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# Press Releases

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May 8, 2015

JAMSTEC

KIMOTO ELECTRIC CO, LTD.

## **JAMSTEC Team Advances to Finals of \$2 Million Wendy Schmidt Ocean Health XPRIZE**

***Global Competition to Revolutionize Ocean pH Sensor Technology Heads to the Pacific Ocean for Deep Sea Testing***

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The Japan Agency for Marine-Earth Science and Technology (JAMSTEC: Asahiko Taira, President) today announced that a team led by Dr. Yoshiyuki Nakano, Marine Technology and Engineering Center (MARITEC) with engineers from KIMOTO ELECTRIC CO., LTD. (Takashi Kimoto, President) has been selected as a finalist for the \$2 Million Wendy Schmidt Ocean Health XPRIZE, a global competition to create pH sensor technology that will accurately measure ocean acidification. The HpHS Japanese team has developed a Hybrid pH Sensor (HpHS), which is a unique in situ pH sensor for long-term seawater pH monitoring, combining different methods for measurement that ensure stable pH measurements over a long period of time.

HpHS is the only team from Japan moving to the final round, along with teams representing England, the United States and Norway. Beginning on May 14 in Honolulu, the HpHS team will embark on a week-long deep sea trial to assess ocean pH values in the Pacific Ocean off the northern coast of Oahu, Hawaii.

To reach this point, teams had to successfully put their sensors through a three-month test in controlled laboratory conditions at the [Monterey Bay Aquarium Research Institute](#) last fall, followed by a month-long performance test in a coastal environment at the [Seattle Aquarium](#) this past February. The winners of the competition are scheduled to be announced in July 2015.

For more information about the Wendy Schmidt Ocean Health XPRIZE, please visit <http://oceanhealth.xprize.org/teams>.



Figure 1: Hybrid pH sensor

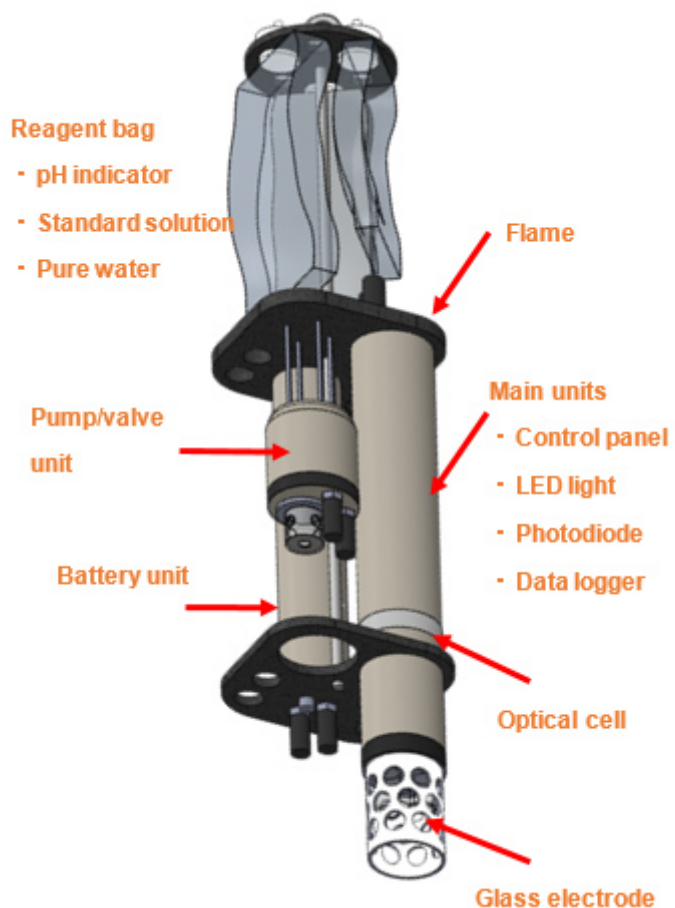


Figure 2: HpHS structure and configuration



Figure 3: The HpHS Japanese team from JAMSTEC and KIMOTO ELECTRIC CO., LTD.

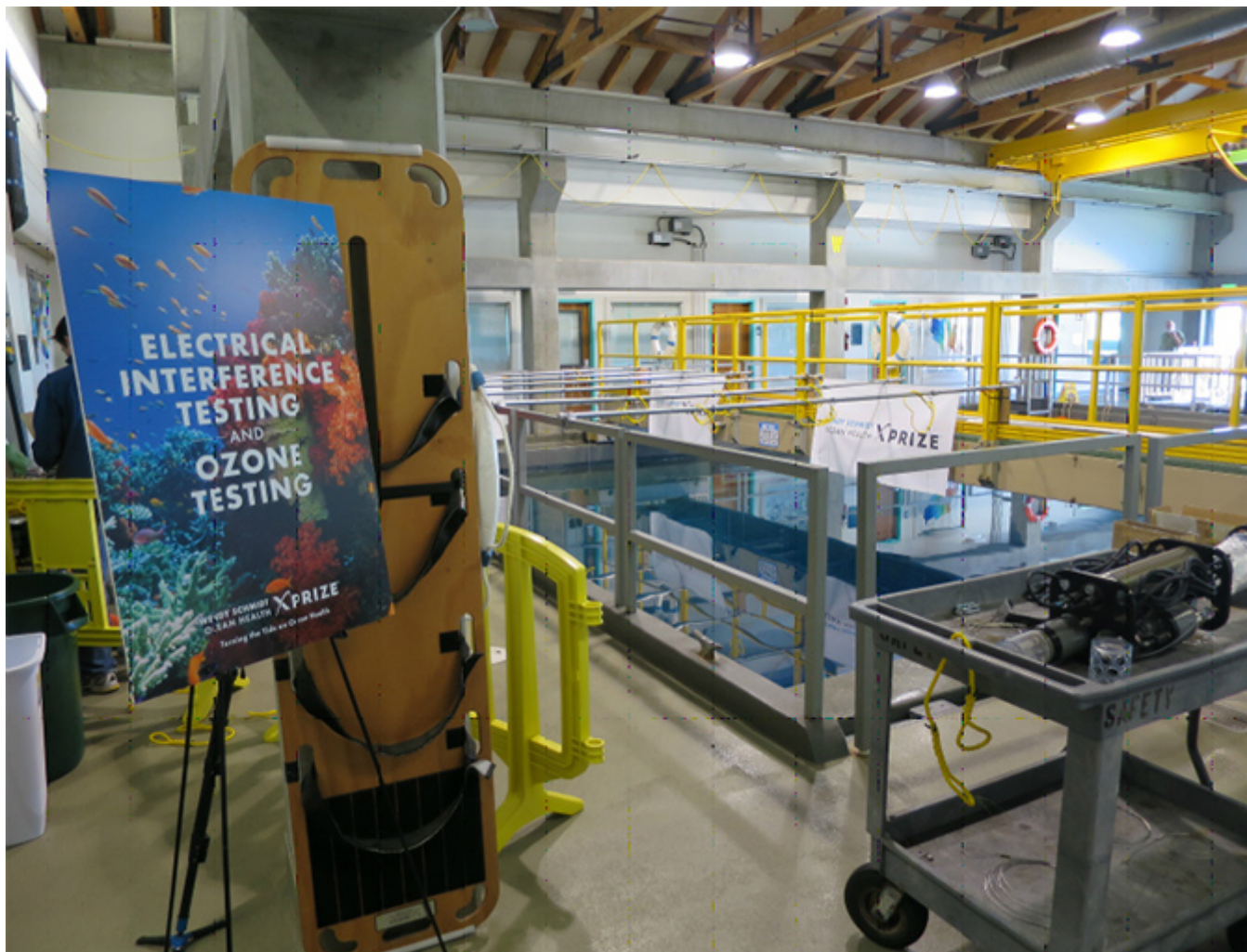


Figure 4: Monterey Bay Aquarium Research Institute, where controlled laboratory testing took place in the fall 2014.





Figure 5: HpHs sensors during testing at the Monterey Bay Aquarium Research Institute (Lower left)

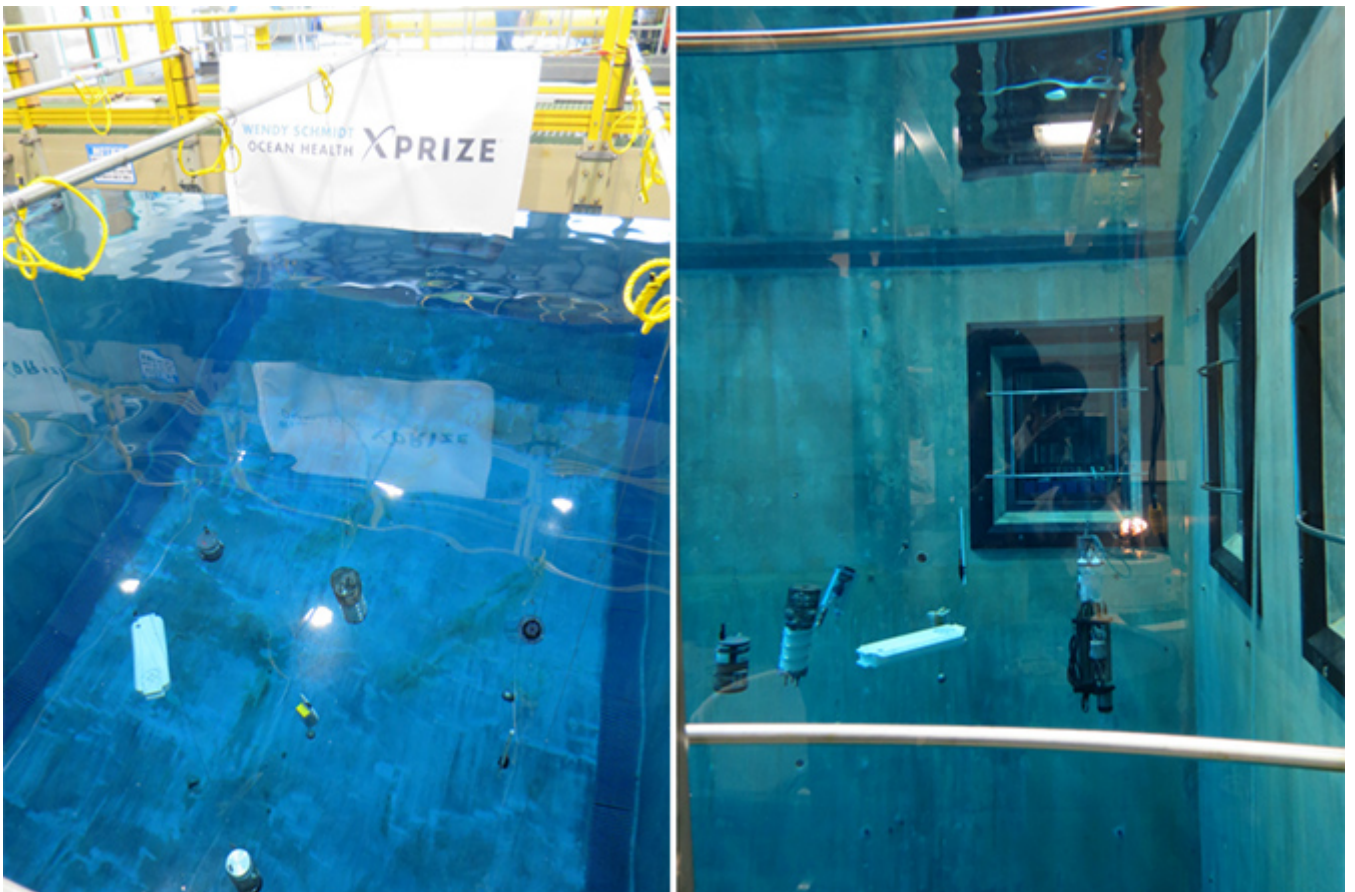


Figure 6 & 7: Each team's pH sensors during testing at the Monterey Bay Aquarium Research Institute.



Figure 8: Coastal environment testing at the Seattle Aquarium in February 2015 (inside the white tent structure).





Figure 9: Coastal environment testing at the Seattle Aquarium.

### **About XPRIZE**

Founded in 1995, XPRIZE is the leading organization solving the world's Grand Challenges by creating and managing large-scale, high-profile, incentivized prizes in five areas: Learning; Exploration; Energy & Environment; Global Development; and Life Sciences. Active prizes include the \$30M Google Lunar XPRIZE, the \$15M Global Learning XPRIZE, the \$10M Qualcomm Tricorder XPRIZE and the \$2M Wendy Schmidt Ocean Health XPRIZE. For more information, visit [www.xprize.org](http://www.xprize.org).

### **About Wendy Schmidt**

Wendy Schmidt is President of The Schmidt Family Foundation, which strives to advance the development of clean energy and support the wiser use of natural resources. She also is founder of the foundation's grant-making arm, The 11th Hour Project, and Climate Central, an independent organization of leading scientists and journalists researching and reporting the facts about our changing climate and its impact on the American public. With her husband, Eric Schmidt, Wendy created the Schmidt Ocean Institute in 2009, which provides opportunities for urgent ocean studies aboard the RV Falkor oceanographic research vessel. Her work at non-profit ReMain Nantucket focuses on generating a model for smart community downtown development on the island, where her family spends summers. Wendy earned an M.J. in Journalism from the University of California, Berkeley and a B.A. *magna cum*

*laude* from Smith College. She serves on the boards of The Natural Resources Defense Council, Climate Central, The Cradle to Cradle Products Innovation Institute, The Trust for Governors Island, XPRIZE Foundation, The 1851 Trust, Grist and MAIYET.

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(For this competition)

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