

Media Contacts: SRNL – Angeline French
(803) 725-2854

angeline.french@srnl.doe.gov

For Immediate Release

SRNL Engineers Help Youngsters Share Their Excitement About Science & Engineering

AIKEN, S.C. (July 27, 2012) – Two engineers from Savannah River National Laboratory and a trio of very enthusiastic 10-year-olds are channeling their fascination with engineering into a project that shares that enthusiasm with other young people.

John Bobbitt of SRNL is the coach of the Evans Robot Raptors, a team formed to compete in MoonBots 2012: A Google Lunar X PRIZE LEGO® MINDSTORMS® Challenge. The boys, who already get together every weekend to “build cool stuff,” wanted to enter the contest as a way to share what’s going on in the space program and get other kids excited about science and engineering.

While the MoonBots challenge involves designing robots and imagining lunar exploration, the focus of the judging, Bobbitt said, is on how well the kids perform science, technology, engineering and math (STEM) outreach to other kids. As an engineer whose career has clearly influenced the boys, Bobbitt is proudest of this outreach component. “This way you are not just reaching the kids who are interested in robotics, who



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were already probably focused on STEM education, but on other kids who maybe never had the same exposure to STEM education,” he said.

In addition to Bobbitt, SRNL engineer Matt Folsom is helping with the team’s robot design by teaching the boys about circuit design and how to solder. Others from the Laboratory have also expressed an interest in participating.

For the first phase of the competition, the teams had to answer a question that demonstrates their creative thinking about lunar exploration, and an outreach question that shows how they would use their work in the second phase to reach out to other young people. If their team is among the 30 phase-one winners, they will go on to phase two: designing a Lego® robotics based game, programming a robot to compete in the game, and then demonstrating it to a group of kids.

In their video response to the creative question, the boys explained what they would leave behind on the moon and why. Not surprisingly for a team coached by one of the engineers who works with SRNL’s rapid prototyping capability (SRNL is a leader in the U.S. Department of Energy complex in the application of this capability, which is essentially 3-D “printing” that can produce items directly from CAD design) one of the items the boys would leave is a rapid prototyping machine to build parts needed by future lunar missions. They would also leave a robot to gather ice to have enough water collected for when the next astronauts travel to the moon, and carbon nano tubes to begin working on a space elevator to make travel to the moon faster. Finally, the trio – who are also members of the same soccer team – would leave a soccer ball for future astronauts to use in their free time; as they explain in their video, the gravity on the moon is really good for soccer.

If chosen to advance to the second phase, the Robot Raptors plan to demonstrate their game a local children’s hospital. “There are children there with chronic health conditions that would prevent their ever becoming astronauts,” Bobbitt said. “They want to show those kids that while they might not ever travel to the moon in person, they can learn science and engineering to design and operate robots and visit the moon and beyond remotely. Science, engineering and math can open up whole new worlds for them.”

The team’s video can be viewed on their webpage: www.evansrobotraptors.blogspot.com

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