

Best Practices for Accessibility for *FIRST*® Robotics Competition Events

Introduction

FIRST® is committed to [Equity, Diversity, and Inclusion](#) and as such, *FIRST* strives to make reasonable accommodations for persons with disabilities that request accommodation. If a participant needs an accommodation for an event, we ask that they talk to a volunteer at the event or contact their [local leadership](#) before the event so they can ensure the accommodation is provided. Accommodations are determined reasonable given they do not create an undue hardship or cause safety concerns.

A reasonable accommodation is a change, exception, or adjustment to a rule, policy, practice, service, or environment that may be necessary for a person with disabilities to have an equal opportunity to participate.

This guide provides recommendations which will make *FIRST* Robotics Competition resources and events more accessible. While this guide contains specific guidelines for achieving accessibility, readers should keep in mind that this guide is unable to predict all accommodations that may be requested or necessary. The purpose of this resource is to provide best practices and is not intended to provide legal guidance or requirements. It is important to remember that inclusivity and accessibility is not a recommendation but a requirement by *FIRST*.

- Accommodations not discussed explicitly in this guide may be necessary.
- Use judgement on ways to accommodate without endangering the individual in need of accommodation or others' safety.
- Events should be inclusive, accessible, and enjoyable for everyone.
- Contact *FIRST* (via the [FIRST Robotics Competition Team Advocate](#)) with specific questions about more complex accommodations (ex: extra components for students to participate in gameplay, etc.).

We recommend event planners read The Americans with Disabilities Act (ADA) [Planning Guide for Making Temporary Events Accessible to People with Disabilities](#) document. Accessible events require planning well in advance. When you keep all attendees in mind during planning, you'll be better prepared to support requests as they come in rather than scrambling at the last minute. This guide will help Program Delivery Partners (PDP) and Event Committees consider ways to make events more accessible. Additionally, PDPs may use the [Equity, Diversity, and Inclusion Event Checklist](#) to help event organizers think through accessibility of different aspects of an event.

A person with a disability is someone who:

- *has a physical or mental impairment that substantially limits one or more major life activities,
- *has a history or record of such an impairment (such as cancer that is in remission), or

- *is perceived by others as having such an impairment (such as a person who has scars from a severe burn).

If a person falls into any of these categories, the ADA protects them.

[Source: ada.gov](https://www.ada.gov)

A few reminders as you begin thinking about accessibility:

- **Proof of disability is not required** - No person is required to show proof of their disability—nor should they **ever** be asked for proof. This includes people who request accommodations, ask for accessible seating, attend with a service dog, or have an invisible disability.
- **Invisible Disabilities** - Invisible disabilities are physical, mental, or neurological conditions that can limit or challenge a person's movements, senses, or activities, and can impact that person's ability to learn or work.
- **Be mindful of words you use** - It is important to use respectful and inclusive language when communicating with or talking about people with disabilities. Reference the [Stanford Disability Language Guide](#) for additional tips with language.

General Recommendations

- Event Coordinators and/or PDPs should contact teams in advance of the event (recommended 1 month prior to the event) to inquire if any of the teams attending need specific accommodations.
 - PDPs can use this language as a starting point: "We strive to host inclusive, accessible events that enable all individuals, including individuals with disabilities, to engage fully. To request an accommodation or for inquiries about accessibility, please contact (name, email, phone)."
 - Teams are also encouraged to reach out to PDPs with any accommodation requests.
- Identify an accessibility coordinator.
 - *FIRST* encourages events to designate an accessibility coordinator who will be available to help coordinate accommodation requests, answer questions, and help provide guidance on how to make accommodation improvements to the events.
- All staff and volunteers should have a basic awareness and sensitivity to accessibility issues and accommodation requests. Ensure volunteers know who they can ask for help if they are unable to answer the question. Pit Admin must have access to this information as well as who the point of contact is for any questions they cannot answer as they often are the ones teams come to during the event.
- We recommend collecting feedback from teams, spectators, and volunteers attending the event to help provide feedback on accessibility. This can be done both before the first event at a venue as well as after. Consider reaching out to attendees to see what ways you can improve accessibility for future events.

Pre-Event Accommodations

Website Accommodations - It's highly recommended that you design your website to work for all. Here's a few things we recommend to make your website more accessible:

- Ensure your website is optimized for screen readers – including using headers to differentiate content and including alt text for pictures.
- Ensure the color scheme contrasts.
- Ensure any video content has closed captioning. This is easy to do with embedding videos from YouTube as they will automatically allow people to turn on/off closed captions.
- Use best practices for adding links including using words to describe what you are linking. **Do not** link URLs (screen readers will read each character) or link words such as “click here”, “read more”, etc.
- Consider providing information about accessible lodging, restaurants, etc. to make it easier for those who may need assistance.

Printed materials – Event coordinators will also need to plan ahead to ensure printed materials that will be available at the event are accessible. Here's a few things to consider:

- Keep messages short and simple.
- Use headings. Headings help readers find their way through the material.
- Color contrast – ensure that signage is easy to read by using contrasting colors. Be mindful of colors that may be harder to read for those who are colorblind.
- Use easy to read fonts such as Arial, Roboto, Helvetica, and Verdana.
- Use large font.
 - use at least 12 point font and have large print versions available at the event (or in advance to download).
- Incorporate graphics or images within your printed materials to help break up large paragraphs of text.
- Use white space - People with low vision or cognitive disabilities benefit from the use of white space. White space is the area of the document without text, images, tables, etc.
- Avoid complex graphics which can be overwhelming or difficult to understand.

Limited Mobility Accommodations

Teams that indicate a team member has limited mobility may request accommodations. Here are a few options that you may be able to offer them:

- Reserve seating in a section where the person requiring accessible seating may sit with their team.
 - The team member(s) with disabilities should have accessible seating that is with their teammates, not in a separate location.
- Remind them that there is a ramp available at events for use by those with limited mobility who are members of the Drive Team on the playing field. It is specially designed to allow those in a wheelchair to access the Driver Station shelf and/or see onto the Field; however, it can be used by anyone with a disability.
 - Please note this is available at all Regional events and varies by District.
- Consider placing the team in a pit near the entrance.
- Provide a larger pit area for a team that has a member who uses a wheelchair or other mobility support. This will provide necessary space to move within the pit.

- Ensure there is enough accessible parking at the venue and communicate where they can find accessible parking in advance of the event.
- Provide instructions for accessible features, including ramps and/or elevator access in the building; accessible bathrooms; barrier-free pathways; wide doorways and aisles to accommodate wheelchairs/scooters.
 - Per the ADA, an accessible route means the route is at least 36 inches (~92 cm) wide and have a minimum height of 80 inches (~204 cm). An exception to the width is at doors where the route may be reduced to 32 inches (~82 cm) for a maximum distance of 24 inches (~61 cm).
- Ensure that aiseways are at least 48 inches (~122 cm) in width to accommodate people seated with room for a wheelchair or walking aides to move down the aisle.

Additional Accommodation Considerations:

- 1) **Closed Captions** – We suggest adding closed captions to all videos shown at events. All videos provided by *FIRST*® Robotics Competition will have videos with closed captions available for use.
 - a) For events occurring outside the US, you may consider adding closed captions in the country's native language.
- 2) **Sound Levels** – *FIRST* has provided guidance around [Audio Levels at FIRST Events](#). Please be sure to follow these guidelines to create excitement with spectator safety and comfort in mind.
- 3) **Ear Plugs** – We suggest having ear plugs available for teams, volunteers, and spectators who may want a break from the noise. Ear plugs are provided to Regionals within the US via the truck routes.
- 4) **Quiet Rooms** – A Quiet Room provides students, spectators, mentors and volunteers a safe place during the competition to get away from the common competition stressors of noise and motion. This environment can lead to increased happiness and decreased levels of stress. In turn, this room can help individuals enjoy the competition more during events. Quiet Rooms are strongly encouraged at all *FIRST* Robotics Competition events. Check out the [Expanded Quiet Room Guide](#) for best practices on selecting a room, recruiting volunteers, and supplies you may want to have for the room.
 - a) If you provide a Quiet Room, be sure to advertise that it is available with signage, maps, & email reminders in advance.
- 5) **Family Room** – Consider allocating a space for nursing parents, and others who need to care for young children or family members with disabilities (ex: adult changing).
- 6) **Gender-Neutral Restrooms** – consider the availability of Gender-Neutral Restrooms at your venue. If the venue does not have any, consider changing some restrooms to be Gender Neutral for your event and providing clear signage to indicate this.
- 7) **ED&I Ambassador** - Consider having a specific person or place where teams/attendees can request accommodation.
- 8) **Service animals** – some participants at an event may require a service animal. A service animal is a dog that is individually trained to do work or perform tasks for a person with a disability.
 - a) The ADA requires the animal to be under the control of the handler. This can occur using a harness, leash, or other tether. However, in cases where either the handler is unable to hold a tether because of a disability or its use would interfere with the service animal's

safe, effective performance of work or tasks, the service animal must be under the handler's control by some other means, such as voice control.

- b) In situations where it is not obvious that the dog is a service animal, staff may ask only two specific questions. Staff are not allowed to request any documentation for the dog, require that the dog demonstrate its task, or inquire about the nature of the person's disability.
 - 1. Is the dog a service animal required because of a disability?
 - 2. What work or task has the dog been trained to perform?
- c) According to the ADA, allergies or fear of dogs are not legal reason to deny a disabled person and their medical equipment access. Anaphylaxis or any other major dog allergy affects less than 1 in 100,000 according to the CDC, and the causes are usually repetitive licking on the face from a dog, not from contact transfer.

If you have additional questions or need help on accommodation requests, please contact our [Accommodations Inbox](#).