

## 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 V5 Kit \(Classroom or Competition Starter\)](#)
- A screen and/or projector (optional — to project the student handout or other materials)
- Certificates for each participant

### Get the VEX V5 Brain, Controller, and Battery Ready

- For activities that involve building, driving, or coding a robot, each group will need:
  - [A charged VEX V5 Battery](#)
  - [A charged VEX V5 Controller](#)
- [Ensure all VEX V5 Brains have updated firmware.](#)
- To drive the robot, [you will need to pair each Controller to its Brain.](#)
- To stay organized, pre-pair the Controller and Brain. Label each Brain and Controller 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 V5

If you are not already familiar with VEX V5, use the following articles to help you get started building:

- [Understanding and Using VEX V5 Tools](#)
- [VEX V5 Parts Ruler](#)
- Build instructions can be found at [builds.vex.com](https://builds.vex.com).

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

## Leading Your VEX V5 Activity

All VEX V5 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 V5 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 any loose parts to their kits.
- Remove batteries from Brains and turn off Controllers.
- 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!