



Published on *DoD STARBASE* (<http://dodstarbase.org>)

[Home](#) > Learning Robotics Through STARBASE 2.0

---

# Learning Robotics Through STARBASE 2.0

by Donna Cipolloni Tester Staff Writer

Each Thursday after the final class bell, the media center at Spring Ridge Middle School fills up with 24 eager blue-shirted students and their committed NAS Patuxent River mentors for an afternoon of problem solving, learning and just plain fun—all part of a Department of Defense youth program known as STARBASE 2.0.

STARBASE 2.0, an extension of STARBASE-Atlantis Academy, is an after-school program that mentors at-risk youth and introduces them to activities in science, technology, engineering and mathematics.

“Our purpose is to get these kids involved in something at school that gives them a positive attitude toward school and introduces them to activities they may not otherwise have the opportunity to experience,” explained Julie Guy, director of STARBASE-Atlantis Academy at Pax River.

This year’s program focuses on robotics and meets two hours after school, each week, for ten weeks.

Using LEGO Mindstorm kits, the kids must first build a robot and then program it to carry out a series of five mini-challenges developed by Guy, an educator by profession. The challenges demonstrate how well the robots have been programmed to accurately perform tasks such as moving forward, stopping, pivoting, traveling a specified distance, maneuvering a maze or being sensitive to light and touch.

The students, a mixture of boys and girls from grades 6 through 8, are broken into teams of three and each team works with one or two mentors who direct them, give suggestions and answer questions.

“Our volunteer mentors are all Pax River engineers—some civilian, some military,” Guy said. “They encourage the students by pointing out their strengths and giving positive feedback. They push them to realize their own potential so they can nurture it in themselves and set goals to be successful in life.”

Jazz Parker, also known by his STARBASE 2.0 call name, “DJ Jazzy Jazz,” initially got into the program because he “likes building LEGOs and thought it would be neat to try a robot.”

Now, after just a few weeks, he has impressed himself with his accomplishments so far.

“It was really hard, but I’ve learned a lot already,” he said.

While Myla “Elmo” Davis ran her robot through a distance challenge on one side of the room, and other students were busily hunched over computer screens and notebooks on the other side, Myles “Terminator” Davis sat at a desk attempting to modify the wheels on his team’s robot.

“The axle is bumping into the chassis, limiting the robot’s ability to turn around,” explained his mentor, Blaine Summers, project engineer with NAWCAD Special Communications Requirements Division. “He’s trying longer shafts to extend the axle below the chassis to see if that will work out the problem.”

Summers, like all of the program’s mentors, became involved because he wanted to share his passion and experience with the kids.

“We get to teach them about engineering in a fun, collaborative environment,” he said. “They get so caught up in the excitement of the robots, they don’t realize they’re learning and practicing key problem solving and engineering principles.”

Guy believes that when the students see the mentors’ enthusiasm, it helps them realize that work can be fun.

“The mentors show these kids how the engineering process can be related to real world careers, how school subjects are important to what they can do in their own life, and how math and science fit into the work environment,” she said. “They demonstrate that work doesn’t just have to be work, it can also be fun. When the students see the mentors are excited, it helps make them more excited.”

There are 76 STARBASE locations nationwide, each at a different military site in all branches of the armed services, including 15 Navy STARBASE-Atlantis academies. Opened in fall 2007, the Pax River academy is the Navy’s newest.

For information on the Navy academies visit [www.netc.navy.mil/community/starbase/](http://www.netc.navy.mil/community/starbase/); [1] or to learn more about the DOD STARBASE 2.0 program, visit [www.dodstarbase.org](http://www.dodstarbase.org) [2].\posted

Posted June 2013

For the original article, please click [here](#) [3].

---

**Source URL:** <http://dodstarbase.org/articles/learning-robotics-through-starbase-20>

**Links:**

[1] <http://www.netc.navy.mil/community/starbase/>;

[2] <http://www.dodstarbase.org>

[3] <http://www.dcmilitary.com/article/20130228/NEWS14/130229814/learning-robotics-through-starbase-20>