Day 1: Building Your Robocar

(1 of 6 of the Robotics Club Module)

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# Summary

Students learn about and analyze self-driving cars, using Google’s self-driving car as a starting point. After that, students follow directions to assemble and test simple Lego NXT robocar that will be used in the later activities.

# Engineering Connection

An area of focus for many engineers currently is building cars that drive themselves without any human intervention. Self-driving cars have many uses, such as providing increased mobility for handicapped people, providing people with more free time by allowing them to work on other things instead of driving while travelling to a destination, and lastly reducing traffic accidents caused by human error. However, the risk of malfunctions in the self-driving car creates a danger also.

# Grade Level

4-6

# Duration

60 minutes

# Cost Per Group

$0

# Materials List

Each group needs:

* Lego NXT robot - $279
* A computer with the Lego NXT software installed

To Be Shared By Everyone:

* A projector or something similar for displaying the presentation slides.

# Learning Objectives

After this activity, students should be able to:

* Think about how they solved a problem
* Follow step-by-step directions to assemble a product
* work with a technology design
* apply their understanding about science and technology
* Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

# Procedure

Before the Activity:

* Notify parents of time for them to coming visiting for the last 30 minutes of day 6 so they can see what their children have done. This really be done any time before day 6 but it is good to give the parents more advanced notice.
* Install the Lego NXT software on all the computers

For the activity:

* The procedure of the lesson, including assessments, is embedded in the presentation slides. See the slides and slide notes for more.