

## Preparing for Your VEX IQ 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 IQ 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 IQ Battery](#)
  - [A charged VEX IQ Controller](#)
- Ensure all VEX IQ 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 IQ

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

- [Understanding the VEX IQ Plastic Construction System](#)
- [The VEX IQ Interactive Parts Poster](#)
- Build Instructions can be found [at this link.](#)

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

## Leading Your VEX IQ Activity

All VEX IQ 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 IQ 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 IQ 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!