HOUSE OF REPRESENTATIVES
TWENTY-FIFTH LEGISLATURE, 2009
STATE OF HAWAII

H.R. NO. 199

HOUSE RESOLUTION

ENCOURAGING THE UNIVERSITY OF HAWAII COLLEGE OF ENGINEERING TO CREATE AN UNDERGRADUATE CERTIFICATE OF ROBOTICS AND EXPLORATION PROGRAM.

WHEREAS, the Legislature adopted Concurrent Resolution No. 131, S.D. 1 (2004) to develop, support, promote, expand, and sustain existing robotics education in Hawaii's schools to encourage students to study science and mathematics; and

WHEREAS, robotics is the practicable application of theories learned from books, calculators, and term papers that enables students to see learned concepts in action; and

WHEREAS, robotics introduces science and mathematics to children with a wide range of ability levels, including those in underserved and underrepresented communities; and

WHEREAS, the Robotics Organizing Committee, is a dedicated volunteer organization that develops, coordinates, and supports robotics education in schools across the State, with the current membership from six robotics programs; including Dr. Song K. Choi (VEX Robotics), Sara Tamayose and Aaron Dengler (FIRST Lego League), Art Kimura (Botball), Alexander Ho (FIRST Robotics), Mark Rongstad and Cindy Fong (Underwater ROV), and Eric Hagiwara and Dale Olive (Micro Robotics); and

WHEREAS, the Robotics Organizing Committee is assisted by state government and local businesses and enjoys widespread community support from teachers, parents, mentors, and other volunteers who generously devote their time and expertise; and

WHEREAS, enthusiasm for robotics education has grown and is embraced by students across the State in all grade levels, and its popularity is demonstrated by the increased availability of programs in Hawaii's primary, middle, and high schools, which grew from ninety-five teams in January 2008 to over three hundred just a year later; and

WHEREAS, robotics education stimulates interest in science and math that is needed in our country to motivate students to pursue careers in science, technology, and engineering; and

WHEREAS, the energy and excitement that comes from hands-on learning experience with robotics transforms theories into working models and generates a thirst for knowledge in science and math to ultimately motivate students to highly-skilled and high-paying jobs in robotics, electronics, engineering and other careers; and

WHEREAS, as students work toward these careers through robotics education, they will also develop critical thinking, team work, and problem-solving skills to allow them to compete globally; and

WHEREAS, the Hawaii Botball regional tournament is the largest in the United States, with forty-two participating teams consisting of over four hundred students, teachers, and mentors; and

WHEREAS, younger students in the FIRST LEGO League build and program robots and prepare presentations on their design and construction, with the objectives typically centered around global challenges; and

WHEREAS, Hawaii has hosted national, Pan-Pacific, and international events, that provide young students with action-packed tournaments and competition from the mainland and other countries; and

WHEREAS, local high school students have earned the privilege of competing in national and international robotics championships, having successfully created and built innovatively designed robots that have caught the imagination of other students; and

WHEREAS, Hawaii students participating in robotics have received fully paid NASA internships at NASA Robotics Academies and are eligible to apply for college scholarships sponsored by corporations and other entities; and

WHEREAS, the robotics aptitude and academic abilities of Hawaii's students have impressed prominent scientific

professionals, for example, in a 2008 tournament, in Nagoya, Japan, Hawaii high school students placed second against university students and were invited by the President of the California Institute of Technology to participate in an intensive summer mathematics and science program at the university; and

WHEREAS, competition is thrilling, and students with little previous interest in robotics are now realizing that a career in science, technology, engineering, or mathematics is not only possible, but satisfying as well; and

WHEREAS, the wave of enthusiasm surrounding robotics is encouraging and great news for the United States, especially with the tremendous need for engineers in this country; and

WHEREAS, developing young peoples' capacity for innovation through robotics education trains them to adapt to the changing times and ensures a bright future for the State; now, therefore,

BE IT RESOLVED by the House of Representatives of the Twenty-fifth Legislature of the State of Hawaii, Regular Session of 2009, that the Legislature encourages the College of Engineering of the University of Hawaii to create an undergraduate certificate program for robotics and exploration, so that Hawaii's young people may continue their education and training in this field; and

BE IT FURTHER RESOLVED that the College of Engineering is requested to work with the Vice Chancellor for Academic Affairs at the University of Hawaii at Manoa to ensure that the certification program is in compliance with the university's academic standards and accreditation policies; and

BE IT FURTHER RESOLVED that the University of Hawaii is requested to submit a progress report on the development of the robotics and exploration certificate program to this body no later than twenty days prior to the convening of the Regular Session of 2010; and

BE IT FURTHER RESOLVED that certified copies of this Resolution be transmitted to the President of the University of Hawaii, the Chairperson of the Board of Regents of the University of Hawaii, the Chancellor and Vice Chancellor for

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Academic Affairs of the University of Hawaii at Manoa, and the Dean of the University of Hawaii College of Engineering.

OFFERED BY: Della Au Belatti