

The Boat:

must fit into a 30 cm sizing cube at all times during the event. The hull of the boat must be student-made using common hobby materials such as paper, metal foil, thin plastic, or wood. It is not acceptable to use a ready-made toy or a kit for this challenge. A 3-D printed hull is allowed provided teams provide photos to verify that they did the work themselves. The judges reserve the right to veto any design that they deem counter to the spirit of the rules. Check in advance if you are unsure.

The boat is to be powered by a small battery powered propeller. To ensure a level playing field, each team will be provided with a single brand new propeller at the time of the event. The propeller is about 15 cm long in total and the cylindrical part has a radius of about 1cm. Only this propeller can be used to move the boat. After receiving the propeller, the teams will have 5 minutes to attach it to their hull prior to the race.



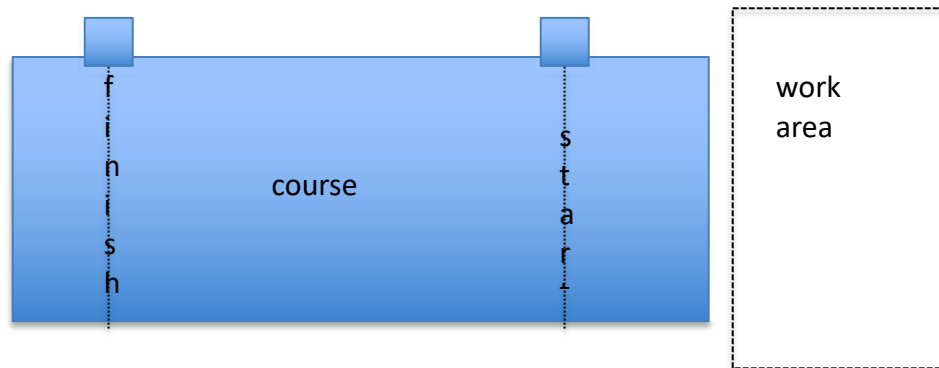
The course....

is in an artificial pond 14 ft long by 4 ft wide by 4 in deep (measurements accurate to within +/- 1 inch). Timing beams will be placed 3 ft from each end to make a 8 ft long course (measurements accurate to within +/- 1 inch). The boat must have a flag (suggestion: at least 5cm by 5 cm - stiff opaque plastic) that extends above the water to break the timing laser beams (which are located 10 +/- 2 cm above the water's surface).

The race....

At the start of the event, teams will be given one new boat propeller with fresh batteries. Team will have 5 minutes to attach this propeller to their boat. This propeller is to be the only source of power for the boat. The entire boat is to be released entirely behind the start line. It may not be touched after this, and must travel the course "on its own". Boats are allowed to touch the side of the course but not the bottom. Timing will begin and end when

the flag breaks the timing laser beams. It is the responsibility of the team to ensure that the flag breaks the timing beam before any other part of the boat. The score for this event will be based on the time to complete the course. Boats that do not complete the course will be given a certain minimum participation score. Teams will be allowed two trials, the better time will count. If a boat becomes stuck, that counts as a trial. Teams will have 5 minutes between trials to make modifications. The teams will be allowed to operate only in an area behind the start line as shown on the layout below.



The fine print....

The judges reserve the right to veto any design that they deem counter to the spirit of the rules and their decisions will be final. Please ask them *in advance* for clarification or adjudication in order to avoid disappointment on event day.