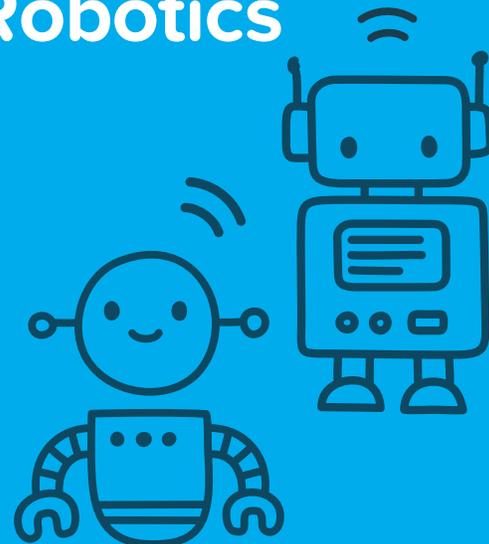


Exploring Engineering & Robotics

Visual Programming 3



AGES 9-11 | 1 WEEK | Monday - Friday: 9-3:30

Location

Vienna, VA - The Lab

\$499 | Bring your Snacks

In today's world, almost everything we see is either a robot or was made by one! In Exploring Engineering and Robotics, students will use engineering principles to design their own multi-function robots. Students will learn how to use circuitry to light up LEDs, build a truck robot that can navigate a maze, and code a line-following robot.

In this project-based camp, students will get to experience first-hand how engineers solve real-world problems. By the end of the course, each student will have experience with mechanical, electrical, and software engineering principles. This course will enable them to think critically to decompose problems and solve everyday challenges!

*RoboLink is a trademark of the RoboLink Foundation

main topics

- ✓ Design and build robots to solve complex problems
- ✓ Learn how to approach problems using the engineering process
- ✓ Use visual and text-based coding to design programs for robots

projects

- ✓ Designing a circuit to turn on LEDs
- ✓ Building a maze-navigating robot
- ✓ Building a remote-controlled robot
- ✓ Writing a program that uses sensors
- ✓ Navigating a labyrinth using a robot and sensors
- ✓ Designing a multi-function robot



Exploring Hardware & Robotics

Visual Programming 3

prerequisites

This camp requires familiarity with visual programming basics.

camp overview

Path Navigation

Students use sensors to build a robot that can complete a maze.

Engineering

Students learn robotics engineering with RoboLink and Arduino

Final Project

Students program a multi-function robot

Graduation Ceremony

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Contact Us

info@generationcode.com

(866) 407-2345

Location

The Vienna Lab

Ayr Hill Court, 112 Church St NW
Vienna, VA 22180

M-F 09:00 am - 03:30 pm

What to bring: Lunch (unrefrigerated)

daily schedule

09:00 AM | Intro + Kickstart Activity

09:30 AM | Explain and Explore

10:00 AM | Engagement Activity

12:00 PM | Lunch

12:30 PM | Project Time

02:00 PM | Paired Programming + Presentations

03:00 PM | Wrap-Up Activity

03:30 PM | Dismissal