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## RA Sailboats

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Royal Ambassador Sailboats and Rain Gutter Regattas are a great interest activity for boys and their leaders. Boys can construct their sailboats from ready-made kits or wooden blocks (all the same size and shape) with a short dowel mast and a paper sail. Visit [www.royalracers.com](http://www.royalracers.com) to order RA Sailboat kits.

### Materials Needed:

- 1 RA Sailboat kit per participant
- Saw or wood rasp
- Medium and fine sandpaper
- Sanding sealer
- Paint and brushes
- Steel wool
- Wood glue
- Drill with ¼" bit

### Building Hints:

1. Decide on a sailboat design.
2. Draw design on sailboat.
3. Carve or saw sailboat to desired shape.
4. Sand entire sailboat with medium grade sandpaper.
5. Drill ¼" hole(s) 3/8" deep into the base.
6. Sand the mast. Taper the bottom end of the mast to fit into the drilled hole in hull.
7. Glue the mast in place. (Rudder and Keel should also be sanded and cemented in according to your design.)
8. Apply two coats of sanding sealer.
9. When completely dry, sand with fine grade sandpaper.
10. Apply two to four coats of paint. Rub with steel wool between coats.
11. When sailboat is completely dry, secure the sail to mast with glue or tape. Add numbers or other decorations as desired.

### RA Sailboat Specifications:

- Width—maximum of 3" wide for boat body, maximum of 5" wide sail
- Length—minimum of 6" long, maximum of 8" long
- Height—no limit
- Depth—maximum of 1 ½" below the waterline if rudder or keel is constructed
- Weight—minimum 1 ounce (28 grams), no maximum weight limit
- Sail area—maximum of 20 square inches (5" x 4" or equivalent) This can be cut into different shapes as desired.
- Sail and side beams to hold sail—may extend wider than 3" but must be less than 5" wide and they must clear the waterline (or boat deck) by 1 ¼" in order to clear the vertical sides of the rain gutter
- Details—additional wood, plastic, string, etc., may be added for decorating as long as the above limits are not violated
- Attachments—no device may be added that will offer additional propulsion (example: propellers, etc.)

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

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### Leader's Information

Contact your state RA leader to get a copy of the race rules for your state. Pattern your race event similar to this so that your boys and leaders will be familiar with the race procedures.

**Basic Course Materials:**

2–Plastic rain gutters 10' long and  
3  $\frac{3}{4}$ " wide

4–Plastic gutter end caps

1–Tube Silicone sealant

1–8' table or 2–6' tables

(Sawhorses with 10' boards)

**Race Materials:**

2–Stopwatches

2–Table tennis paddles or a box of flexible  
straws

1–Whistle

3- x 5-inch cards (1 per racer)

Pencils or pens

**Race Course:** Take the plastic rain gutters and cap and seal the end caps with the silicone to make them watertight. Place the 2 rain gutters on an 8' table, so a participant can race on each side of the table. Fill the gutters with water 1  $\frac{3}{4}$ " deep.

**Race Propulsion:** The sailboats are to be driven by wind from the boys. Some boys may become light-headed and pass out before the end of the course. Two alternative methods are to allow the boys to fan their sails with a table tennis paddle or give each participant a flexible straw to blow through. Whichever method they use they cannot touch or push the sailboat. Use of any electrical device is prohibited.

**Racing Procedures:** All boats will be inspected before the race and those not meeting the specifications listed will not be allowed to participate until the boat is brought into compliance. Upon completion of inspection, give each participant a 3- x 5-inch card and have them write their name on the card. This is a race against the clock. Have the participants form two lines at the end of the table, one on each side. Each participant will hold their own card and boat. Start with the boat's stern (back) touching the end of the rain gutter. At the whistle, the boys generate wind to propel their boat forward. Time the boats with a stopwatch. Time stops when the boat's bow touches the opposite end cap. Timekeepers record each person's time on their card. Participants cannot touch their boat with anything during the race. Should this occur, a foul is called and the boy should continue down the course. The time for this race is not counted. As soon as each boy races his boat, he goes to the end of the line and waits his next turn. Each boy races his boat three times. At the end of the third heat, the timekeepers will keep all cards. The fastest time per participant is used in competition and determining the overall winner.

Award trophies for 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> in each division in addition to best looking and most unusual design. Consider combining this activity with a missions fund-raising event.

### **Devotional Thoughts:**

Choose one of these devotional thoughts to share with the boys during the leader's time.

- As a Royal Ambassador, I will do my best. (RA Pledge)
- Do your best to present yourself to God. (2 Timothy 2:15)
- I may finish my course and the ministry I received from the Lord Jesus. (Acts 20:24)
- Run in such a way that you may win. (1 Corinthians 9:24-27)
- Run with endurance the race, keeping our eyes on Jesus. (Hebrews 12:1-2)