Toshiba and National Science Teachers Association Announce Regional Winners of 25th Annual ExploraVision Competition

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Twenty-Four Winning Teams Recognized for Re-Imagining Innovative Technology for the Future

ARLINGTON, Va.--(BUSINESS WIRE)--Today, Toshiba and the National Science Teachers Association (NSTA) announced the regional winners of the 25th annual ExploraVision program, the largest K-12 science competition designed to build problem-solving, critical thinking and collaboration skills that are central to the Next Generation Science Standards.

This year’s regional winning ideas include technologically advanced ideas ranging from a small portable greenhouse to a handheld device that detects pesticides in farms to a watch that makes it possible for patients with impaired motor skills to communicate. The 24 winning teams will advance to the national phase of the competition, where participants will have a chance to win $10,000 U.S. Series EE Savings Bonds (at maturity) and other great prizes. The winning teams will also receive a Toshiba laptop for their school, and each member of the team will receive a Toshiba Canvio® Hard Drive.

“The ExploraVision program was created 25 years ago in partnership with the National Science Teachers Association to recognize students who are at the forefront of scientific thinking, said Fumio Otani, Chairman & CEO, Toshiba America, Inc. “This year’s regional winners set out to solve some of the world’s greatest problems using creativity, teamwork and the scientific method, and we couldn’t be prouder of their achievements.”

ExploraVision participants were challenged to imagine an innovative technology that might exist 20 years from now. Using real scientific research, students outlined methods to plan and test their ideas. To further illustrate their advanced concepts, the winning regional teams will be asked to build webpages and short videos to communicate and exhibit their ideas to the public as part of the national phase of the competition.

“For a quarter century, the ExploraVision program has exemplified Toshiba and NSTA’s partnership to inspire ingenuity and innovation among future generations,” said Dr. David Evans, NSTA Executive Director. “We congratulate the regional winning students, coaches and mentors on their impressive work that could one day make a real difference in the world around them.”

Inventive Solutions to Everyday Problems

A common theme among the winning regional projects was technological innovation to solve and alleviate common issues. Two students from Miami, Fla. invented the “AllPal”, an extensive databank of product ingredients which will link to barcodes of food items at the grocery store and cross-match with a list of a person’s allergies, bringing ease, safety and convenience to those with food allergies and sensitivities while shopping for food. A team of two seventh grade students from Champaign, Ill. seeks to charge cell phones anywhere at any time with “BioK: The Wearable Kinetic and Thermoelectric”, a wearable energy harvester that stores human kinetic and thermoelectric energy in an aluminum graphite battery with carbon nanotubes to power cell phones.

Preserving the Earth

Many of the winning teams envisioned ways to preserve nature and the environment. Two fourth graders from Potomac, Md. invented a handheld device to detect pesticides in farms, which will use a Laser Induced Breakdown Spectroscopy (LIBS) to minimize exposure to pesticides. Four sixth graders from Franklin, Wis. addressed the issue of polluted oceans head on with “The O.P.C. Ocean Plastic Clean-Up”, marine robots disguised as animals that clean up plastic on all levels of the ocean. The animal robots will contain a bacteria that dissolves plastics and infrared signals to guide the robot.

Breaking Boundaries with Healthcare

Several of the regional winners envisioned medical innovations. Four eighth graders from Morganville, N.J. seek to solve the problem of frequent prosthetic replacements in children with “GrowPro: The Prosthetic That Grows with You,” which uses a neurotransmitter chip that will help the user obtain a “feeling” in the prosthetic, and synthetic skin that will add a realistic look to the leg. A team of two eleventh graders and one twelfth grader from Houston, TX seeks to solve heart failure by allowing fully functional, transplantable organs using a three dimensional (3D) bioprinter capable of creating extracellular matrices (ECM). Two ninth graders from Las Vegas, Nev. hope to reduce the rate of lung cancer and help to save more lives with the “LCDS: Lung Cancer Detection Stick”, which can detect cancerous tumors earlier on and through a safer, non-carcinogenic way.

Members of first place nationally winning teams each receive a $10,000 U.S. Series EE Savings Bond (at maturity). Members of second place nationally winning teams each receive a $5,000 U.S. Series EE Savings Bond (at maturity). Canadian winners receive Canada bonds purchased for the equivalent issue price in Canadian dollars. All first and second place national winners will receive an expense paid trip for their parents/guardians, teacher and mentors to Washington, D.C. for a gala awards weekend in June 2017. Students will meet with members of Congress during a visit to Capitol Hill and display their winning ideas during a Science Showcase. The Toshiba/NSTA ExploraVision weekend concludes with a gala awards banquet and ceremony where winners will be formally recognized for their creativity and accomplishments.

Since its inception in 1992, more than 378,000 students from across the United States and Canada have participated in the ExploraVision program. For 25 consecutive years, the program has helped children to expand their imagination and have fun while developing an interest in science, technology, engineering, and math (STEM) education at an early age. Previous winners from over the last 25 years are also available for interview upon request. To learn more, visit http://www.exploravision.org/25th-anniversary [3].

For more information, visit www.exploravision.org [4] or e-mail exploravision@nsta.org [5]. Follow ExploraVision on Twitter at @ToshibaInnovate [6] or join the ExploraVision Facebook Fan Page at www.facebook.com/ToshibaInnovate [7].

About Toshiba

Founded in Tokyo in 1875, Toshiba Corporation is a Fortune Global 500 company that contributes to a better world and better lives with innovative technologies in Energy, Infrastructure and Storage. Guided by the philosophy of “Committed to People, Committed to the Future,”
Toshiba promotes operations through a global network of 551 consolidated companies employing 188,000 people, with annual sales surpassing 5.6 trillion yen (US$50 billion; March 31, 2016).

**About Toshiba America, Inc.**

Founded in 1965, **Toshiba America, Inc.** (TAI) is a subsidiary of Tokyo-based Toshiba Corporation and the holding company of six Toshiba operating companies that offer a broad range of products and solutions for the residential, commercial, and industrial sectors. The six companies, which along with TAI are known collectively as Toshiba America Group, are Toshiba America Electronic Components, Inc. (Semiconductor and storage solutions), Toshiba America Energy Systems, Corp. (Power generation solutions), Toshiba America Information Systems, Inc. (Digital products), Toshiba America Nuclear Energy Inc. (Nuclear power solutions), Toshiba International Corporation (Industrial, power electronics & transmission & distribution solutions), and Toshiba America Research, Inc. (R&D).

**About NSTA**

The Arlington, VA-based National Science Teachers Association is the largest professional organization in the world promoting excellence in science teaching and learning, preschool through college. NSTA's membership includes approximately 55,000 science teachers, science supervisors, administrators, scientists, business representatives, and others involved in science education.

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English

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