

Preparing for the Activity

What do I need to set up this Activity?

The materials below are needed for each group for all activities:

(recommended group size is two – three students):

- Student Handout
- [VEX EXP Kit](#)
- A screen and/or projector (optional — to project the student handout or other materials)
- Certificates for each participant

Get the VEX IQ Brain, Controller, and Battery Ready

- For activities that involve building, driving, or coding a robot, each group will need:
 - [A charged VEX EXP Battery](#)
 - [A charged VEX EXP Controller](#)
- Ensure all VEX EXP Brains and Controllers have updated firmware. [Use these articles to learn more.](#)
- To drive the robot, [you will need to pair each Controller to its Brain.](#)
- To stay organized, pre-pair the Controller and Brain from each Kit. Label each Brain, Controller, and Kit with the same number, and store them together.

See the Activity Notes for activity-specific preparation information.

Resources to Help You Get Started with VEX EXP

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

- [Understanding and Using VEX EXP Tools](#)
- [VEX EXP Parts Poster](#)
- [VEX EXP Parts Ruler](#)
- Build Instructions can be found [at this link.](#)

If you need help getting started driving, [read this article.](#)

Leading Your VEX EXP Activity

All VEX EXP 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 EXP Activity

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

- **For a strategy-focused discussion**, compare strategies to see how students approached the same challenge in different ways. Ask questions like:
 - How is this approach similar or different to yours?
 - What is something surprising you learned during the activity?
 - What is another way this group could have completed the activity?
- **For a collaboration-focused discussion**, ask questions about how students worked together, 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 the Fields and return loose parts to their VEX EXP Kits.
- Remove batteries from Brains and return them to the Kits.
- If you intend to have students deconstruct robots and return parts to their Kits, allow extra time.

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 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!