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Catching Air With Hovercrafts

The question posed was - How would different shapes effect controlling a hovercraft (rectangular, oval and circular)? The same lift and steering mechanisms on all three different shapes were used. The hypothesis stated that the rectangular hovercraft would be the best since it is the design most seen in use. The tests were carried out on the same surface and the battery was fully charged each time a hovercraft was tested. Styrofoam was used for the body of the hovercraft since it is easy to cut into a desired shape and easier to mount the lift and steering components. These components were placed in the center of the Styrofoam. Sturdy wire coat hangers were bent to mimic the shape desired. A lightweight motor was used and parts from an RC airplane were used for the steering mechanism. The battery was placed in a hole in the foam. The data resulted in forming a conclusion that the square hovercraft performed the best. And to make a great hovercraft, lift motors that rotate in opposite directions are needed.