Bill Number: HB 78a   **50th Legislature, 2nd Session, 2012**

Tracking Number: .188463.1

Short Title: International Robot Competition

Sponsor(s): Representative James E. Smith and Others

Analyst: James Ball   **Date: February 5, 2012**

AS AMENDED

The House Education Committee amendments:

- **change the recipient of the appropriation from the Public Education Department to the Board of Regents of Eastern New Mexico University; and**
- **provide that the appropriation is to fund the robot competition program, not to manage it.**

Original Bill Summary:

HB 78 makes an appropriation for the management of a year-long program to prepare teams of students in grades 3 to 12, together with their teachers, to design, build, program, and test autonomous robots and to produce an international robot competition.

Fiscal Impact:

$200,000 is appropriated from the General Fund to the Public Education Department (PED) for FY 13. Unexpended or unencumbered funds revert to the General Fund.

Substantive Issues:

According to PED's analysis of a related bill (HB 58), by participating in this robotics program, students will have contextual and applied learning experiences in mathematics, science, and language arts, which will enhance their learning and promote higher scores in those areas on the New Mexico Standards-based Assessment.

Background:

PED also notes in a related bill analysis that Carnegie Mellon University's Robotics Academy finds that the use of robotics education supports STEM (Science, Technology, Engineering, and Mathematics) education as well as language skills. Teachers report that robot competitions effectively engage students of all academic levels, but especially disengaged students and those who struggle in school.

PED further states that a study by Brandies University comparing students engaged in contextual learning programs, such as robotics, to students with comparable backgrounds and achievement levels in high school math and science, finds that students engaged in contextual learning programs are:

- significantly more likely to attend college;
- twice as likely to major in science and engineering;
- ten times more likely to have had an apprenticeship or internship in their college freshman year; and
- more than twice as likely to expect to have a science- or technology-related career after college.

Related Bills:

HB 58 *Native American Student/Teacher Training*
SB 44a *International Robot Competition*