

DFS Kranich

Build instructions



<i>Specifications</i>	
Wing Span	60 in / 1498mm
Wing Area	16.2 sq dm
Flying weight	320g-350g
Fuselage length	645mm
Scale	1 / 12

Requires
RC transmitter with at least 3 channels
5g mini servos*4

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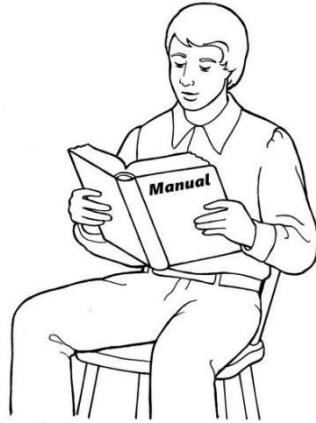
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BEFORE YOU BEGIN

Attentions and Tips

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 serious defects or missing parts, please contact your local dealer.
3. Please build your kit in strict accordance with the sequence of the user manual.
4. Pre-Sanding: Before removing any parts from the laser-cut plywood sheet, use a sanding block loaded with 250 - 400 grit sandpaper and lightly sand the back side of the sheet. Which can significantly reduce burn marks of the wood and make the parts match better
5. Before building the model part on drawings, it is recommended to cover a layer of kitchen cling film (polyethylene film) on the drawing. This way can prevent parts from sticking to the drawing and causing damage.
6. Parts Assembly: This product's tabs and notches interlock like a 3D puzzle. We strongly suggest that when fitting parts, you "dry fit" (use no glue) the parts together first. It is advised to work 1 - 2 steps ahead in the instructions, using this dry-fit technique. This allows the opportunity to inspect the fit and location of assembled components, and shows the benefits of our construction technique. As each successive part is added, it contributes to pulling the entire assembly square. Once you arrive at the end of a major assembly sequence, square your work on a flat work surface, and bond the dry-fit joints with glue. Using the dry-fit process, you'll be able to recover from a minor build mistake, and will ultimately end up with a square and true assembly.
7. This is a precision laser-cut kit. Our lasers cut to within 0.2mm in accuracy. Yet the

wood stock supplied to us by the mill may vary in thickness by up to 0.2-0.3mm. This variance in the wood stock can cause some tabs and notches to fit very tightly. With this in mind, consider lightly sanding or lightly pinching a tight-fitting tab, rather than forcing the parts together. You may break some parts in assembly, but please don't worry, after the final covering work, it will not affect the strength and appearance of your model. You will end up with a circle and true airframe.



KIT INVENTORY

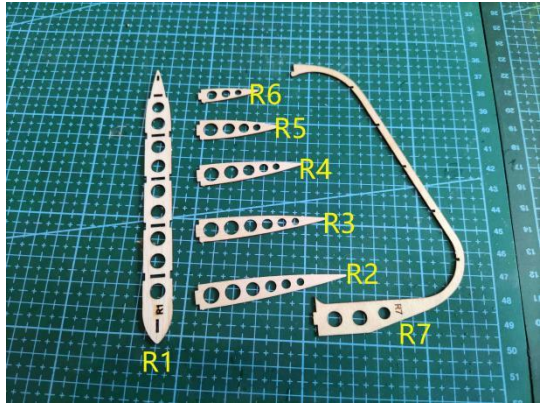
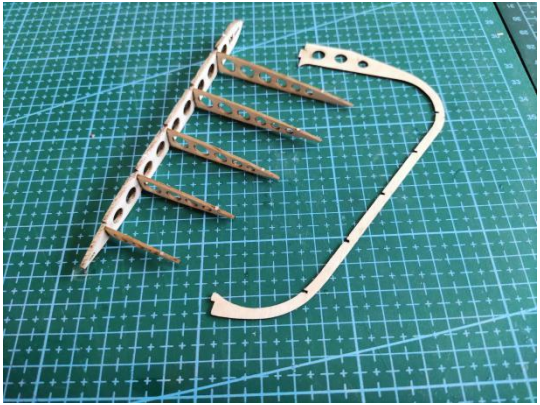
<i>Sheet Wood Inventory</i>	
1.5mm Balsa	2
1mm balsa	16
2.5mm balsa	1
1mm Plywood	3
1.5mm Plywood	1

<i>Hardware parts</i>	
Blister PVC canopy(Front)	1
Blister PVC canopy(Behind)	1
PVC Tube (Outer diameter: 6mm, Inner diameter: 4mm)	1
Carbon Tube (Outer diameter: 4mm, Inner diameter: 3mm)	1
Plastic Hinges	6

Mini paper hinges	8
M2*20 Screws	2
M1.6*5 Screws	8
M1.78*8 Screws	2
Steel push rod (diameter: 0.8mm)	2
Steel cable (diameter: 0.3mm)	1
Steel wire adapter	2
Copper tube	10
Heat shrinkable tube	1

Paper parts	
1:1 drawings	1

Build instructions

Part1.Rudder	
<p>Step 1</p> 	<p>Step 2</p> 

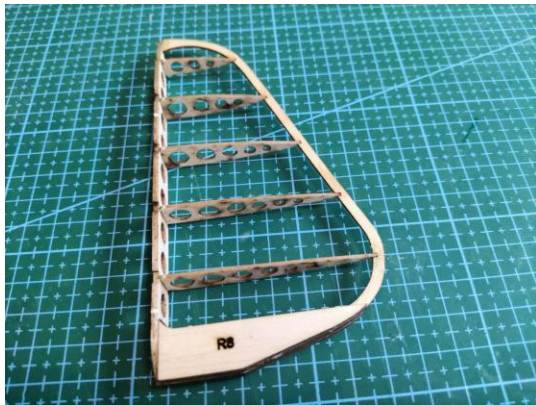
Step 3



Step 4



Step 5

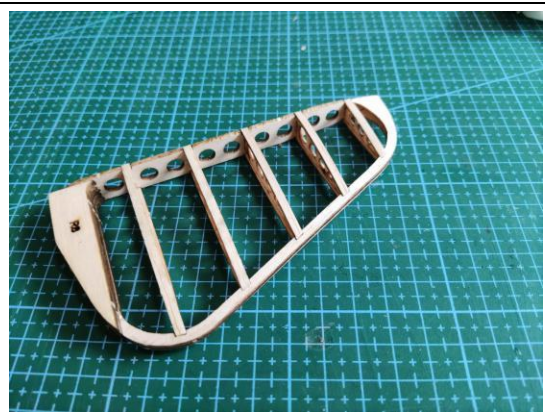
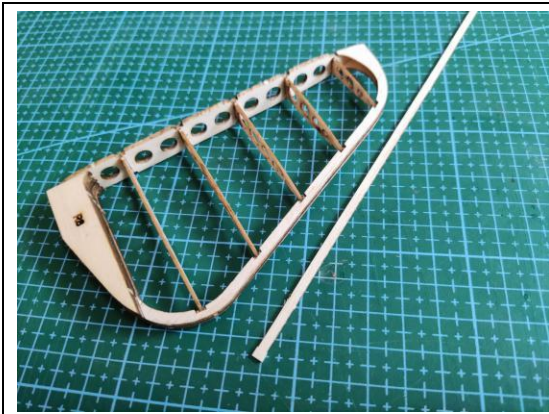


Step 6



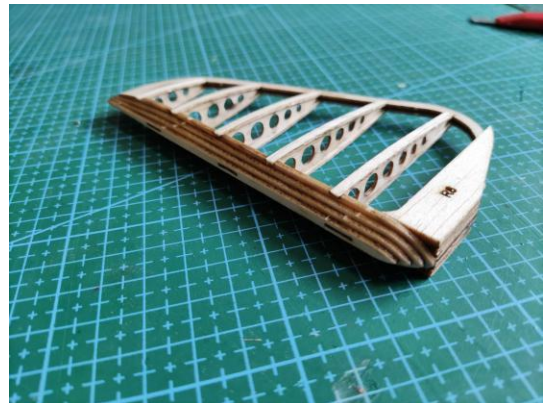
Step 7

Step 8



Step 9

Step10



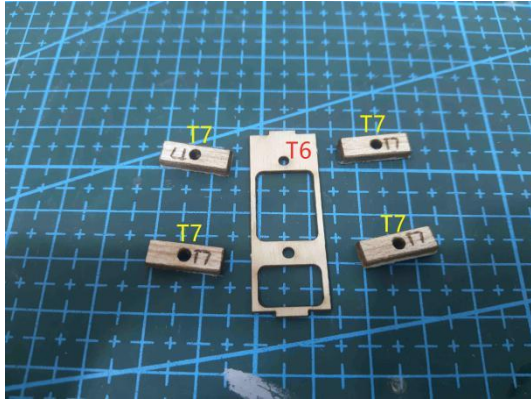
Step 11

Step 12

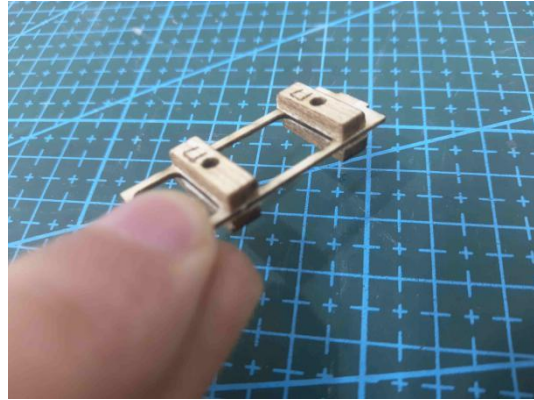


Part2.Horizontal tail

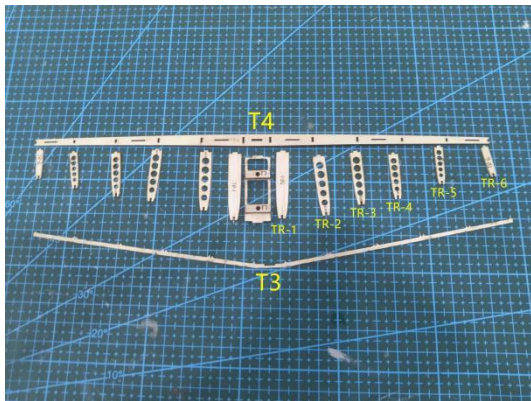
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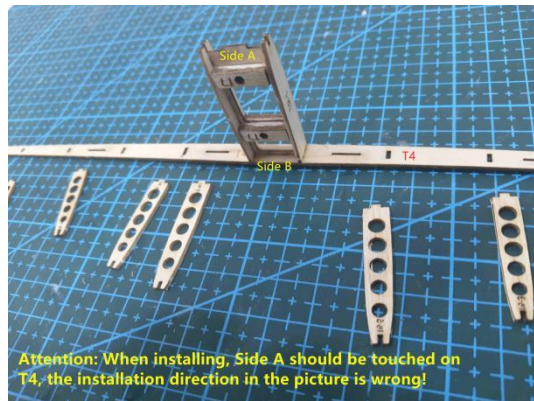
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Step 3

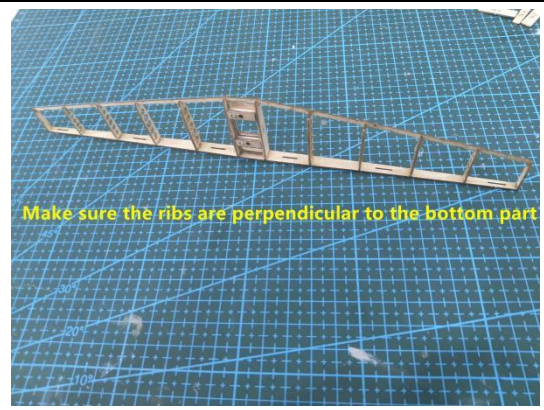
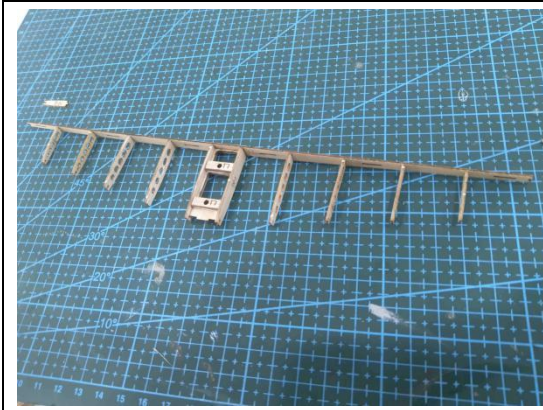


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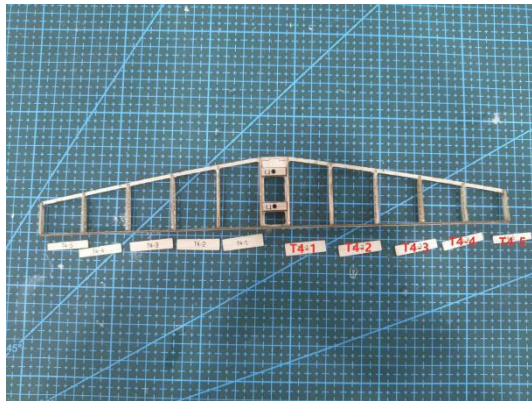


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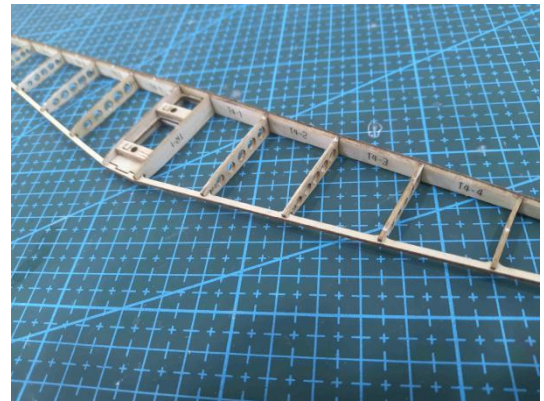
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Step 7

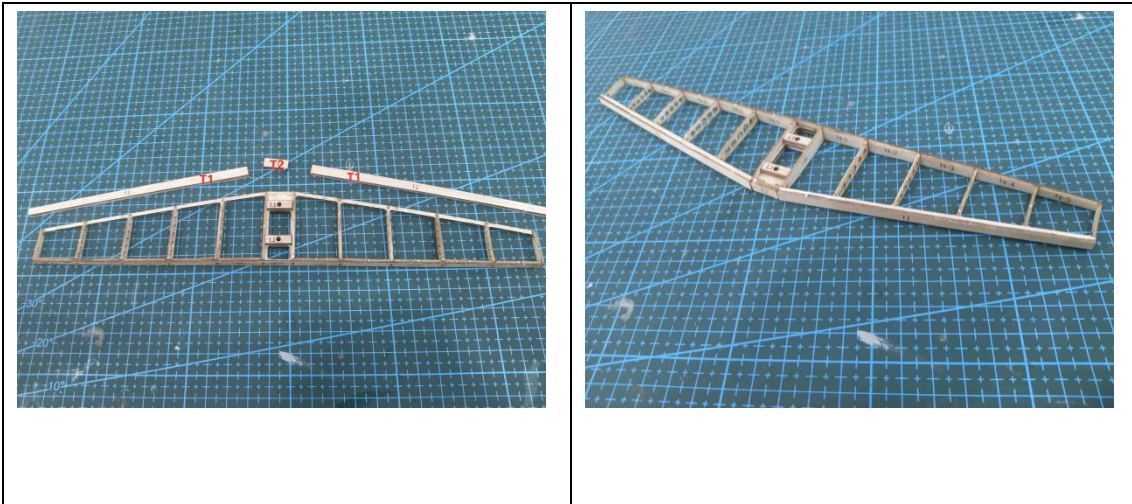


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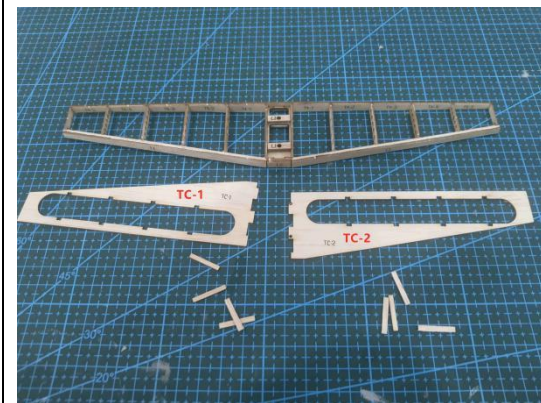


Step 9

Step 10



Step 11

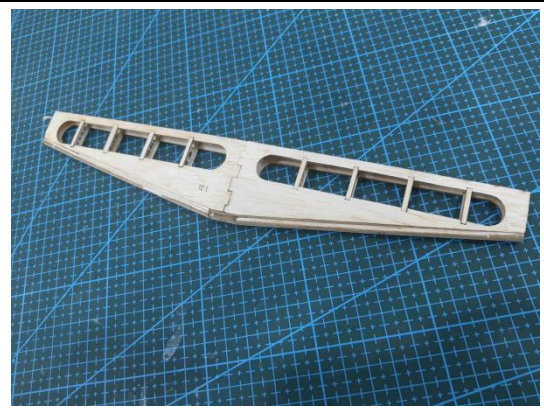
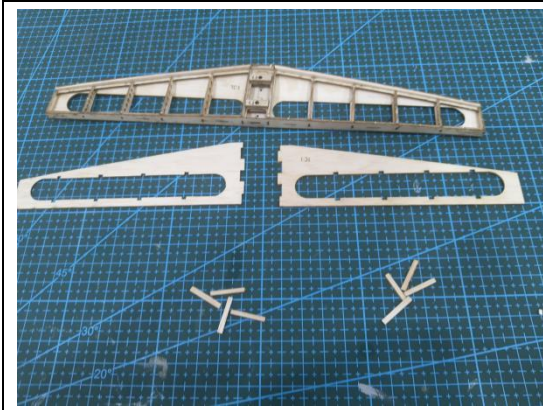


Step 12



Step 13

Step 14



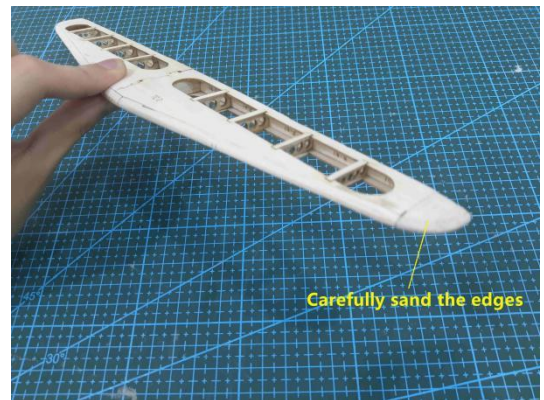
Step 15

Step 16

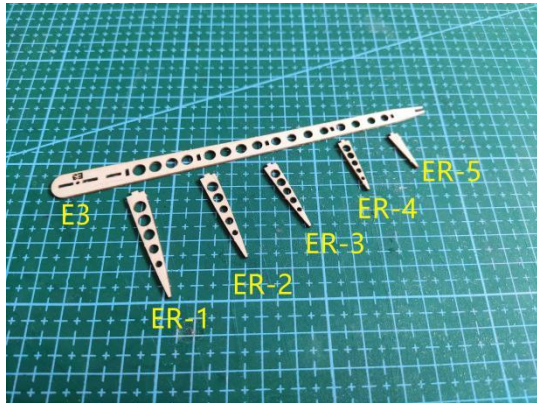


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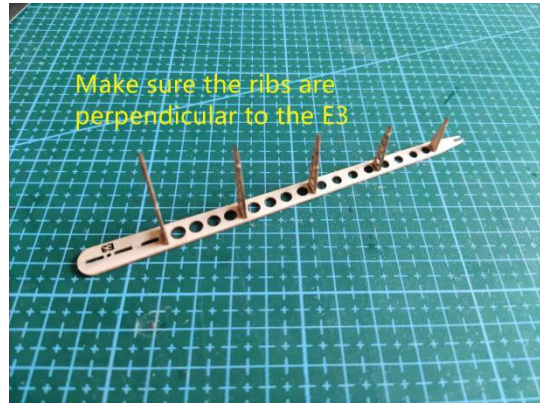
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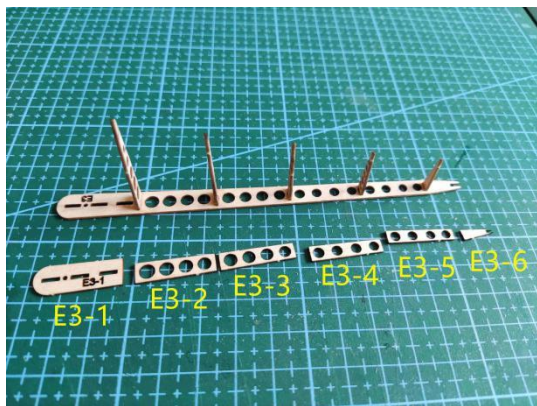
Step 19



Step 20



Step 21

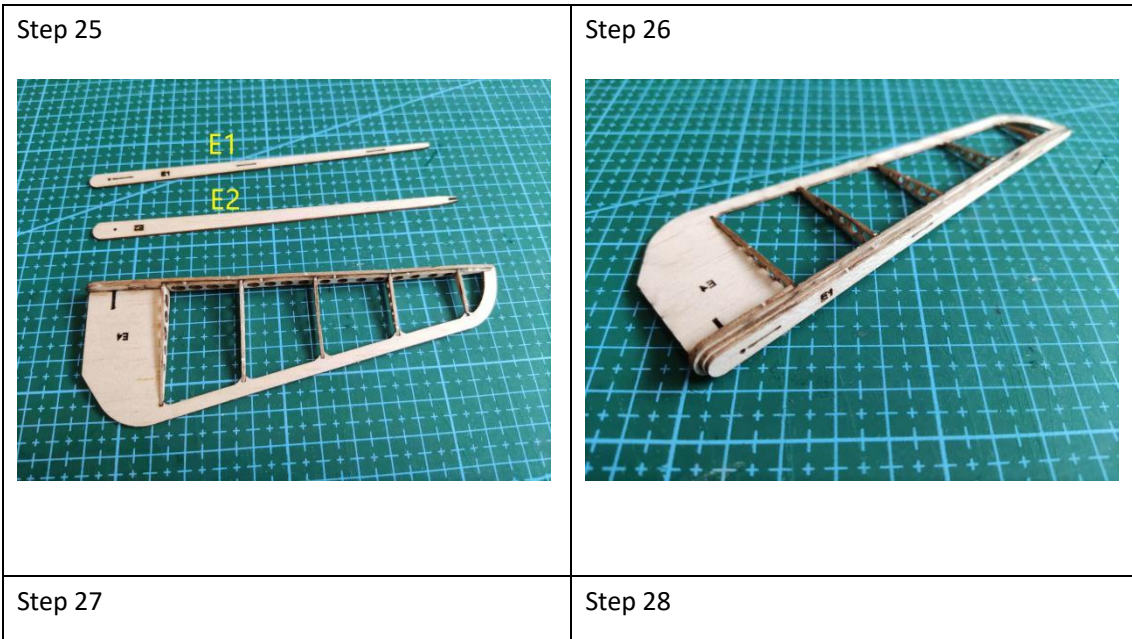
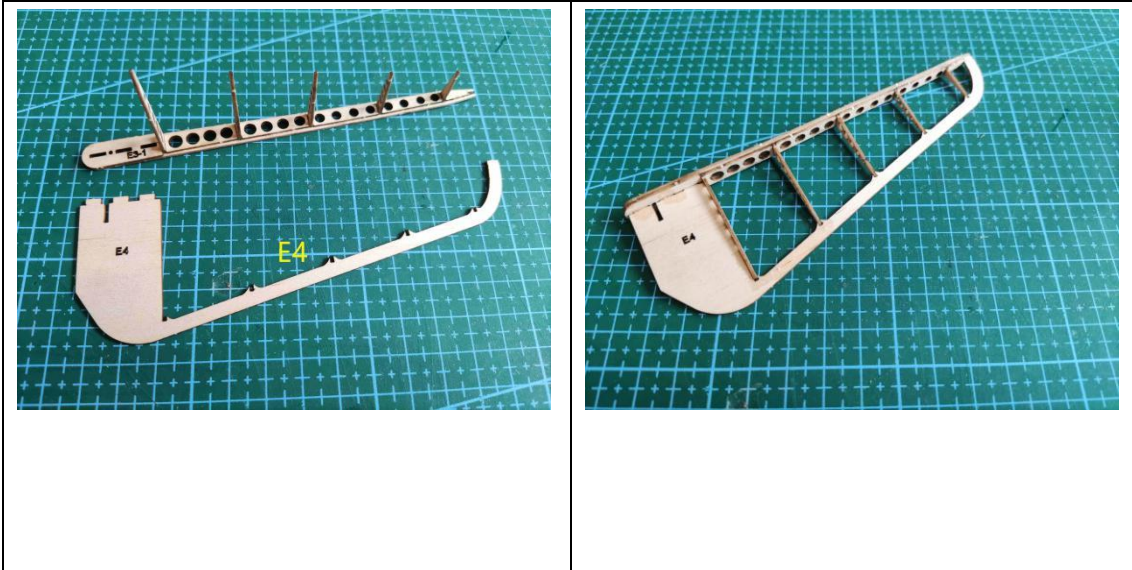


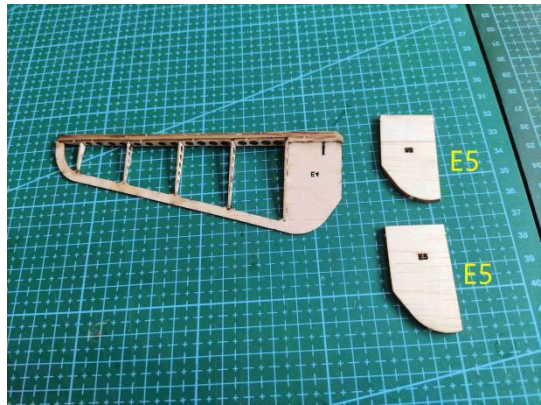
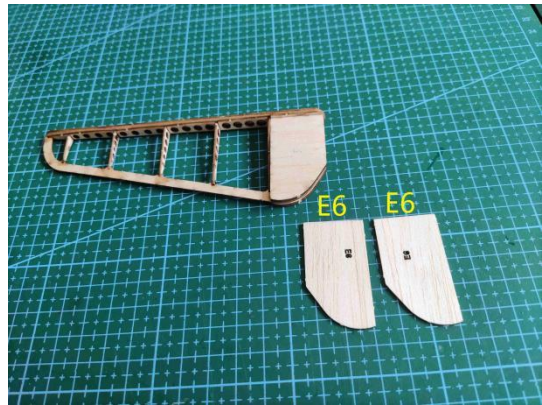
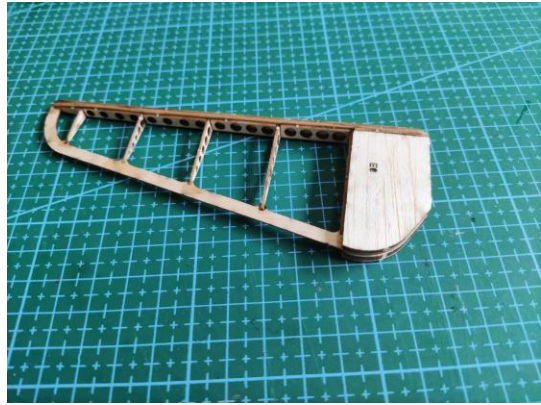
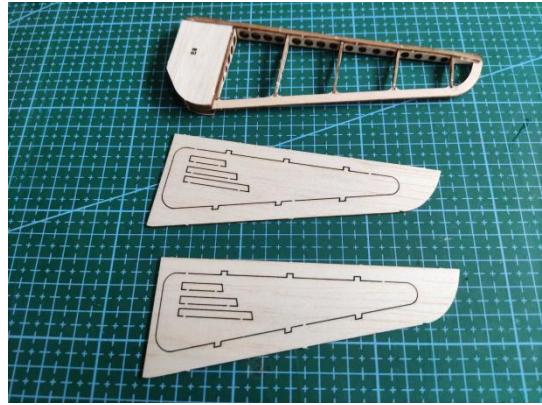
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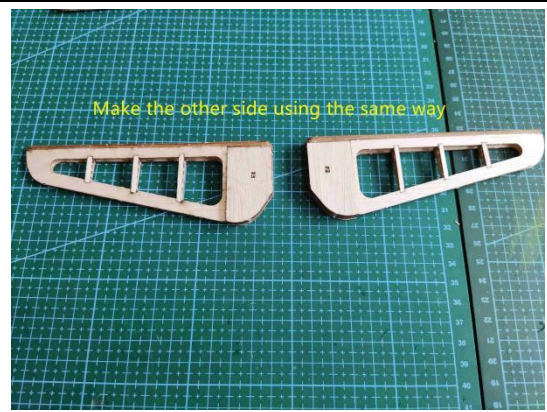
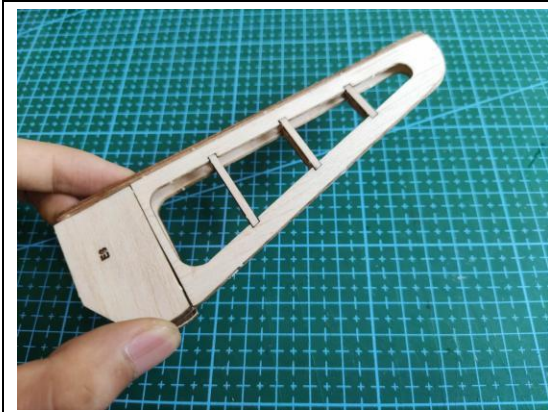
Step 23

Step 24



	
<p>Step 29</p> 	<p>Step 30</p> 

<p>Step 31</p>	<p>Step 32</p>
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Step 33



Step 34



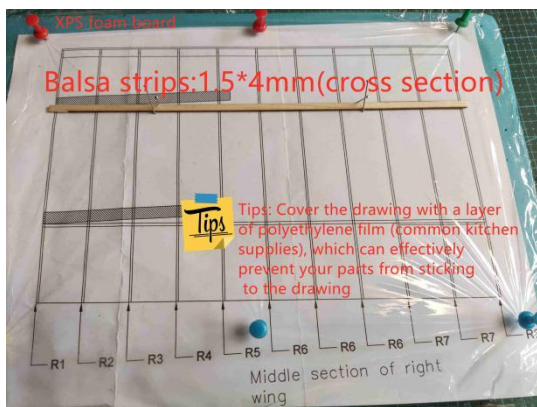
Step 35



Builder's note:

Part3.Centre wing section

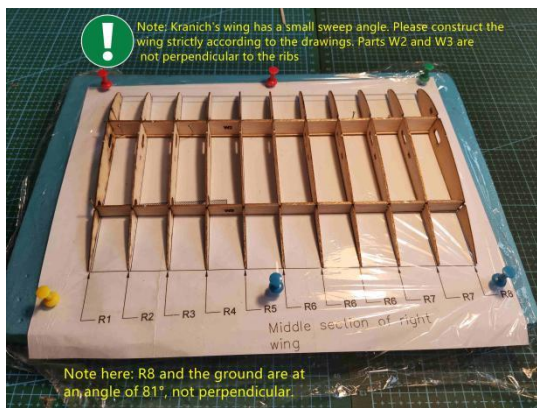
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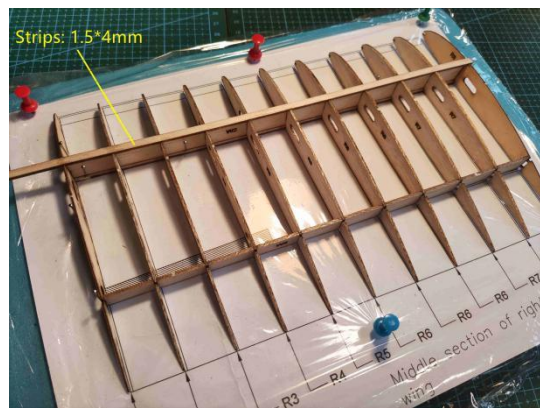
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Step3

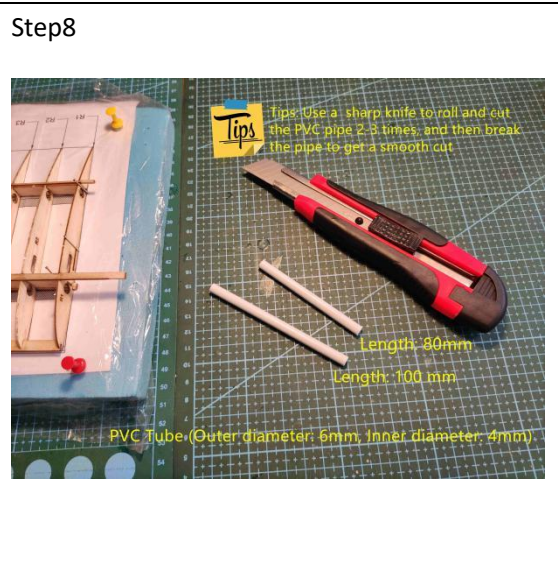
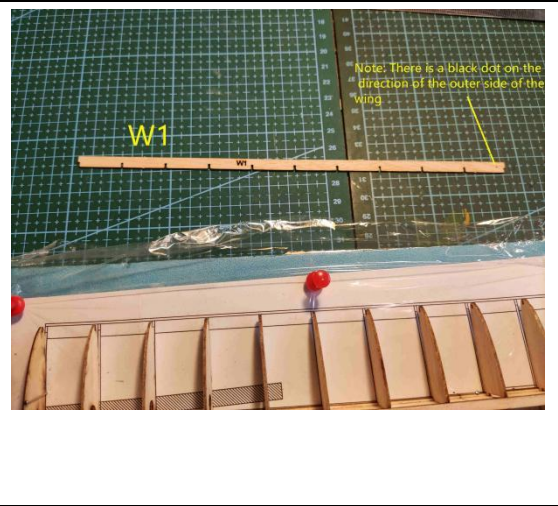
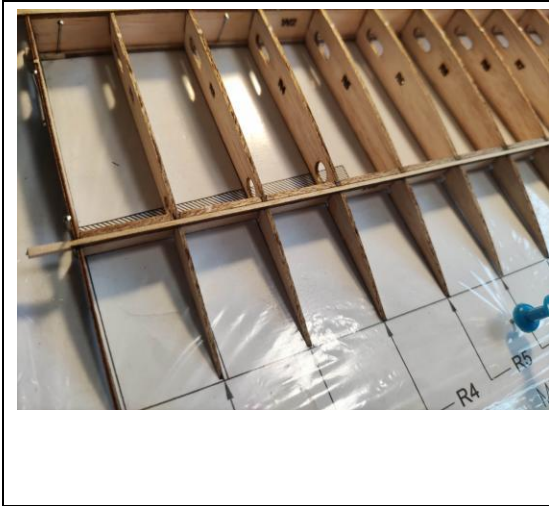


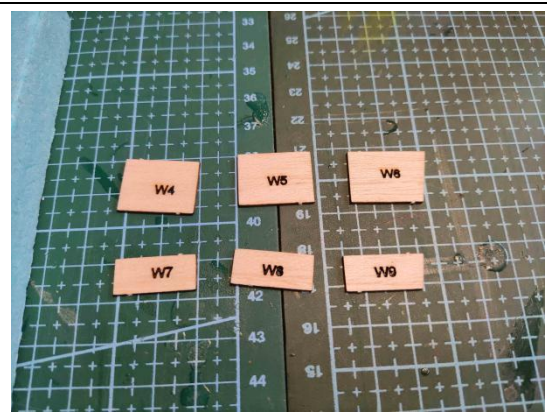
Step4



Step5

Step6

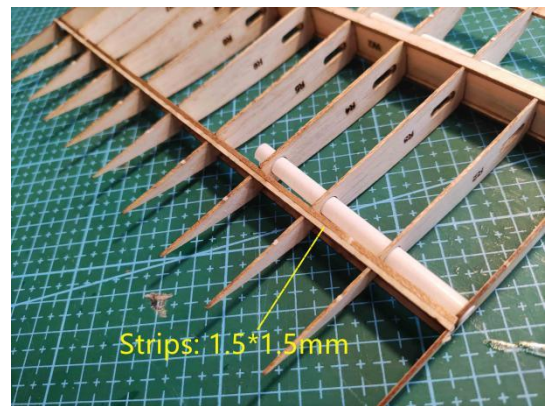




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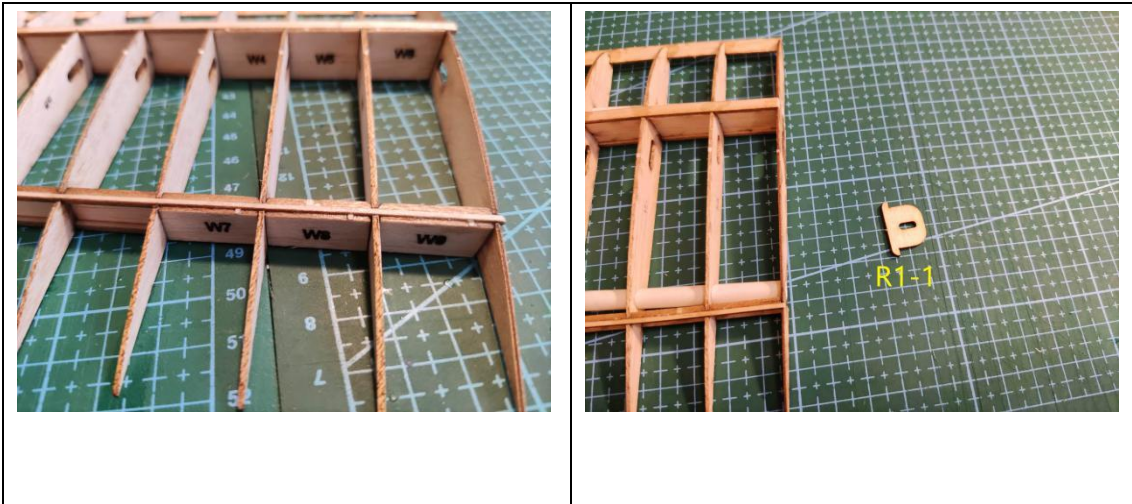


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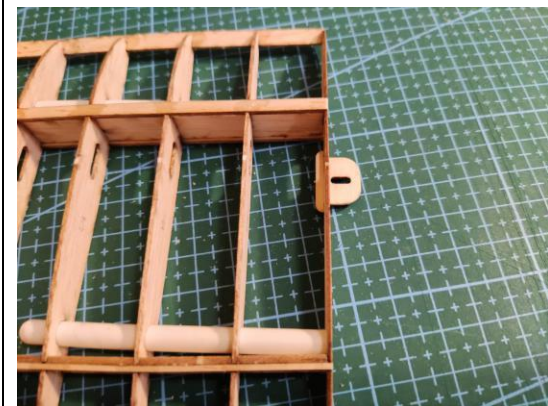


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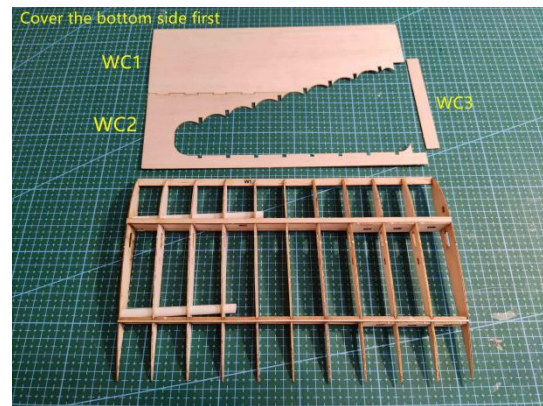
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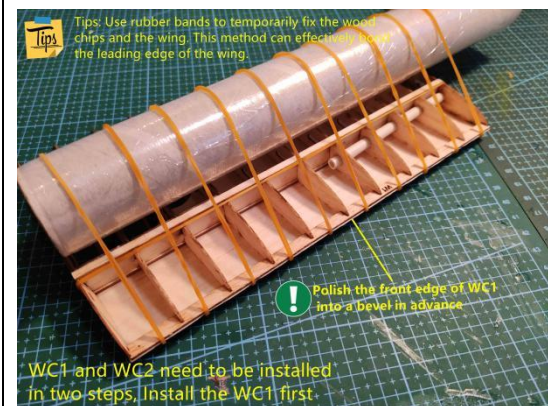
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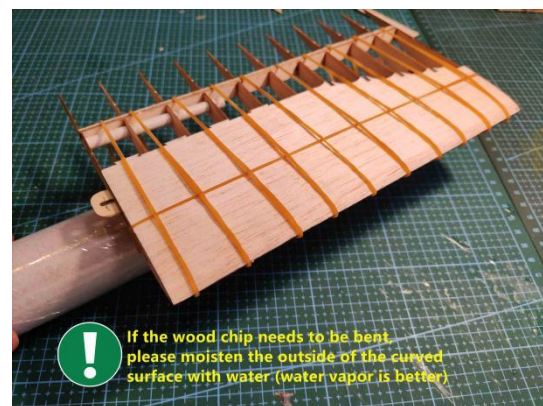
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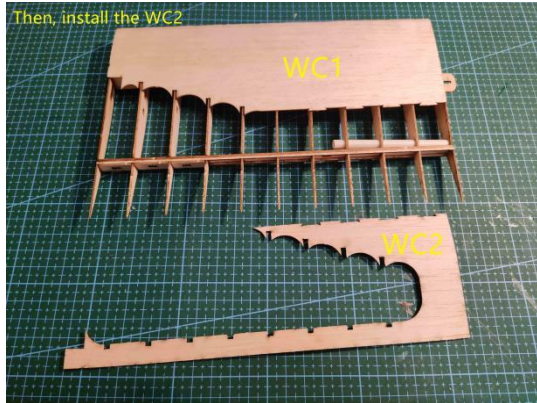
Step17



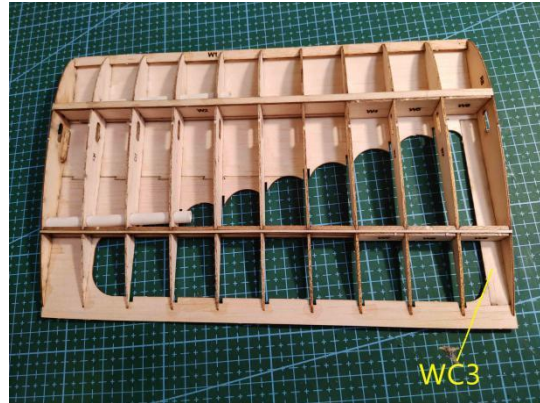
Step18



Step19



Step20



Step21

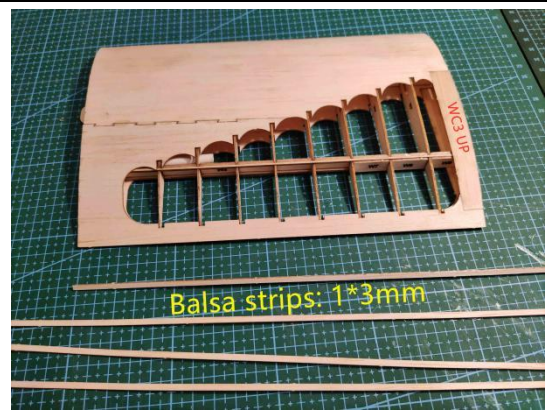


Step22



Step23

Step24



Step25

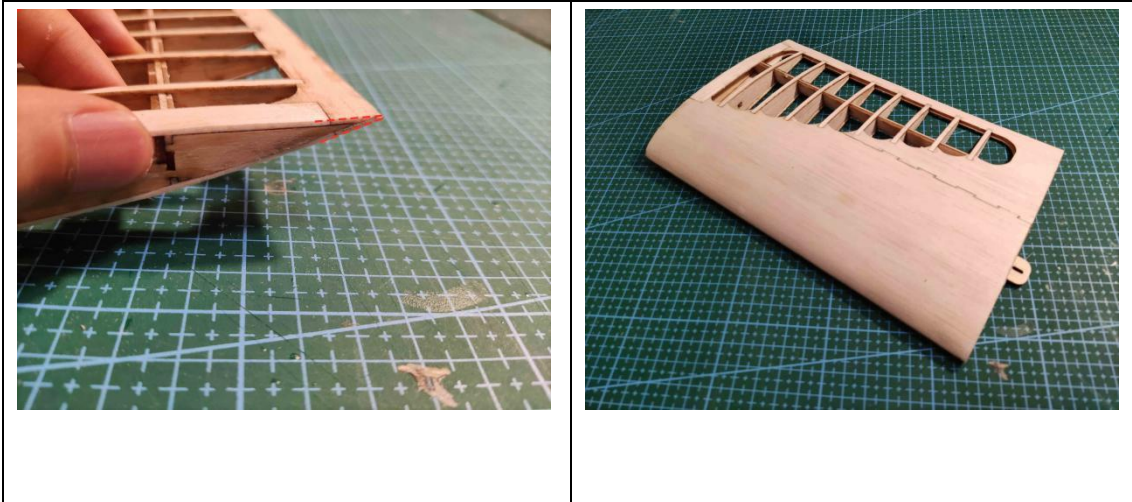


Step26



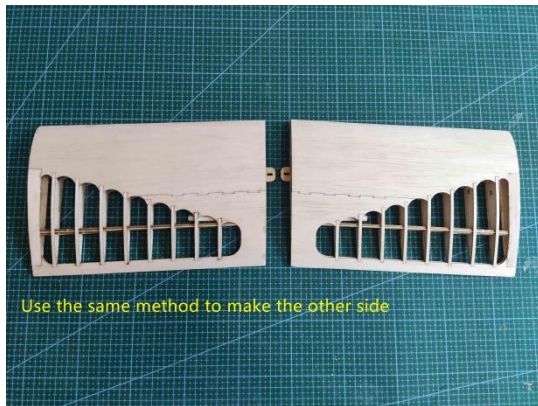
Step27

Step28



Step29

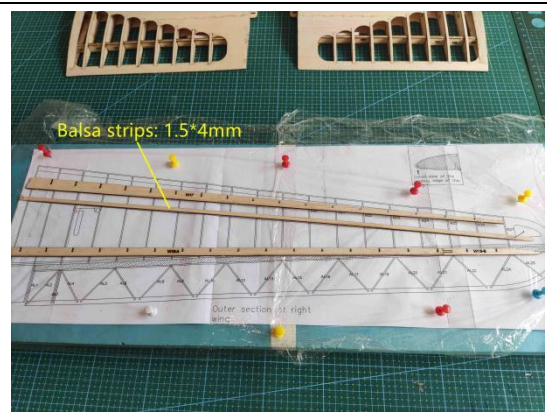
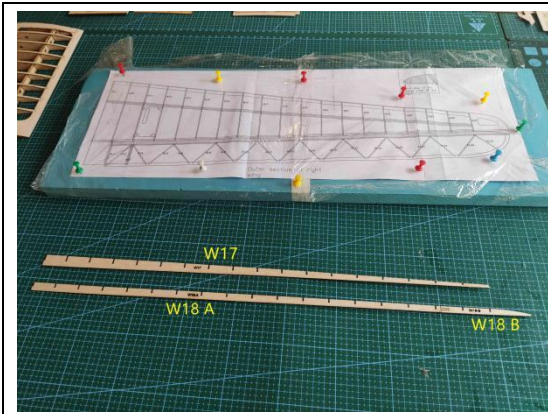
Builder's note:



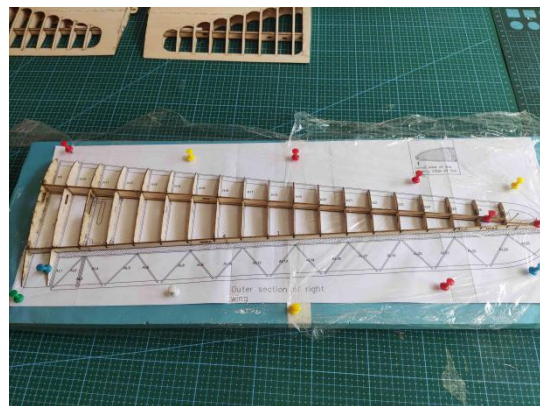
Part4.Outer Wing Section

Step1

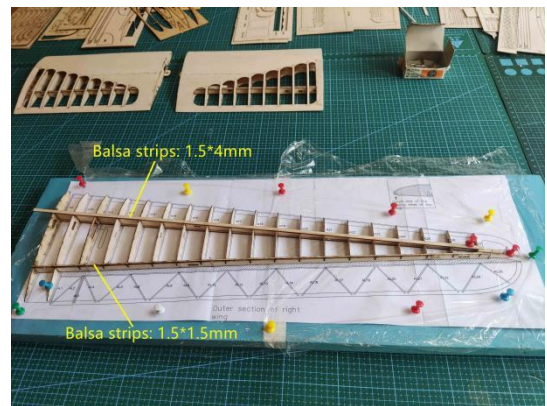
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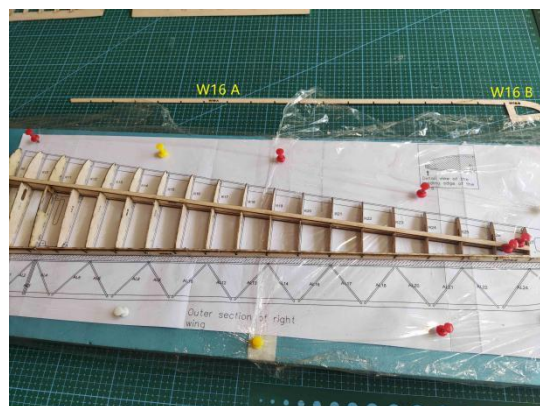
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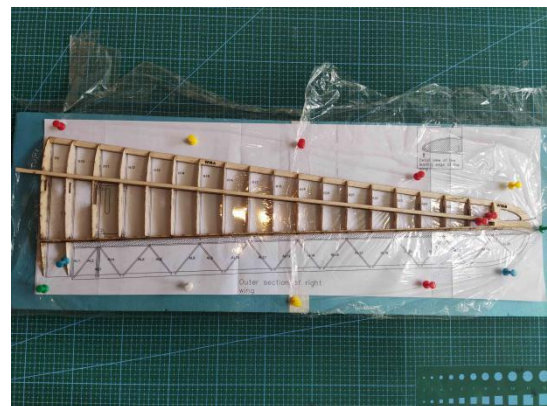
Step4



Step5



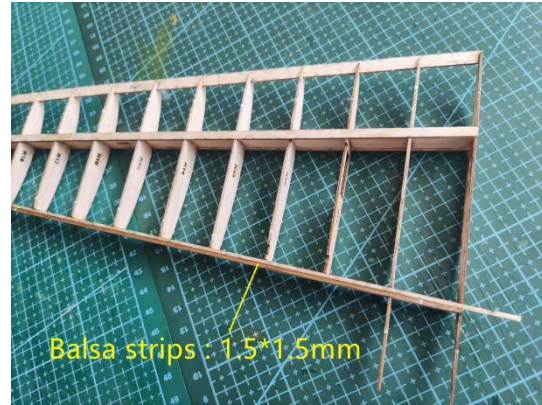
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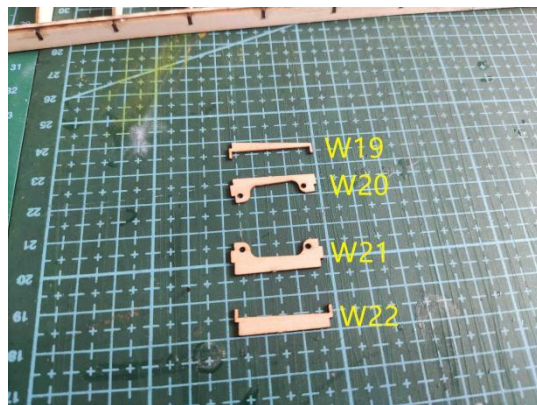
Step7



Step8



Step9



Step10



Step11



Step12

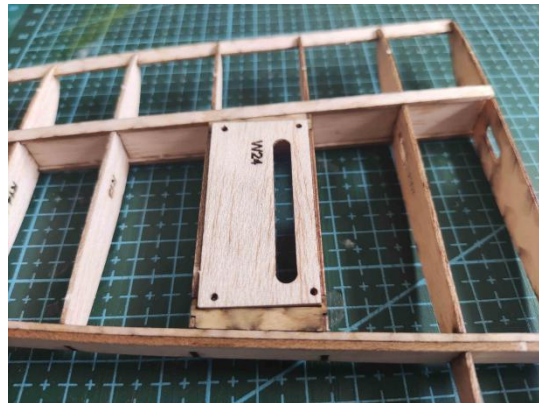




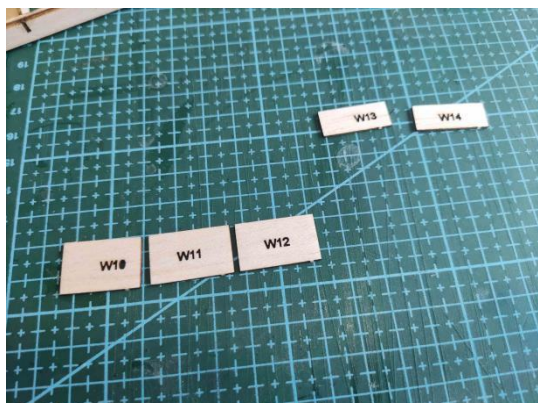
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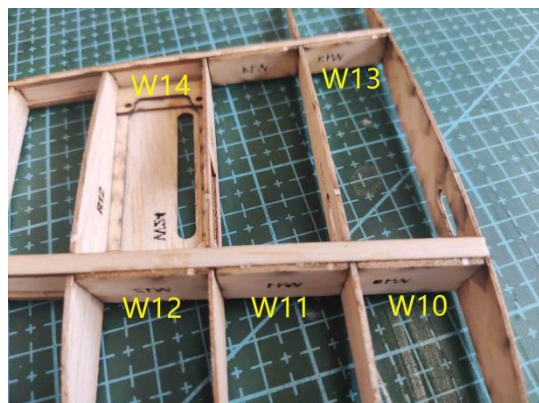
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Step15

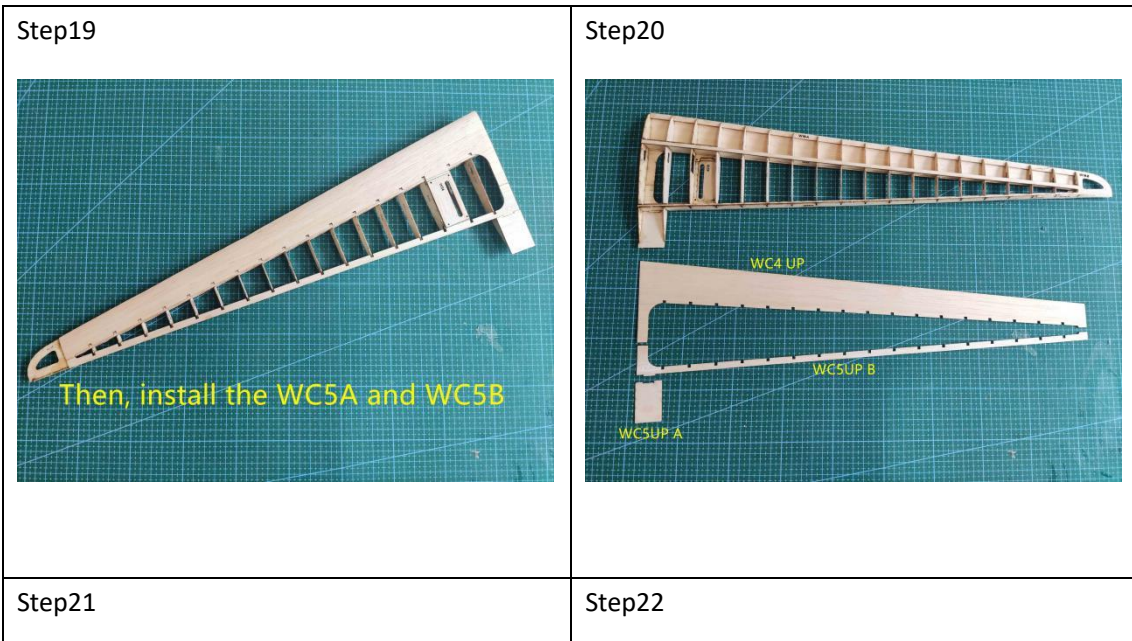
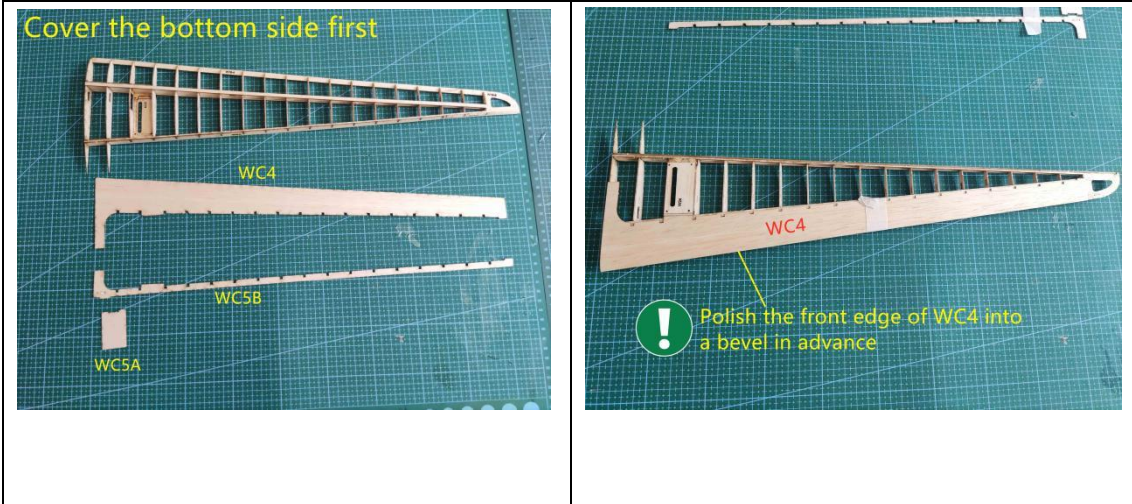


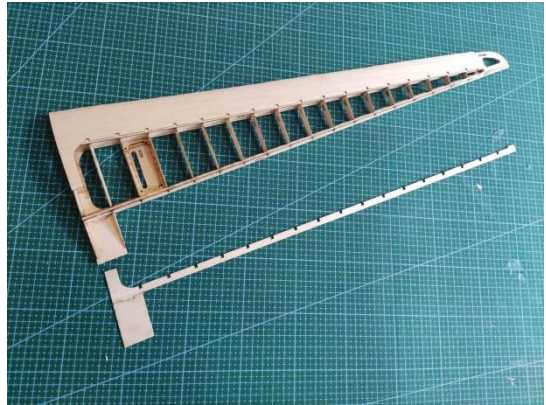



Step16



Step17

Step18



	 <p>! Polish the back edge of WC5A into a bevel</p>
<p>Step23</p> <p>Then install the WCSUP A and WCSUP B</p>  <p>Balsa strips: 1*3mm</p>	<p>Step24</p>  <p>W25</p> <p>W16B</p> <p>Each wing needs 3 pieces of W25, thickness: 2,5mm*2 pieces (installed above W16B) Thickness: 1mm*1 piece (installed below W16B)</p>

Step25	Step26
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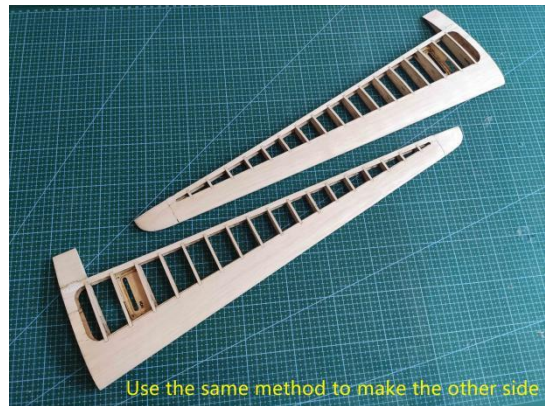


Step27

Step28



Carefully polish the leading edge and tip of the wing



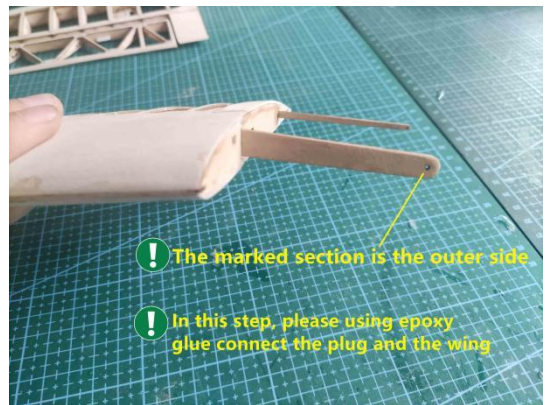
Use the same method to make the other side

Step29

Step30



The plugs comes from the 1.0mm plywood sheet



! The marked section is the outer side

! In this step, please using epoxy glue connect the plug and the wing

Step31



Step32



Step33

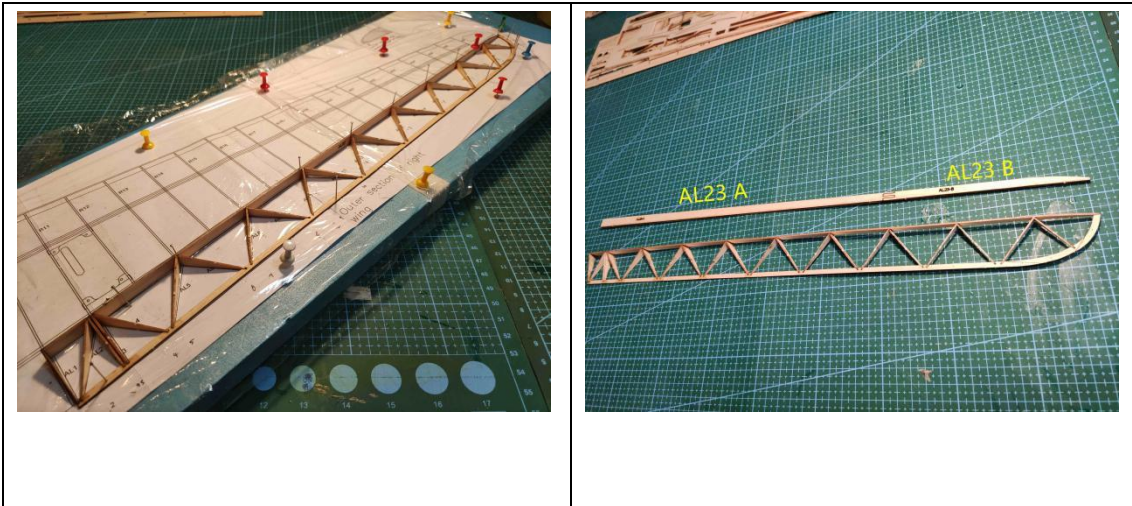


Step34



Step35

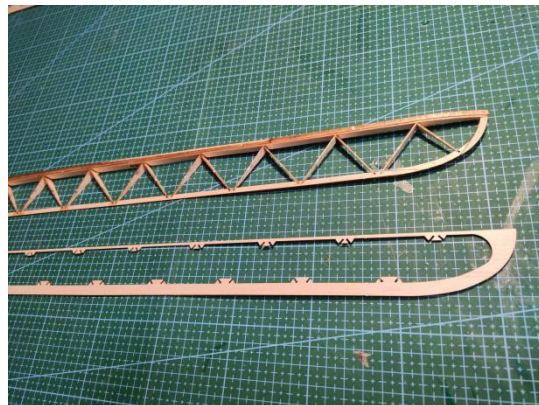
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Step37

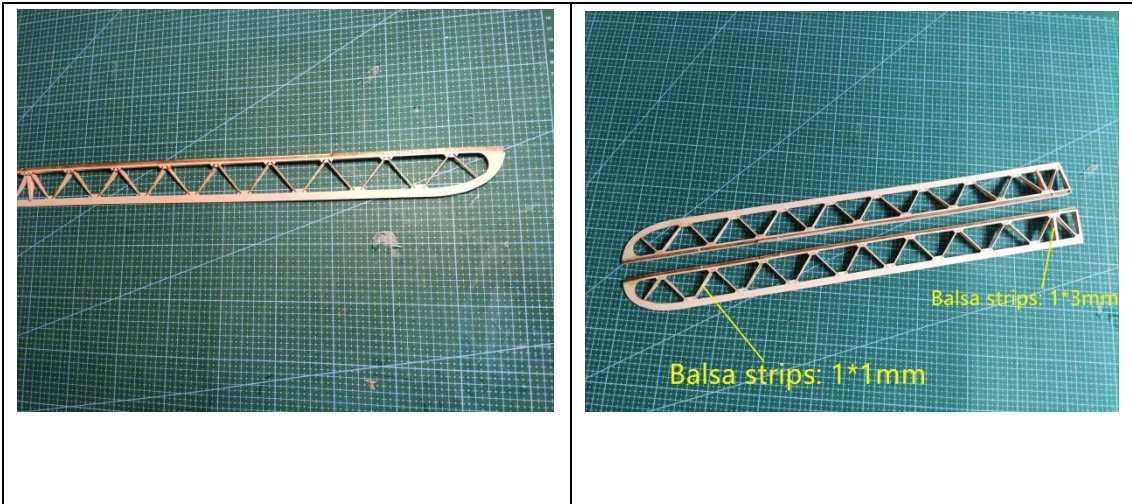


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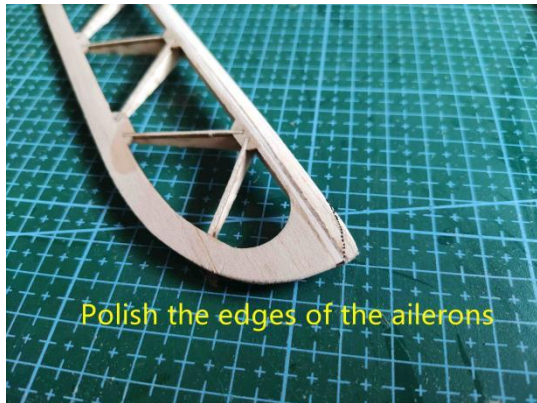


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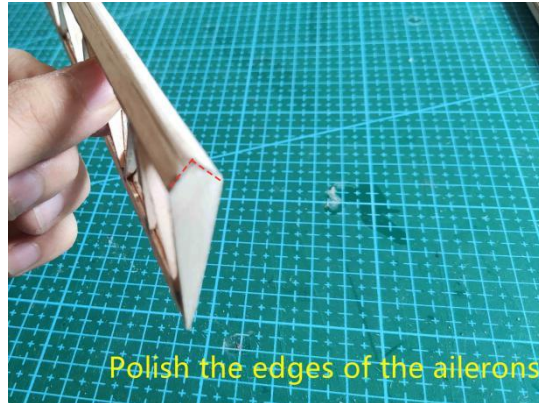
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Step41

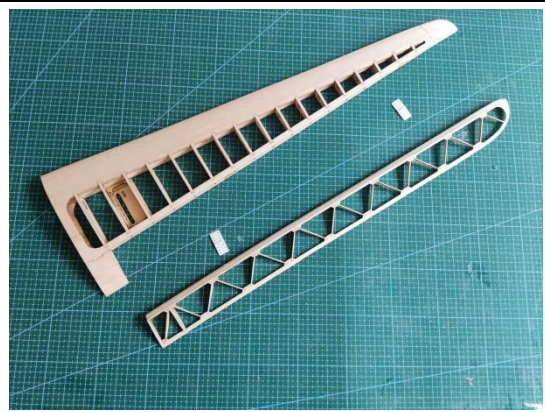
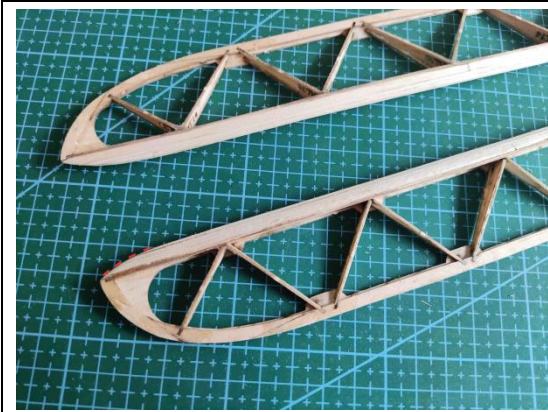


Step42

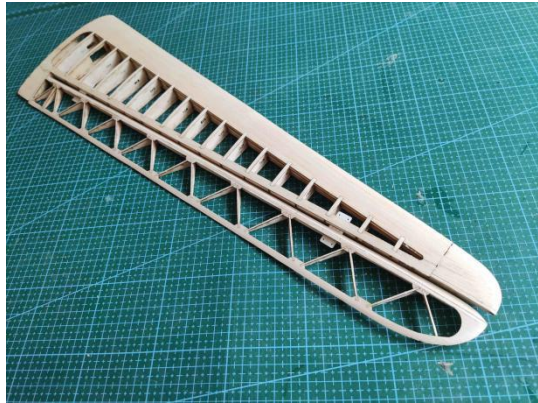


Step43

Step44



Step45



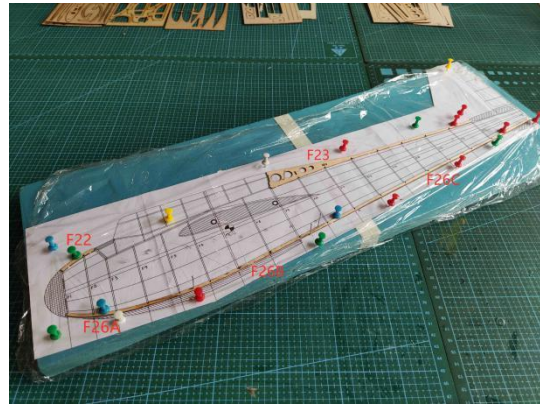
Builder's note:

Part5.Fuselage I

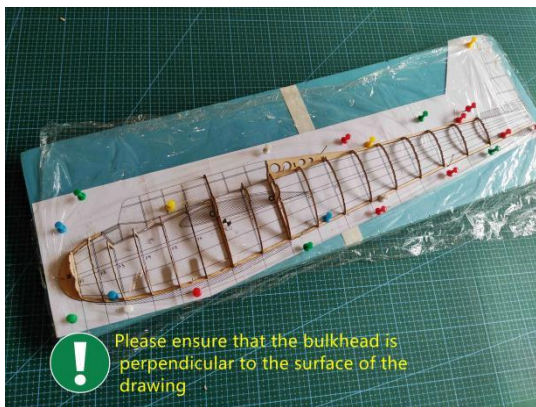
Step 1



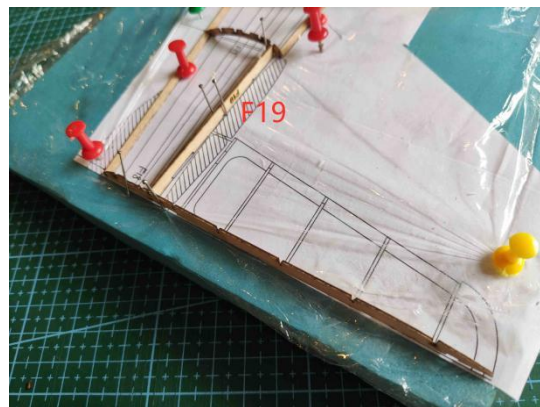
Step 2



Step 3

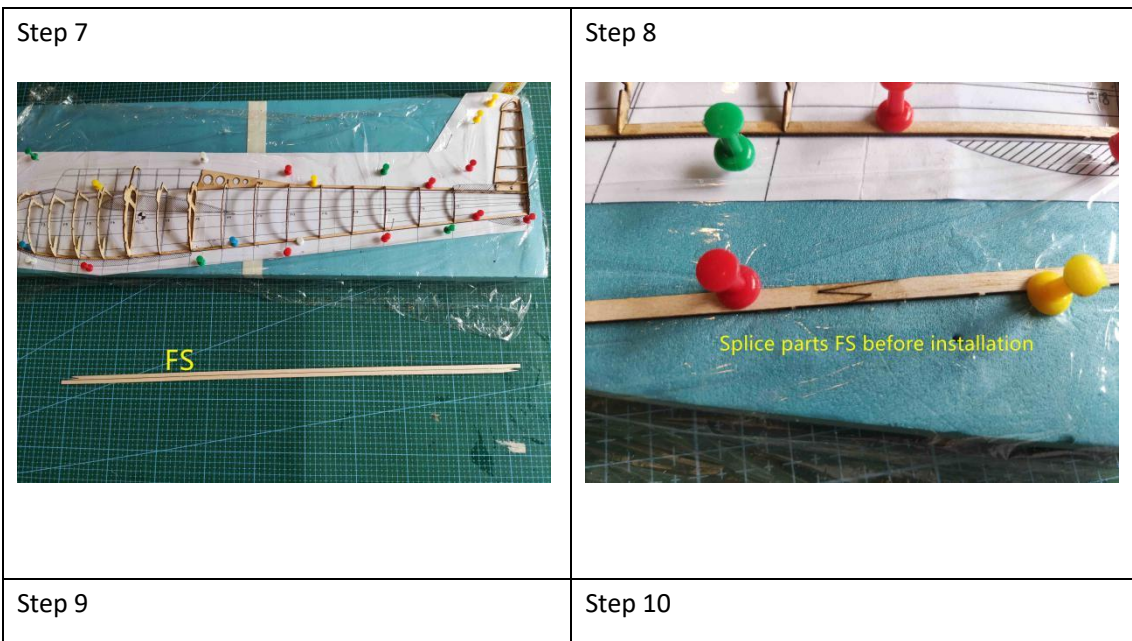
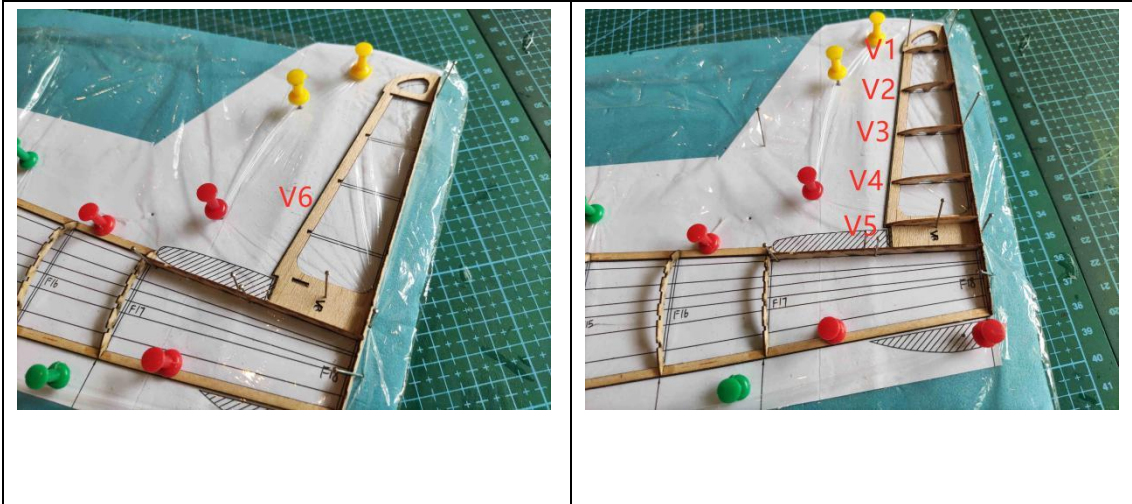


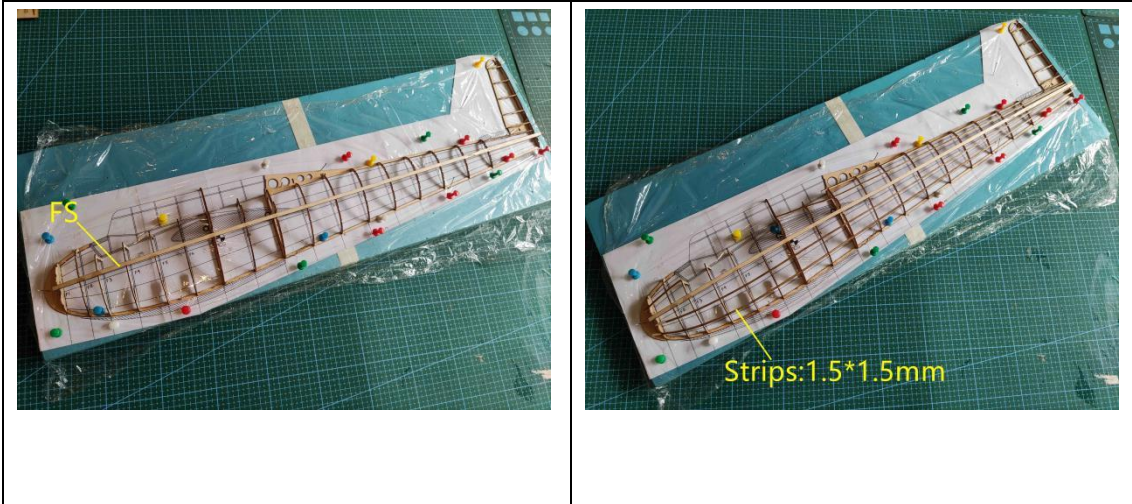
Step 4



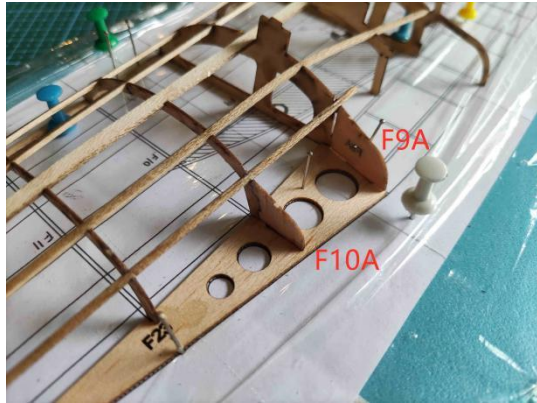
Step 5

Step 6

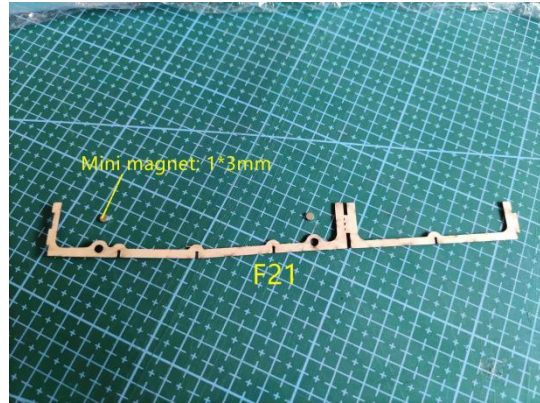




Step 11

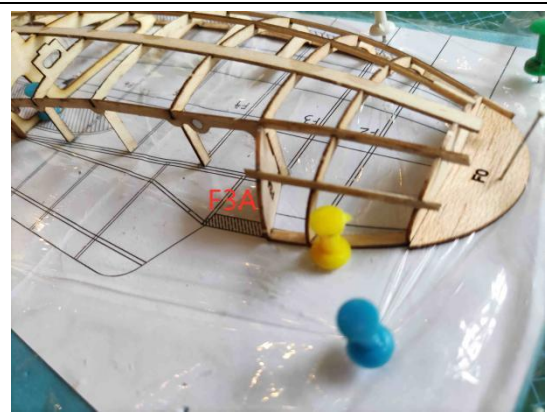
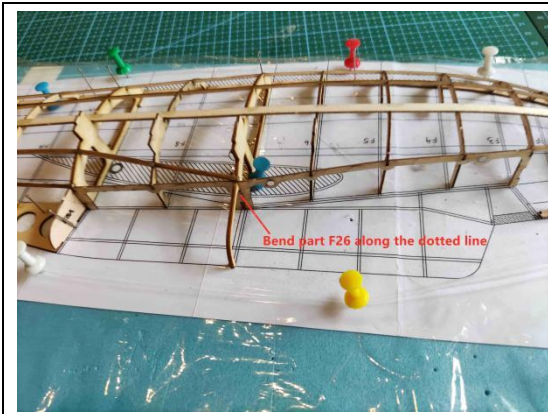


Step 12



Step 13

Step 14



Step 15

Step 16



Step 17

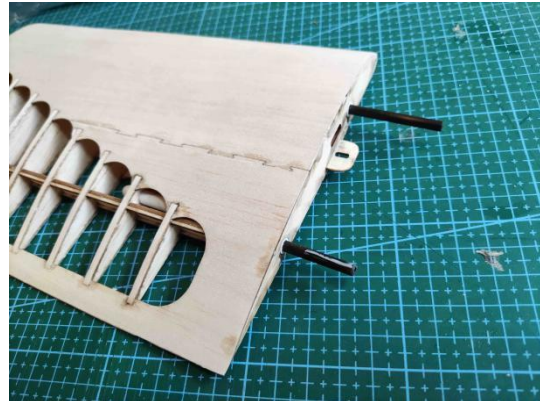
Step 18



Step 19



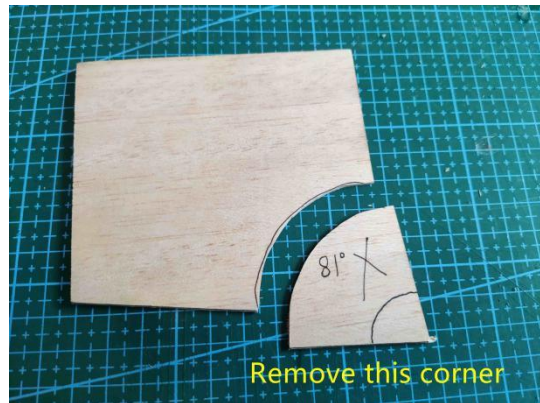
Step 20



Step 21

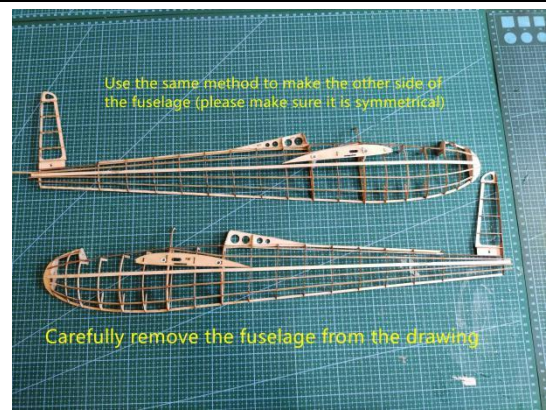
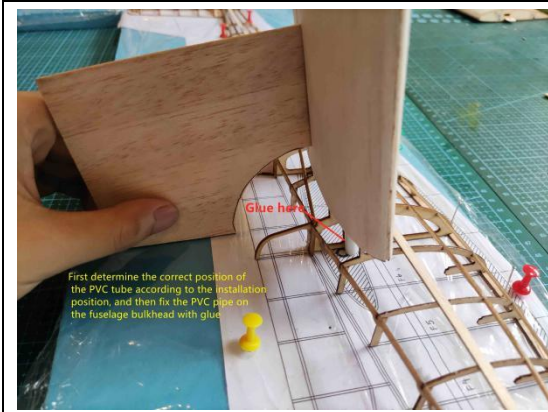


Step 22

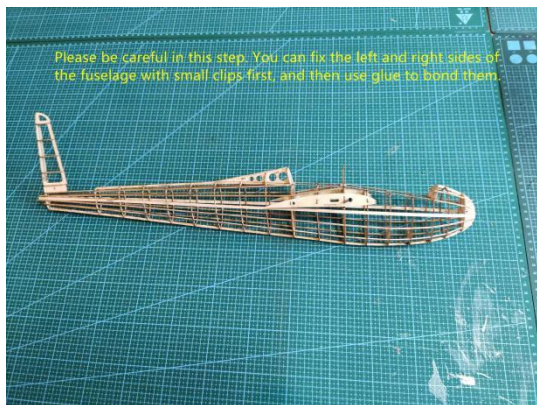


Step 23

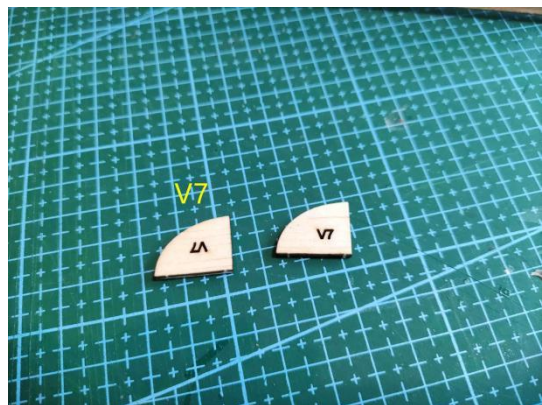
Step 24



Step 25

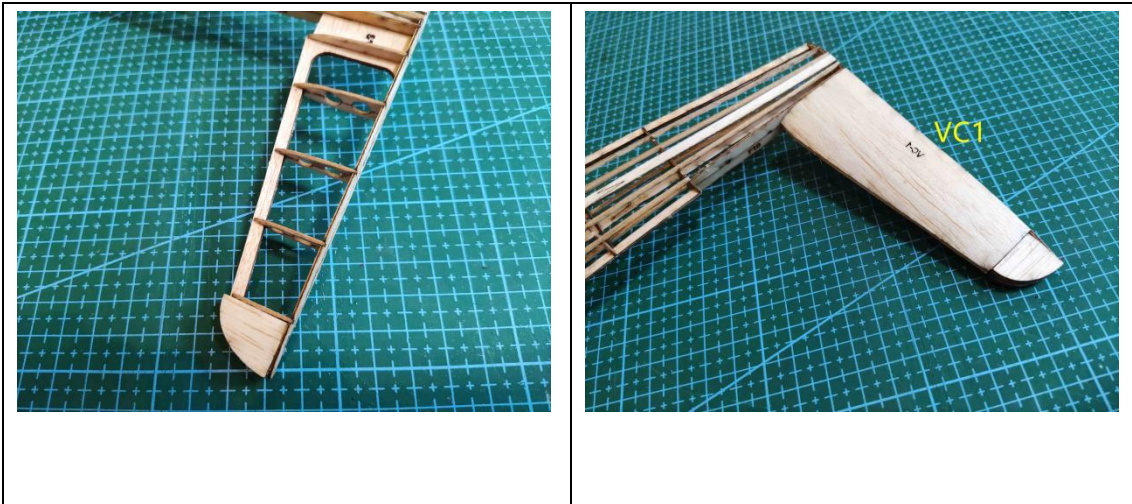


Step 26



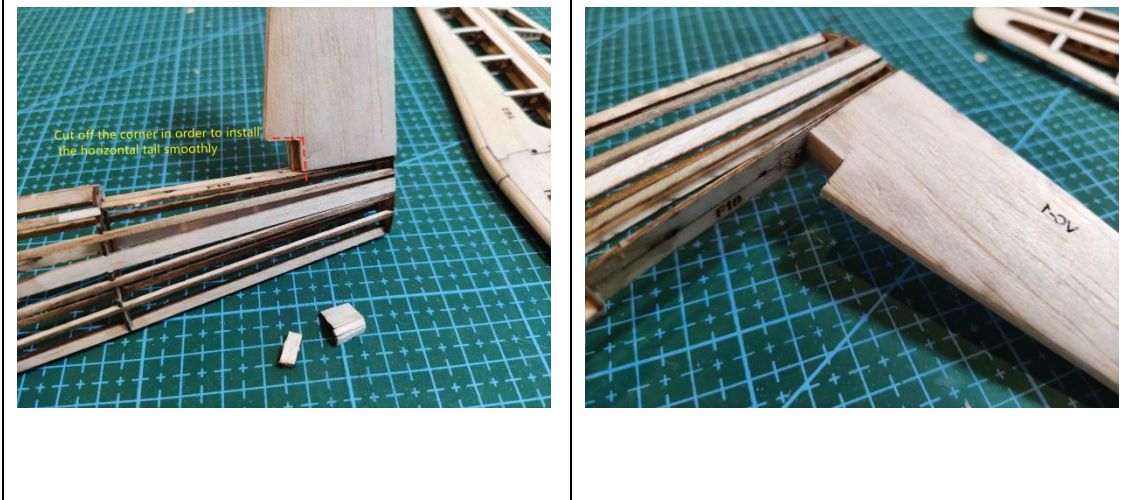
Step 27

Step 28



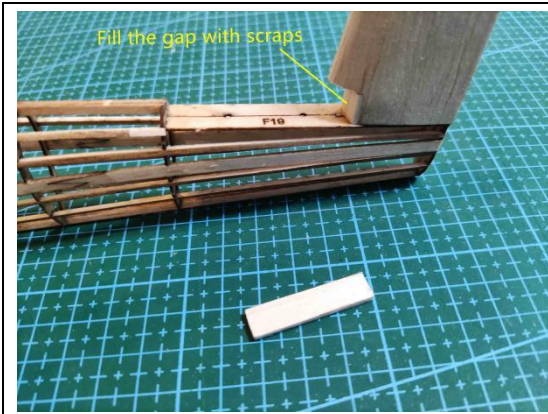
Step 29

Step 30

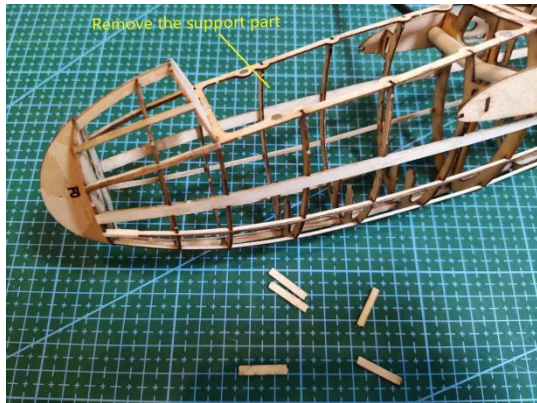


Step 31

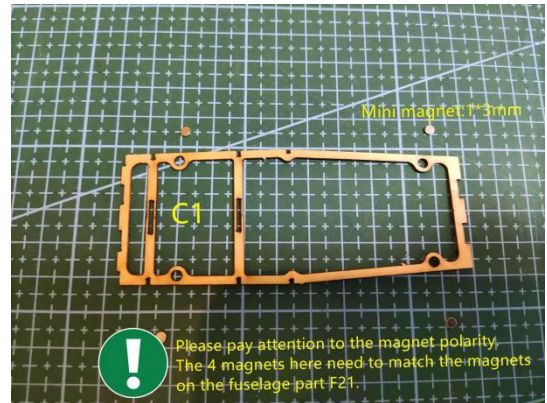
Step 32



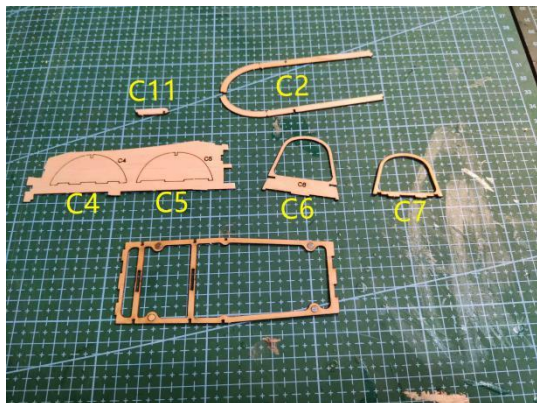
Step 33



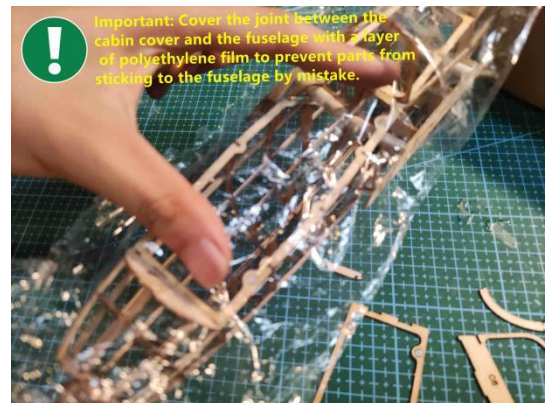
Step 34



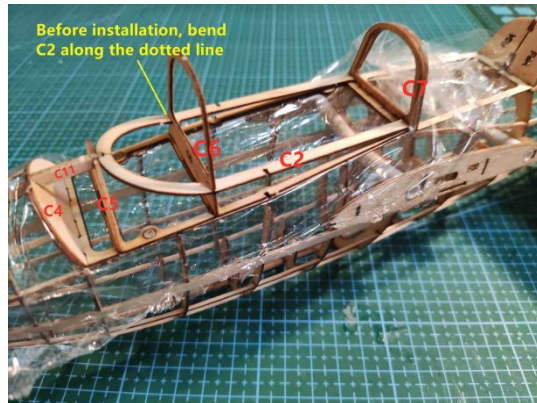
Step 35



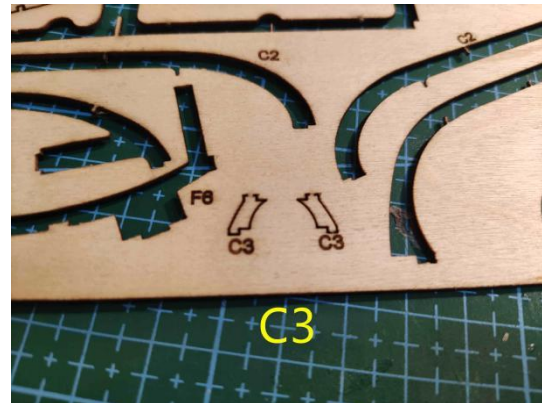
Step 36



Step 37



Step 38



Step 39

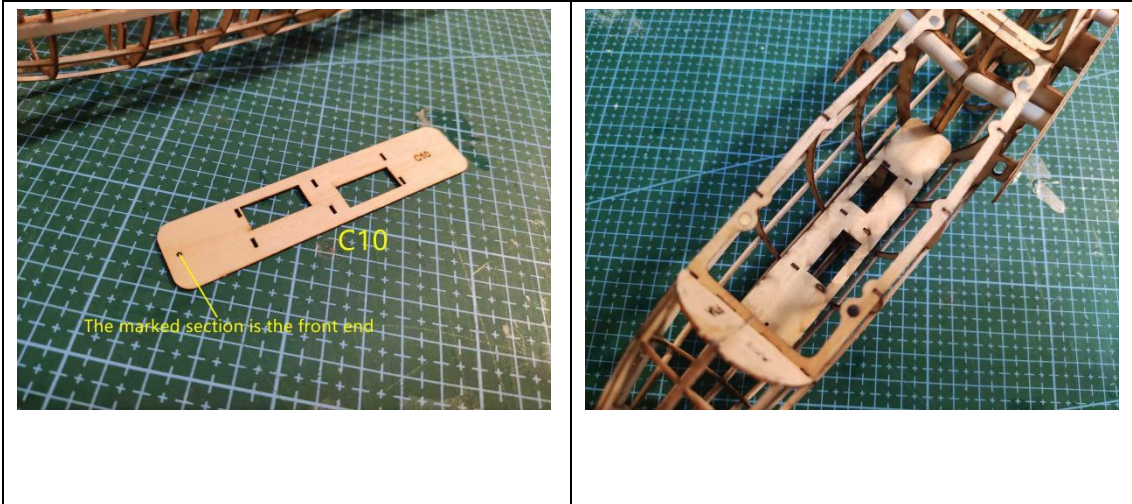


Step 40



Step 41

Step 42



Part6. Fuselage II

Step 1

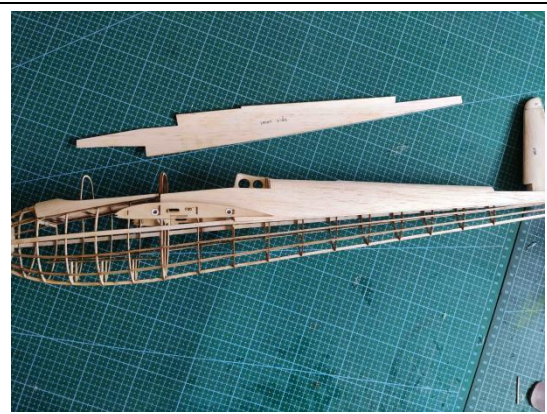
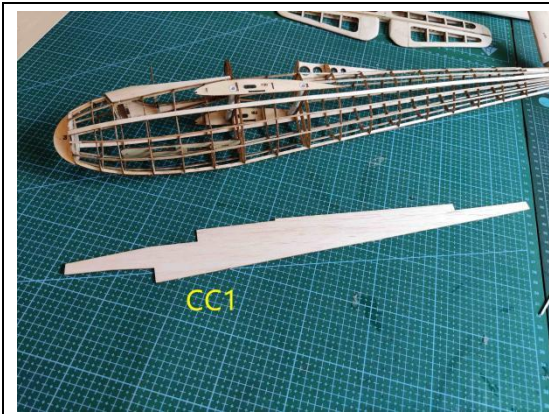


Step 2



Step 3

Step 4



Step 5



Step 6



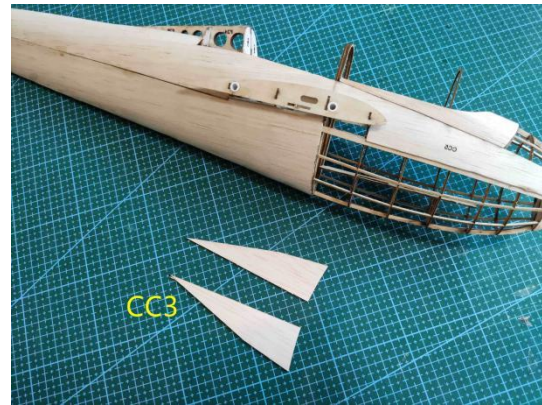
Step 7

Step 8



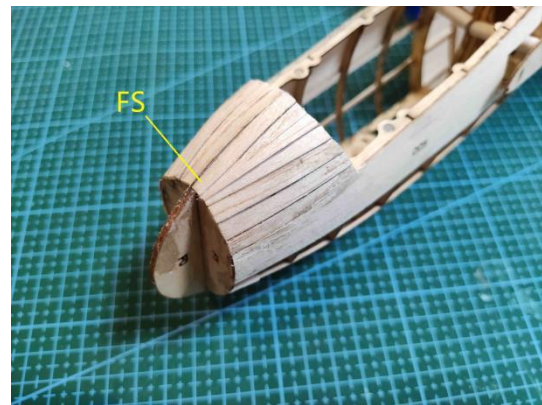
Step 9

Step 10

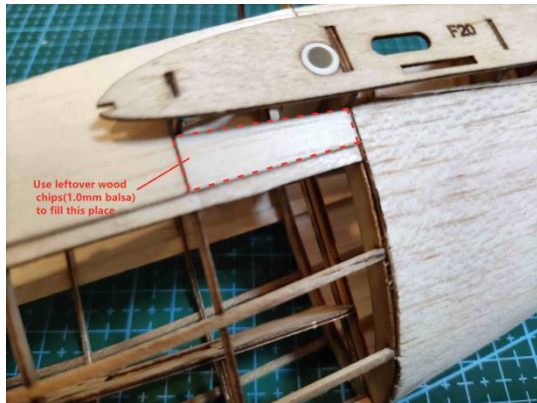


Step 11

Step 12



Step 13



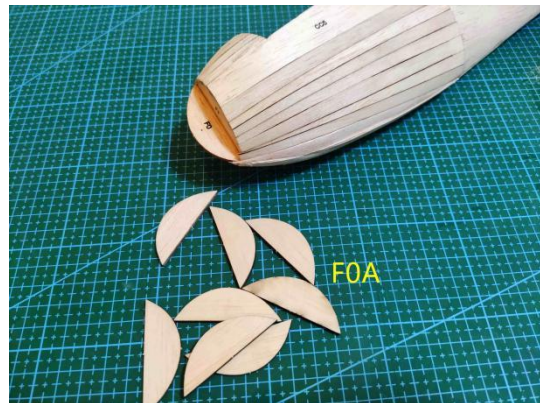
Step 14



Step 15



Step 16



Step 17

Step 18



Step 19

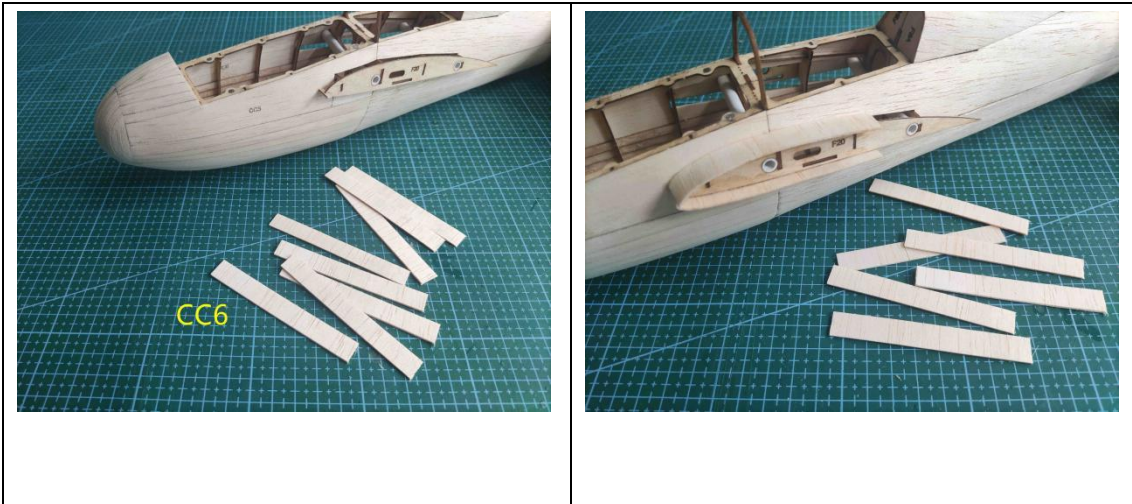


Step 20



Step 21

Step 22



Step 23

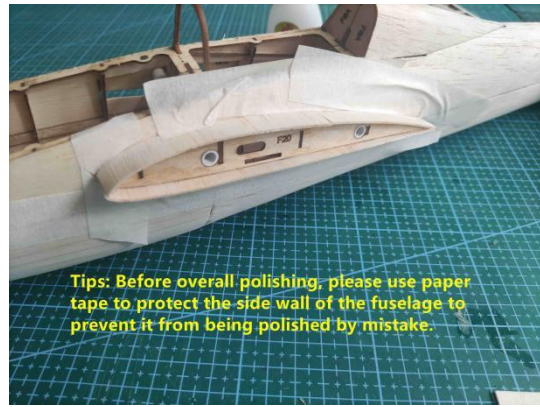


Step 24



Step 25

Step 26



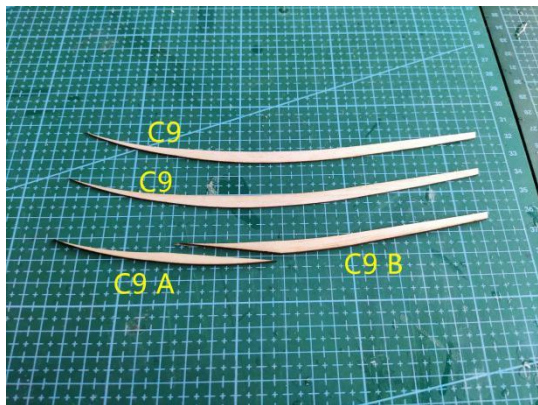
Step 27



Step 28



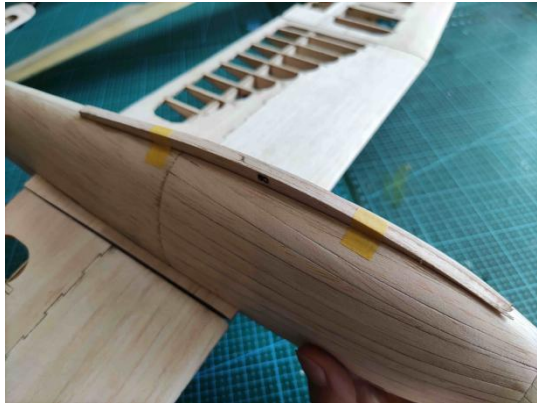
Step 29



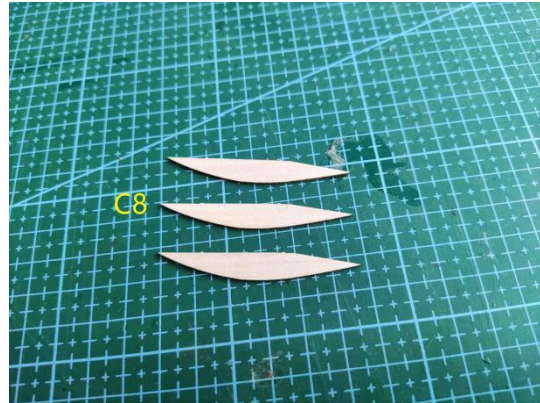
Step 30



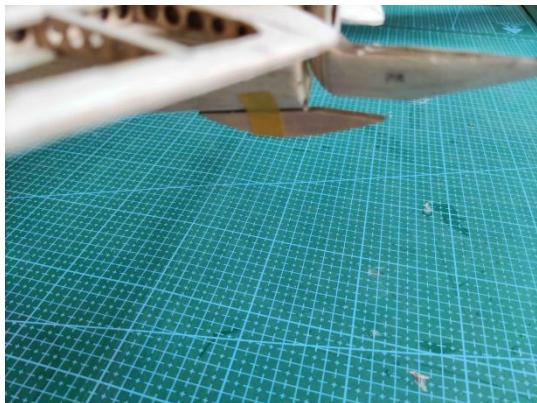
Step 31



Step 32



Step 33

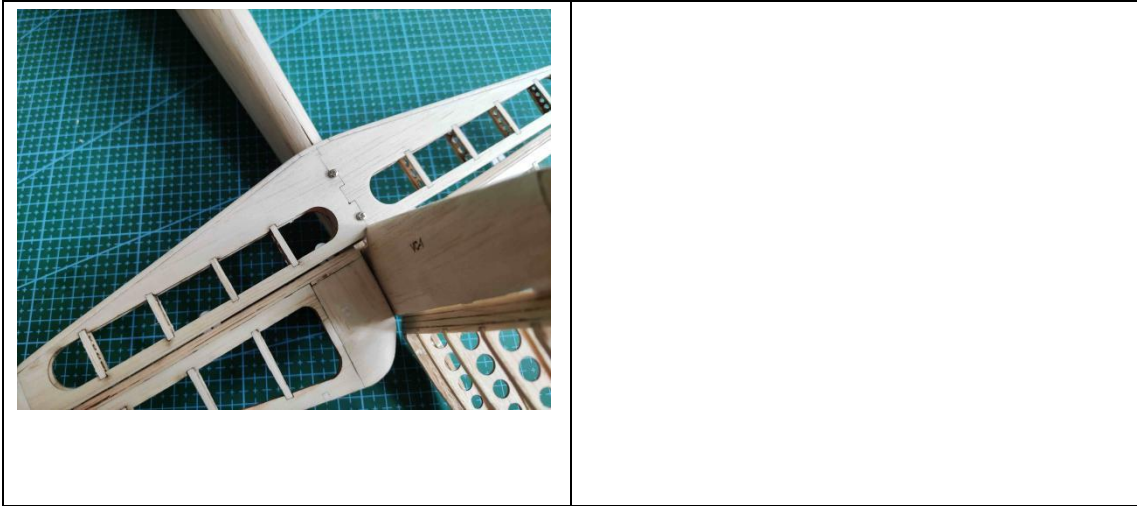



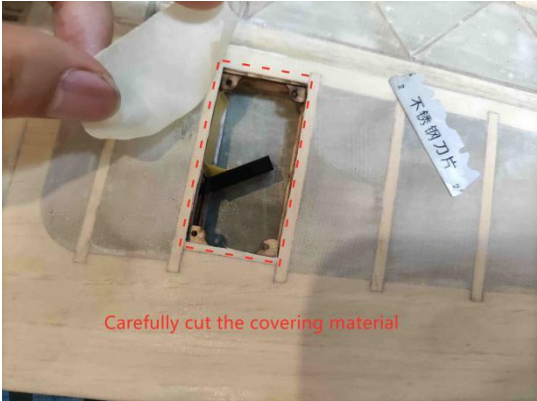
Step 34

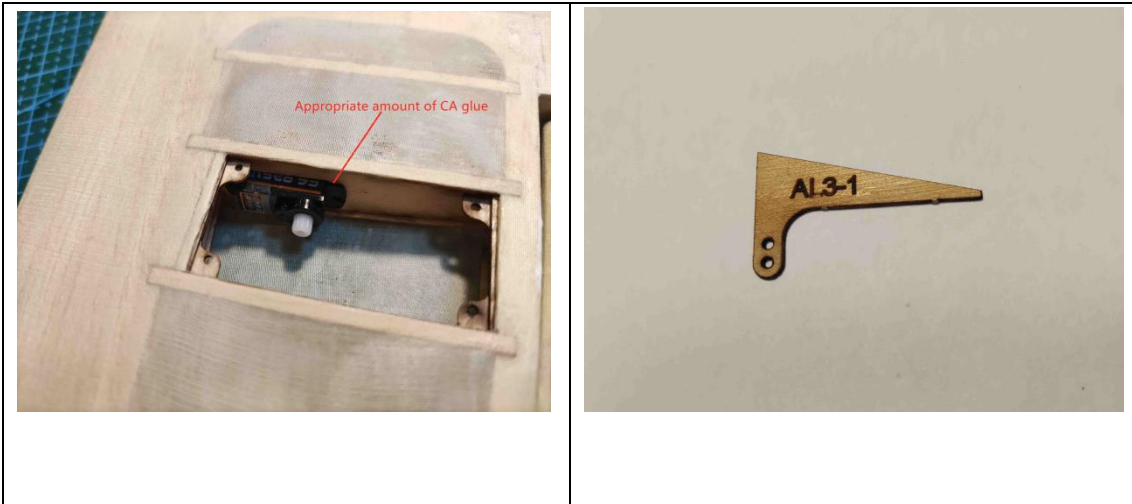


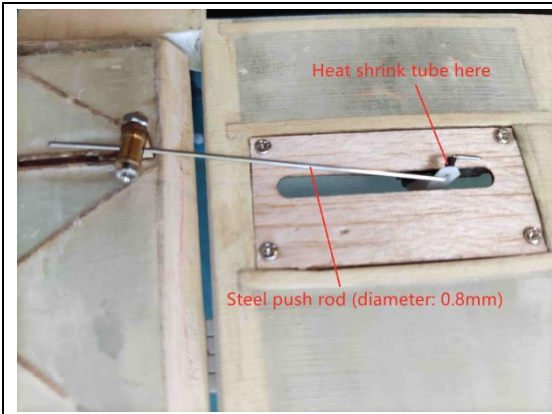
Step 35

Builder's note:

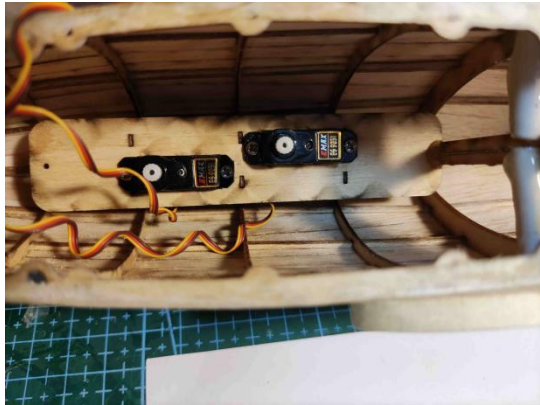


Part7.Electronics	
<p>Step1</p>  <p>ES9251 Servo</p>	<p>Step2</p>  <p>Carefully cut the covering material</p>
<p>Step3</p>	<p>Step4</p>





Step9



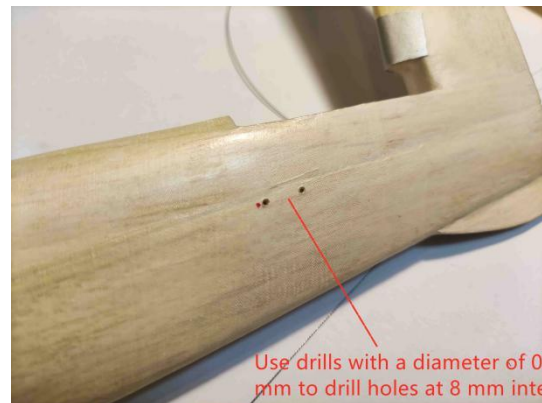
Step10



Step11



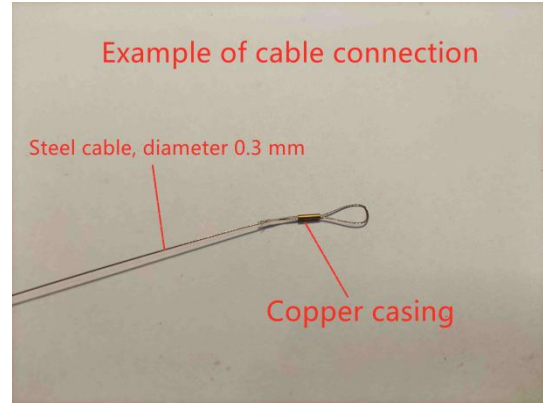
Step12



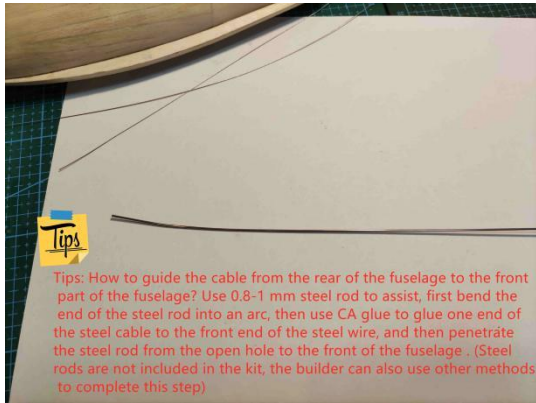
Step13



Step14



Step15

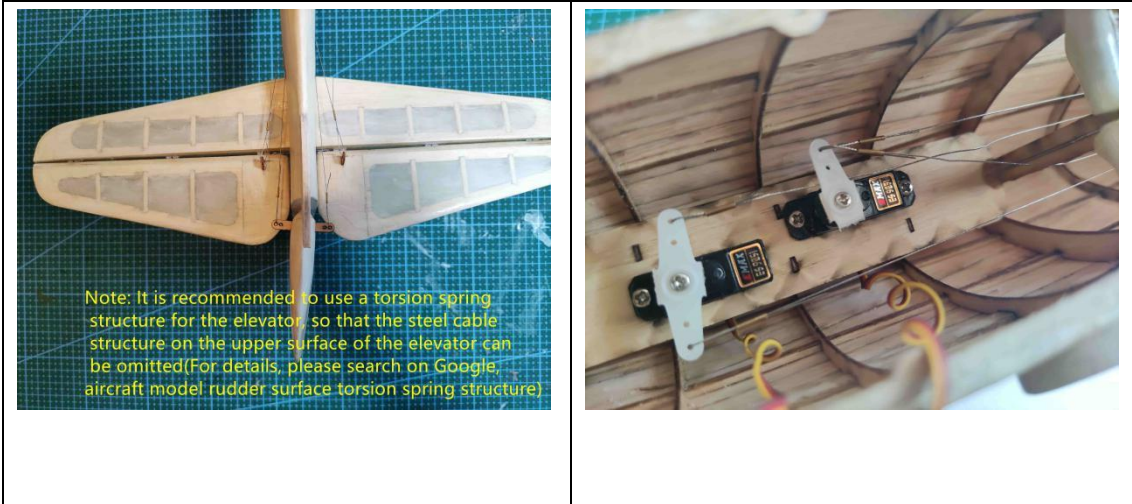


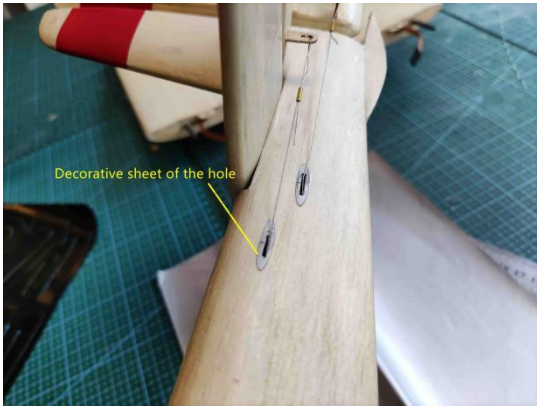
Step16



Step17

Step18



<p>Step19</p>  <p>Decorative sheet of the hole</p>	<p>Builder's note:</p>
<p>Please refer to the installation drawing to debugging center of gravity</p>	

Thank you!