



# 2012 Camp Innovation MOANALUA



**"Creativity is thinking up new things. Innovation is doing new things."**

Theodore Levitt

## Why robots and robotics?

Engineering and technology are everywhere. They give shape to our world. Engineers have a hand in designing, creating, or modifying nearly everything we touch, wear, eat, see, and hear in our daily lives. Their innovations fuel economic growth, fortify national security systems, improve healthcare, and safeguard the environment. An engineering and technology education starts with a creative child's first lesson in science or math. With U.S. science and math learning in decline and technology increasingly driving global change, the job of delivering this education is harder, but more important, than ever. A new generation of engineers is needed, a generation that reflects the vast potential and rich diversity of the new American workforce, a generation that will keep America's science and technology enterprise hitting on all cylinders, and a generation that will chart new paths of learning and discovery in the ongoing American endeavor of improving conditions of life for the country and the world.

*- Engineering in the K-12 Classroom, An Analysis of Current Practices & Guidelines for the Future, The American Society for Engineering Education (November 2004).*

- It is not about building robots but building critical life skills....teamwork, problem solving, time management, effective communication.
- It is about raising the bar and expectations for our students through competitions, and providing a measurable standard.
- It is about catalyzing interest in STEM (Science, Technology, Engineering, & Mathematics) career paths....it is about developing a work force for the 21st century.
- It is about making abstract concepts concrete, making learning relevant and engaging.
- It is about innovation needed to solve global issues.
- It is about "gracious professionalism," helping and collaborating on a global scale.

Art Kimura

**Camp Innovation** is a 5 day, 4 hour per day experience in which students design, build and test various technology applications including robots and other devices. Students will be introduced to programming and robotics as tools in solving problems and challenges using a VEX robotics kit, which uses a computer programming language called Easy C and Owi robotics which uses a binary color code programming system.

## Camp Information:

<b>Dates:</b>	<b>Tuesday, July 17th – Saturday, July 21st</b>
<b>Time:</b>	<b>8:15 a.m. - 12:15 p.m.</b>
<b>Location:</b>	<b>Moanalua Middle School (Library, room B-3)</b>
<b>Demonstration Day:</b>	<b>Saturday, July 21st (Family &amp; Friends welcome)</b>
<b>Eligibility:</b>	<b>Students who have completed grades 4, 5, 6, or 7 (as of May 24th, 2012)</b>
<b>Tuition:</b>	<b>\$160 (includes t-shirt and take home Titan robotics kit)</b>
<b>Deadline:</b>	<b>June 29, 2012</b>

**Enrollment Information** Enrollment presently being accepted. A penalty fee will be assessed for returned checks. Reservations are confirmed on a first come, first served basis until all spaces are filled; subsequent enrollees will be placed on a waiting list. **No substitutions are allowed.** No new confirmations will be made within 2 weeks of the session start date. Upon receipt of the Enrollment Form and tuition check, applicants will be sent a confirmation along with additional forms and information applicable to the program. **Enrollment Form and tuition check may be dropped off at the Moanalua Middle School front office (1289 Mahiole Street, Honolulu, Hawaii 96819) with checks payable to: Moanalua Middle School.** For further information, please contact David Arakaki at [david\\_arakaki@notes.k12.hi.us](mailto:david_arakaki@notes.k12.hi.us) or 831-7850.

**Refund Policy:** A cancellation fee of \$75.00 will be assessed for all registration cancellations if **written** notice is received three or more weeks before the first day of the session (if less than three weeks, the full tuition will be forfeited). There will be no partial or full refunds due to partial or full non-participation by the student due to illness or injury, voluntary withdrawal, or for any changes in program activities caused by circumstances beyond the control of the Moanalua Middle School Robotics Team. A penalty fee will be assessed for returned checks