Date: Mon, 09 Feb 2009 15:13:17 -1000   **LATE**
From: "Kevin Hopkins" <hopkins@hawaii.edu>   **Block Address**
Subject: **Fwd: Waiakea High School ROV challenge**
To: "Willliam Steiner" <steiner@hawaii.edu>, "Sharon Ziegler-Chong" <ziegler@hawaii.edu>

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Date: Mon, 09 Feb 2009 14:37:56 -1000
From: Dale_Olive/WAIAKEAH/HIDOE@notes.k12.hi.us
Subject: Waiakea High School ROV challenge
X-Originating-IP: [165.248.247.161]
To: reptsuji@capitol.hawaii.gov, Tom_Murphy/HILOH/HIDOE@notes.k12.hi.us,
 AlexHo@dbedt.hawaii.gov, kaiulani.desilva@heco.com, blaine.cacho@heco.com,
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 Kevin Hopkins <hopkins@hawaii.edu>
Cc: Robert_Dircks/HILOH/HIDOE@notes.k12.hi.us,
 Louann_Kimura/WAIAKEAH/HIDOE@notes.k12.hi.us,
 Valerie_Takata/HAWAIIDO/HIDOE@notes.k12.hi.us,
 Kelcy_Koga/WAIAKEAH/HIDOE@notes.k12.hi.us
X-VirusChecked: Checked
X-Env-Sender: Dale_Olive/WAIAKEAH/HIDOE@notes.k12.hi.us
X-StarScan-Version: 6.0.0; banners=-,-,-

Waiakea High School - Industrial, Technology and Engineering Academy ROV Challenge 2009

Aloha,

    You are invited to attend the Waiakea High School Industrial, Technology and Engineering Academy annual ROV invitational challenge. This year students have been working to build an ROV in only six weeks that can help the Pacific Aquaculture & Coastal Resource Center (http://pacrc.uhh.hawaii.edu/) run by Dr. Kevin Hopkins, professor of Aquaculture at the University of Hawaii at Hilo. Dr Hopkins helped Dale Olive, WHS academy chair, and robotics co-advisor Eric Hagiwara, to develop a real-world scenario based on needs at the facility. Four teams of students from the WHS engineering class, two from the WHS robotics team plus a team invited from Hilo High robotics will try to recover dip nets, simulated fish, PVC pipe, small rocks as well as inspect the sump pump located 45 feet from the edge of the tank in twelve feet of water. The winning ROV will be donated to the facility to assist them in doing these tasks when the contest is over. Students have twelve minutes to "drive" their ROV around with the aide of an underwater camera designed and built by each team. Scores for various tasks will be awarded and students will be required to explain how their ROV works to PACRC staff. Teams, as well as the public, will be able to watch what is going on underwater by the aide of a video feed from the ROV and from an underwater camera watching the event nearby. The engineering and robotic students are excited by the real-world challenge and have been learning how to waterproof ROV and cameras, how to wire motors and switches and how to engineer simple devices that can complete the tasks only seen by

camera under ten feet of water. They are also excited by the possibility of winning so they put down on a future resume that they helped to design an ROV used at a real research facility. Dr. Hopkins and the staff at PACRC have been very open and supportive of this connection between a public high school and the University of Hawaii at Hilo. Hopefully we can continue this kind of partnership, which is a win-win for both and maybe even expand it as a model for others to follow.

The contest will be held on Friday, February 20, 2009 at the PACRC located next to the pier in Keaukaha, Hilo starting at 2:00 pm and running till 4:30.

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