

Brilliant Bots (K-3)

Hello! This document includes a brief outline of our Brilliant Bots workshop, as well as relevant BC ADST curriculum connections. In this workshop, students will be using mini-line-following robots called Ozobots to learn about computer instructions & sensors!

If you'd like to register for our workshops, please fill out our registration survey linked here: https://ubc.ca1.qualtrics.com/jfe/form/SV_eQbTY2Kj1ByZM8K

<p>BC Curriculum Ties (In addition to satisfying multiple core competencies)</p>	<p><u>BC Applied Design, Skills, and Technologies Curriculum Links K-3:</u></p> <p>Skills can be developed through play & Designs grow out of natural curiosity.</p> <ul style="list-style-type: none"> ● Applied Design: <ul style="list-style-type: none"> ○ <i>Ideating - Identify Opportunities for designing through exploration & choosing an idea to pursue</i> ○ <i>Making - Making a product using known procedures/tutorials and modeling of others & trial and error</i> ○ <i>Sharing - Decide on how and with whom to share their product & demonstrating their project.</i> ● Applied Technologies: <ul style="list-style-type: none"> ○ <i>Explore the use of simple, available tools and technologies</i>
<p>Grade Levels</p>	<p>K-3</p>
<p>Time</p>	<p>1~1.5 Hours</p>
<p>Goals of the Workshop</p>	<ol style="list-style-type: none"> 1. Understand that robots are machines that follow instructions to complete a task. 2. Instructions for robots need to be specific. 3. Be able to give instructions for simple everyday tasks that they know how to complete. 4. Understand that robots use sensors to understand their environment.

Activity Descriptions

Robot or Not?

Objective: To explain to students that robots are machines that follow instructions to complete a task.

Participants will:

- Understand what a robot is and why robots are useful to us.
- Sort through examples of robots and other non-robotic machines as a group to solidify these concepts.

InstructorBot

Objective: To explain to students that instructions given to robots must be specific and clear.

Participants will:

- Understand that robots must receive clear pre-programmed instructions for them to function correctly.
- Play a game where students give instructions to one of the instructors to have them complete a specific task. If the instructions aren't clear enough, the instructor's movement and solution might be more kooky than correct!

Ozobot City

Objective: To provide instructions to, create maps for, and play with line-following miniature robots called Ozobots.

Participants will:

- Understand that robots use sensors to interact with the world around them.
- Create maps that the Ozobots will follow & interact with.
- Draw different colour-combinations within their maps that the Ozobots will read and complete different tasks accordingly.
- Play with miniature robots!

We can't wait to connect with your school & expose your students to the STEM field with our exciting, hands-on STEM activities!

