



Robotics in the Classroom

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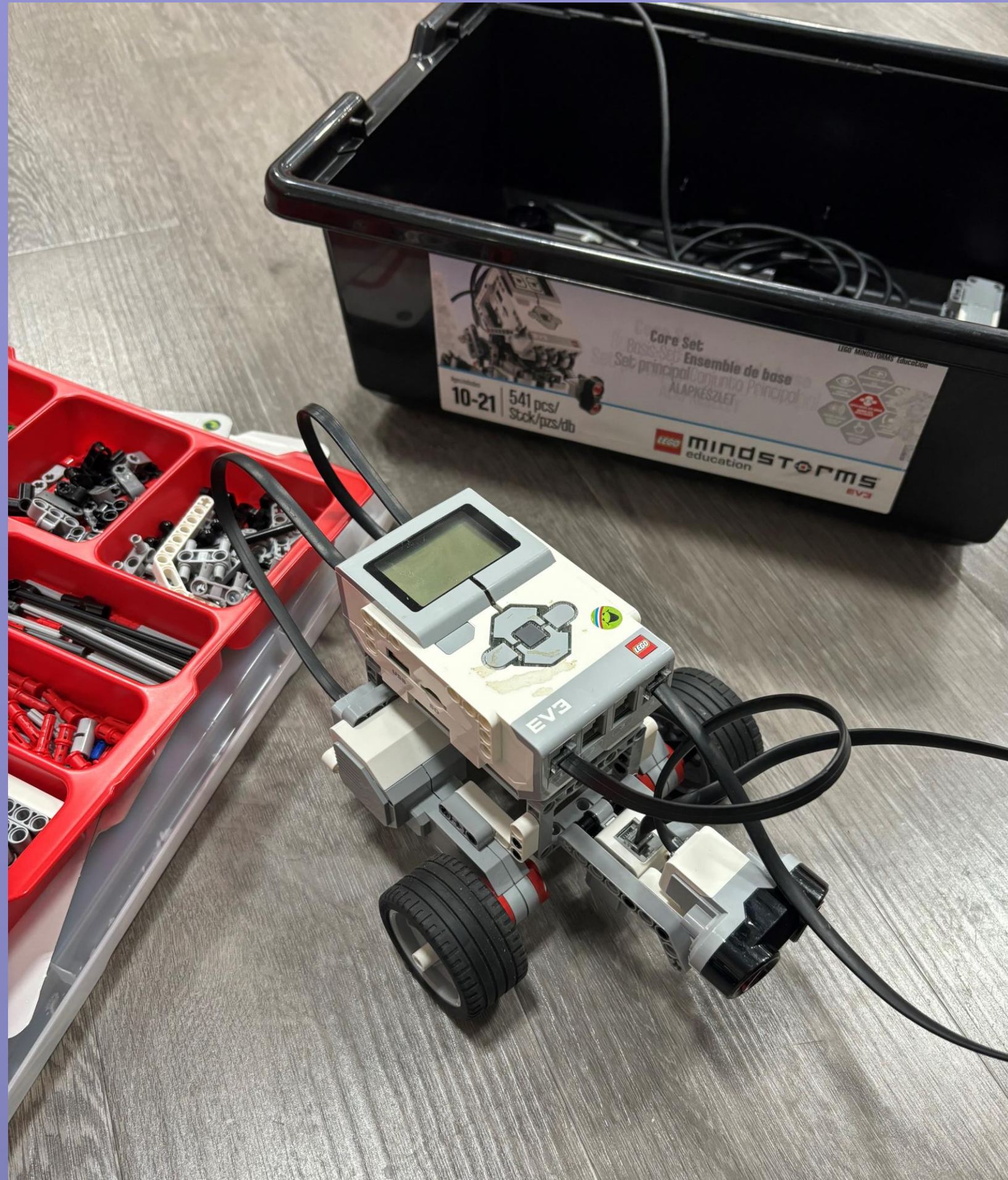
CPSS240

College Park Scholars Academic Showcase, May 3, 2024



Introduction

I took the Robotics Service-Learning course, where we worked with various local schools in PG County. We ran an after-school club, where we taught students how to use the Lego EV3 robots.



EV3 Robot built by the students

Activities:

Developed weekly robotics lesson plans, and taught the middle schoolers at College Park Academy how to use the Lego EV3 Robot.

Created a Grand Challenge for the students to work on, and present to their parents at the end of the semester.

Impact:

As we introduced the Lego EV3 robots and their functionality to the students, we also encouraged them to think about how the sensors that the robot had could be used to program the robot to solve real-world problems. This experience also gave me some insights into the disparities in STEM education, as well as how we can work to combat them.

Site Information:

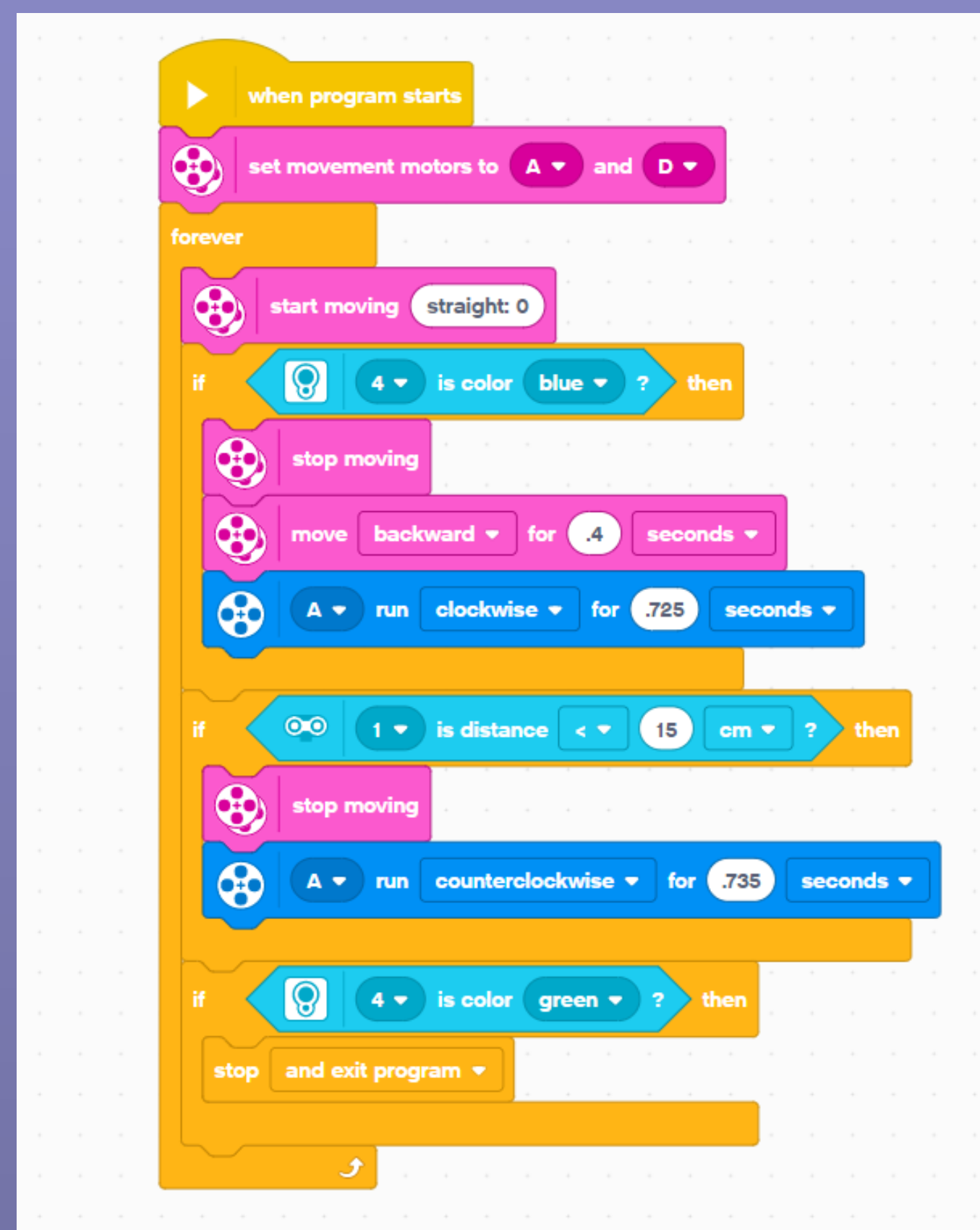
Site: College Park Academy

Address: 5751 Rivertech Ct, Riverdale Park, MD 20737

Supervisor: Dr. Lo

The site mission is to promote STEM education through teaching students robotics and programming.

The goal of the site I was at was to prepare its students for college by offering various programs and opportunities.



Code and maze created by the students for the Grand Challenge



Issues Confronting Site:

In their traditional classes during the school day, the students have limited exposure to real-world applications of the knowledge they were learning in their STEM courses.

Future Work:

This project revealed real-world issues in STEM education. Our students have developed important skills necessary for innovation and entrepreneurship, as well as for jobs in the future. Making this program available to more schools and students promotes diversity and inclusion in STEM, which gives students the opportunity to learn more about robotics and develop an interest in STEM.

Acknowledgments:

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