

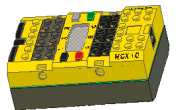
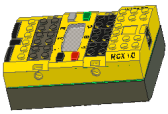
Instructors Guide to:

Slalom Boating

A great beginning exercise to introduce programming. This exercise could also serve as an introduction to using motors and the RCX.

Introduce the LEGO RCX and motors. Explain how the computer, RCX, and LEGO motors communicate with each other. If the students haven't been introduced to programming, some sort of introduction will be required.

You will need a large body of water (pool, pond, lake, etc) for the students to test their designs in. You will also need some sort of anchored buoys (styrofoam anchored with a brick or similar) to create a slalom course for the boats to maneuver in and out of.



In the Classroom:

Grade Level: K-8

Building Skills: Design

Time: 45 min

Programming Skills: Motors

Slalom Boating

This activity introduces the concepts of buoyancy along with some LEGO building basics.

Challenge

Build a LEGO™ “boat” with two motors that will maneuver through a slalom buoy course. The boats can be tethered to the RCX, or, if the pelican RCX cases are available the boats can be autonomous (untethered).

Materials

LEGO™ pieces, RCX, motors.
Styrofoam strips to help the boats float
Propellers (modified hobby shop propellers with LEGO axles)

Skills Learned

Programming, Design, Building

Lego Tips

Snapping the LEGO bricks outside of the water traps air inside them. Likewise if the LEGOs are wet water may get trapped inside them reducing their buoyancy.