INTRO TO CODING ROBOTS

Thursdays, January 27-April 28 (no class Feb 24 and Apr 7; 12 weeks)
12:30pm-1:45pm
Ages 6-8

Kids are introduced to the basics of computational logic and programming as they learn to code each other and our Root® iRobots®. We complete tasks and challenges, troubleshoot coding errors and use robot features. Students are encouraged to bring their own device or laptop, but we have a few to share. All lab costs are included in registration fee.

Instructor: Diana Rodriguez, BEd
Location: Science Center (suite 5) - Roswell
Course fee: $220 OR $20/lab
10% sibling discount
Register for full semester or individual labs.

LAB SCHEDULE:

Building Robots - Thursday, January 27
Students brainstorm parts needed to build robots, design a prototype robot, learn about simple circuits, and build a scribbling robot.

Think Like a Programmer - Thursday, February 3
Students use offline coding activities and games to maneuver each other and characters through mazes to begin to think like a programmer.

Robots and Coding Languages - Thursday, February 10
Students are introduced to programming and coding languages and learn about Root® (our iRobot®) and its features as they program it to move and draw.

Algorithms - Thursday, February 17
Students learn what algorithm is and how it is used in coding. We create programs to make a paper airplanes and code a dance.

Root® Skiing - Thursday, March 3
We explore how robots move by coding each other and our iRobots® to collect points, avoid obstacles, and win a race down a ski course.

Touch Sensors - Thursday, March 10
Students transform Root® into a robotic piano by coding responses to its touch and bump sensors.

Letters with Root® - Thursday, March 17
Today, students explore the blocks needed to code letters and program Root® to write and create letters on a whiteboard.

Writing with Root® - Thursday, March 24
Today, students code Root® to write and create letters on a whiteboard, and program it to automatically write a message.

Troubleshooting Root® - Thursday, March 31
This week, we explore what to do if something goes wrong with your code, learn what syntax is and how to troubleshoot and fix code as we go on a bug hunt and help Root® debug code to draw the picture that was intended.

Drawing with Root® - Thursday, April 14
In this coding challenge, we explore how Root® draws pictures, how to create shape wheels and collaborate to make a group picture.

Advanced Drawing - Thursday, April 21
We continue to work with drawing codes as we try to guess the picture Root® will draw by examining the code, and write code to draw pictures.

Free Code - Thursday, April 28
Students use coding skills they have learned to design and code robot challenges to share with their friends.