Charleston Learning Center
Education, Training, Community

Everyday STEM Saturday
Robotics: Build a Mini Mission Bot

Program Overview:
Everyday STEM Saturday is a monthly, hands-on STEM enrichment program designed to help middle school students explore technology by solving practical problems, building prototypes, and learning through experimentation. Each session is designed for beginners, with no previous coding or electronics experience is required.

Students will use the Engineering Design Process (EDP), participate in Executive Functions & Mental Performance activities, complete a mini-challenge, test and improve their work, and reflect on STEM career connections. A small cybersecurity connection will be woven into each session to reinforce privacy, safe access, data protection, and responsible use of technology.

Theme and Description:
Students build or assemble a small robot and program it to complete a simple delivery or navigation mission. They explore how code controls movement and how sensors or route rules can help a robot respond to its environment. Students test the robot, identify where it fails, and improve the program. The cybersecurity connection introduces protecting connected devices, limiting access, and checking device settings and code before use.

Driving Question:
How can we program a machine to solve a real problem?

Mini Challenge:
Program a mini robot to move a small paper "supply package" from a start point to a target zone, then test and improve its route.

About your presenter:
Carla Ferrette-Clark is a retired United States Air Force Technical Sergeant with 20 years of service and a Career & Technical Education educator at Military Magnet Academy. She brings extensive experience in computer science, cybersecurity, robotics, STEM education, and career development, and has coached robotics and cybersecurity teams while connecting students with industry and higher-education partners. Her teaching philosophy centers on giving students opportunities to build, solve, communicate, and see themselves as future STEM professionals. Connect with Carla on LinkedIn.

Vitals:

Cost:	$50.00	Difficulty:	Beginner (Ages 11-14)
Class time:	9:00am-12:00pm	Computer:	Provided
Class length:	3 hours	Scholarships:	Upon Request
Class size:	10 students		

Location: 4 Conroy Street, Suite A, Charleston, SC 29403 | Parking: Charleston Tech Center Garage