

**GOVERNOR LINDA LINGLE'S REMARKS
REAL WORLD DESIGN CHALLENGE KICK-OFF**

October 8, 2008

Aloha everyone.

It's always great to have you here. I'm pleased that so many people have come from so many different sectors in the community and many of you Ted (Liu) has mentioned. I'd like to recognize our partner at BAE Systems, Alan Hayashi, and all the great things they have done for us in the area of STEM education. Jeff Bloom and his team have worked so hard in this area of education and now in energy.

This concept that Ted mentioned about investment is important especially in these days as people are focused on the lack of investment. This "hunkering down" concept that he mentioned, and of course, we need to be doing the opposite especially as we're looking down the road long-term. If we're looking for a good future for students across the state, this is the time to invest – right now and in a big way.

This Real World Design Challenge that we're going to talk about today invests generously both in our students and in our teachers. It is a very fascinating program.

I want to thank the partners – the U.S. Department of Energy, the FAA, Parametric Technology Corporation, Flomerics Incorporated, Hewitt Packard, Cessna, Boeing, here locally, our Department of Education and DBEDT's Office of Aerospace Development.

This concept of a Real World Design Challenge is an important one because young people today are much more hands-on. To get a student to just sit down and recite something back to a teacher, or read a chapter in a book, or follow something written out on the board doesn't hold their interest, because they've grown up with interactive education. They've grown up with video games, they've grown up with computers and they expect to be challenged in a different way.

This Real World Design Challenge is that kind of hands-on experience learning that we've been trying to promote through robotics and through STEM.

I'm very excited that there were 10 states that were chosen to be founding states in this Real World Design Challenge and we were one of them. I thank whoever it was who had a lot of influence over that. Thanks Ralph (Coppola, national coordinator, RWDC). Ralph's going to talk a bit later about the details of it.

It really is an honor for us and it validates the road that we're on. It also helps us to highlight to the people of the state why this kind of learning is so important for our students over the long-term, and indeed, for the well-being of Hawai'i's economy for decades to come.

I know there are members of our Robotics Organizing Committee who are here today and they can speak to the success that we've been having in the area of robotics and its expansion in our schools.

Today, there are 209 robotics programs throughout the state. When I gave my State of the State speech in January, there were only 95 programs. Now there are 209. This committee can also speak to how robotics education develops skills students need to be good members of our workforce in the future.

It was just last March that we held the *FIRST* Robotics Regional Competition in Hawai'i. Seems like such a long time ago in many ways, but that regional has been funded through a grant from NASA through 2011 and with the generous support of BAE and others, not just for these next couple of years, but long-term for us moving forward to be able to make certain that this program outlives any particular administration.

Robotics and Real World Design Challenge have several parallels in that they both encourage hands-on learning, teamwork, problem solving, analytical thinking and, of course, STEM skills.

Also what I've found in these programs in watching them close-up, whether it was our students here, or when I got to go to the National Robotics Championships in Atlanta, is that these programs give students a new sense of confidence that you just can't get from reading a book or taking a test and repeating things back. This is actually doing something, building something, making it work, watching it work, having a problem with it and then solving the problem and moving forward. I don't think just book learning can give a student the same kind of confidence that this sort of hands-on effort can give them. It also inspires the students to think about different career options. Options they probably hadn't even thought of before because they didn't know that they existed.

Another important parallel between the robotics programs and this Real World Design Challenge is that there are mentors from the community, from science and engineering communities, to help these teams to understand and deal with the technical challenges that they face. They serve as mentors, cheerleaders for these young people. Having mentors is essential to the success of both programs. I'm excited that mentors from the Department of Energy, FAA and private industry are part of the Real World Design Challenge.

I'm assuming that Ralph is going to explain the specific challenge that the students are going to face, so I'm going to let him do that; but I want to say that this focus on the aerospace industry compliments our Hawai'i Innovation Initiative, leading to a diversification of our economy and increasing our capacity to compete both nationally and globally. It also takes advantage of our science and technology resources and capabilities such as UH Mānoa's Institute for Astronomy, the telescopes at Mauna Kea and Haleakala.

Our Administration is working to facilitate the creation of a strategic niche in the aerospace industry. In 2007, I signed a bill establishing the Office of Aerospace Development within DBEDT. I also was a part of the first-ever agreement between NASA-Aimes Research Center and our state government.

This is a part of a long-term vision that many have had for many years – about aviation and aerospace being a part of our future.

The Real World Design Challenge will help us to realize this vision. By enabling local teachers to expand the pipeline of students' STEM skills, they are helping us to build a technically-proficient workforce.

This cross-sector collaboration is exactly what we need as we invest in our most valuable resource – Hawai'i's students. I look forward to seeing our teams' achievements in the year ahead and I have no doubt that our teams here in Hawai'i will do quite well.

Our good friend Dean Kamen, the founder of *FIRST* robotics and an innovator and an inventor often says “as a culture, we get what we celebrate.”

Well, it's time to celebrate STEM achievers. The competitive aspect of *FIRST* and the Real World Design Challenge does just that. It generates the same kind of excitement that you see at more traditional varsity sporting events and our entire state benefits both in the immediate and the long-term.