

Honors Program Cardboard Regatta

What - a fun boat race on the Sandy River in a boat you and your team construct out of cardboard.

When - Saturday September 14, rain or shine. A light BBQ and boat design prizes will follow the race.

Where - Deliver your boats by 10am to Front Street in Farmington. There is a dirt parking lot next to the athletic field. Boats will be judged, and launch will be at the trestle on the far side of the athletic fields.

Who - all UMF Honors students, faculty and staff. Registration deadline is September 12.

**University risk waivers must be signed prior to event*

Rules and Information

Boat Design and Construction Requirements

1. Only corrugated cardboard may be used. It can be of any thickness.
2. No material such as Styrofoam or rubber inflation devices may be used to provide "buoyancy" or maintain flotation. Violators will be branded "Pirates" and stripped of any trophies.
3. The Boats may be painted (this is encouraged to be more creative).
4. For environmental reasons, hulls are not to be coated in tar, oil-based paints, vinyl, plastic coating, shrink wrap, or fiberglass resin.
5. Joints and seams may be glued and/or taped. Duct tape, contact cement, rubber cement, or construction adhesive may be used.
6. No nails or metal or wood fasteners or staples may be used in the construction of the boat (small amounts may be used for decoration only in areas above the water line).
7. Boats may be of any width, length or height. (Be creative)

8. Decorations may be made from any material but may not be used to reinforce the actual structure of the boat. That also must not aid in the flotation or propulsion of the boat and do not create a fire or safety hazard.

9. All boats need to be able to be carried in the parade of boats prior to the race and from the judging area to the designated starting bank on the Sandy River.

Keep it light, or have many teammates to assist!

10. Boat design is left to the builders. Let your imagination take over; make your boat look like a race car, flying saucer, dragon, etc. Crew costumes are encouraged.

11. Paddles must meet the same construction requirements as the boats (cardboard, glue, and duct tape only) Boats must be propelled by the use of a paddle and/or hands. No artificial paddles are allowed

****Note** Boats are subject to inspection and disqualification by Race Officials.**

Crew Requirements

1. Teams may be of any number (the more the merrier). All Teams must be officially registered by **September 12, 2019**.

2. Only 1 chosen "Captain" can sail in the race.

3. Teams are encouraged to vie for the Team Spirit Award, coming out in regalia to go along with the theme of their boat entry. (Think T-shirts, pirate costumes, etc.)

4. No boat will be allowed to leave the starting gate unless all persons on board are wearing a personal flotation device (life vest) as well as hard soled, close toed shoes.

5. Up to 2 teammates who are not in the boat may help push the boat away from the starting line.

6. All Teams must ensure that their area has been cleaned prior to departure on Regatta day. All boats and materials must be removed from the site or cut apart and placed in available trash containers.

The Race Course

1. The course will entail on “out and back” circuit from the marked starting bank around the designated area in the Sandy River and back to the starting bank.
2. Contestants may choose their path to circle the marker and how close to the marker they wish to travel in their out and back heat.
3. Dependent upon the number of entries, there will be Heats of Four Boats completing the course circuit at any one time.
4. Boat Captains may not intentionally ram another boat, or cause harm or sinkage due to intentionally splashing another boat, throwing water balloons, etc.
5. All remaining Boats (still capable after their heats) are invited to compete in the final race of the day... **The Pirate's Race!**

Awards

The Clipper Ship Award: Fastest Boat to run the course. (Based on your time from your Heats)

The Most Creative Award: Judges' choice on design and artistic elements

The Most Team Spirit Award: Judges' choice based on Teams' support of their entries' Theme

The Titanic Award: Judges' choice given to the most spectacular sinking

All Boats need to be in the judging area by 10 a.m.

Any rule not specifically covered above will be left to the discretion of the Judges

Boat Building Tips

The UMF Regatta!

Building a cardboard boat is all about trying to meet "The Challenge":

BUILD A PERSON-POWERED CARDBOARD BOAT THAT IS CAPABLE OF COMPLETING ONE TRIP AROUND THE 500-YARD COURSE ON the Sandy River.

Along the way, you will enjoy encountering and dealing with many small details. But look ahead to the satisfaction of knowing you accomplished something that most people won't even try -- building a boat made of corrugated cardboard.

First things first . . . start with some objective in mind. Maybe you want to build the fastest boat at the Regatta. Perhaps you are more interested in one of the Judges Awards for design or eye appeal. Maybe you want to win the Team Spirit Award. Perhaps you want to get on television or be the featured photo in the Student newspaper. Or just maybe you want to take home the Titanic Award for the most spectacular sinking.

Next . . . start with a design idea, a vision of what you want your cardboard creation to look like. But consider this first - it doesn't have to be a boat at all! It can be any design you like or want to try out. Some races have had replicas of jeeps, exotic cars, full-scale pickup trucks, school buses, fire trucks, and other vehicles. We've seen space shuttles, Elvis on his guitar, beds, foldout soft drink cans, personal computers (with a mouse that trailed in the water), a raft with a trailing shark fin, a floating outhouse, a taco, a bratwurst, a giant Tootsie Roll, Tessie the Loch Ness Monster, Deidra the Dragonfly, the Statue of Liberty hand (from "Planet of the Apes"), and so much more. Oh, sure, we've had lots of boats too: submarines, aircraft carriers, PT boats, lake freighters, pirate ships, the Exxon Valdez (with simulated oil slick), and so on.

Try this to save time . . . build a model using a manila folder or other heavy paper or lightweight cardboard. That way, you can fold, re-fold, and fold again to your heart's content. You can cut it up, glue it together, and try out your design idea in small scale before working on a full-sized creation. Or you can throw out an idea that sounded great, but just won't work, then try something else before you have wasted any cardboard.

How about a little science? 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 number: 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 overdesign it and add unnecessary weight.

Then again, how about some art? Perhaps you have a really creative idea, maybe something that nobody has done before. Unless you get your kicks from putting in lots of hours and making discoveries along the way -- hey, sometimes that can be great fun -- you may want to at least try out that unique or innovative idea in model form. If you want to put a palm tree in the middle of your "desert island," be sure you won't make the whole thing top-heavy -- unless, of course, you are trying for the Titanic Award.

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. There are many tales of woe about boats that had to be dismantled -- or even trashed and rebuilt -- just because no one thought about the size of the boat and the size of the door. Also think of how you are going to transport it to Campus for the Race.

Where to get cardboard? This is a scavenger hunt as well as a boat race... You might get cardboard from appliance stores. The shipping boxes for refrigerators and big freezers can be good possibilities. Maybe you can get boxes for TVs, bedding, bookcases, or other furniture. Of course, you can also use smaller sheets and glue them or fasten them together. We are also collecting some cardboard at Honors, so once your team is registered, please contact Lisa Gallant lisagall@maine.edu if you need some.

Where to get the Duct Tape? As this can be quite expensive, we will be distributing rolls of tape to the Registered Teams.

Creative problem-solving is the name of the game. Whether you get your creative insights from methodical effort or from wide-ranging trial-and-error, building a cardboard boat can be -- no, make that, will be -- both fun and challenging.

FYI -- there are no plans, no pre-set designs, no step-by-step instructions here . . . no recipe cards, no fill-in-the-blank formats. 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.

Hey, maybe you are more the "wing it" type -- okay, get some cardboard, fold it a little, cut out any excess here and there, add a little glue or duct tape, maybe some paint or water sealant, and presto-chango, you have a boat for the Regatta.

Let's see, other materials . . . you can use glue and tape. You can use paint and water sealant and other stuff. But first, take a look at "The Rules" to find a short list of substances that are not to be used. We're not trying to make it tough on you, but we are steering you away from stuff that is toxic, either for you or for the environment.

Handling cardboard -- you will find it easier and more fun if you keep in mind a few tips.

- You can have strength and still keep your boat light if you laminate layers of cardboard. In fact, 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.
- To fold cardboard across the corrugations, consider scoring the line of the fold with the butt end of your utility knife or other rounded edge of a tool.
- 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 with caulk or silicone. 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!

Here's a bunch of other items to think about.

- 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 30 inches maximum for 1 person, 48 inches for two people.
- Paint all the surfaces before gluing, caulk the edges, then glue (carpenter's glue works great).
- Avoid oil-based stains, caulk, and glue because the oil soaks into the cardboard, may never dry, and this weakens the cardboard.
- Duct tape shrinks when it is painted.
- Clear tape melts when it is painted.
- Reinforced paper tape works well over caulked edges and seams.
- Forget about "glue guns" because that type of glue melts on hot days.

Hey, some of the fun is in the discovery. So that's it for tips. Now go for it! Keep in mind the other lessons you learn along the way. That will make building your next boat just that much easier.

Have fun! Be creative! If you can dream it, you can do it!