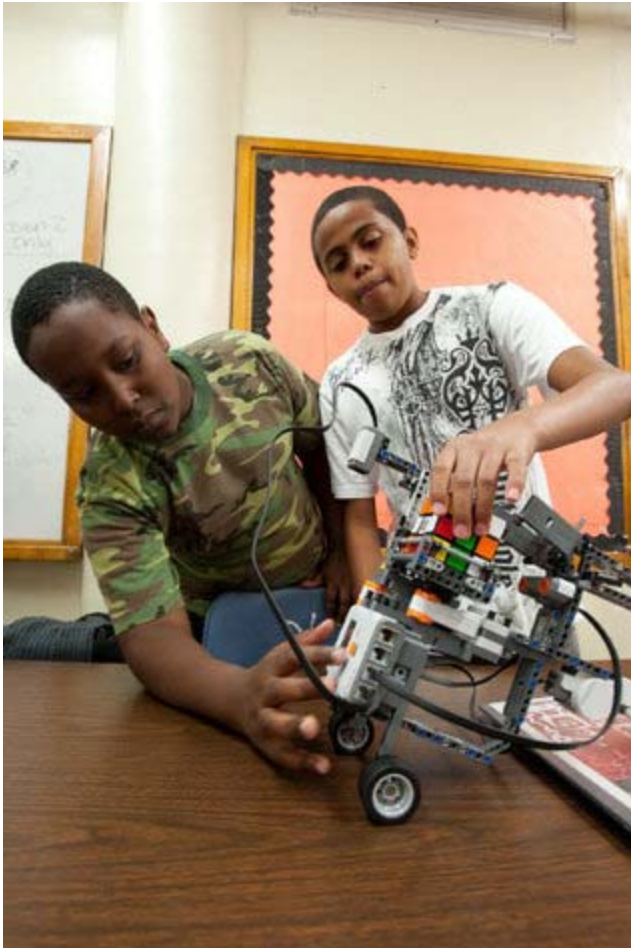


The Miami Herald

Posted on Tue, Aug. 21, 2012

Opa-locka summer camp focuses on robotics, math

By MARGARITA SWEETING



DANIEL BOCK / FOR THE MIAMI HERALD

Benjamin Germain, left, and Quinton Lockhart, both 13-year-old eighth graders at North Dade Middle School, demonstrate the Rubik's-cube-solving robot their team built during the math and robotics summer camp at the school, Wednesday, Aug. 1, in Miami Gardens. About thirty students took part in the four-week camp, which culminated in a judged competition of their robots.

The infamous Rubik's Cube has long been a party favorite and the center of challenges and bets.

But for a four-man team of middle-schoolers known as Element 115, the solution was a robot's arm away.

Solving the Rubik's Cube earned them first place in a Robotics Showcase Competition held at North Dade Middle School in Miami Gardens on Aug. 1.

Taking top honors: David Pichardo, 12, Quinten Lockhart, 13, and Benjamin Germain, 13, all of whom will attend North Dade Middle School this year, and Tyrese Simmonds, 12, who will attend New Renaissance Middle.

"We really wanted to test our skills to see if we could do something like this," said David.

Their winning design was a robot that could first scan all sides of the cube using a forklift-styled arm and color sensors, then determine how to best solve the puzzle.

"It calculates three solutions for solving it, then it picks the one that takes less time," said Quinten.

The competition was the culmination of a four-week math and robotics summer camp aimed at improving math skills sponsored by the Opa-locka Community Development Corporation and the Florida Education Fund.

"There was definitely a lot of math involved in this.

There's a lot of calibration and measurements and sometimes it could be very frustrating," said Quinten.

But in the end it paid off, said his teammate Tyrese.

“Making the program to make the robot work was hard too, but when we got the robot to work properly it was a sense of relief,” said Tyrese.

Several of the students involved thought a math camp would not be interesting — but applying the math skills in creating the robots made it worthwhile.

“I thought this was going to be so boring but once we got into it, it was a lot of fun. I learned a lot,” said Dontae Brooks, 12, whose team, The Legos, won second place with a robot that could sort colors. “We had to adjust color sensors, timers, measure the angles of the arms, it was a lot.”

The Legos also included Mya Lockhart, 11, and Amani Navarro, 11.

The camp marked the first time students were exposed to robotics, which helped spark their interest in the math skills needed to make their attempts successful.

“It’s all about application. First, I asked them what they were interested in. Then, I had them research those fields. I allowed them to use their interests. When they see real-world application they want to do the math,” said Gino Kennedy, the aerospace aviation teacher at Ruben Dario Middle School and one of the camp’s teachers.

The Opa-locka Community Development Corporation is donating all the robots to North Dade Middle school. Principal Tonya Dillard says she will now use them to incorporate robotics into the technology curriculum.

Third place went to the Masters of Debate team — Steven Ewell, 12, and Kiara Green, 13 —who also won Most Improved. Other award winners at the event included Tevoun Meikle, 13, who won Best Attitude, and Andrew Labrun, 13, who earned Best Virtual Student. All of the winners, who are from Opa-locka and surrounding neighborhoods, received certificates and gift cards.