Virginia youth participate in nationwide 4-H science experiment

By Allison Hedrick

Participants in the science experiment construct a control area to place their eco-bot on.

March 11, 2013 – Virginia 4-H members joined millions of their cohorts across the nation to participate in 4-H National Youth Science Day on Oct. 10. This year's experiment, "4-H Eco-Bot Challenge," tasked participants with creating a robot that could clean up a simulated toxic spill.
"It is an exciting way to get masses across the country involved in science," said Kathleen Jamison, curriculum and learning coordinator for Virginia 4-H youth development. "What fun to get kids excited about STEM." STEM refers to courses of study in science, technology, engineering, and math.

Youth from all over Virginia - including Lynchburg and the counties of Amherst, Lee, Washington, Franklin, Campbell, Buckingham, Henrico, Gloucester, and Williamsburg-James City - participated in the challenge.

Buckingham County 4-H, led by Virginia Cooperative Extension agent Ruth Wallace, participated in the challenge by building eco-bots and control surfaces. They first explored the physics behind the challenge with the help of an iPad application and then began building control surfaces out of Legos. The control surfaces were used to test their eco-bots' ability to clean up a spill.

Amherst and Lynchburg 4-H groups teamed up for the second year to compete in the challenge. Extension 4-H agents Kevin Camm and Kevin Irvin led 25 members in conducting their experiment in a science laboratory at Lynchburg College. With kits sent by the National 4-H Foundation, children designed the robots and control surfaces.

According to Camm, the children had a lot of fun with the experiment and learned quite a bit. "The youth took their creativity and ingenuity and were forced to think outside the box to try to solve the problems and be able to design control surfaces that would be effective in containing the eco-bot," he said.

National Science Day is also a way to get children interested in STEM fields. "We discussed the different types of opportunities available in the STEM fields, especially for females, and how grants and other funding are available for males and females in these fields for college study," said Camm.

"The experiment itself was a success, but the bigger impact was engaging the students," Camm said. "The kids absolutely loved 4-H Science Day."