1/6 PA-25 PAWNEE [A335 Kit]

Wing Span	:	72 in / 1830 mm
Wing Area	:	736 sq in / 47.5 sq dm
Flying Weight	:	6.6 lbs / 3000 g
Fuselage Length	:	48 in / 1220 mm
Requires	:	"Glow Power" requires: 6-channel radio w/4 mini servos, 3 standard servos, 2-stroke 0.40-0.46 engine. "Electric Power" requires: 6-channel radio w/6 mini servos, Outrunner Motor KM37490750 w/Radial Mount Adaptor HW2340300, 40A Brushless ESC, 4 cells 14.8V 3200mAh Lipo battery and charger.

Specifications are subject to change without notice.

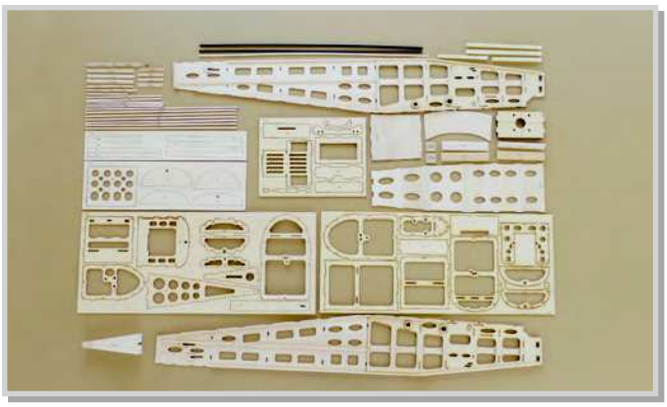
Warning! This model is not a toy.
It is designed for maximum performance. Please seek advice if one is not familiar with this kind of engine powered precision model. Operating this model without prior preparation may cause injuries. Remember, safety is the most important thing. Always keep this instruction manual at hand for quick reference.

THE WORLD MODELS MFG. CO., LTD.

TWM
The World Models
Manufacturing Co., Ltd.
www.theworldmodels.com

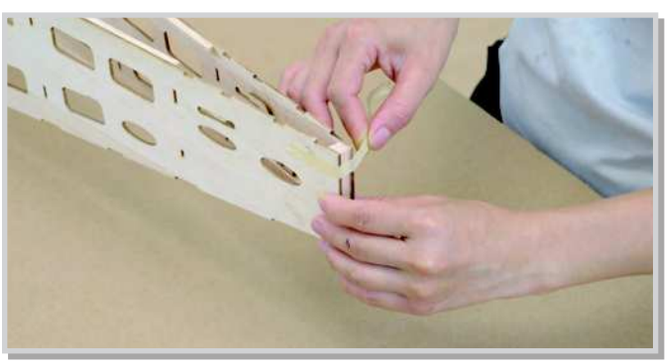
PRECISION LASER CUT
EASY BUILT KIT SERIES
MADE IN CHINA

FUSELAGE ASSEMBLY

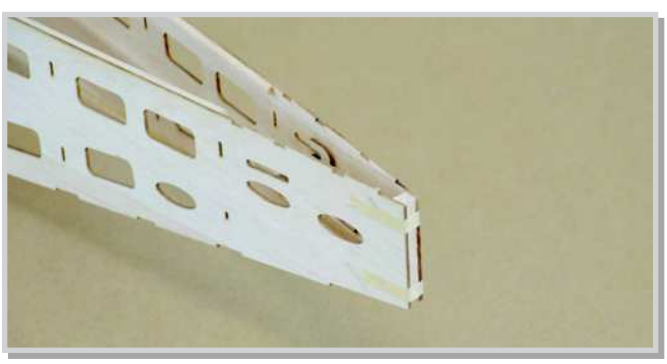


Lay out the fuselage parts on a flat table top.

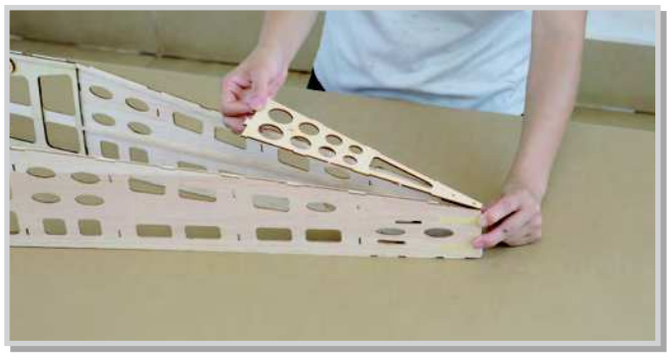
1.1 Remove parts from plywood, cut connecting taps when required.



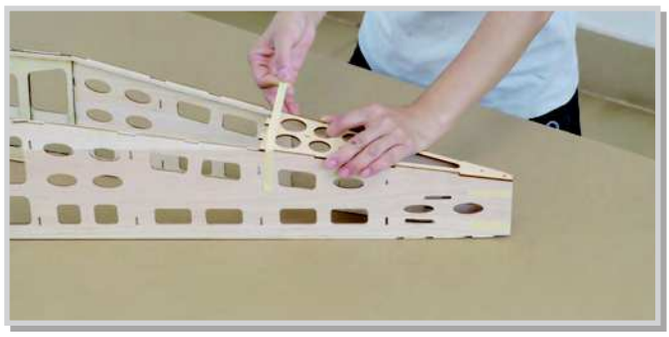
1.2 Use tape to bind the left and right fuselage panel together at the ends.



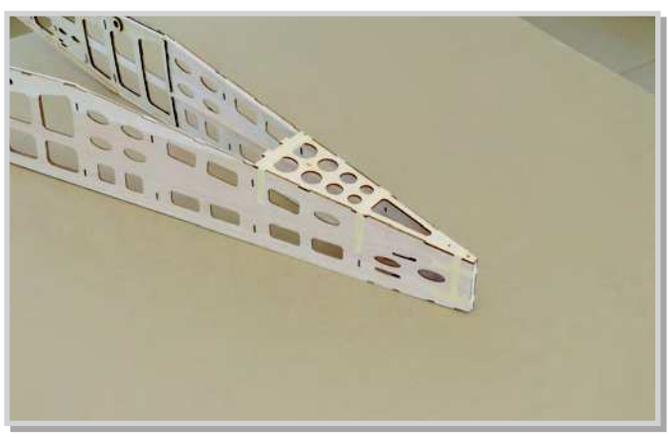
1.3 Hold the panels by tape.



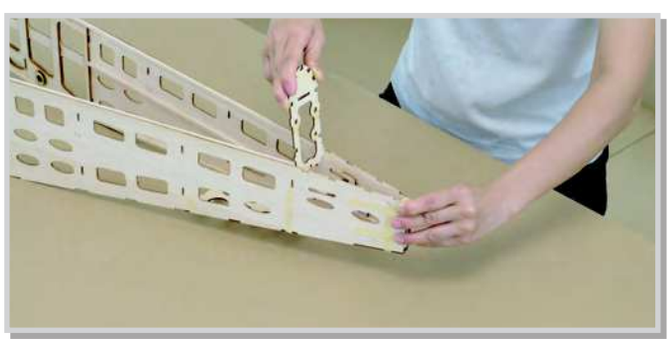
1.4 Flip the fuselage over with bottom up, take F29 and latch it between the two side panels. Note that the side with small plywood sheet should be facing inside of the fuselage.



1.5 Use tape to hold F29 in place.

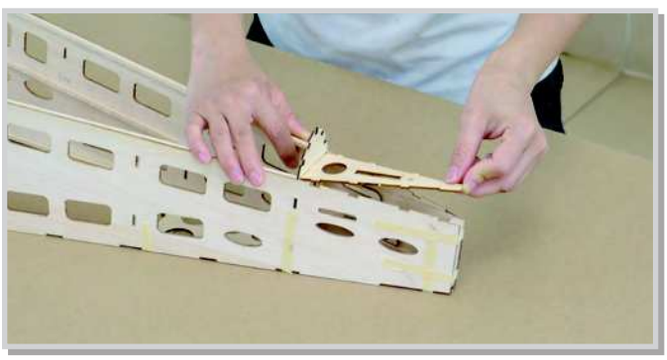


1.6 F29 in position.

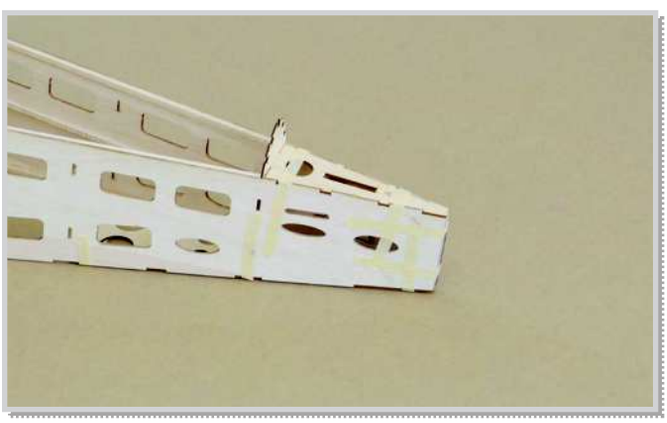


1.7 Flip the fuselage over now with top up, take F10 and latch it between the panels. Make sure the open slot of F10 is at the top.

1.8 F10 in position.

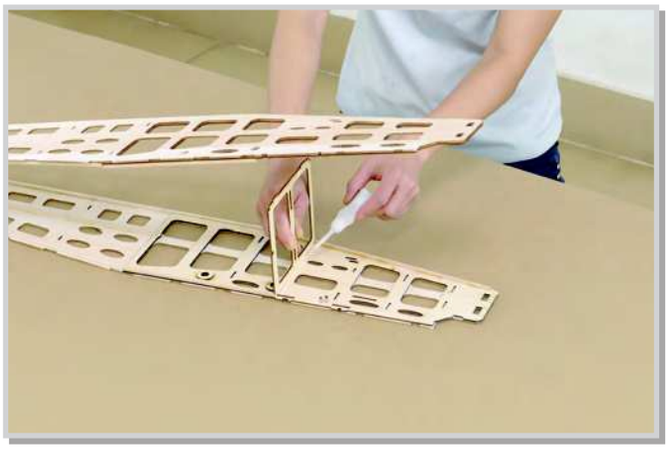


1.9 Latch in F31.

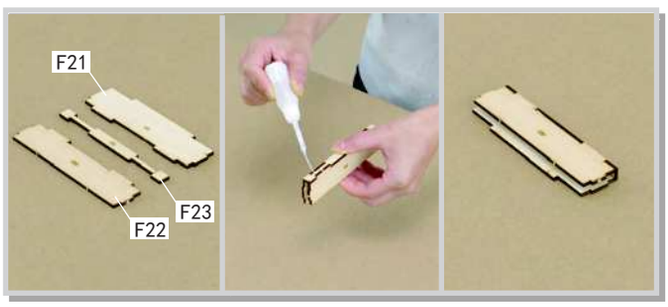


1.10 How it looks when F31 is in position.

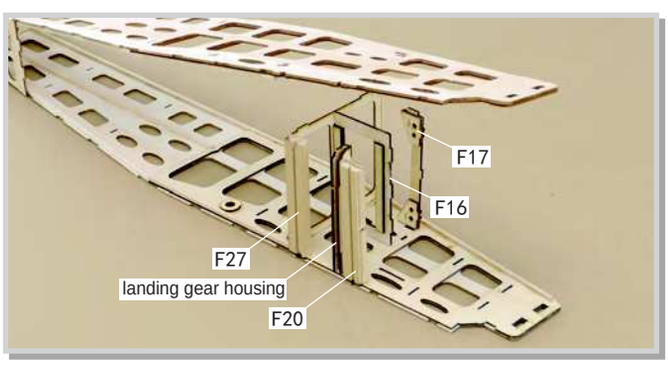
1.11 Cut open CA glue tip for CA application. Make sure opening is not pointing at anyone.



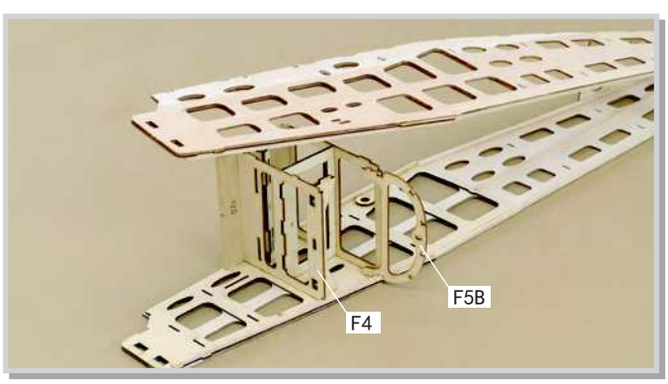
1.12 Take F5 and latch between the panels. Make sure the side with glued plywood block is facing the rear. Apply a few drop of CA to temporary fix its position perpendicular to the left side panel.



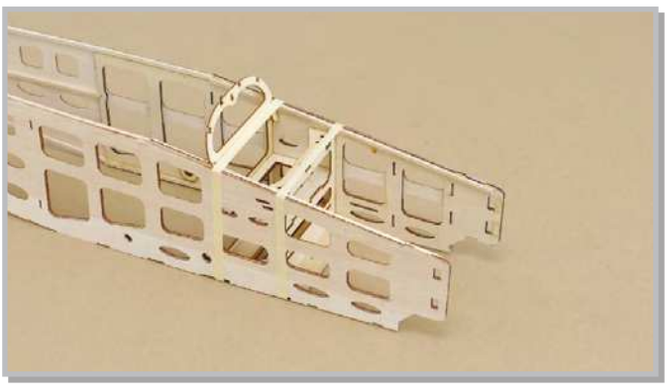
1.13 Latch in F21, F22 and F23 and apply glue to from the landing gear housing.



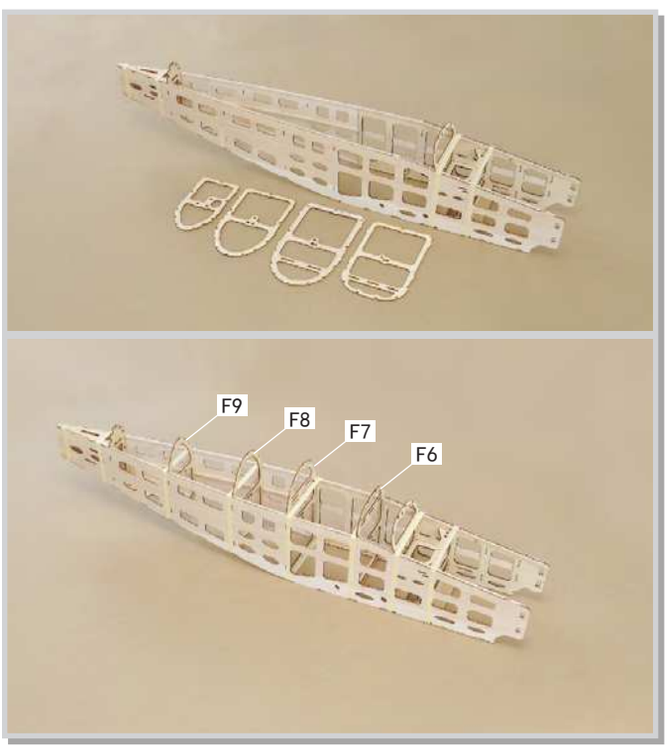
1.14 Latch in F16, F17, F20, F27 and landing gear housing perpendicular the the left side panel and apply a few drops of CA to fix them in place. Make sure F20 and F27 have the grooved side facing outward. F17 with the small plywood blocks facing inward.



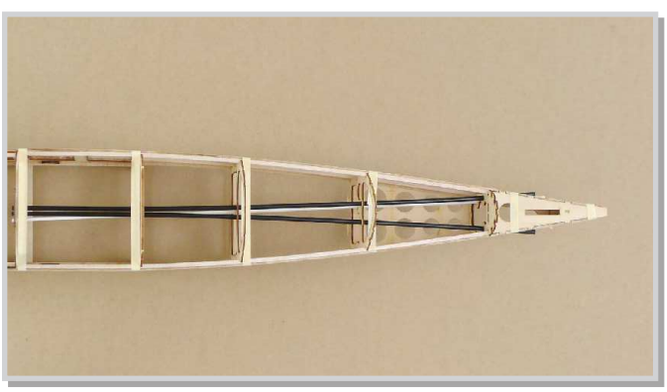
1.15 Latch in F4 and F5B in the same manner as 1.14 above.



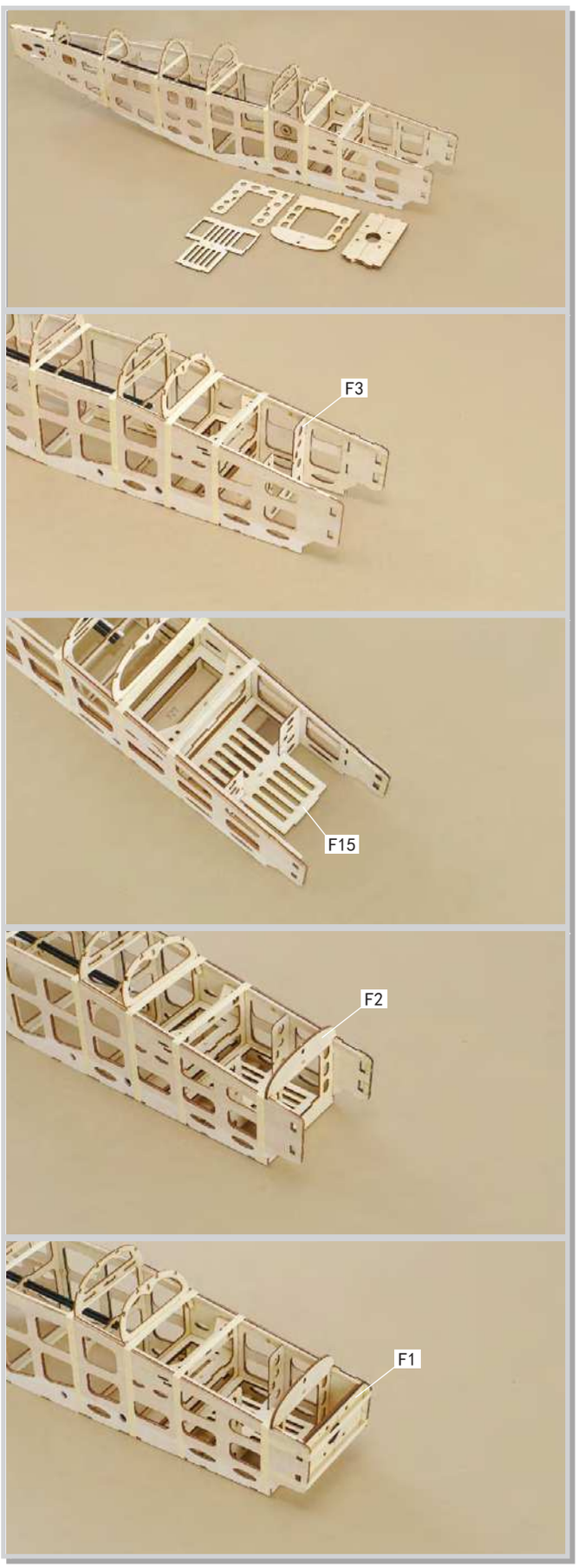
1.16 Press and fit right side fuselage to F4, F5, F5B, F16, F17, F20, F27 and landing gear housing, use tape to hold them in position.



1.17 Latch in F6, F7, F8 and F9 between the fuselage panels. Pay attention to the tenons and cut outs, they may not be symmetrical and if they don't seem to fit, flip it left to right will do.



1.18 Insert two black and one white pushrod guide sleeve into the partition panels.

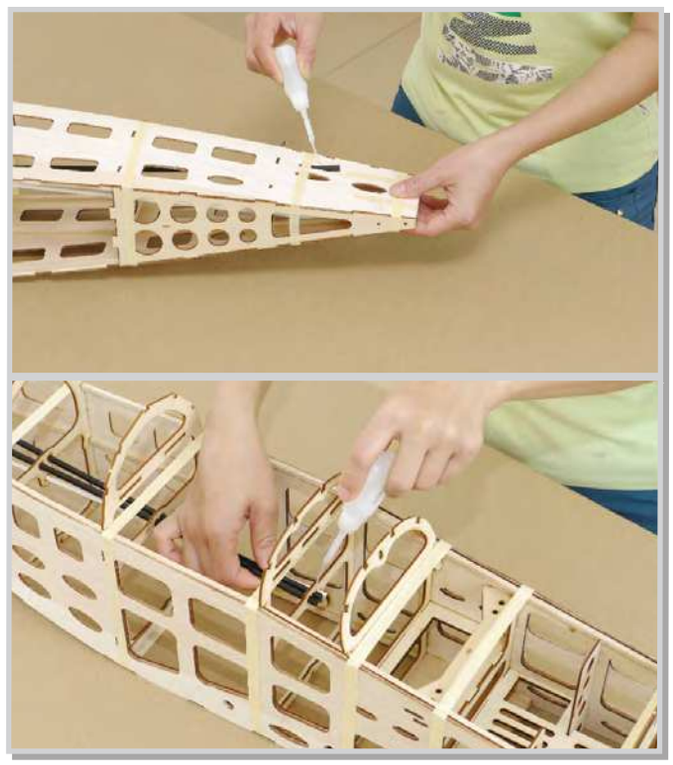


1.19 Latch in F3, F15, F2 and F1 one after the other from back to front and secure with tape. It is recommended to glue in F1 with epoxy glue for additional strength.

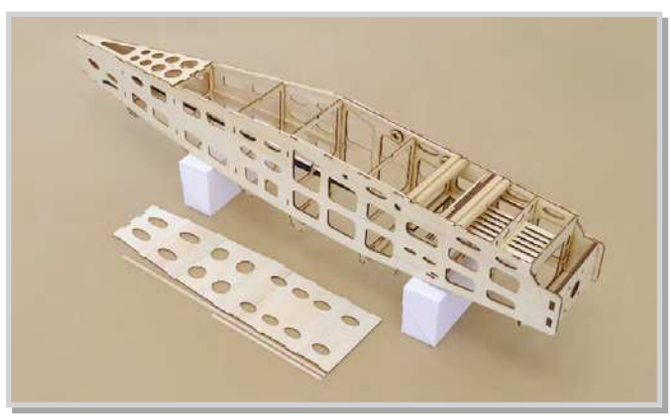
1.20 Basic fabrication of fuselage is complete. Check any loose joints and distortion of the frame work. Prepare to apply glue in the next step.

2.1 Apply CA glue to all surfaces in contact. Apply from both sides in and out and let glue seep into joints. Use extension tube through side panel holes to get access to inside of fuselage. Avoid area with tapes at this stage, when glue is cured at other areas, remove tape and apply glue to area under the tapes.

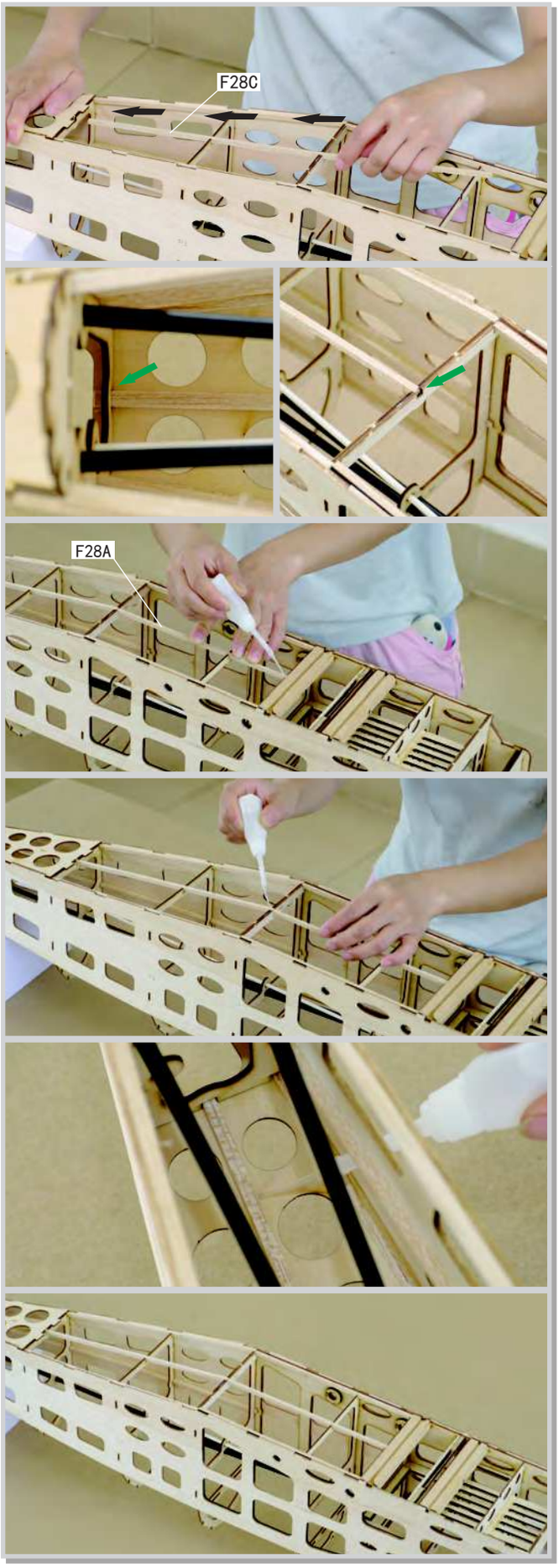
2.2 If epoxy was not used in Step 1.19, apply adequate CA to the F1 joints.



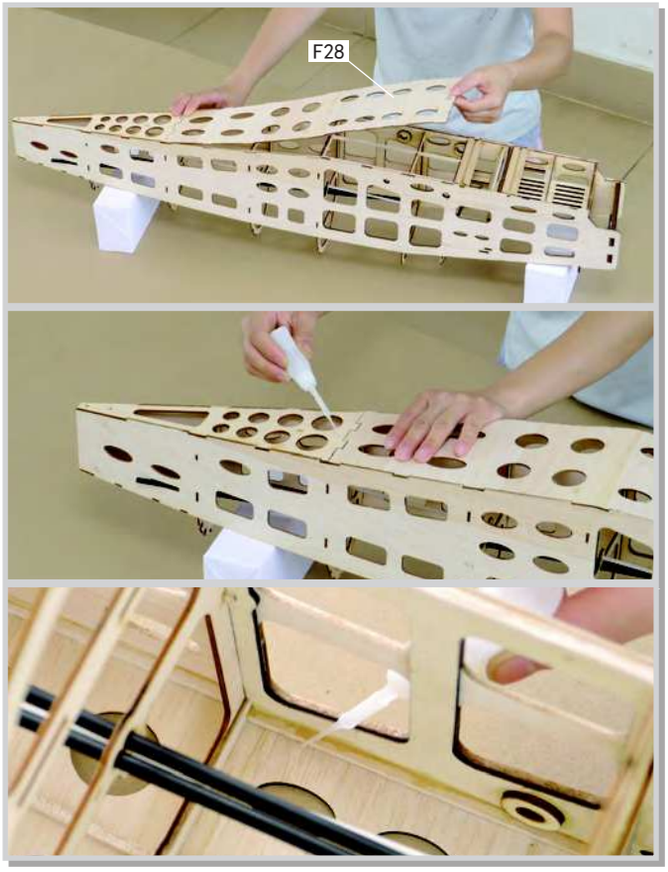
2.3 Expose 5~10mm length section for the pushrod sleeves outside the plywood partition and apply CA to fix it in position. Make sure glue does not get inside sleeve.



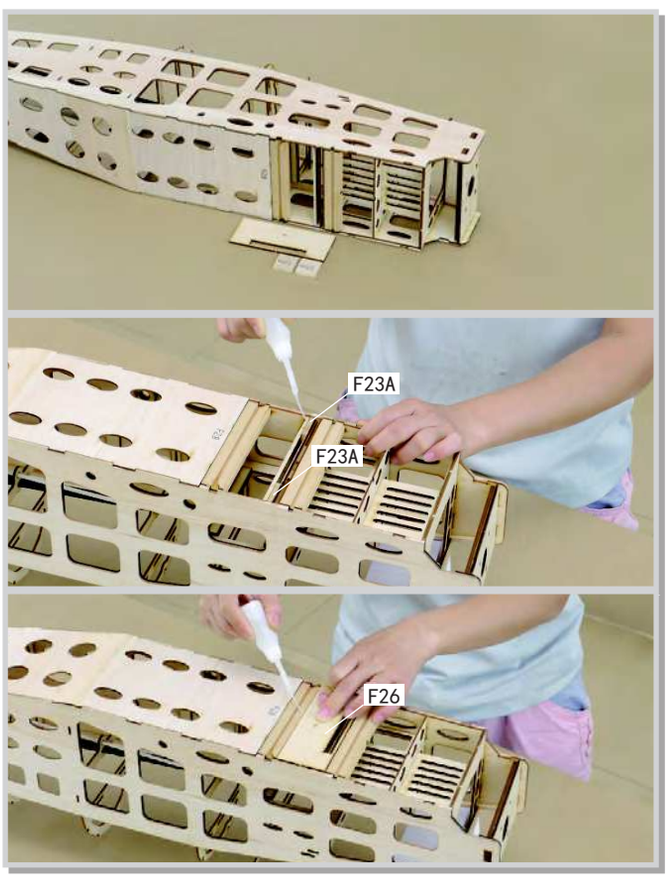
3.1 Remove tapes after glue is cured, flip over fuselage and prepare to work on bottom of fuselage. Rest fuselage on foam blocks or other material to clear the partition plywood from table, which could be damaged under stress.



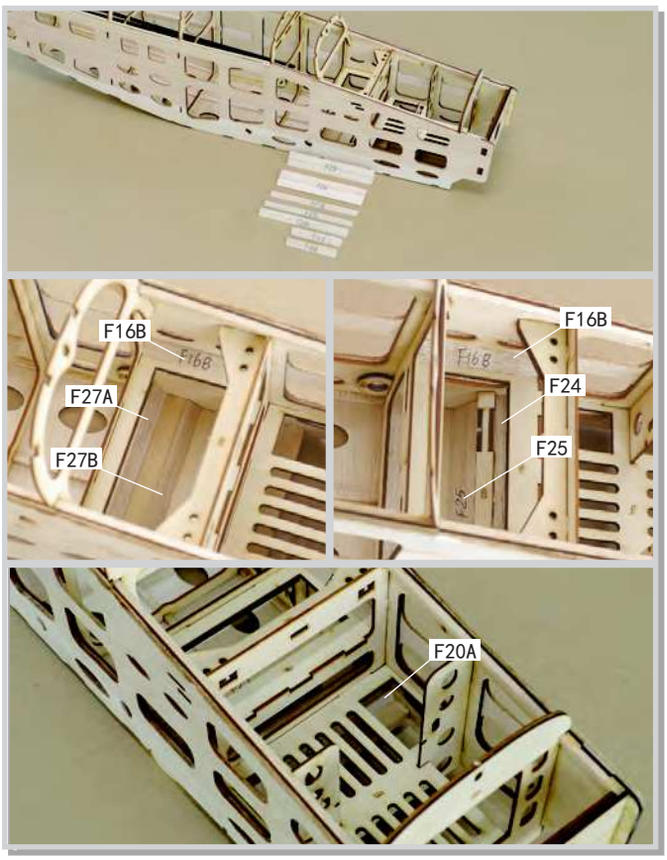
3.2 Insert F28C into tail section of fuselage, note that it should pass through the notch of F10, and share the notch of F7 with F28A, apply glue to fix in position.



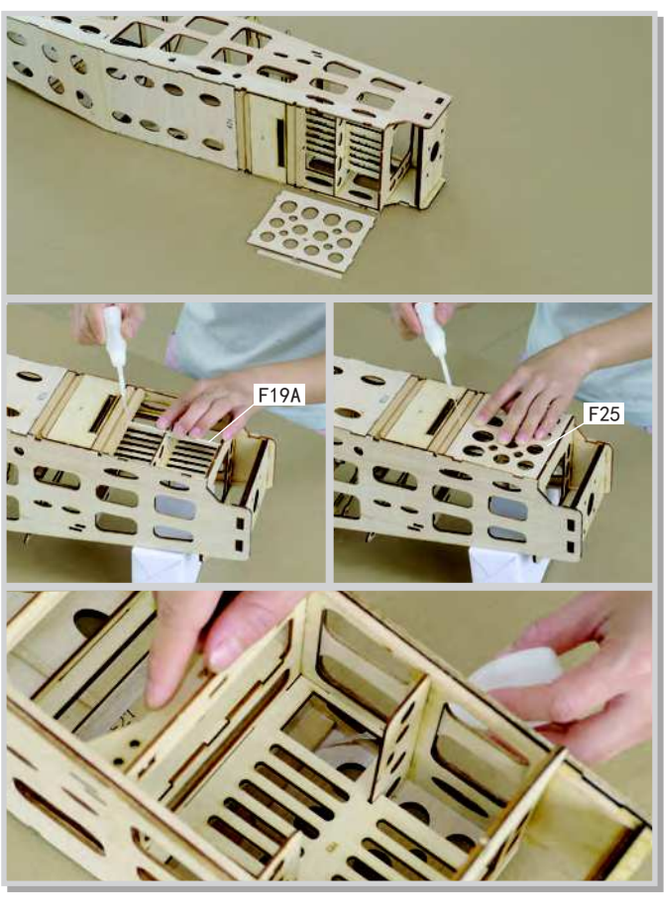
3.3 Latch in F28, apply glue to inside and outside of the fuselage.



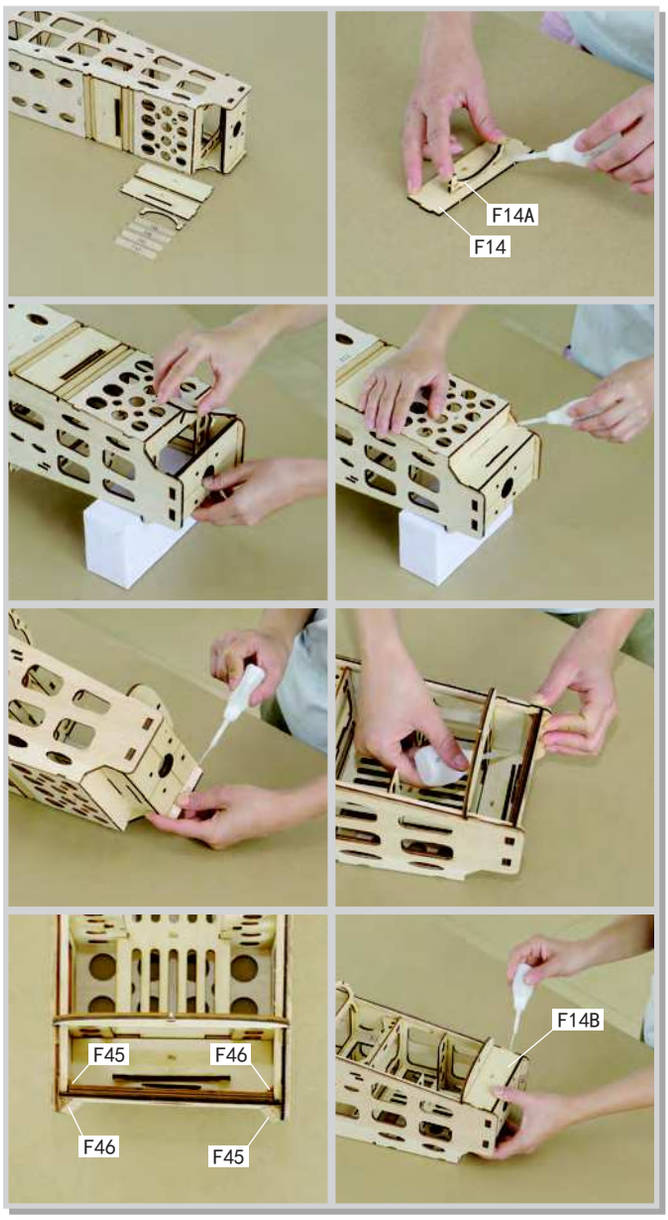
3.4 With fuselage bottom up, glue in two F23A and then F26A. Note groove of F26A should match opening of landing gear housing.



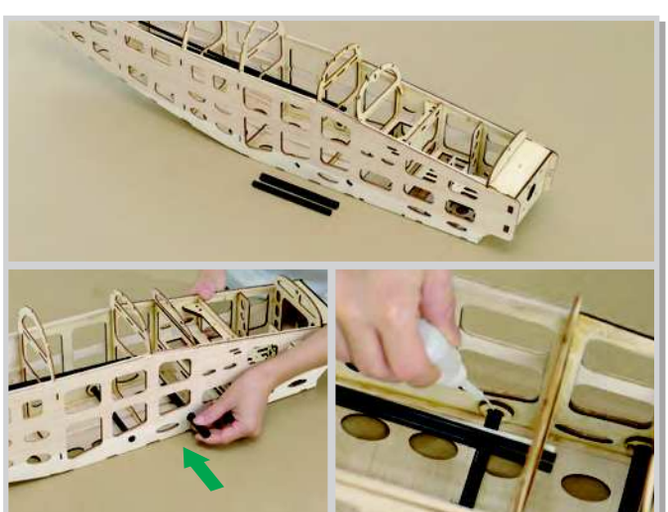
3.5 Flip over fuselage and glue in reinforcement bars F16B, F20A, F24, F25, F27A and F27B.



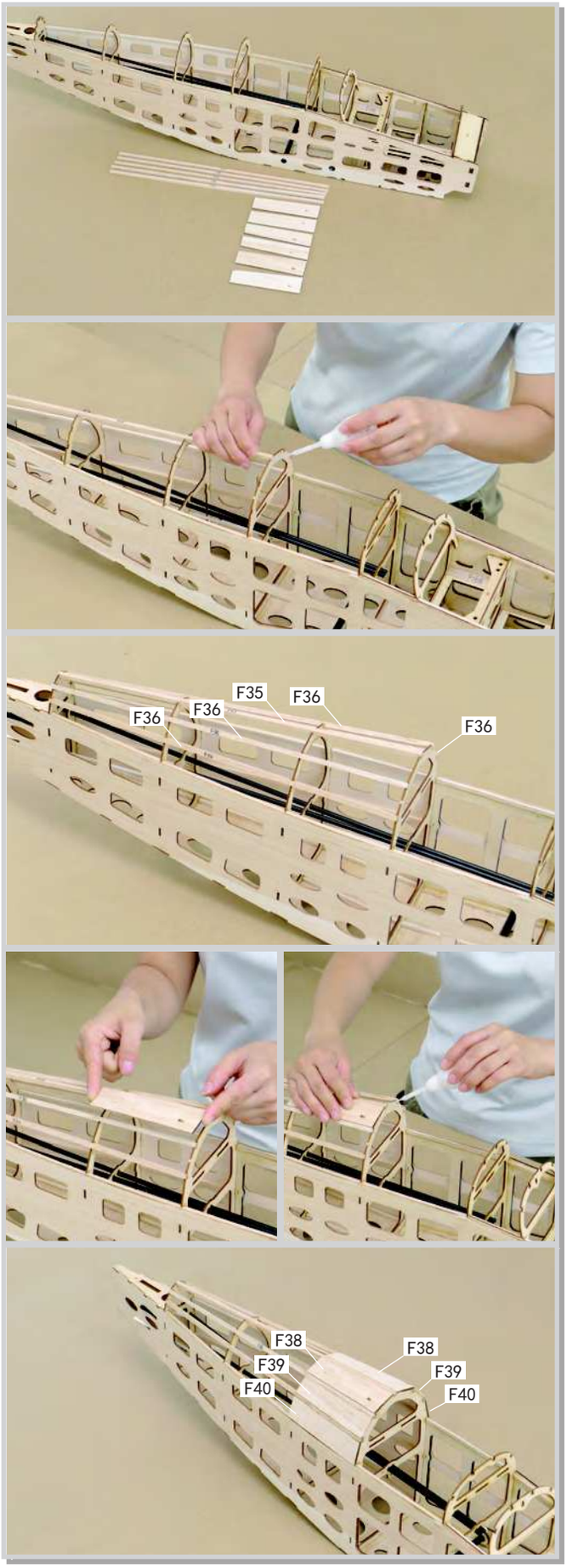
3.6 With fuselage bottom up, latch in F19A and F25. After fitting in tenons and cut outs, apply glue to fix it in position. Flip over fuselage to apply glue from the inside.



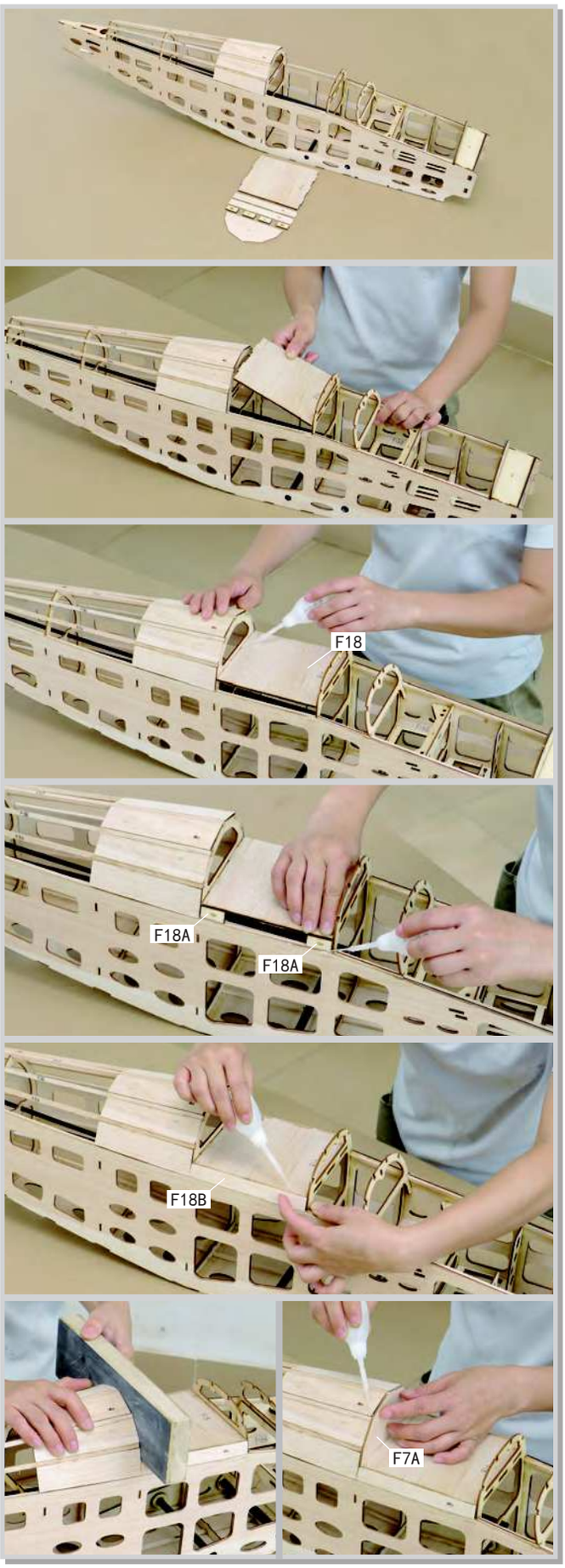
3.7 Glue in F14A to F14, then glue in bottom of fuselage. Flip over fuselage, glue in F45 and F46, then F14B.



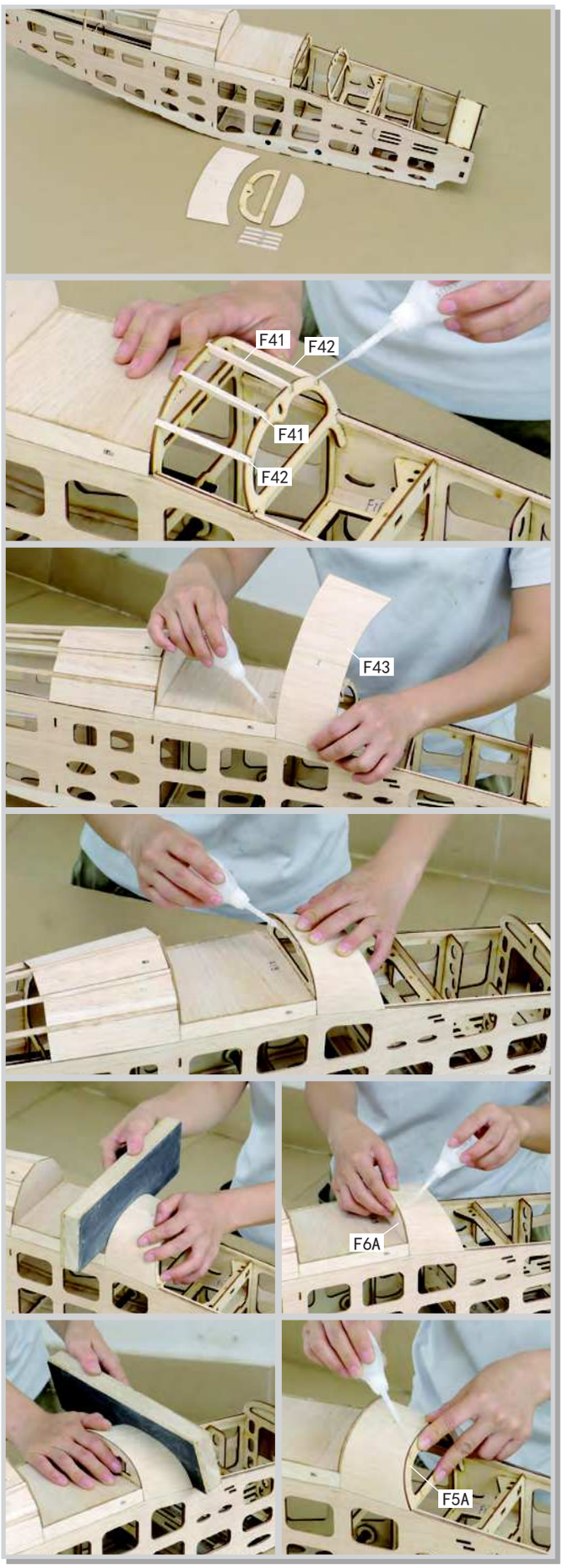
3.8 Insert wing tube sleeves into fuselage. Apply glue to fix them in position. When cured use sand paper to grind down sleeves to flush with fuselage side panels.



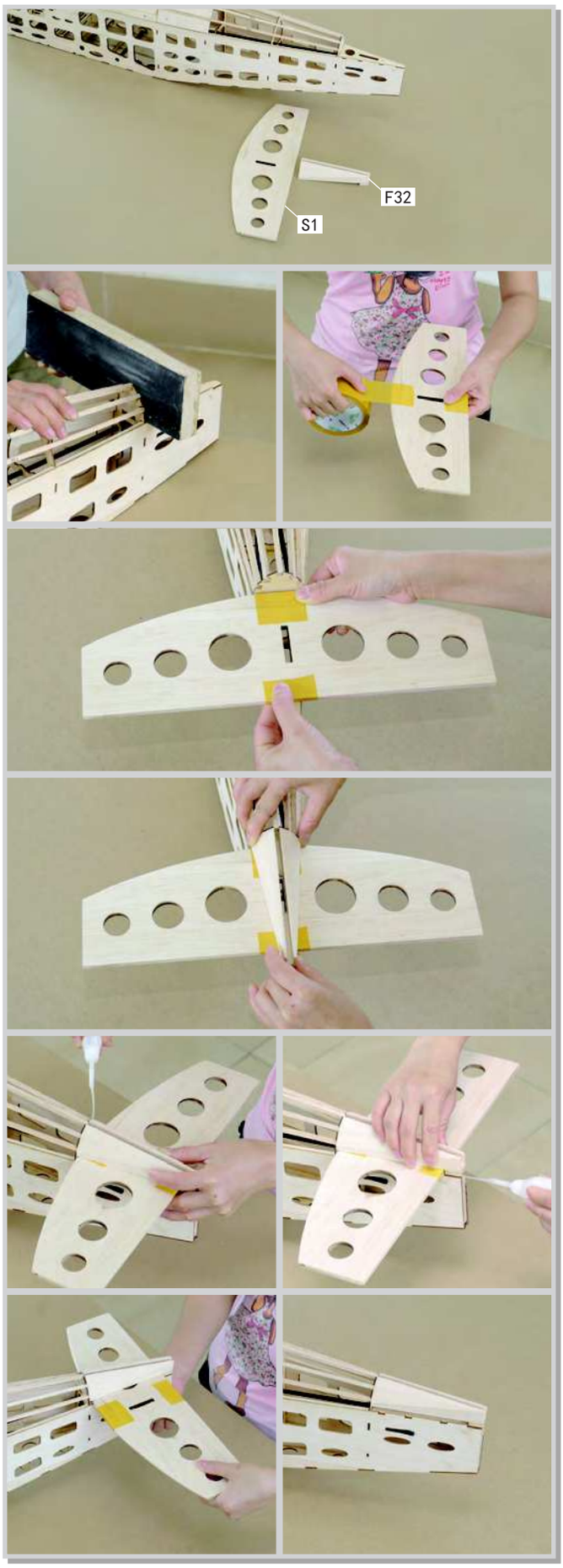
3.9 Glue in F35 and F36, when cured, glue in F38, F39 and F40.



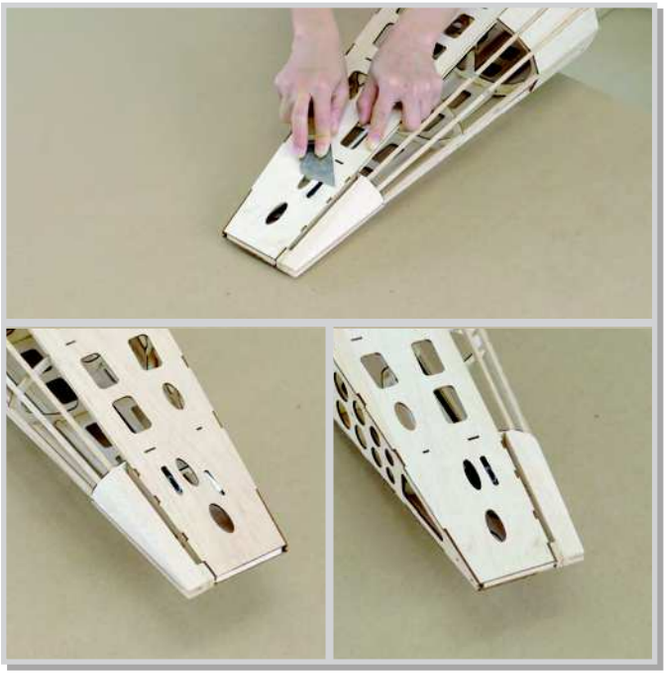
3. 10 Glue in F18, F18A and F18B. Note that F18A should be flushed with F18, so F18B could be flushed with the fuselage side panel. Use sand paper to grind down uneven surface before glue in F7A.



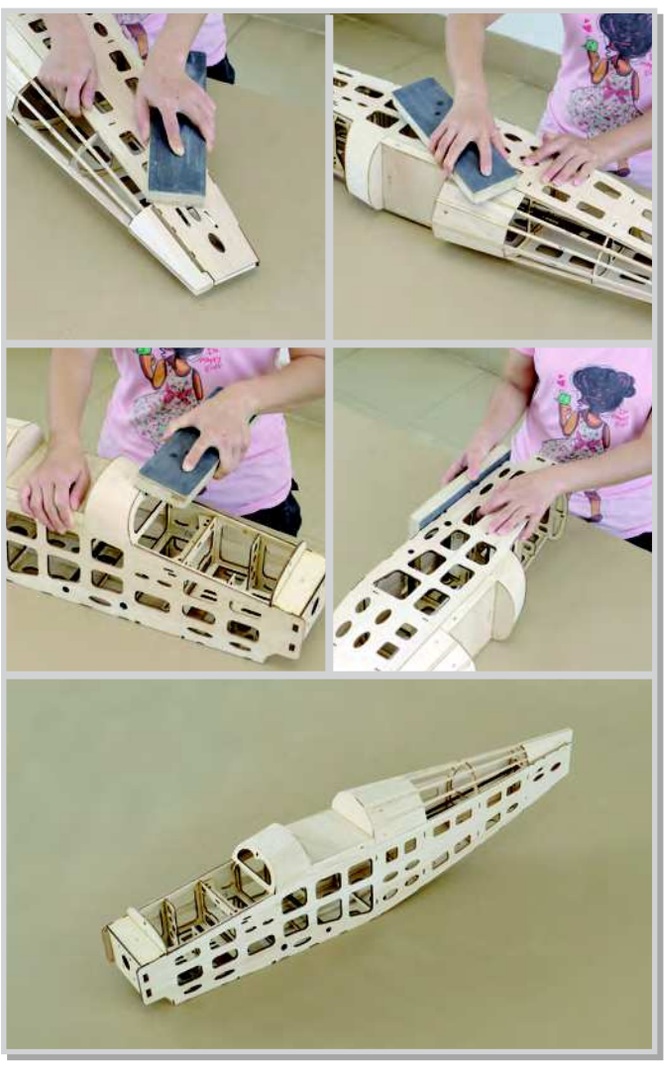
3. 11 Glue in F41 and F42, don't force F5B and F6 to accommodate the length of F41 and F42, grind them down with sand paper after gluing in F43. Glue in F5A and F6A.



3. 12 Sand down uneven surface of F10, glue in F32. Use S1 as template to align F32. Since you have to remove S1 after gluing, apply tape to S1 to protect it from sticking to F32.

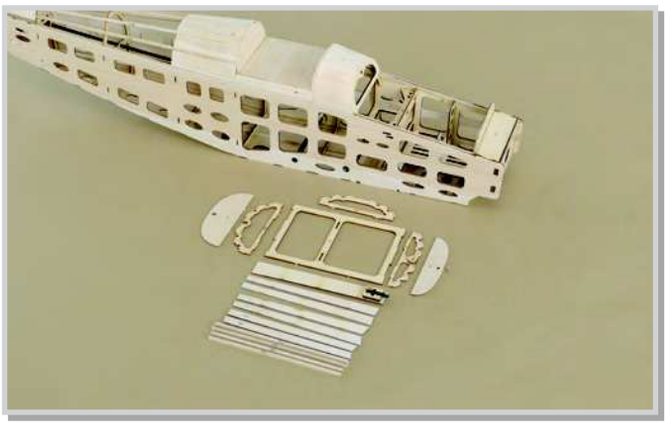


3. 13 Cut and trim plastic sleeves to flush with fuselage.

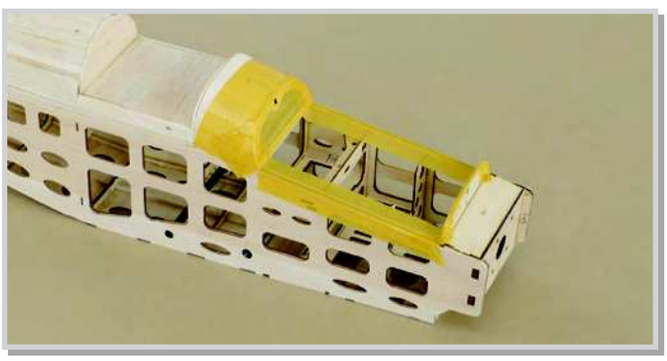


3. 14 Use sand paper to remove rough edges.

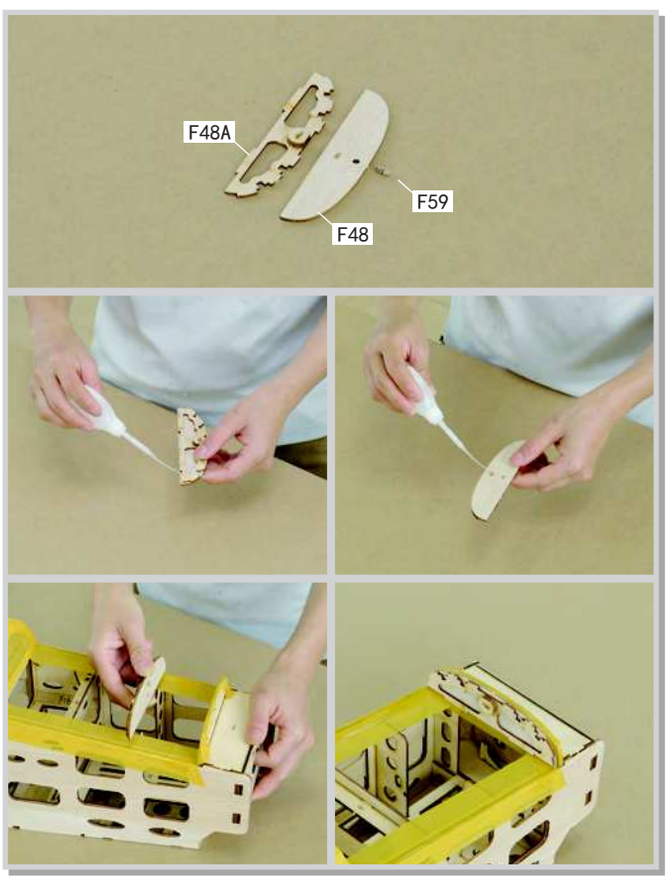
BATTERY COVER ASSEMBLY



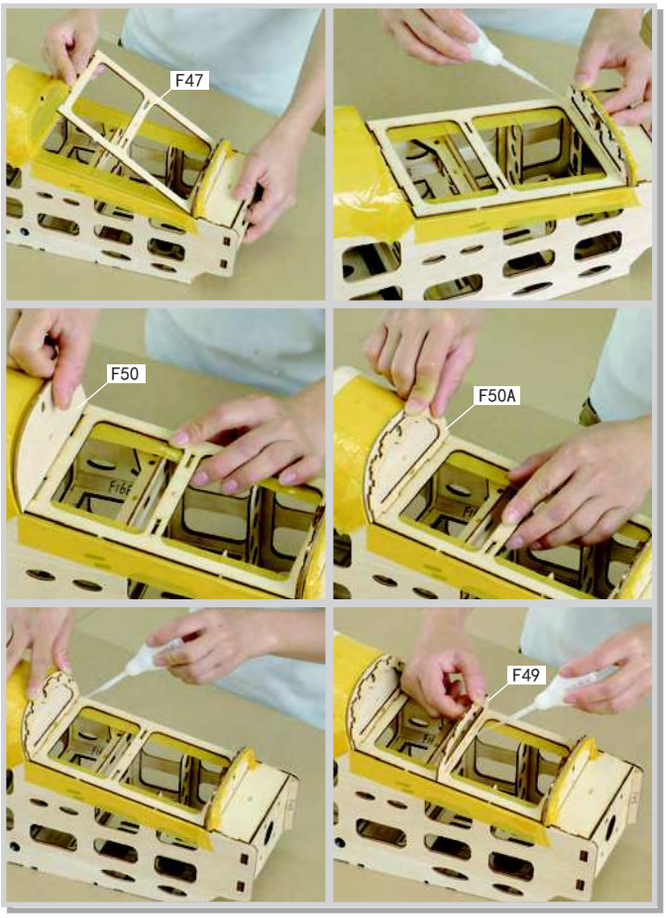
Lay out parts for the battery cover.



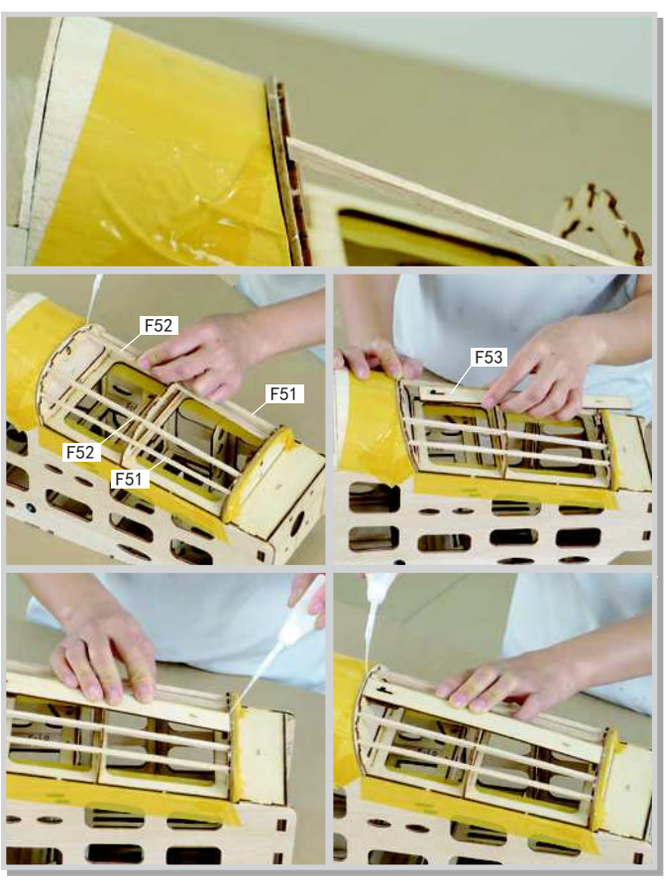
4.1 Apply thin plastic sheet to protect battery cover opening.



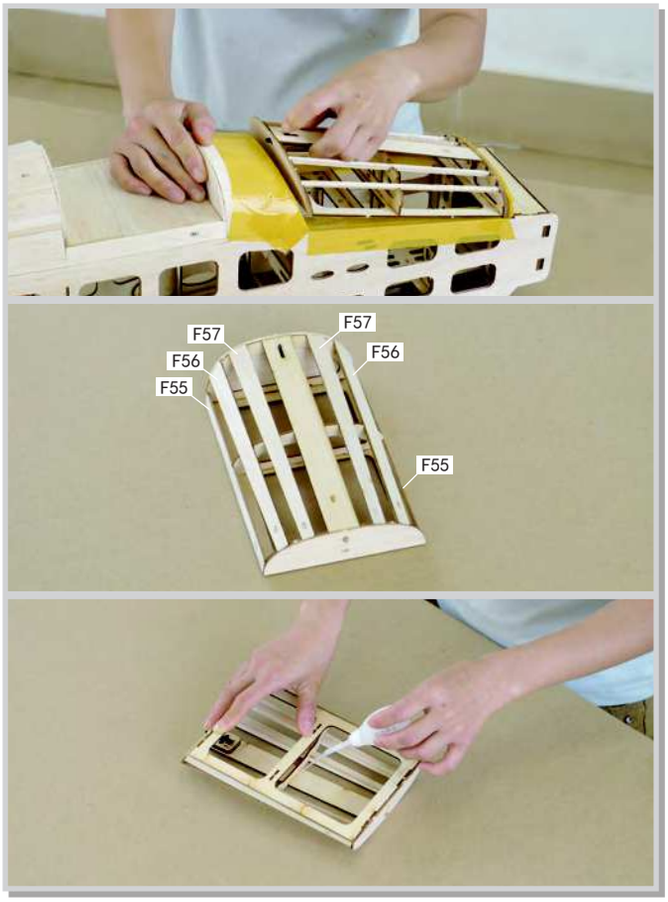
4.2 Insert F59 into F48, then F48A, align the edges and the semi-circle cut outs. Apply CA to glue them in position. When cured, insert the assembly to the fuselage, with F59 through the upper hole of F1.



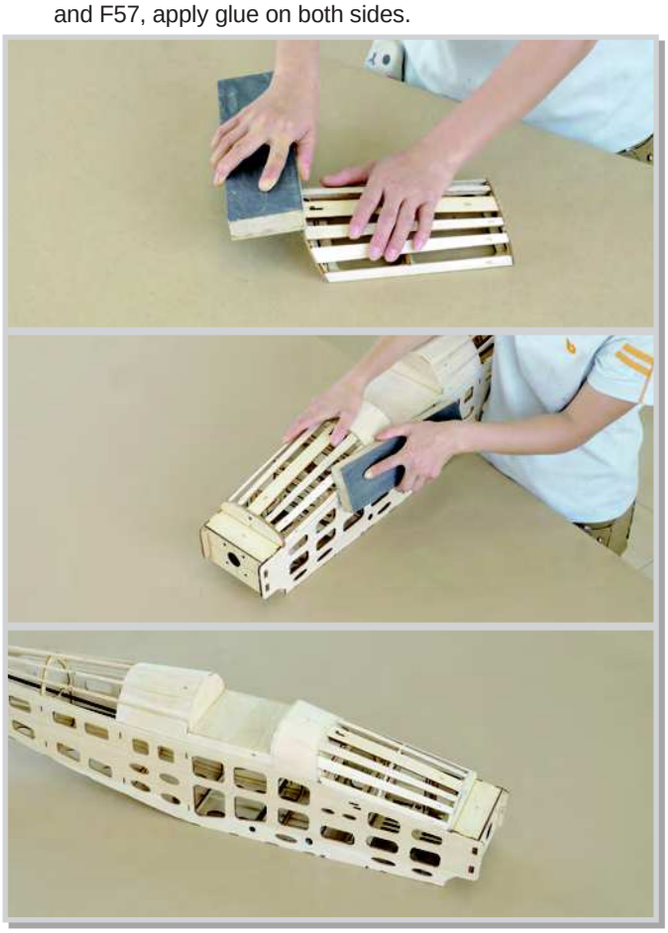
4.3 Glue in F47, then F50, F50A and F49.



4.4 Glue in F51, F52 and F53. Make sure CA glue do not get inside F53 latch.

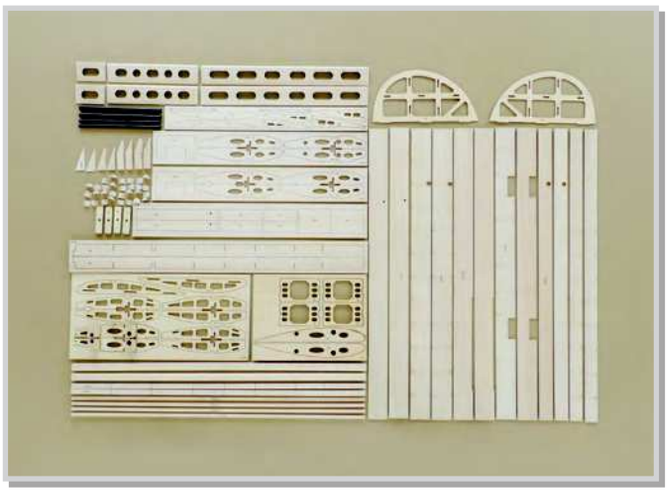


4.5 When cured, remove from fuselage and glue in F55, F56 and F57, apply glue on both sides.

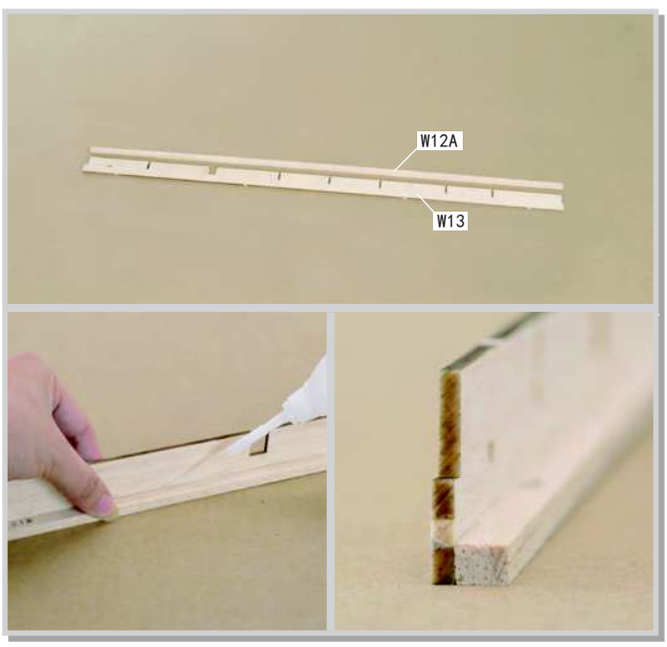


4.6 When cured, use sand paper to remove rough edges and insert to fuselage, grind down uneven surface if necessary.

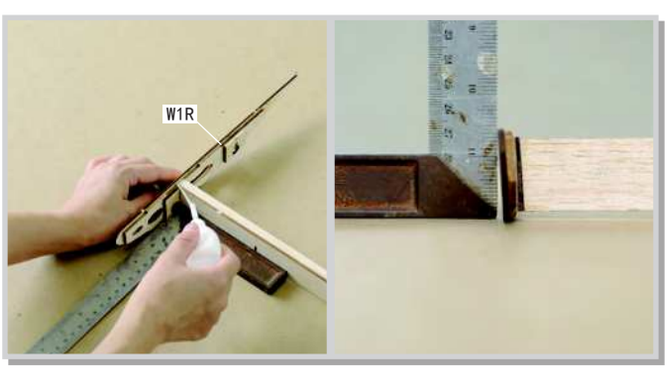
MAIN WING ASSEMBLY



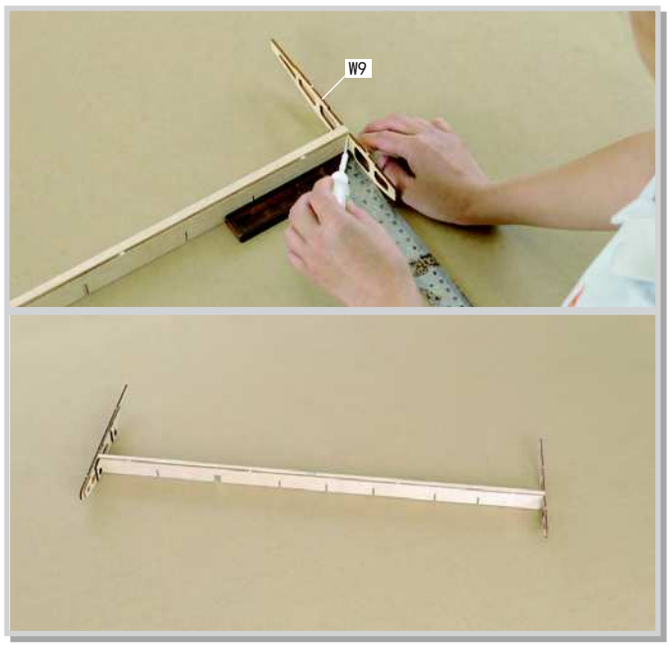
Lay out parts for the wings.



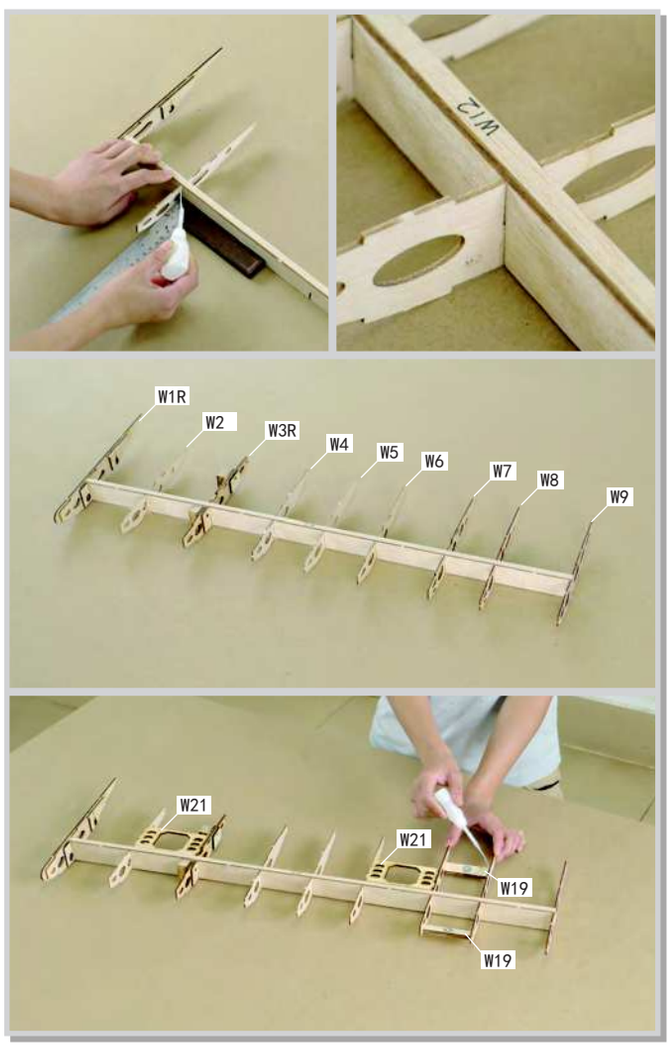
5.1 Apply glue to the narrower side of W12A and glue to W13.



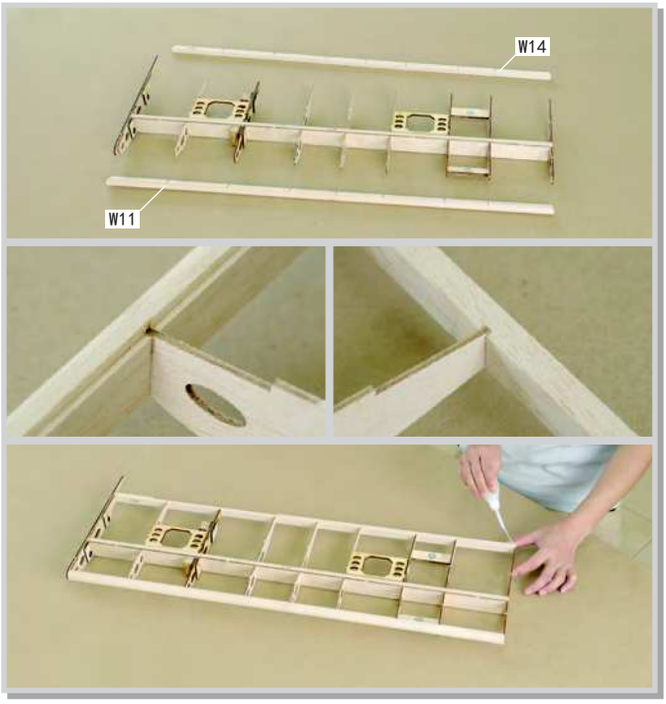
5.2 Insert and glue in the W12A/W13 assembly perpendicularly to W1R, make sure it is all the way in. W1R should have an angle with W12A/W13, which is the dihedral angle of the wing half and is completely normal.



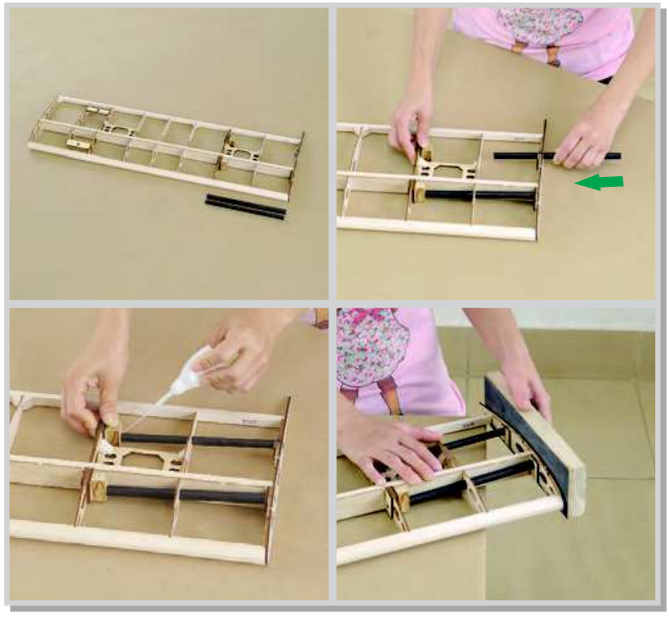
5.3 Glue in W12A/W13 assembly perpendicularly to W9, note that W9 is the wing tip end and should be perpendicular to W12A/W13.



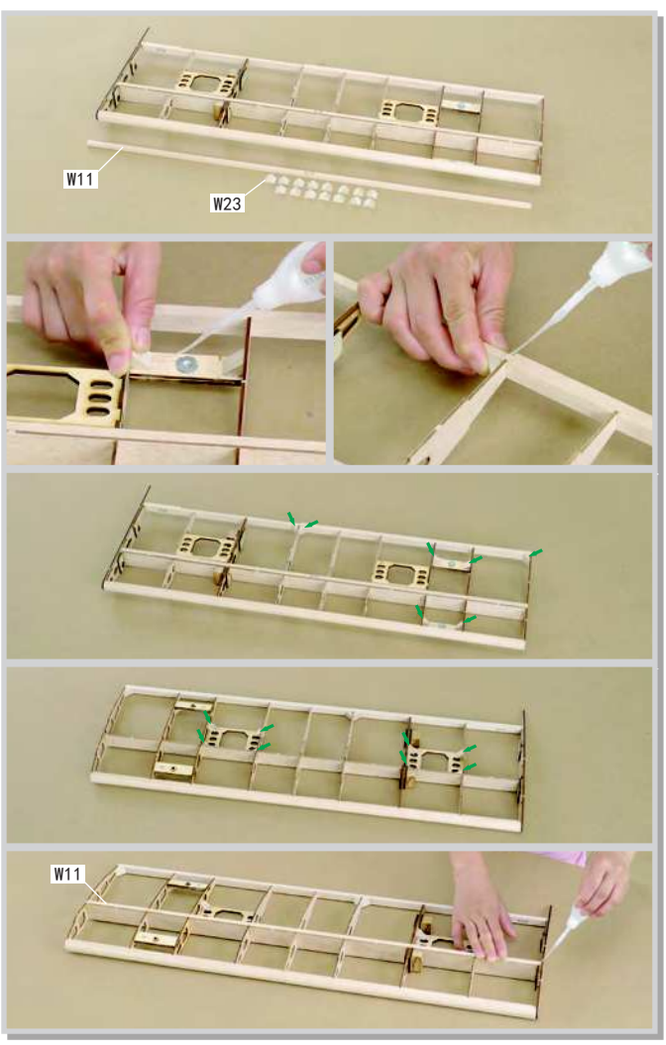
5.4 Glue in W2, W3R, W4, W5, W6, W7 and W8, note that they should be perpendicular and flushed with W12A/W13. Latch in W21 to W2 and W3R, W6 and W7 and apply glue. Glue in W19 between W7 and W8, make sure blind nuts are facing inside of wing.



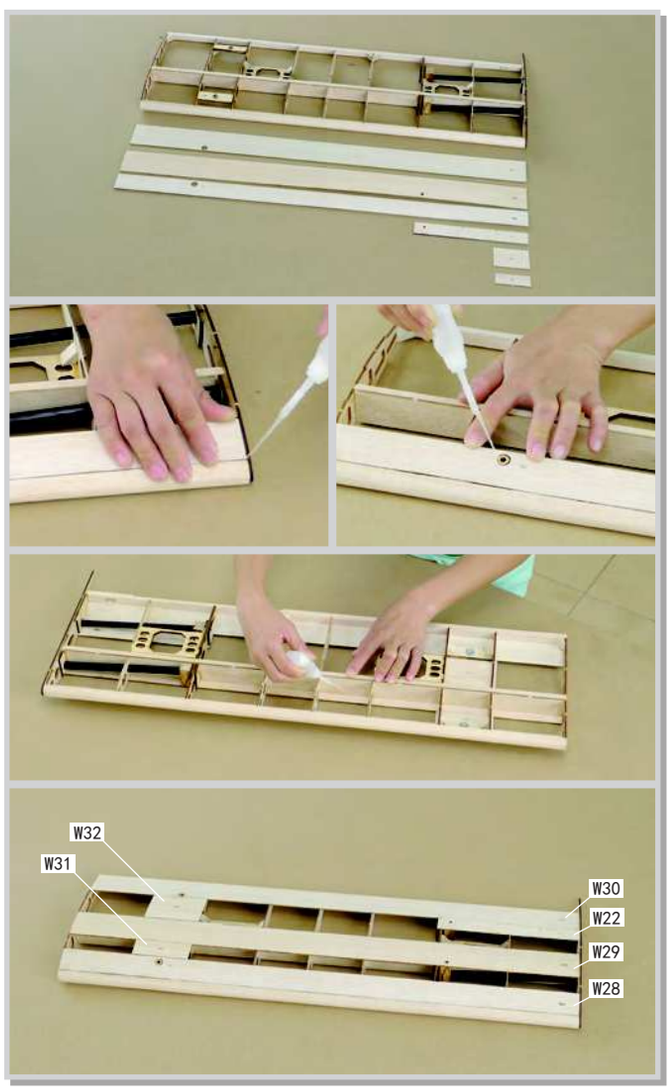
5.5 Glue in W11 and W14, make sure the ends are flushed with the ribs W2 .....W8.



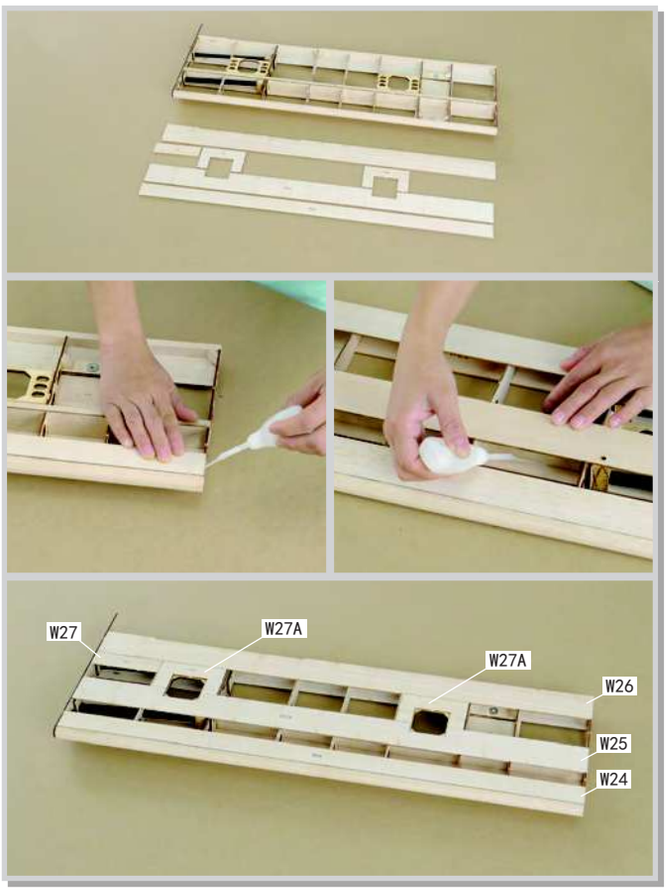
5.7 Insert fiber glass sleeves for wing tubes into W1R, W2, and W3R. Glue them in place and when cure, use sand paper to remove edges to make it flush with W1R.



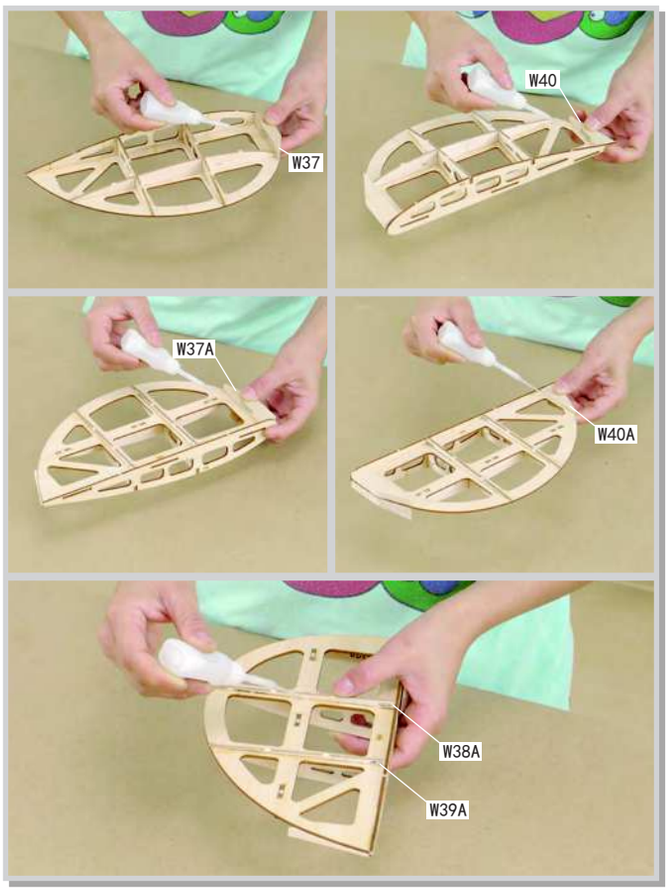
5.6 Glue in reinforcement plate W23, (15 pcs.). Glue in W11.



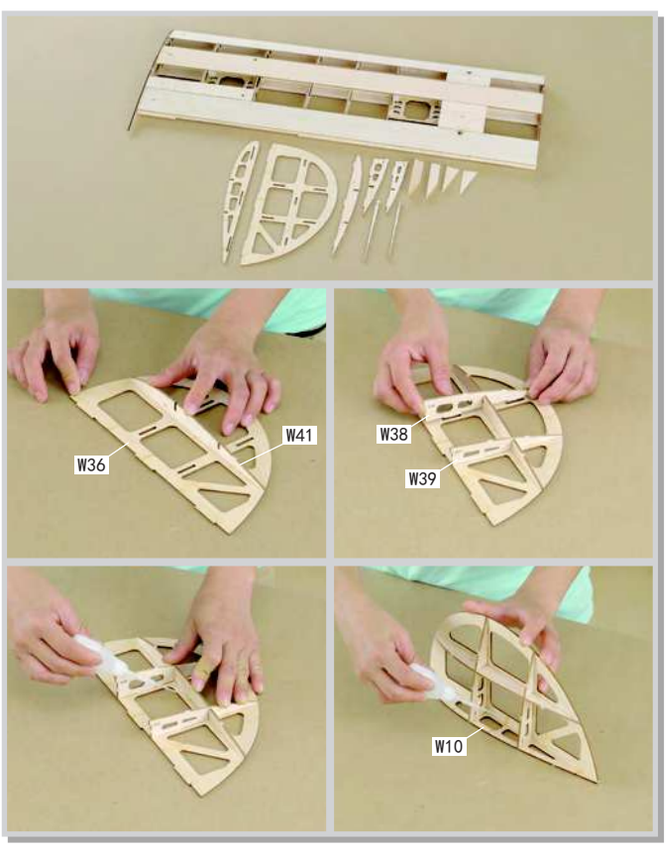
5.8 Glue in balsa sheets W22, W28, W29, W30, W31 and W32. Pay attention when gluing W28 and W32, not to allow glue to get inside blind nuts. Apply glue to outside of balsa sheets, when cured, apply glue to underside of balsa sheets.



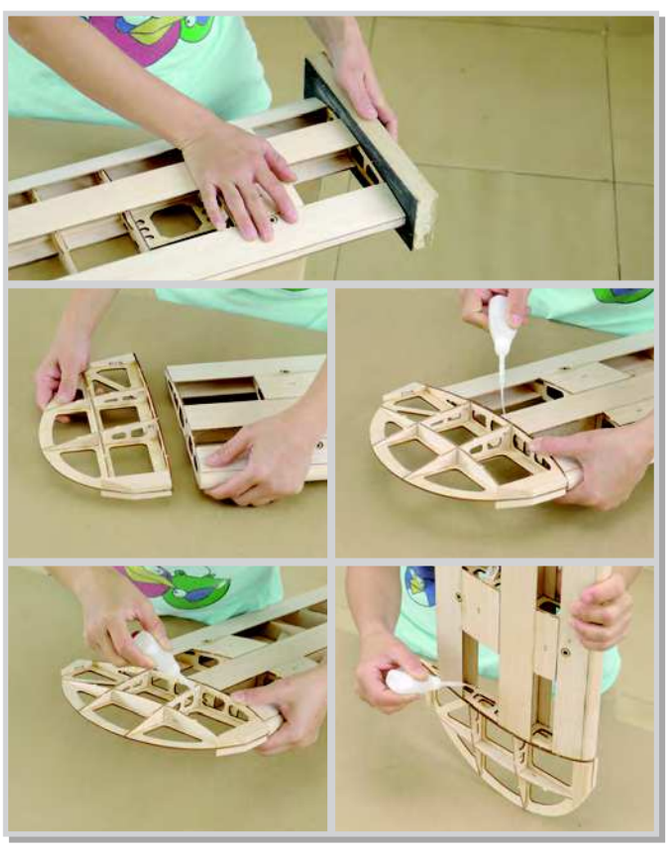
5.9 Glue in W24, W25, W26, W27 and W27A.



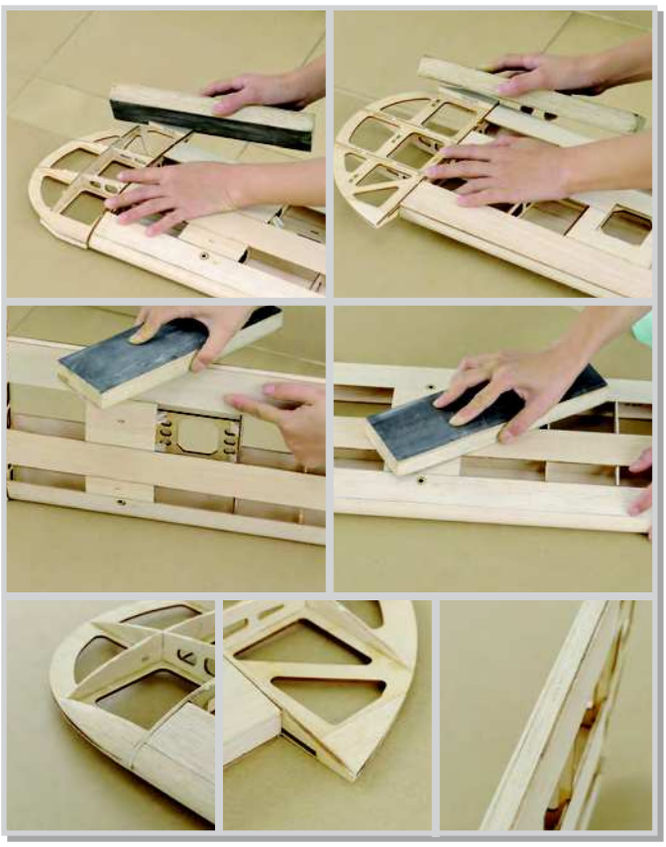
5.11 Glue in W37 and W40, then flip over to the flat side and glue in W37A and W40A, then W38A and W39A.



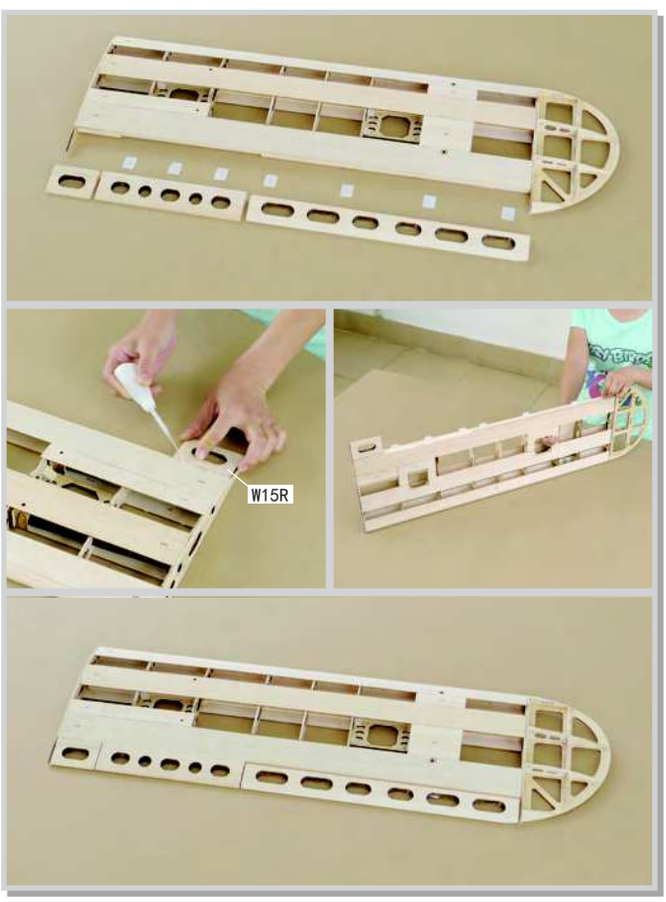
5.10 Glue in W41 to W36, then W38 and W39. When cured glue in W10.



5.12 Use sand paper to grind down uneven surface of W9, then glue in W10 wing tip assembly.

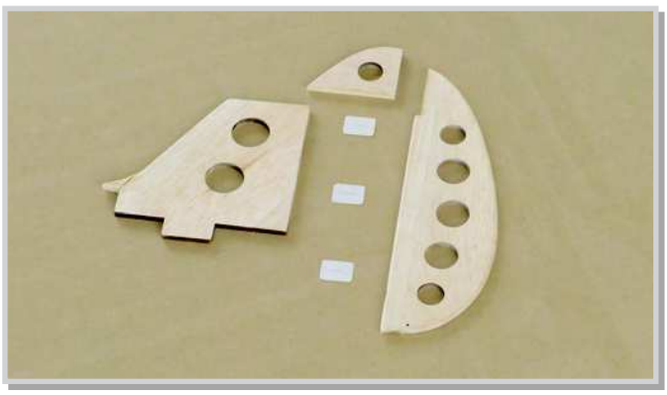


5.13 Use sand paper to remove rough edges of the wing assembly.

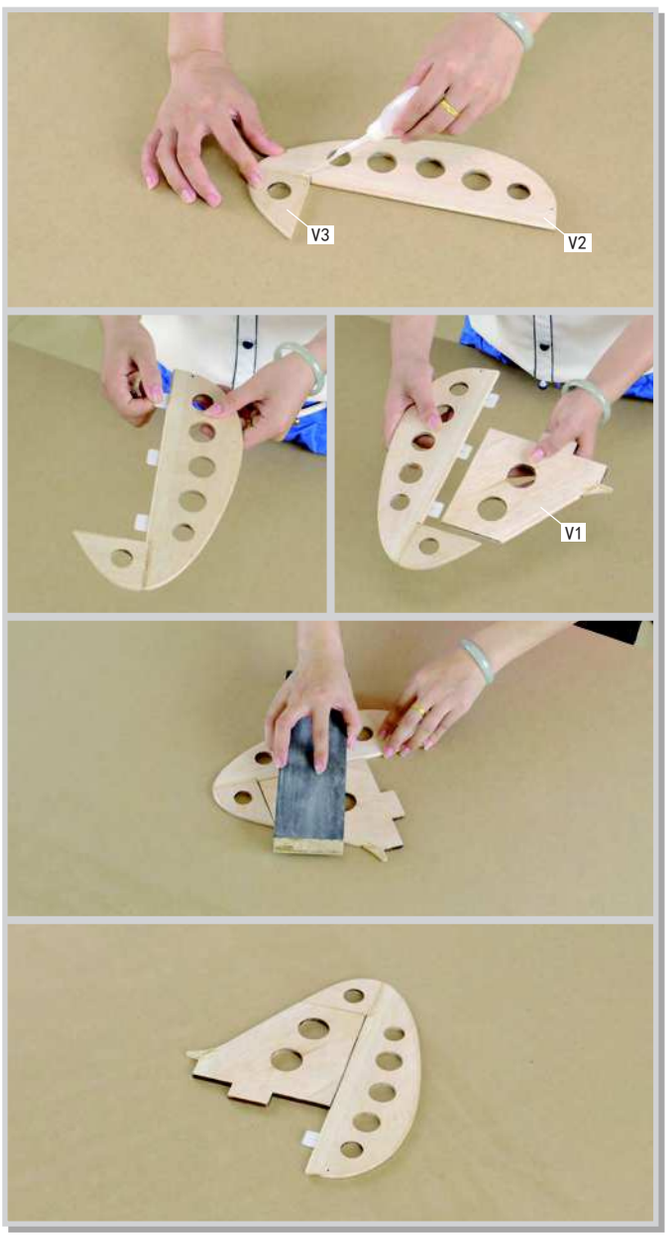


5.14 Glue in W15R. Dry fit W16 flap and W17 aileron with the hinges, do not apply glue at this stage.

VERTICAL STABILIZER AND RUDDER ASSEMBLY

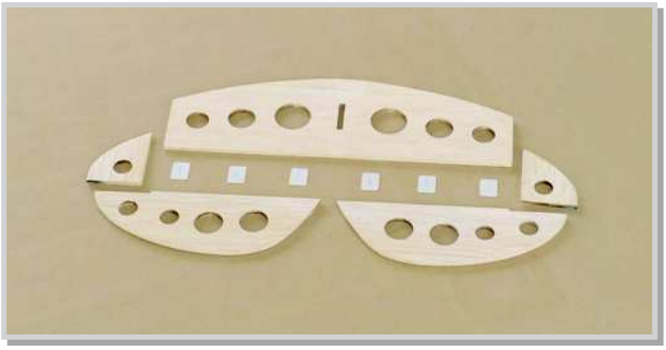


Lay out parts for the vertical fin and rudder

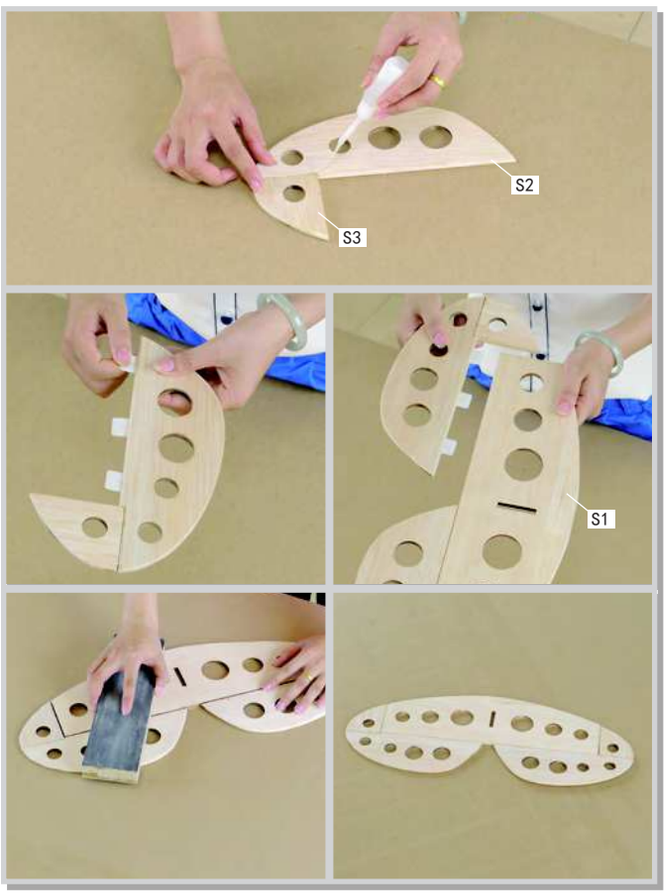


6.1 Place V2 and V3 on flat surface and apply glue to glue them together. Insert CA hinges to the vertical stabilizer hinge grooves, install rudder and check alignment of rudder. Do not apply glue to the CA hinges at this stage. Sand down rough edges if necessary.

HORIZONTAL STABILIZER AND ELEVATOR ASSEMBLY



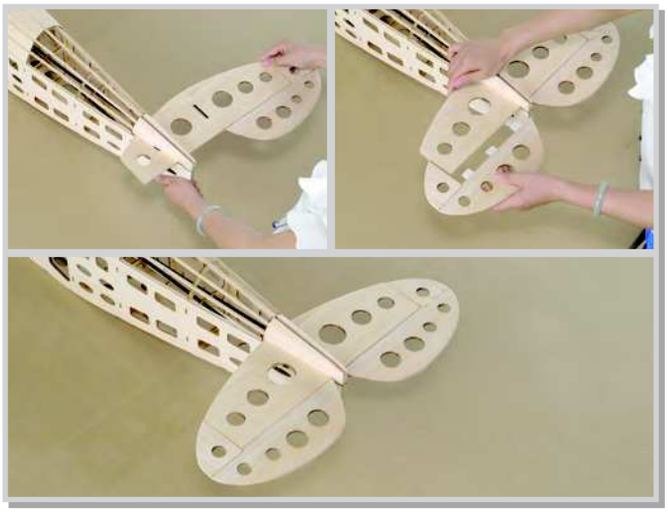
Lay out parts for horizontal stabilizer and elevator



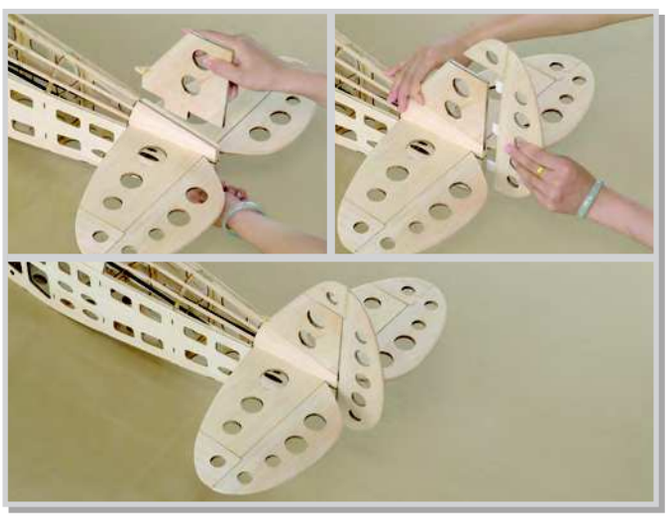
7.1 Place S2 and S3 on flat surface and apply glue to glue them together. Insert CA hinges to the elevator hinge grooves and fit in the horizontal stabilizer, check alignment of the elevator. Do not apply glue to the CA hinges at this stage. Sand down rough edges if necessary.

Carefully inspect all the glue joints for the assembled parts. If you find gaps between contacting surfaces, add gap filling CA glue or epoxy to reinforce the joints.

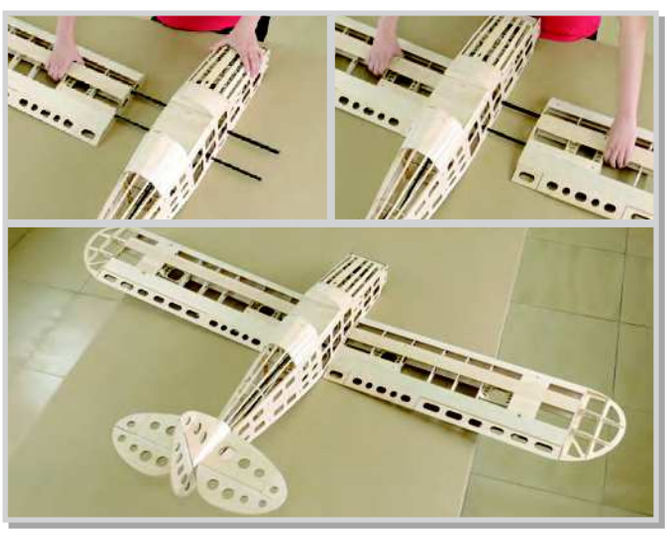
STABILIZER, RUDDER, MAIN WING AND FUSELAGE SETTING



8.1 Dry fit all the main components of the plane. Remove left elevator from horizontal stabilizer and pass through the tail slot, align the middle slot of the horizontal stabilizer and install back the left elevator.



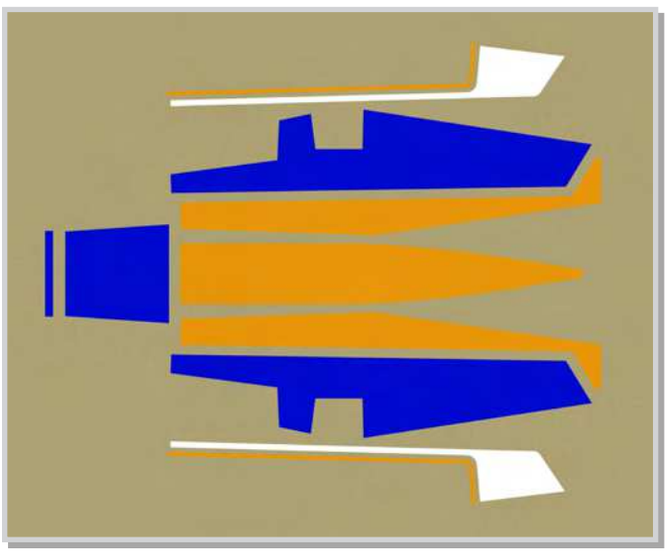
8.2 Install the vertical stabilizer, make sure the bottom tenon pass through the center slot of the horizontal stabilizer. Install the rudder.



8.3 Install wing tube and wings. Check for imperfections and repair if necessary.

COVERING

The following ironing procedure is for the World Models Tough-Lon covering. Please follow the instructions included with the covering material. Please completely remove dust from the surface before covering, or the covering will not stick to the surface. The covering adhesive is activated at 58ºC/136ºF, and shrinking starts at 90ºC/194ºF. Set your iron at about 60ºC/140ºF to begin.



Lay out the Fuselage coverings.

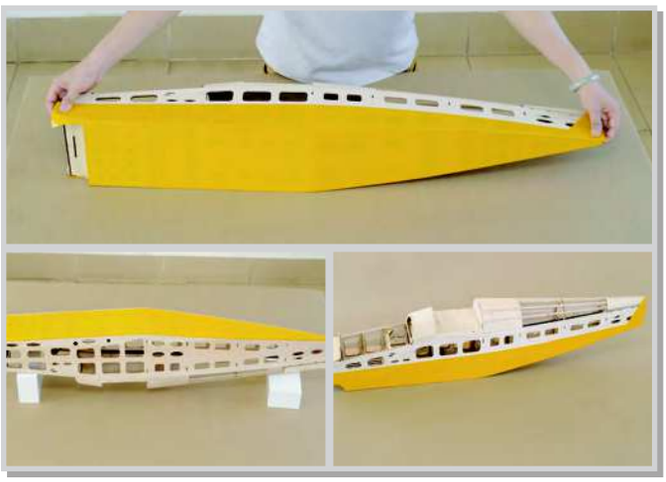
9.1 Cover iron with cotton cloth to eliminate scratch and better temperature distribution. A hobby grade sealing iron with cover sock is recommended for better handling.

9.2 Take out the covering piece for the bottom of fuselage, and peel off backing sheet.

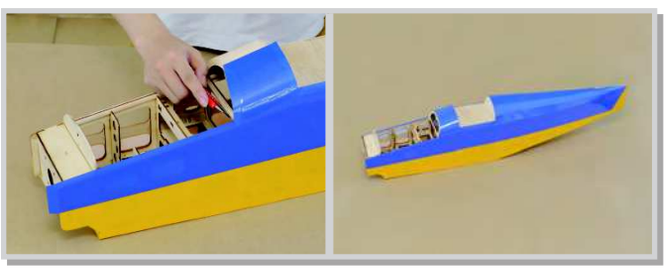
11.3 Place covering on fuselage bottom, completely covering the surface with 5mm overhang at all sides.

9.3 Tack the covering at corners, this will temporarily fix the position of the covering, and start ironing on the covering. If position is not right, apply heat and peel off the covering and rework. Never try to peel off covering when the covering is cold and adhesive has set, you may pull away wood or separate the color layer. Always heat up the covering to melt the adhesive before peeling.

9.4 Iron on the overhangs to cover the edges. If you need to shrink the covering to conform to the shape of edges, you can do so by raising the iron temperature. Just apply heat at the required spot only. Since the shrinking temperature is much higher than the adhesive melting temperature, if you apply high heat at area near the edge or seams of covering, the covering will pull away from the edge or seams. Trim off unwanted material.



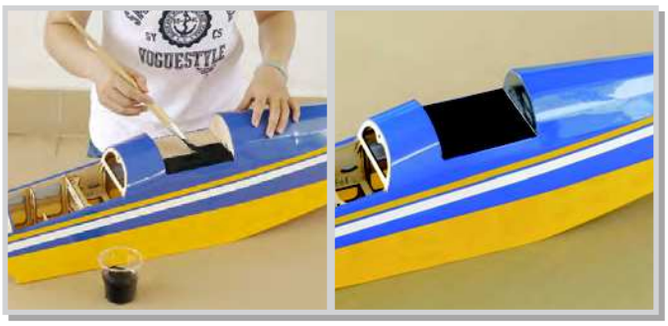
9.5 Iron on covering for the side panels. Always use lower heat to stick on the covering. Use high heat carefully only for shrinking covering around corners.



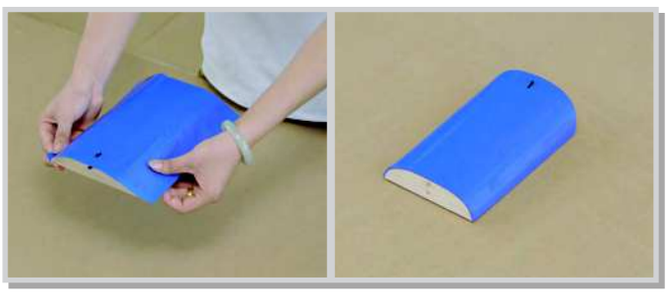
9.6 Iron on upper blue covering.

9.7 Iron on top partition board.

9.8 Iron on color trimmings.

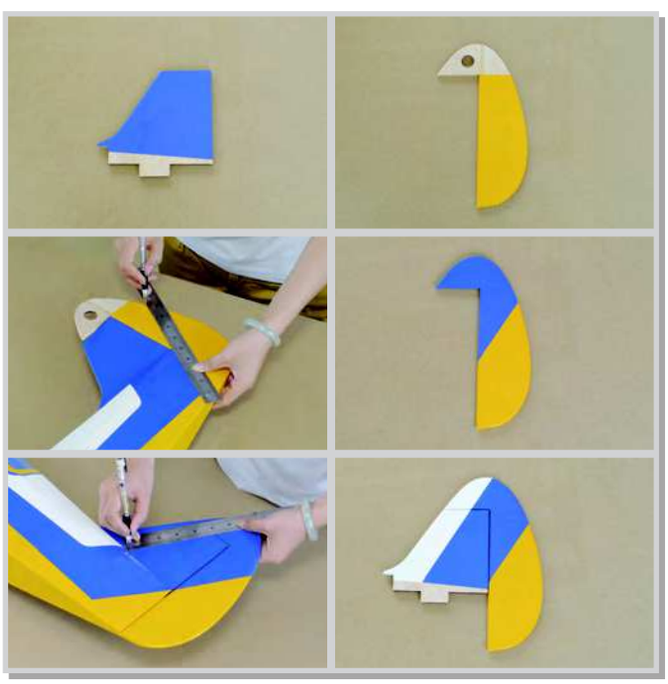


9.9 Paint the cockpit black.

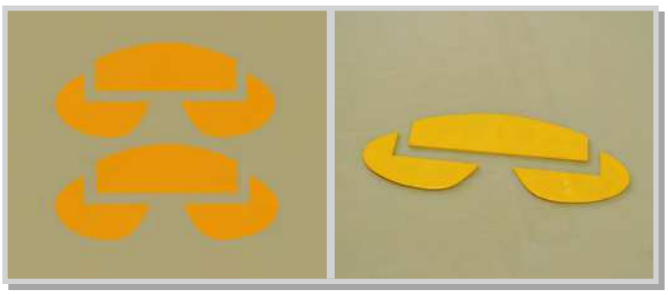


9.10 Cover the battery hatch. Cut a slit on the covering for the latch knob before ironing.

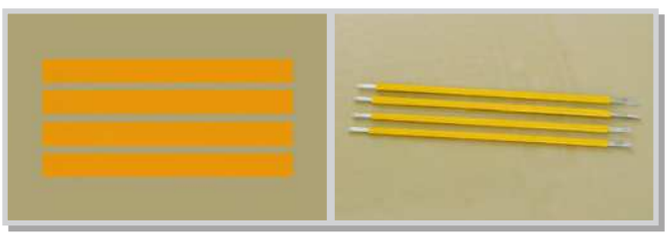
Lay out the vertical fin and rudder coverings.



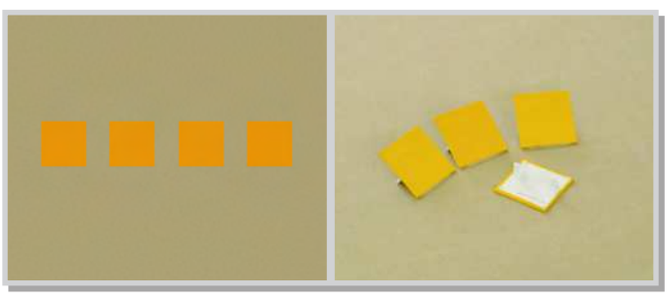
10.1 Cover vertical stabilizer and rudder. You may need to install the stabilizer and rudder and mark trimming position for professional result.



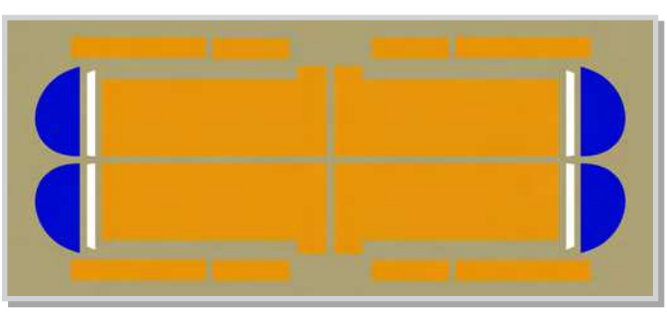
11.1 Cover the horizontal stabilizer and elevator.



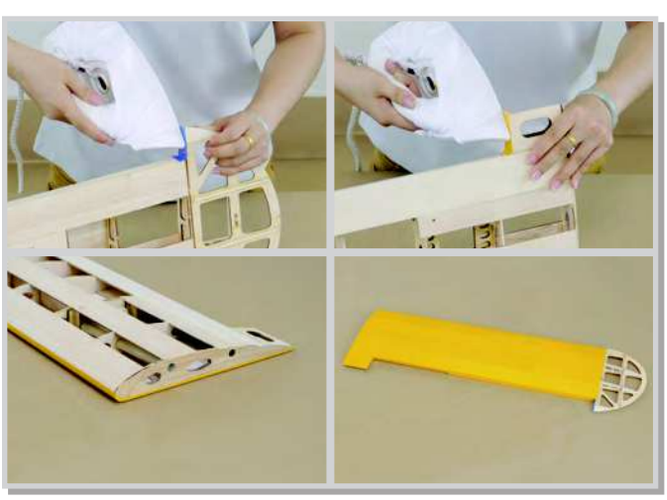
12.1 Cover the wing struts.



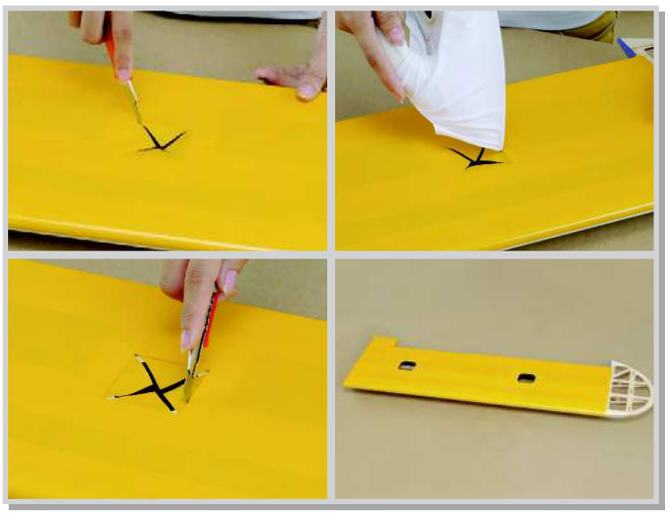
13.1 Cover the aileron servo tray.



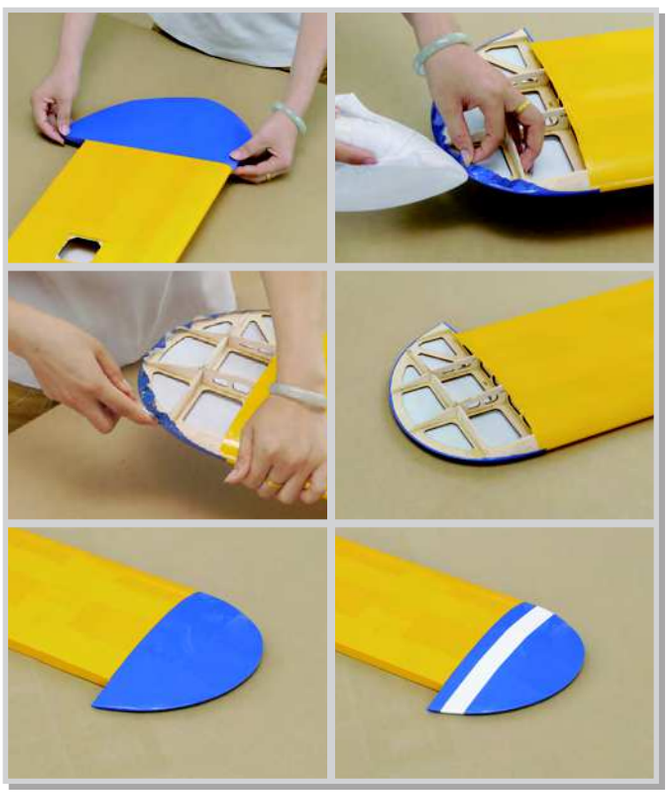
Lay out the Wings coverings.



14.1 Cover the right wing panel. Cover the bottom panel, and then the top panel.



14.2 Prepare openings for aileron and flap servo trays.



14.3 Cover wing tip, bottom first then the top. Apply higher heat to shrink covering around the round edges.

14.4 Cover the aileron and flap.

14.5 Cover the left wing panel with similar procedure.

The plane is now ready for equipment installation.

The World Models
Manufacturing Co., Ltd.
www.theworldmodels.com

http://www.theworldmodels.com/para/instruction/instructionManuals.php