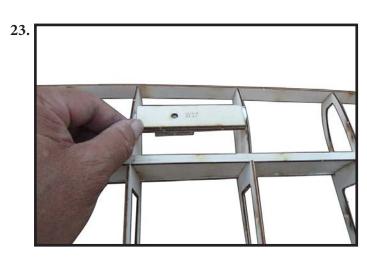


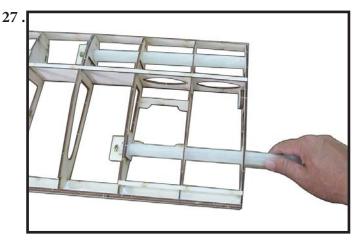


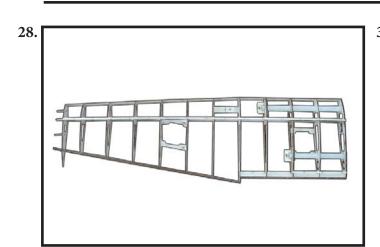


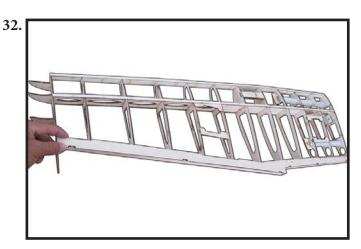


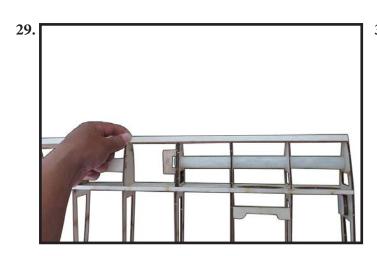




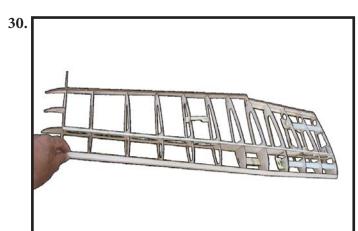


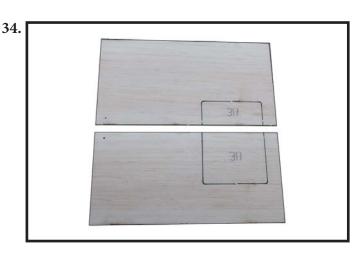


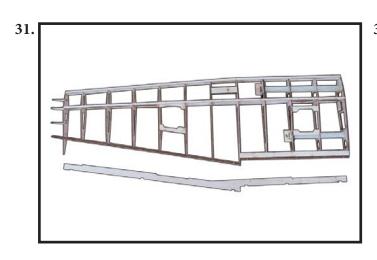


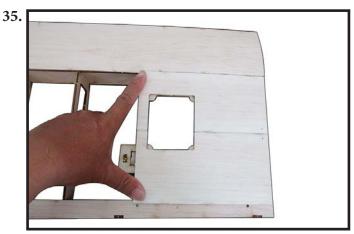


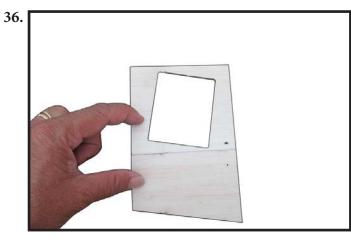


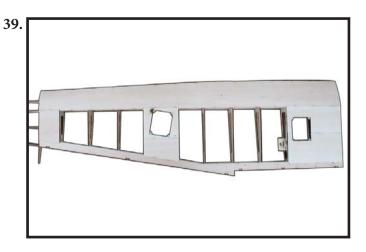


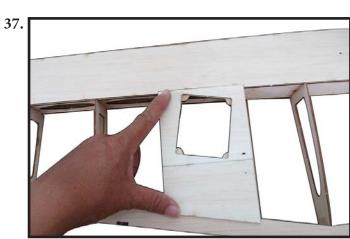


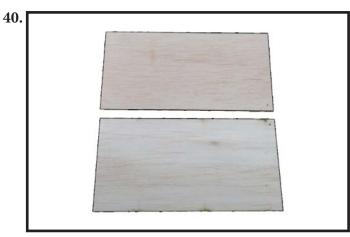


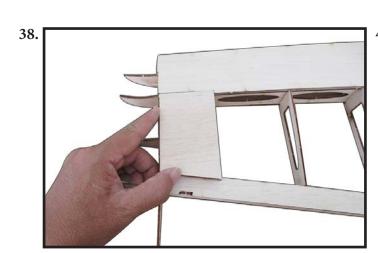


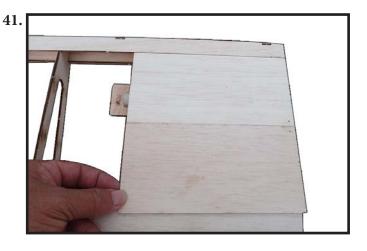


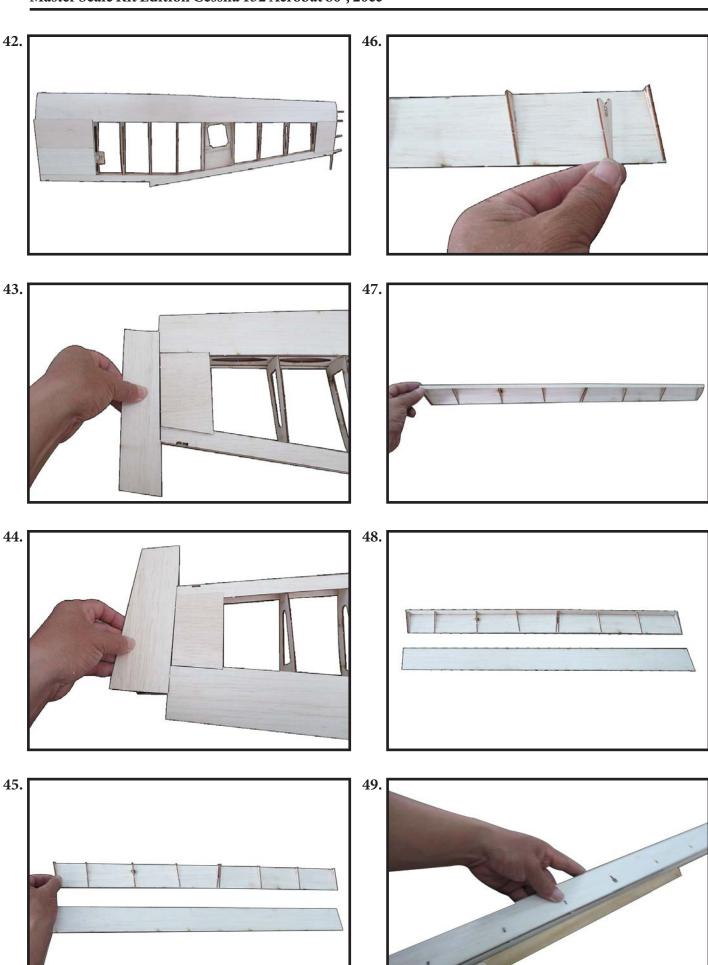


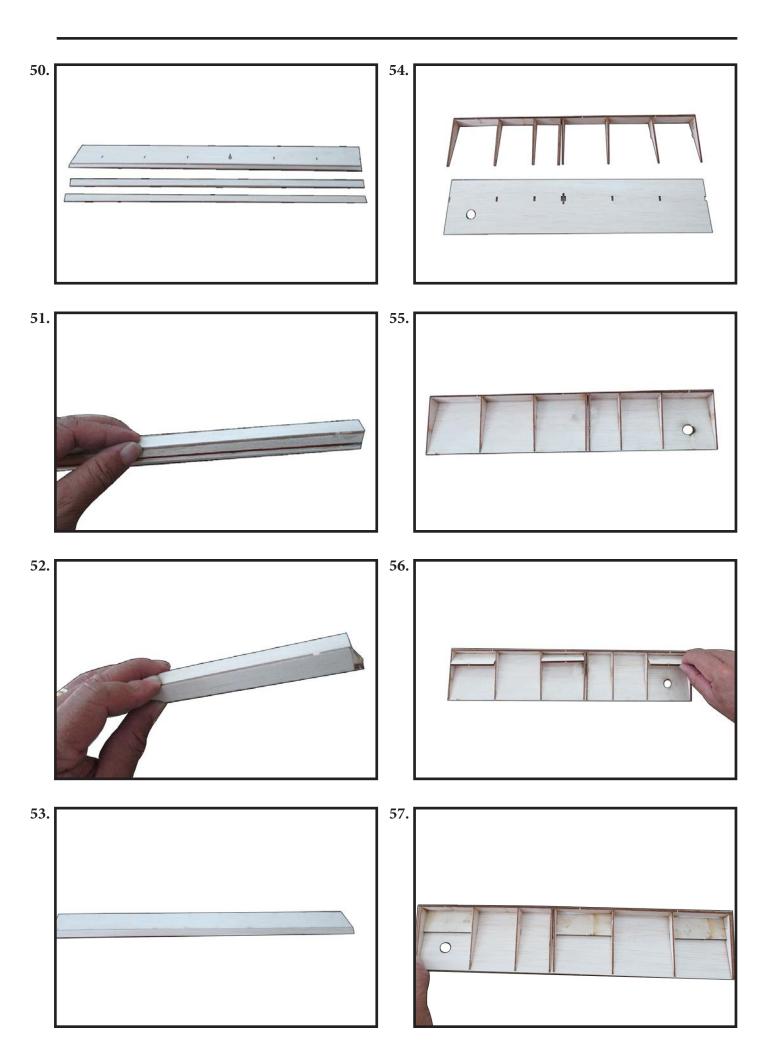


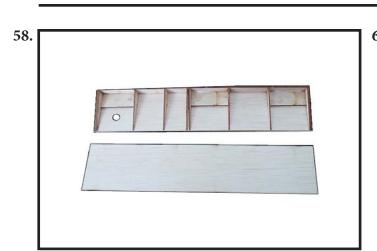


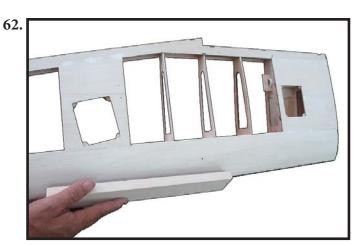


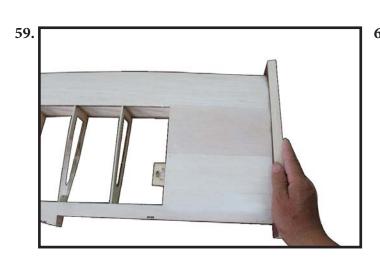


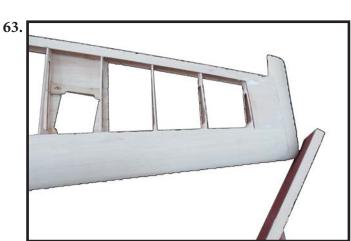




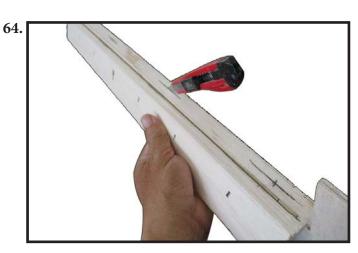


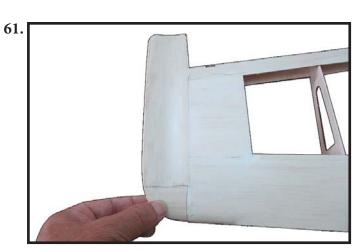


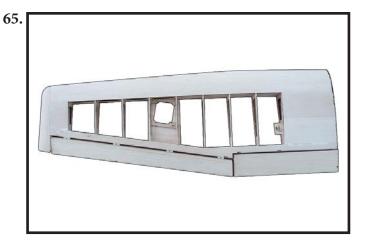


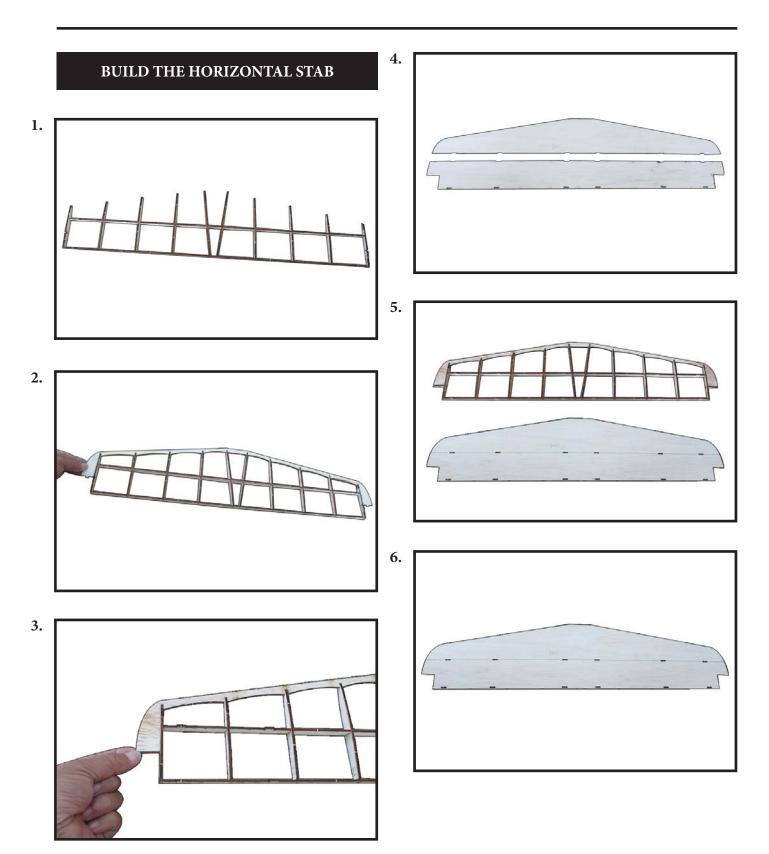


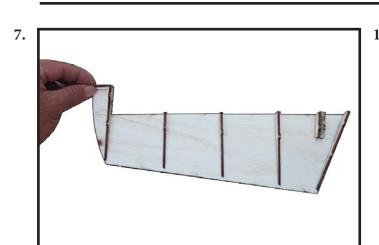


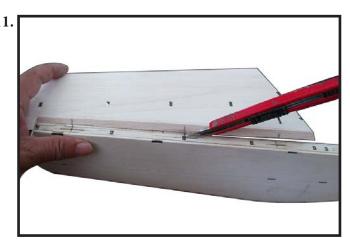


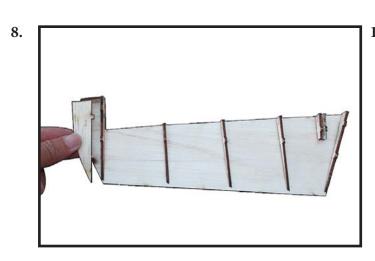


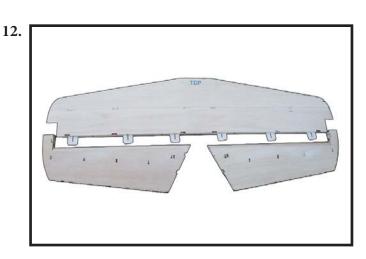


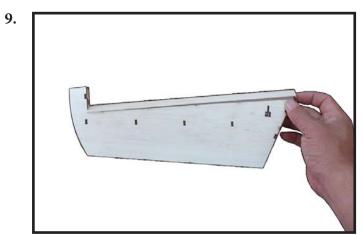


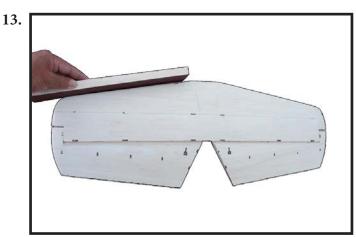


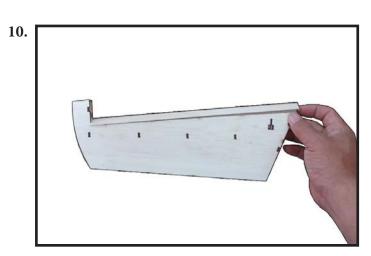






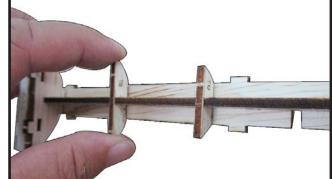






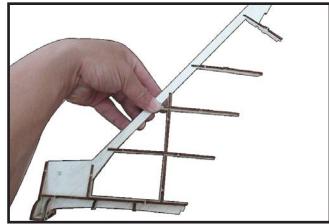
#### BUILD THE RUDDER

4.



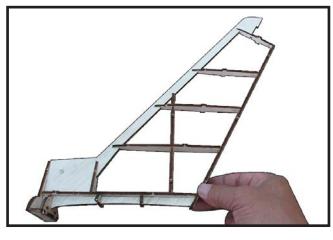
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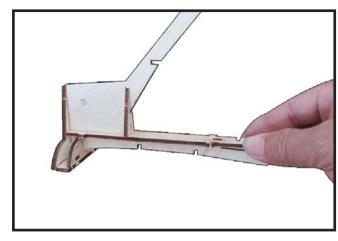


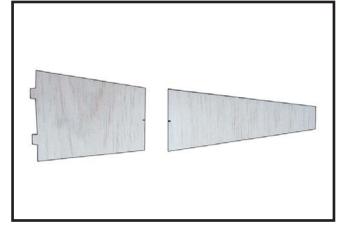
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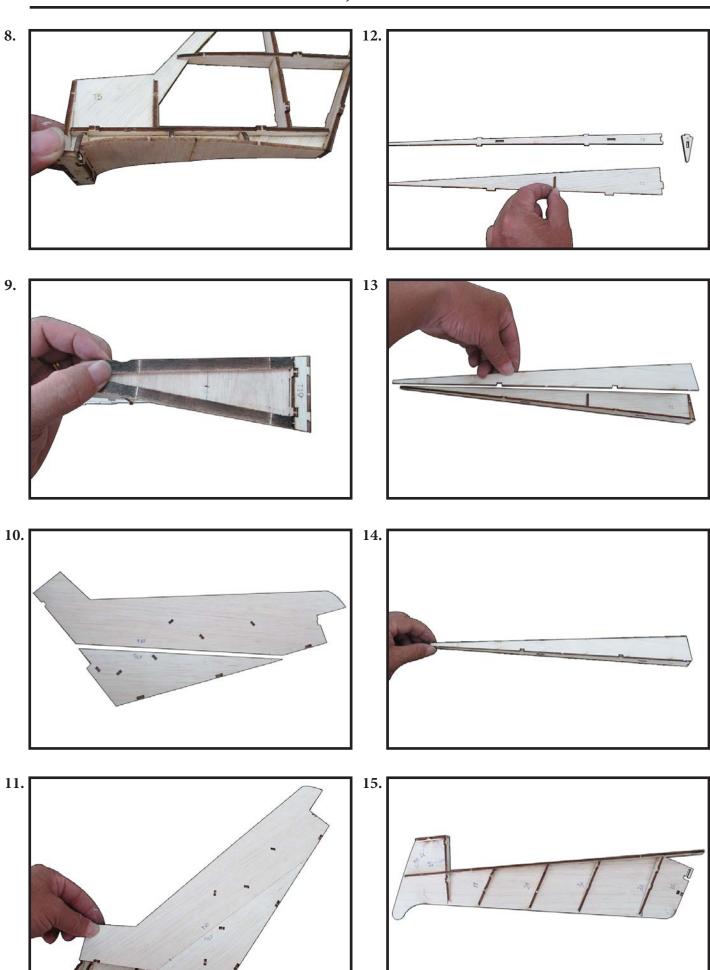
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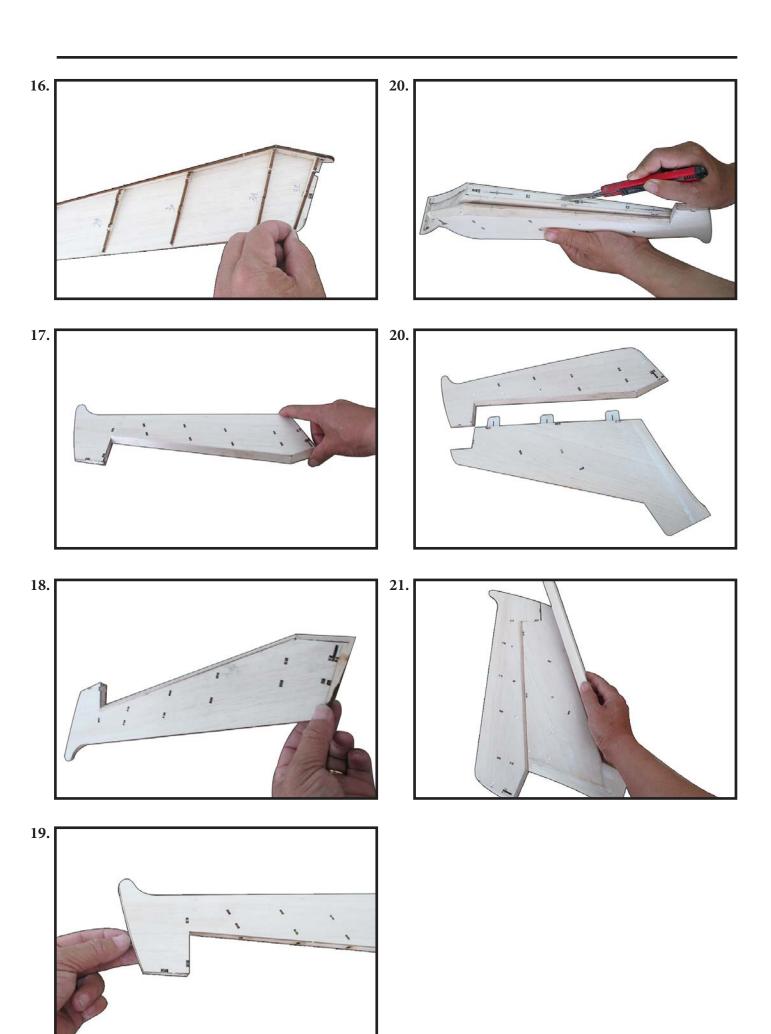


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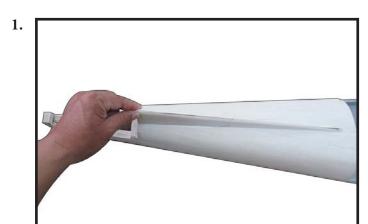




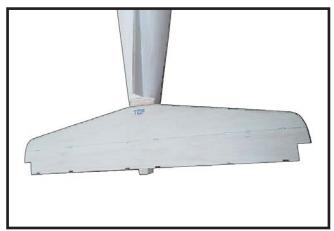


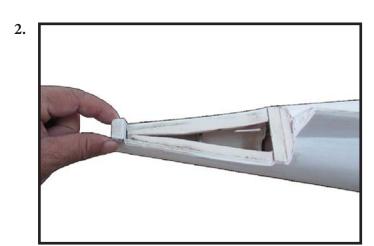
#### SET UP THE PLANE



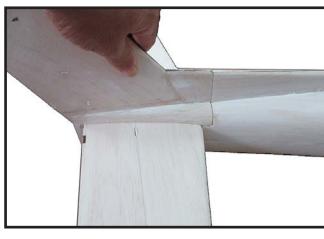


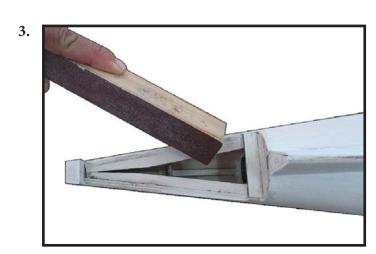


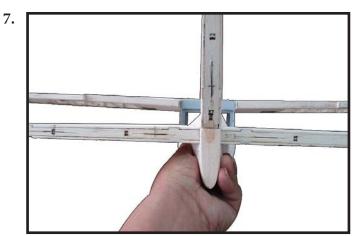


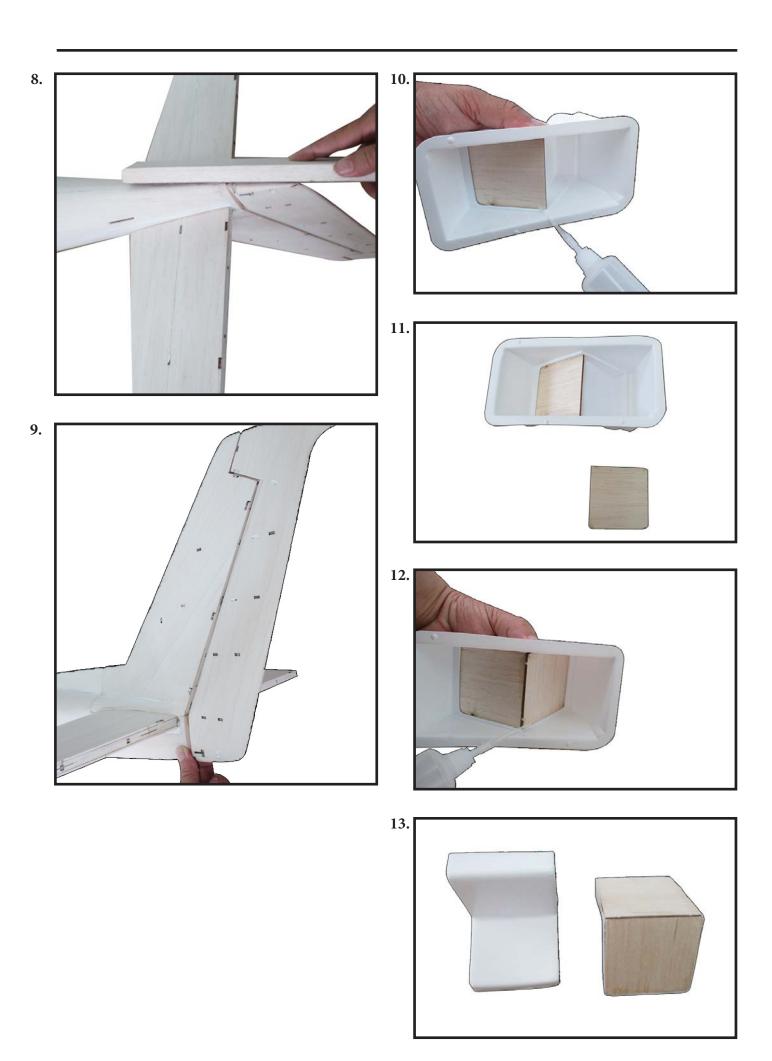




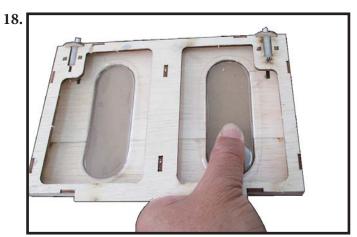


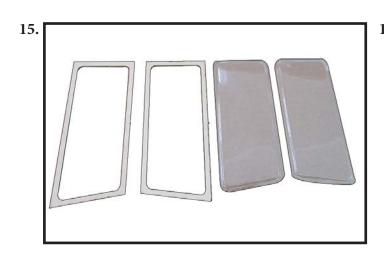






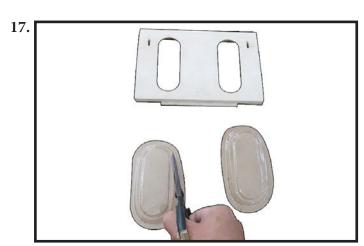












#### BALANCING

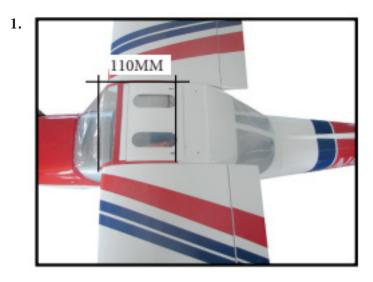
- 1) It is critical that your airplane be balanced correctly. Improper balance will cause your plane to lose control and crash. THE CENTER OF GRAVITY IS LOCATED **110MM** BACK FROM THE LEADING EDGE OF THE WING AT THE WING ROOT.
- 2) Mount the wing to the fuselage. Using a couple of pieces of masking tape, place them on the top side of the wing **110mm** back from the leading edge of the wing at the wing root.
- 3) Turn the airplane upside down. Place your fingers on the masking tape and carefully lift the plane .

Accurately mark the balance point on the top of the wing on both sides of the fuselage. The balance point is located 110mm back from the leading edge of the wing at the wing root. This is the balance point at which your model should balance for your first flights. Later, you may wish to experiment by shifting the balance up to 10mm forward or back to change the flying characteristics. Moving the balance forward may improve the smoothness and arrow- like tracking, but it may then require more speed for take off and make it more difficult to slow down for landing. Moving the balance aft makes the model more agile with a lighter and snappier "feel". In any case, please start at the location we recommend.

With the wing attached to the fuselage, all parts of the model installed (ready to fly), and empty fuel tanks, hold the model at the marked balance point with the stabilizer level.

Lift the model. If the tail drops when you lift, the model is "tail heavy" and you must add weight\* to the nose. If the nose drops, it is "nose heavy" and you must add weight\* to the tail to balance.

\*If possible, first attempt to balance the model by changing the position of the receiver battery and receiver. If you are unable to obtain good balance by doing so, then it will be necessary to add weight to the nose or tail to achieve the proper balance point.



#### **CONTROL THROWS**

Ailerons:

High Rate:

Up:18mm

Down: 18mm

Low Rate:

Up: 12mm

Down: 12mm

**Elevator:** 

High Rate:

Up : 20mm

Down: 20mm

Low Rate:

Up : 15mm

Down: 15mm

#### Rudder:

High Rate:

Right: 30mm Left: 30mm

Low Rate:

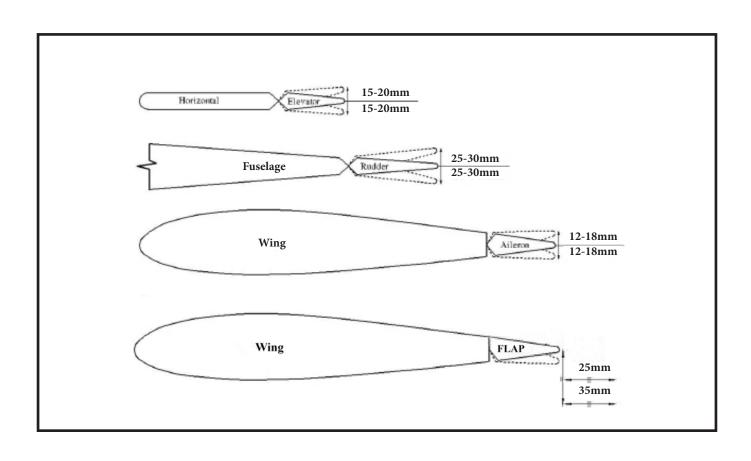
Right: 25mm

Left: 25mm

Flap:

Mid: 25mm

Full: 35mm



#### **FLIGHT PREPARATION**

Check the operation and direction of the elevator, rudder, ailerons and throttle.

- □ A) Plug in your radio system per the manufacturer's instructions and turn everything on.
- □ B) Check the elevator first. Pull back on the elevator stick. The elevator halves should move up. If it they do not, flip the servo reversing switch on your transmitter to change the direction.
- □ C) Check the rudder. Looking from behind the airplane, move the rudder stick to the right. The rudder should move to the right. If it does not, flip the servo reversing switch on your transmitter to change the direction.
- □ D) Check the throttle. Moving the throttle stick forward should open the carburetor barrel. If it does not, flip the servo reversing switch on your transmitter to change the direction.
- □ E) From behind the airplane, look at the aileron on the right wing half. Move the aileron stick to the right. The right aileron should move up and the other aileron should move down. If it does not, flip the servo reversing switch on your transmitter to change the direction.

#### PREFLIGHT CHECK

- □ 1) Completely charge your transmitter and receiver batteries before your first day of flying.
- □ 2) Check every bolt and every glue joint in the **Master Scale Kit Edition Cessna 152 Aerobat 80", 20cc** to ensure that everything is tight and well bonded.
- $\square$  3) Double check the balance of the airplane. Do this with the fuel tank empty.
- $\Box$  4) Check the control surfaces. All should move in the correct direction and not bind in any way.
- $\Box$  5) If your radio transmitter is equipped with dual rate switches double check that they are on the low rate setting for your first few flights.
- $\Box$  6) Check to ensure the control surfaces are moving the proper amount for both low and high rate settings.
- □ 7) Check the receiver antenna. It should be fully extended and not coiled up inside the fuselage.
- □ 8) Properly balance the propeller. An out of balance propeller will cause excessive vibration which could lead to engine and/or airframe failure.

We wish you many safe and enjoyable flights with your Master Scale Kit Edition Cessna 152 Aerobat 80", 20cc.

## If you have any queries, or are interested in our products, please feel free to contact us

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Facebook: www.facebook.com/SeaGullModels.