Instructor Notes: VEX 123 Activity

Preparing for Your VEX 123 Activity

What Do I Need to Set Up this Activity?

Materials needed for each group (recommended group size is two students):

- Student Handout
- VEX 123 Robot
- VEX 123 Art Ring
- VEX 123 Field with walls (two groups can share one Field if needed)
- Scissors and tape (to attach elements to the Field)
- Craft materials (optional — for decorating the Art Ring)
- Wet erase marker and wet wipes (optional — for drawing directly on the Field and cleaning it off)
- Certificates for each participant

See the Activity Notes for activity-specific preparation information.

Resources to Help You Get Started with VEX 123

If you are not already familiar with VEX AIM, use the following articles to help you get started:

- Coding with the Touch Buttons on the 123 Robot
- Using the 123 Art Ring
- Using the VEX 123 Robot
- Identifying the 123 Robot's Features

For additional support and using the Coder and Coder cards, use these articles:

- Using the VEX Coder
- Stepping Through a Project with the Coder

Leading Your VEX 123 Activity

All VEX 123 Girl Powered activities follow the same structure.

1. **Introduction** – Set the stage for the activity by reading the context in the Activity Notes.
2. **Hands-on Activity** – Follow the steps in the Activity Notes to facilitate the hands-on portion of the activity.
    a. Project or give students the Student Handout to reference as they are practicing.
    b. Students should work collaboratively throughout the activity.
    c. Walk around the room to help students with activity tasks and to talk with them about what they are doing and learning.
    d. The goal of Girl Powered activities is to get students excited about STEM and robotics – not mastery of a concept or task.
3. **Wrap-up** – Come back together as a whole group for a brief discussion and celebration of learning.

Wrapping Up Your VEX 123 Activity

After your students have completed the activity, wrap up the experience with a brief discussion.

- **For a coding-focused discussion,** compare projects to see how students approached the same challenge in different ways. Ask questions like:
    - How is this project similar or different to yours?
    - What is something that surprised you about this project?
    - What is another way this group could have moved to finish the challenge?
- **For a collaboration-focused discussion,** talk about how students worked together. Ask questions like:
    - What is one way you helped your partner?
    - What is something you learned from your partner today?
    - What was your favorite part of working with your partner?
- If you have a guest speaker, have them reflect on how this activity connects to their STEM experiences, and share that with the group.

Allow time for cleaning up.

- Have students clean off their Fields, and remove any decorations from their Art Rings.

Celebrate Success!

After the activity has ended, celebrate with your students!

- **Distribute certificates to all workshop participants.** Add their names and the date, and any other details you would like to celebrate.
- **Share photos or videos of students with their certificates or decorated 123 Robots!** Explain what makes that moment meaningful to you or the student(s). Tag your posts with **#GirlPowered** and **#WhyIAmGirlPowered** so others can celebrate with you!