

LEGO Robotics

using Orvis by H M Hoover

Orvis was a robot who could think for himself, make his own decisions and even had feelings. In today's world, robots have to be told exactly what to do before they can do anything. They can't think or feel, they can only follow exact directions, and if we get those directions wrong, they don't do what we want them to do.

LEGO Mindstorms robotics is a system that allows students from lower elementary through college level to develop programs and build robots using LEGO parts and a programmable "brick". It is a system designed to be open-ended and exploratory in nature rather than directed and close-ended. Students are given a task to accomplish and a kit, and are then allowed to build and program a robot to accomplish that task after receiving some basic instruction.

Trial and error are a part of the process, as the setting and testing of hypotheses integral to the scientific process evolve naturally. Test probes for light intensity, electrical current, pH and distance are available and can be integrated into the Investigator mode. These can easily be related to Orvis and his efforts to help the children by setting the task to mirror the book. Students can then see how difficult it can be to program even the simplest tasks and just how complex everyday tasks that humans perform are.