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# **Electronics Laboratory (in-school fieldtrip)**

for

4<sup>th</sup> Grade

## **Introduction to Electronic Detectors (Lie, Water, Motion, Light)**

#### Students will

- Learn about electronic detectors and how they work
- Build various detection circuits (Lie, water, motion, light)
- Learn how detection technology is used in the real world
- Work in teams to design and build their own detection device.





### Alignment with County Curriculum for 4th Grade

- Science Technology and Engineering:
  - Engineering and Technology: Impact and use of technology; Application of the engineering design process.
- Synthesis
  - Integrate ideas and information to invent a device
- Collaboration
  - Work in teams on a device building challenge

Cost: \$15/Student

**Contact:** 



Explore Robotics & Coding: Introduction to Graphical Programming with BlocklyJoin Us for an Exciting In-School Field Trip and Explore the World of Programming!



Discover the exciting world of graphical programming using Blockly! In this engaging and interactive session, students will learn the basics of programming by guiding a robot through various navigation challenges. This is a fantastic opportunity for young minds to develop problem-solving skills, creativity, and a love for technology.

### What to Expect:

- Hands-On Learning: Students will use Blockly, a visual programming language, to control a robot.
- Fun Challenges: Navigate the robot through mazes, around obstacles, and more!
- No Experience Needed: Perfect for beginners, with easy-to-understand instructions.

### Why Participate?

- Enhance Critical Thinking: Develop logic and problem-solving skills.
- Boost Creativity: Learn how to create and execute a plan.
- Inspire Future Interests: A great introduction to the world of robotics and programming.

**Duration:** 1 Hour Per Session

Cost: \$18/student

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requency PIN 4 duration (ms) 1000 frequency (Hz) 3000

Robot ActivityBot 360° initialize

Robot drive distance in ticks left 128

right 128

Robot drive distance in ticks left 26

right 25
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