for water flying.
The pontoons are lined up. You can use an 8.5" piece of paper to stay parallel.

Step 7

Edges and corners with sandpaper.

The tails don't need to follow the curve at the ends but should line up with the sides for most of the pontoon. You can sand the excess off.

Put the control wire thru the control horns and now glue in to rudder and elevator. Make the "Z" bends where they need to be for the control horns to be centered with the servos centered.

Cut control horns from small popsicle sticks. Drill a small hole 1/2" from tail surface and narrow the stick - 1/8" wide. Glue the horns in making sure the ladder shaped piece fits into the cutout and the width of the horn fits the gap. Use a tiny dab of glue in the holes and use a paper clip to hold the horns in place. Once they are dry cut off the flaps and smooth the edges with sandpaper.

The airfoil supports hold the structure of the wings in place and are the backbone of the wing. There are glue in place on the bottom of the wings. You need to remove any paper parting the foam sections and when you remove the paper use a dowel to roll the wings. The support is spreader glued to the pontoon and a small piece of scrap is cut to fill the step and hold it in place.

Remove paper from top side of top fuselage parts and roll with a dowel to form curl.

Before the glue dries, roll the wings with a dowel to get the curl and put in place. It may be necessary to cut the wings to the correct size to get the height right.

The top wing is held in place entirely by struts. Take the sharp ends of the skewers and cut apart and criss cross and are tied together. The four bamboo skewers should intersect and be tied with some glue or thread.

The four bamboo skewers go thru the fuselage. Leave the others alone.

Dihedral - 1" under each wingtip

Cut and hinge with tape.

Glue some crossed pieces tie to support vertical tail.

Install servos and control rods. Oversize the cutout length for the servos and run in to rudder and elevator. Be sure to trim the control horns to fit in the gaps.

Put the control wire thru the control horns and now glue in to rudder and elevator. Make the "Z" bends where they need to be for the control horns to be centered with the servos centered.

The four bamboo skewers should intersect and be tied with some glue or thread. The four bamboo skewers go thru the fuselage. Leave the others alone.

Push skewers from top wing airfoil supports down to lower wing fuselage joint. Glue at ends and corners with sandpaper.

Push skewers thru top of wing toward the lower wing support in a criss cross manner. Cross pieces tie the top wing supports to the inner fuselage supports. Leave the others alone. Use a small piece of scrap to fill the step.

Cut a piece and place in the fuselage. Use a small piece of scrap to fill the step.

Push skewers thru top of wing toward the lower wing support in a criss cross manner. Cross pieces tie the top wing supports to the inner fuselage supports. Leave the others alone. Use a small piece of scrap to fill the step.

This model may need more down stabilizer to keep nose from rising at nose or tail. Test glide with controls in neutral. Glide should be straight with a slight upturn. This is normal for this type of model.

Step 15

The pontoon attachment struts are done in a similar way. You can use more liberal glue bamboo to pontoons. Cut and hinge with tape.

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The four bamboo skewers go thru the fuselage. Leave the others alone.

Push skewers from top wing airfoil supports down to lower wing fuselage joint. Glue at ends and corners with sandpaper.

Push skewers thru top of wing toward the lower wing support in a criss cross manner. Cross pieces tie the top wing supports to the inner fuselage supports. Leave the others alone. Use a small piece of scrap to fill the step.

This model may need more down stabilizer to keep nose from rising at nose or tail. Test glide with controls in neutral. Glide should be straight with a slight upturn. This is normal for this type of model.

Step 13

Old Guy RC

The Hansa Brandenburg had cutouts at the rear of the fuselage. We will cut out and use the same pattern. Note the wings for positioning. The rudder and elevator are the main elements. Mark the rudder guide pieces as shown. The rudder guide pieces are 1/2" thick and the elevator guide piece is 1/8" thick.

Glue some crossed pieces tie to support vertical tail.

Install servos and control rods. Oversize the cutout length for the servos and run in to rudder and elevator. Be sure to trim the control horns to fit in the gaps.

Put the control wire thru the control horns and now glue in to rudder and elevator. Make the "Z" bends where they need to be for the control horns to be centered with the servos centered.

Cut control horns from small popsicle sticks. Drill a small hole 1/2" from tail surface and narrow the stick - 1/8" wide. Glue the horns in making sure the ladder shaped piece fits into the cutout and the width of the horn fits the gap. Use a tiny dab of glue in the holes and use a paper clip to hold the horns in place. Once they are dry cut off the flaps and smooth the edges with sandpaper.

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Remove paper from top side of top fuselage parts and roll with a dowel to form curl.

Before the glue dries, roll the wings with a dowel to get the curl and put in place. It may be necessary to cut the wings to the correct size to get the height right.

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The four bamboo skewers go thru the fuselage. Leave the others alone.

Push skewers from top wing airfoil supports down to lower wing fuselage joint. Glue at ends and corners with sandpaper.

Push skewers thru top of wing toward the lower wing support in a criss cross manner. Cross pieces tie the top wing supports to the inner fuselage supports. Leave the others alone. Use a small piece of scrap to fill the step.

This model may need more down stabilizer to keep nose from rising at nose or tail. Test glide with controls in neutral. Glide should be straight with a slight upturn. This is normal for this type of model.

Step 14

Removing the glue from the pontoon foam board will have the same result. The pontoon sections are attached with glue.