



Federal Aviation
Administration

How to Build a Wright 1903 Flyer

Objective: Students construct a model of the 1903 Wright Flyer. « [Back to Ages 13 & up](http://www.faa.gov/education/student_resources/kids_corner/ages_13) (http://www.faa.gov/education/student_resources/kids_corner/ages_13)

Materials: For each student:

- 1 Large or 2 medium size Styrofoam meat trays
- 22 Round toothpicks
- White glue
- Scissors
- Tape
- Paint
- Dime or similar size weight
- Fine sandpaper

Procedure:

Using the diagram below, trace patterns onto the Styrofoam. Stick a pin or mark through all holes in diagram to mark their location on the Styrofoam.

Cut out all parts. Shape the wings and elevator with sandpaper.

Push one toothpick lengthwise through the center of each rudder. Glue each rudder upright at one end of the body - one to the right edge and the other to the left. Then glue on the rudder top.

Dip 18 toothpicks in glue and place the toothpicks upright on the dot marks made by the pin. Dab glue on the toothpick tops and lay the second wing carefully on them. Using the dots as a guide. Press together carefully. Cut a toothpick in half and glue one piece to each of the two middle toothpicks so they look like propellers. Set aside to dry.

Assemble the elevator by dipping the end of 5 toothpick halves in glue. Place the toothpicks upright on the dots on one section of the elevator. Dab glue on the tops and place the second section of the elevator on them. Press together carefully.

Glue the set of wings to the center of the body.

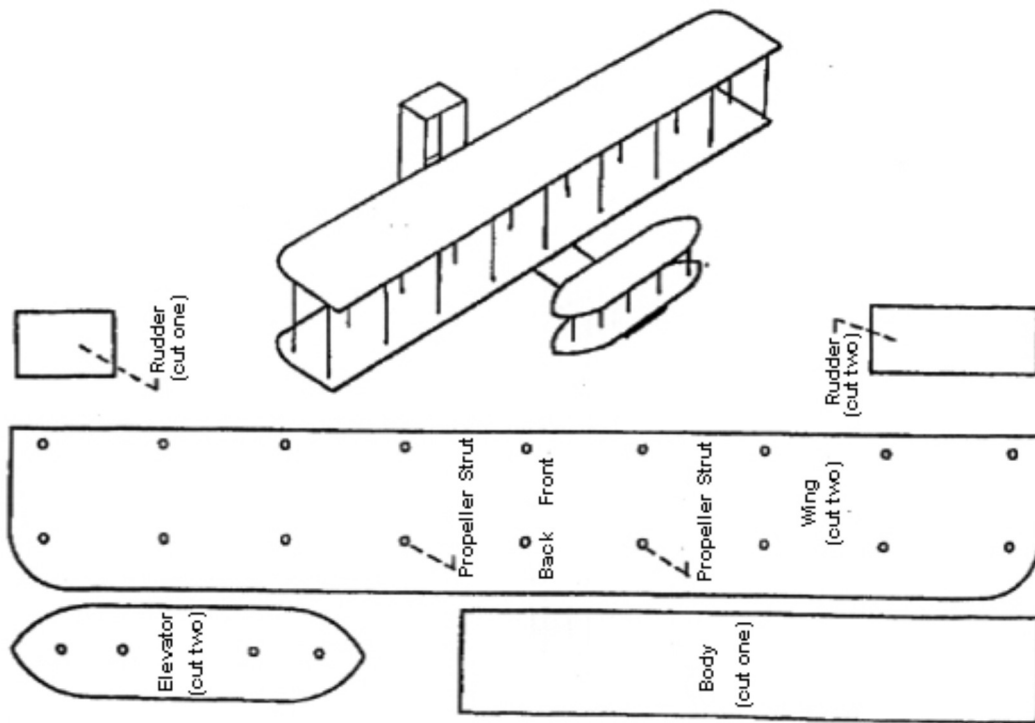
Glue the set of elevators to the other end of the body.

Tape a dime to the bottom of the FLYER between the wings and elevators.

Wait for the glue to dry. Now you are ready for takeoff.

Kneel down, and fly your model nice and low just like the Wright Brothers flew their first flyer.

STYROFOAM WRIGHT 1903 FLYER PATTERN



NOTE: Reprinted with permission of Parent's Magazine Press from Take Me Out to the Airfield! How the Wright Brothers Invented The Airplane, by Robert Quackenbush. The model by Roy E. Quackenbush.

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