

Great Salt Lake Marina

CARDBOARD BOAT RACES

Saturday, June 18, 2016 at 11:00 am
Registration at 10:00am (Entry is FREE!)

BUILD and RACE your corrugated dream boat!
Have FUN, and WIN great prizes!

Amateur boat builders of all ages are challenged to design, build and navigate boats made entirely of corrugated cardboard.

Spectators are encouraged to bevy to this event to see courageous crews race the brine shrimp of the Great Salt Lake!

The Challenge

Amateur boat builders are challenged to design, build and navigate a corrugated cardboard boat that will:

- 🚤 Complete a short marina racecourse, and/or
- 🚤 Be a visual wonder to compete in the “Prettiest/Ugliest” Competition

The Rules

1. Have Fun – Safely!
2. Boat hulls must be constructed entirely of corrugated cardboard. Any thickness of cardboard is permitted. Caulking may be used, but only in seams and edges. Other materials may include: duct tape, one-part paint. Waxed cardboard, carpet tubes and barrels, two-part epoxy glue, fiberglass, plastic, wood, rubber, foam, cellular, or flotation materials are not allowed in hull construction! The boat must float because it is a boat, not because it contains materials that float!
3. At least 50% of the hull exterior must be corrugated cardboard (painted or unpainted) only. No wrapping of the entire hull with duct tape, plastic, shrink-wrap, or other materials!
4. Boats are to be propelled by oars, paddles, or sails. Oars, paddles, sails, mast, steering devices, propulsion systems and attachments of these devices/systems may be constructed of materials other than cardboard. No poling (as in using long poles to push your boat). No motors allowed!
5. Crew must retrieve all boat parts/pieces from the water at the conclusion of the race.
6. If you have any questions, refer to Rule #1 !
7. Violators of these rules shall be branded “pirates” and stripped of any awards.

The Awards

- 🚢 Fastest Boat
- 🚢 Prettiest / Most Creative Boat Design
- 🚢 Largest Crew
- 🚢 Most Spirited Crew
- 🚢 Most Spectacular Sinking (If any boats sink?!)

Cardboard Boat Construction Tips

The first ingredient in cardboard boat building is creativity. The second important ingredient is problem solving. Then there is cardboard, of course -- and it has to be corrugated. Corrugated cardboard is available from furniture and appliance dealers, and recycling bins.

- 🚢 Research different boat hull designs and the theory of buoyancy. Maybe you want to build the fastest seaworthy craft at the Regatta. Or just maybe you want to collect style points or take home the award for the most spectacular sinking!
- 🚢 Choose a design and plan what you want your cardboard dream boat to look like (or wing it)!
- 🚢 Build a model using a manila folder or other heavy paper or lightweight cardboard. Try out your design idea in small scale before working on a full-sized creation.
- 🚢 If you want, you can toss in a little physics or other sciences. Maybe you will choose to calculate the displacement of your design idea so that you will have some certainty about the buoyancy of your design. Here's the basic formula: a cubic foot of water weighs about 62 pounds. That means that a 180-pound man will float in a boat that is 1 foot by 1 foot by 3 feet -- of course, that could be a bit uncomfortable! But at least you would know just how much boat you will need for you (and your crew) so you don't over-design it and add unnecessary weight.
- 🚢 Now, go full-scale . . . but first, think about this: make sure your creation will be able to get out the door of wherever you choose to build it!
- 🚢 Build the bottom of the boat first.
- 🚢 Cut/fold the side pieces. Cut against the grain of the corrugated cardboard to ensure durability. To make a fold, use the dull side of a utility knife or other rounded edge tool

when scoring. This makes it easier to bend pieces into the proper shape. More folding, less cutting helps!

- 🚢 Glue the sides to the bottom. Let the glue set.
- 🚢 Carefully cover any seam with tape. Duct tape works well.
- 🚢 Waterproof the inside and outside with a single substance compound. (Use a simple glue – no two-part epoxy glues.)
- 🚢 Paint and decorate the boat!
- 🚢 Don't forget to design a propulsion/paddle system that works for you.

Handling cardboard

You will find it easier and more fun to build your cardboard dream boat if you keep in mind a few tips:

- 🚢 You can have strength and still keep your boat light if you laminate layers of cardboard. Try placing one layer so that the corrugations run in one direction, then placing the second layer so that the corrugations run at a 90-degree angle to the first layer.
- 🚢 Don't step on your cardboard! If you break the corrugations -- well, think about it.
- 🚢 To keep your cardboard dry, don't forget to seal the edges. If water gets into your corrugations, you can have great fun watching it get drawn through the corrugation just like in a drinking straw. That may be okay when you have time to do something about it, but if you see this happen in the middle of a race . . . !!

Even more things to think about when constructing your cardboard dream boat...

- 🚢 A flat bottom is recommended. A V-shaped bottom is likely to tip over unless the V is very gentle.
- 🚢 The lowest center of gravity is the most stable; kneeling or standing will cause you to tip over.
- 🚢 Longer boats go faster, but they are harder to turn.
- 🚢 Boats shorter than 10 feet are difficult to steer.
- 🚢 For height, allow about 18 inches for you to sit and paddle effectively without the edge of your boat blocking your arms.
- 🚢 For width, figure about 18 inches for a kayak, about 23-24 inches for a canoe. Figure about 30 inches maximum for 1 person, 48 inches for two people.
- 🚢 Have fun (See The Rules - #1)! Be creative! If you can dream it, you can do it!

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And remember...

YOU ARE RESPONSIBLE FOR HAULING YOUR BOAT OUT
OF THE WATER AND TO THE DUMPSTER!