
HOUSE CONCURRENT 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
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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
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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



1 grew from ninety-five teams in January 2008 to over three
2 hundred just a year later; and

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

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

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

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

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

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

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

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



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2 WHEREAS, the robotics aptitude and academic abilities of
3 Hawaii's students have impressed prominent scientific
4 professionals, for example, in a 2008 tournament, in Nagoya,
5 Japan, Hawaii high school students placed second against
6 university students and were invited by the President of the
7 California Institute of Technology to participate in an
8 intensive summer mathematics and science program at the
9 university; and

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

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

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

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

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

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



