Delta Dart

Includes:
- Tissue Paper Plan
- Wood Strips
- Rubber Band
- Propeller
- Instruction Sheet (glue sold separately)

Adult supervision required

Stock #3950
Made in China

Ages 8+

www.midwestproducts.com
**Assembly Instructions**

1. Place the printed side of the plan face down on the cardboard. You can now read through it. Pin or tape the top corners of the sheet to the cardboard.

2. Carefully slit the plan along the marked line from point A to point B, as shown.

3. Apply glue stick to the plan over the cross-hatched area. Now, position the balsa wood fuselage (motor stick) on the plan. Be sure the taper of the fuselage matches the plan.

4. Carefully cut two of the balsa strips to length to make the triangle fin. Carefully cut the correct angles to form a good fit. Now, glue these strips to the plan using the glue stick and apply wood glue at all three flush joints.

5. Cut out the fin along the edges of the wood, starting at point A around to point B, as shown. Fold the point on the top of the fin over and glue down.

6. Cut the wing frame pieces. Be sure to cut them at the correct angles to fit perfectly to each other.

7. Frame the wing using the same method as the fin assembly. Glue each joint securely between pieces as indicated by the arrows.

8. Construct the horizontal stabilizer portion of the tail in the same manner as the wings. Apply glue at the arrows. Then, cut the wing and horizontal stabilizer from the plan. Be sure to glue all the points down in the same manner as the fin.

9. Prop Balance - most plastic props need to be balanced or they vibrate and shake the model during flight. To balance your prop, hold the socket and carefully blow into the prop to make it turn. When it stops, if one blade points toward the ground it is the heavier blade. Scrape away some plastic from the front of that blade with a razor until the prop balances from left to right.

   **If propeller is not assembled, follow Step #17 first.**

10. Push the propeller socket onto the fuselage.

11. Remove the propeller. Glue the wing to the fuselage. Pin it in place. The leading (front) edge of the wing should be placed approximately 1-1/4" (31.8mm) from the front edge of the fuselage. Now, turn over the Delta Dart. Hold in place on the cardboard and press the wings down carefully to form the dihedral angle. Pin the wing tips to the cardboard so that there is a 300mm measurement from wing tip to wing tip, as shown. Now apply extra glue at the joints where the arrows point.

12. Glue the horizontal stabilizer (tail) to the rear of the fuselage. Make sure that it is at a 90° angle to the fin.
13. Remove all pins and take the model off the cardboard. Reinstall the propeller. Check the wings for stability. If the wings are loose, re-pin the model to the cardboard and repeat step 11, applying more glue at the arrow points. Wait until the glue is dry, then remove from the cardboard. Carefully push in one pin at a slant near the front end of the tail to hold the rubber band motor in place.

14. Tie the rubber motor to make a loop. The loop should be 8-1/2" long. Trim the ends to a length of 6mm. Lubricate the rubber with Amourall®. Suspend the rubber band motor from the propeller hook to the motor hook. Position the knot at the motor hook for smoother running.

15. Hold the fuselage with one hand under the wing. Wind the rubber band motor in a clockwise fashion. Start with 50 turns for short flights. If it flies correctly, increase the turns starting with 100.

16. Hold the propeller. Keeping the nose at a slight upward attitude, release the propeller as you launch the model with a gentle push.

17. Propeller Assembly

The Delta Dart will fly in left hand turns due to the propeller's rotation. If your Delta Dart experiences maneuvers such as banking, stalling or diving, use stiff paper “Trim Tabs” to cure the condition. Tabs should measure 15mm x 50mm and be glued to the trailing edges of the wing and tail assemblies. Adjust the flight path by bending tabs in different directions, observing the results.