



NEWS RELEASE | For Immediate Release

March 23, 2015

Army Educational Outreach Program Participants Attend 2015 White House Science Fair

*Students' Interest and Knowledge in STEM Continues to Grow with Educational Outreach
Programs Recognized Nationally*

Washington, D.C. — Monday, March 23, 2015 —The U.S. Army has announced that two National winning teams and a National finalist team from one of its science, technology, engineering, and mathematics (STEM) initiatives within the Army Educational Outreach Program (AEOP) portfolio— [eCYBERMISSION](#)—have been invited to the 2015 White House Science Fair on Monday, March 23, 2015.

eCYBERMISSION—a web-based STEM competition that is free to students—is pleased to have two distinct teams selected to present at the White House Science Fair event. Both teams—Quake Safe, 6th graders from Ohio and Crabyotics, 9th graders from New Mexico—were 2014 National winners in the eCYBERMISSION STEM competition, which challenges teams with identifying a problem in their community and using scientific inquiry or engineering design process to propose a solution. In addition, the White House also invited National finalist team N.A.N.O.S.—6th graders from Nevada—as a guest at the White House Science Fair event. The students earned this high honor by exhibiting award-winning student-achievements in STEM and service to their communities.

The White House Science Fair is hosted by the Office of Science Technology Policy (OSTP) at the White House which will feature amazing science projects and special exhibits. This event is focused on encouraging young students to pursue STEM careers.

During the national STEM competition, Quake Safe attempted to solve the problem of structural failure of houses during earthquakes. By creating their “Quake Safe House”—a hyperboloid-shaped structure made of bamboo—Quake Safe was able to validate that concrete models cracked or collapsed during testing, while their hyperboloid house did not fail under any circumstances. Quake Safe is on a mission to make this concrete idea and project a reality so that their Quake Safe House can help save thousands of lives in earthquakes in Haiti and other countries.



Crabyotics developed a bio-filter system that can successfully remove antibiotic drugs from drinking water, thus helping to stop the growth of drug-resistant bacteria. The motivation for this project came from a Crabyotics team member who is allergic to penicillin and other common antibiotics. A lot of research has been done on chitosan, but the team quickly realized that they were leading the way in research in using chitosan for antibiotic filtration. Crabyotics took cutting edge technology of using chitosan as a filter and put it to use to clean antibiotics from water. Their research shows promise as a real solution to a problem of antibiotics in the water sources.

N.A.N.O.S. found that heat stroke in vehicles is the leading cause of non-crash vehicular deaths in children 14 years old and under. There are currently few products available to prevent such a tragedy. N.A.N.O.S. utilized STEM and designed a system that alerts the caregiver when a child is left in an unattended vehicle. Their prototype includes a capacitive sensor to detect the driver's presence to activate/deactivate the alert system and a PIR sensor to detect people in the vehicle. N.A.N.O.S. hopes to recommend their prototype to car manufacturers for future car designs.

The three teams are representing their schools, their communities and the AEOP. For photos and more information about AEOP participants at the 2015 White House Science Fair, please visit AEOP's Facebook page at <https://www.facebook.com/goAEOP> and Twitter feed @USAEOP.

"We are extremely excited for the students to be recognized by the White House for their participation in the Army Educational Outreach Program," said Louie R. Lopez, Program Manager for eCYBERMISSION. "These amazing students are applying their STEM knowledge to develop real solutions that could benefit their local communities and the world around them."

About AEOP

The Army Educational Outreach Program (AEOP) is comprised of Army-sponsored research, education, competitions, internships and practical experiences designed to engage and guide students as well as teachers in science, technology, engineering, and mathematics (STEM). From elementary school through graduate school, students of all proficiency levels, interests, ethnic, economic and academic backgrounds are encouraged to participate in real world experiences involving these important disciplines. More information is available at www.usaeop.com.

About eCYBERMISSION

Sponsored by the U.S. Army and administered by the National Science Teachers Association (NSTA), the eCYBERMISSION competition is one of several science, technology, engineering and math (STEM) initiatives offered by the Army Educational



Outreach Program (AEOP). Designed to inspire student interest in STEM, the program challenges students in grades six through nine to develop solutions to real-world

problems in their local communities. Students compete for state, regional and national awards.

###