

RA LineGliders

A lineglider is in the shape of an airplane body, with a propeller powered by a rubber band. Boys can build lineglider kits or make linegliders from balsa wood. Visit royalracers.com to order RA LineGlider kits. The competition can be held indoors or outdoors.

Materials Needed:

- RA LineGlider kit (1 per person)
- Sandpaper
- Small hammer
- Paint or stain and brushes
- Coping saw
- Needle-nose pliers
- Drill with 1/16" bit

Building Hints:

1. Chose a design for the body of the lineglider. Note: The nose of the glider must accommodate the official propeller hub. Tail should accommodate tail wing.
2. Cut design from the board provided for the body.
3. Sand edges and surfaces as desired.
4. Saw a slot (3/8" from bottom edge of tail), 1/16" side and 1" long for tail wing. (Tail wing may be shaped and rounded if desired.)
5. Using a 1/16" bit, drill an angled hole 5/8" from rear of body up through slot and tail wing. The hole should be about 1/2" deep, and angled toward the front of the glider so the nail head will angle towards the rear of the glider. This hole is for the nail to attach a rubber band and to secure the tail wing.
6. Drive a nail into the hole. Leave it sticking 1/4" below the body of glider.
7. Drill one 1/16" hole approximately 2 1/4" from the front and rear of glider, through the edge of glider body from top to bottom.
8. Paint or stain your glider as desired.
9. Insert "y" wires through body from top through bottom of glider body.
10. With needle-nose pliers, bend small U-shape in bottom of wires and push U up into wood of the glider body. This helps secure wires to the glider body.
11. One inch below top of wires, make another U-shape bend in wires. This will enable the glider to be hung on line.
12. Mount propeller on front of glider. Install rubber band on nail and propeller.
13. Add an RA logo or other decorations to your glider as desired.

RA LineGlider Specifications:

- Note: Only the official propeller and the official rubber band supplied with the kit can be used in competition.
- Width, Length, and Height Limits—None. Excessive height might necessitate using longer wires to hang the glider on the line.
- Weight—3/4 ounce minimum. Note: very light RA LineGliders have occasionally found the torque so great that the glider will flip over and fall off. You can correct this problem by bending the wire in a circle to clasp the line.

- Details–Paint, additional wood, plastic and strings may be added for decorations and design.
- Attachments–No device may be used for propulsion, except the official propeller and rubber band in the RA LineGlider kit.
- Official Rubber Bands–(92–120) Additional rubber bands may be ordered from royalracers.com.

Awards: RAs who build and race an RA LineGlider are eligible to receive an RA LineGlider patch for the first year. Additional years of building and racing earn the RA a dated chevron for his participation.