

MAR 18 2009

SENATE RESOLUTION

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

1 WHEREAS, the Legislature adopted Concurrent Resolution No.
2 131, S.D. 1 (2004) to develop, support, promote, expand, and
3 sustain existing robotics education in Hawaii's schools to
4 encourage students to study science and mathematics; and
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6 WHEREAS, robotics is the practicable application of
7 theories learned from books, calculators, and term papers that
8 enables students to see learned concepts in action; and
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10 WHEREAS, robotics introduces science and mathematics to
11 children with a wide range of ability levels, including those in
12 underserved and underrepresented communities; and
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14 WHEREAS, the Robotics Organizing Committee, is a dedicated
15 volunteer organization that develops, coordinates, and supports
16 robotics education in schools across the State, with the current
17 membership from six robotics programs; including Dr. Song K.
18 Choi (VEX Robotics), Sara Tamayose and Aaron Dengler (FIRST Lego
19 League), Art Kimura (Botball), Alexander Ho (FIRST Robotics),
20 Mark Rongstad and Cindy Fong (Underwater ROV), and Eric Hagiwara
21 and Dale Olive (Micro Robotics); and
22

23 WHEREAS, the Robotics Organizing Committee is assisted by
24 state government and local businesses and enjoys widespread
25 community support from teachers, parents, mentors, and other
26 volunteers who generously devote their time and expertise; and
27

28 WHEREAS, enthusiasm for robotics education has grown and is
29 embraced by students across the State in all grade levels, and
30 its popularity is demonstrated by the increased availability of
31 programs in Hawaii's primary, middle, and high schools, which
32 grew from ninety-five teams in January 2008 to over three
33 hundred just a year later; and
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1 WHEREAS, robotics education stimulates interest in science
2 and math that is needed in our country to motivate students to
3 pursue careers in science, technology, and engineering; and
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5 WHEREAS, the energy and excitement that comes from hands-on
6 learning experience with robotics transforms theories into
7 working models and generates a thirst for knowledge in science
8 and math to ultimately motivate students to highly-skilled and
9 high-paying jobs in robotics, electronics, engineering and other
10 careers; and
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12 WHEREAS, as students work toward these careers through
13 robotics education, they will also develop critical thinking,
14 team work, and problem-solving skills to allow them to compete
15 globally; and
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17 WHEREAS, the Hawaii Botball regional tournament is the
18 largest in the United States, with forty-two participating teams
19 consisting of over four hundred students, teachers, and mentors;
20 and
21

22 WHEREAS, younger students in the FIRST LEGO League build
23 and program robots and prepare presentations on their design and
24 construction, with the objectives typically centered around
25 global challenges; and
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27 WHEREAS, Hawaii has hosted national, Pan-Pacific, and
28 international events, that provide young students with action-
29 packed tournaments and competition from the mainland and other
30 countries; and
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32 WHEREAS, local high school students have earned the
33 privilege of competing in national and international robotics
34 championships, having successfully created and built
35 innovatively designed robots that have caught the imagination of
36 other students; and
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38 WHEREAS, Hawaii students participating in robotics have
39 received fully paid NASA internships at NASA Robotics Academies
40 and are eligible to apply for college scholarships sponsored by
41 corporations and other entities; and
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43 WHEREAS, the robotics aptitude and academic abilities of
44 Hawaii's students have impressed prominent scientific



1 professionals, for example, in a 2008 tournament, in Nagoya,
2 Japan, Hawaii high school students placed second against
3 university students and were invited by the President of the
4 California Institute of Technology to participate in an
5 intensive summer mathematics and science program at the
6 university; and
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8 WHEREAS, competition is thrilling, and students with little
9 previous interest in robotics are now realizing that a career in
10 science, technology, engineering, or mathematics is not only
11 possible, but satisfying as well; and
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13 WHEREAS, the wave of enthusiasm surrounding robotics is
14 encouraging and great news for the United States, especially
15 with the tremendous need for engineers in this country; and
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17 WHEREAS, developing young peoples' capacity for innovation
18 through robotics education trains them to adapt to the changing
19 times and ensures a bright future for the State; now, therefore,
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21 BE IT RESOLVED by the Senate of the Twenty-fifth
22 Legislature of the State of Hawaii, Regular Session of 2009,
23 that the Legislature encourages the College of Engineering of
24 the University of Hawaii to create an undergraduate certificate
25 program for robotics and exploration, so that Hawaii's young
26 people may continue their education and training in this field;
27 and
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29 BE IT FURTHER RESOLVED that the College of Engineering is
30 requested to work with the Vice Chancellor for Academic Affairs
31 at the University of Hawaii at Manoa to ensure that the
32 certification program is in compliance with the university's
33 academic standards and accreditation policies; and
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35 BE IT FURTHER RESOLVED that the University of Hawaii is
36 requested to submit a progress report on the development of the
37 robotics and exploration certificate program to this body no
38 later than twenty days prior to the convening of the Regular
39 Session of 2010; and
40

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



S.R. NO. **59**

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