MARINE INSTITUTE

# MODEL BOAT RACE

**BUILD IT. RACE IT.**

# Design & Construction Tips

MARINE INSTITUTE

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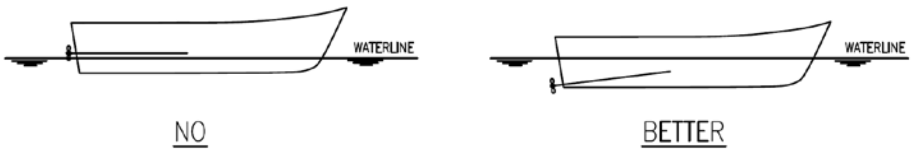
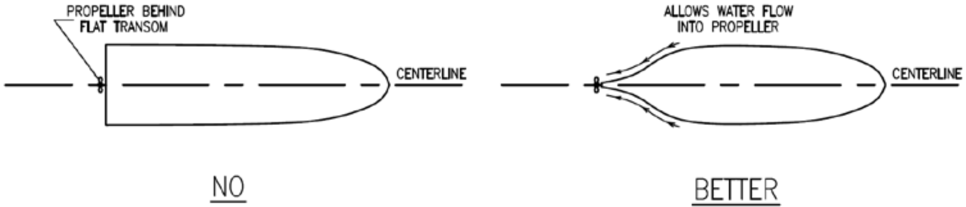
# Model Boat Design and Construction Tips

1. Test float your boat to ensure the hull is watertight. Ensure the propeller is fully submerged in the water (add ballast to your boat if it is not).



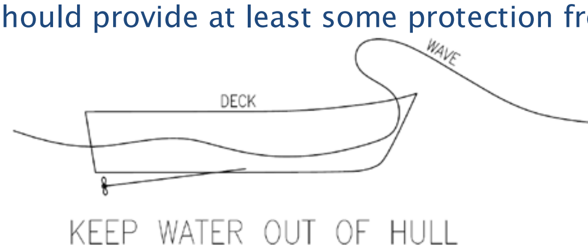

2. Ensure a good flow of water into the propeller. Placing the propeller directly behind the transom of your boat will starve the prop of water when you boat starts moving, especially at higher speeds.




3. Do not 'rake' (angle) the propeller shaft at too high an angle from the waterline. This will cause a large portion of the thrust from the prop to lift the stern of the boat rather than push the boat forward.


4. Place the rudder behind the propeller. The effectiveness of the rudder increases with the speed of water over the rudder. Have the turning axis of the runner in line with the propeller.


5. Try to keep water from entering the hull through the deck. The deck does not have to be completely watertight but it should provide at least some protection from water filling the hull.



# Model Designs from Previous Competitions