

## Preparing for Your VEX AIR Activity

### What Do I Need to Set Up this Activity?

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

- Student Handouts
- [VEX AIR Kit](#)
- Computer with access to [VEXcode AIR](#)
- Certificates for each participant
- Pencils/pens for filling in the Mission Logs
- Projector and/or screen (optional - to project the student handout or other materials)

### Get Your VEX AIR Kit Ready

- [Charge the VEX AIR Controller.](#)
- [Ensure all controllers have updated firmware.](#)
- [The lanyard and joysticks should be installed on all controllers for student use.](#)

See the Activity Notes for activity-specific preparation information.

## Resources to Help You Get Started with VEX AIR

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

- [Using the VEX AIR Drone Controller](#)
- [Using the VEX AIR Flight Simulator](#)
- [Using Flight School in the VEX AIR Flight Simulator](#)
- [Controller Settings in the VEX AIR Flight Simulator](#)

## Leading Your VEX AIR Activity

All VEX AIR 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, drones, 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 AIR Activity

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

- **For a flight-focused discussion**, compare piloting 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 that surprised you about flying the drone?
  - If you were to continue flying, what would you want to try next? Why?
- **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 turn off their controllers, and replace the joysticks in the back of each controller.
- VEX AIR Kits and computers can be collected in a central location.

### 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 during their flights!** 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!