



FIRST[®] GAME
CHANGERSSM powered by *Star Wars: Force for Change*: Season
Guidance for COVID-19
Interruptions



For 31 years, *FIRST* has been a thriving robotics community that prepares children of all ages, all over the world, for the future. During these uncertain and challenging times, we are committed more than ever to delivering the life-changing experiences our programs offer to young people.

We're doing our best, like all of you, to stay up to date on the rapidly evolving impacts of the pandemic while planning for the future. Everyone at *FIRST* is working hard to anticipate and navigate the uncertainties to ensure we'll be able to provide every participating team a valuable and enjoyable experience, regardless of learning environment this season.

Thank you for joining us as we explore new and exciting ways to deliver our programs with your safety and wellbeing as our top priority. This guide explores a variety of options for how your season and key components of the *FIRST* experience can be implemented in-person, remotely, or a combination of both.

Due to the COVID-19 pandemic, we anticipate that you will encounter unique challenges during the *FIRST® GAME CHANGERSSM powered by Star Wars: Force for Change*: season and we are here to provide support and guidance for navigating these scenarios. This guide allows for an à la carte series of options to better accommodate you this season and allow your students to continue to get the most out of their *FIRST* experience.

This guide is designed to provide suggestions and options, but it is intentionally not prescriptive; considerations for what is best for your local situation should be prioritized. **Local health and safety regulations and guidance should precede any of the recommendations in this guide.**

Table of Contents

Section 1 Materials Management and Handling Page 2	Section 2 Content Page 4	Section 3 Student Collaboration Page 5
Section 4 Adult and Student Collaboration Page 10	Section 5 Community Engagement Page 12	Section 6 Events Page 13



Section 1 - Materials Management and Handling

Follow Local Guidance

Prior to putting a material handling plan in place, it is recommended that you reach out to your organization as well as local health offices to determine the guidance for your area for handling shared materials.

Ordering Additional Season Materials

Starting at the end of August, Teams in the US and Canada will have the option to order one additional *FIRST* LEGO League Challenge Set and one additional *FIRST* LEGO League Explore set for the current season. This option is available to registered teams via their registration dashboard. Teams can select up to 2 Challenge Sets and 1 Explore Set (one is already included with registration). Normal taxes and shipping charges will apply. This is while supplies last and may be turned off or on depending on team demand to ensure new teams are able to get their first kit.

We are also looking to add additional mats (without Dual Lock or LEGO elements) to the purchasing options. If that option becomes available, teams will be notified, and it will show up in the registration system.

Outside US and Canada, teams should check with their local Partner for options.

Sanitizing LEGO Equipment

Here are guidelines that you can use in addition to any guidance you've been provided by your local health officials to clean and disinfect your classroom and learning materials. [LEGO Education Hygiene Guide](#)

Storing Materials

Consider creating a plan that follows policies put in place by your organization and health officials for organization and storage of materials. Examples include:

- Recently cleaned materials can be kept in separate boxes with labels that can be changed to indicate the date of cleaning.
- Materials can be separated for use by individual participants and stored labeled containers, cubbies, or areas.
- Use of equipment can be limited to one group of participants at a time and cleaned and disinfected between use.
- Electronic devices can be cleaned prior to sharing with others.

Dividing Existing Materials

Each *FIRST* LEGO League division has different opportunities to divide up materials so participants can work on a part of the build independently. As the season progresses there will be many ideas and solutions to learn from. Below are some details to consider as you begin putting together your individual plan using the resources available, cleaning protocols, and local health guidelines.



- What are cleaning procedures and local guidelines for handling materials?
- What materials can be shared with team members to continue or add-on to the build?
- What role can the coach or teacher play to facilitate this plan or guide students in creating their team plans?
- Materials sent home may not return, do you need to create an agreement for the return of materials, a checklist or parts list?

FIRST LEGO League Discover – The obstacle course has three parts in the model. Each of these parts can be built separately by students and then brought together in a single model. There are enough Six Brick sets in the Discover set to complete various Six Bricks activities. The Discover More set is designed so that each student can have their own set at home. Consider using the Six Bricks sets as transitional activities between lessons, whether you're in-person or remote. You can consider dividing up the LEGO STEAM Park sets to allow students to only use certain pieces during each session or use items that are commonly found in the home or easily accessible if in an at home scenario.

FIRST LEGO League Explore – Teams are separated into May and Marcos groups and they build elements at different times in various sessions. Within the Explore set, there are books of instructions for how to build the Heart Game in three parts. You can split this build by assigning individual students to build the three parts of the Heart Game. They will collaborate once all the parts come together. This collaboration can be done remotely, or the coach/teacher can be the central location for completed models.

Within the *FIRST* LEGO League Explore Sets there are prototyping pieces used to build solutions to the challenges presented in Sessions 2-7. These are wide assortment of pieces that can split amongst the team. Also, you can use any LEGO elements that students might have at home or in the classroom to build these solutions.

FIRST LEGO League Challenge – Students can individually be responsible for building mission models; instructions for building model pieces can be divided up so students only get the pieces they need for building that model. Some students could build multiple models if they are from the same bag of pieces. During sessions that reference those models, that individual would be responsible for the project spark solution and idea. This can be used to spark larger team discussions about that potential topic for the innovation project.

1:1 Equipment Ratio

In this situation, each team member or student would have access to their own computer and all equipment or sets needed for that division. This is a more cost intensive scenario.

Collaboration can be facilitated with a lot of communication between team members through communication and iterations of their designs.



No Materials

If it is not possible to allow students to use any materials received this season, there are still activities students can do.

1. Review the Engineering Notebook for each *FIRST* LEGO League Division. Identify activities that you can do with your students without materials.
2. Look at [FIRST @ Home](#) for alternative activities and links to other STEM activities that align with the continuation of skill building.

Section 2 - Content

Digital and Interactive Guidebooks & Season Supporting Content

This season the *FIRST* LEGO League guidebooks are available in PDF format. Additionally, the *FIRST* LEGO League Explore, and *FIRST* LEGO League Challenge Engineering Notebooks have been made to be interactive PDF's so that team members can jointly collaborate in the engineering notebook space. See *Remote Collaboration* in section 3, for ideas on how to import these documents into platforms for remote team meetings or a remote classroom environment.

U.S. and Canada - These guidebooks can be found on your *FIRST* dashboard after team or class pack registration.



Look for communication on other resources that are included in this workspace following registration.

Outside North America can get the PDF versions of the guidebook from their local partners.

The guidebooks are already created for a specific length and sequence of sessions. You can use these to determine what activities you will accomplish at each team meeting or classroom session depending on the type of environment either in person or remote.

[FIRST @ Home](#)

Continue to develop *FIRST* skills using the resources on [FIRST @ Home](#). This site contains carefully chosen activities that align with STEM learning experiences and represent an opportunity to build a variety of technical skills, career preparedness and holistic skills that range from high tech, to low tech, to no tech. In addition to links from our partners to explore *FIRST* core values, coding, computer aided design, robot mechanics, electronics and STEM or Career and Technical Education, we have created free and flexible lessons that can be used in a variety of learning environments. Use these resources to supplement your *FIRST* season and continue STEM learning throughout the year.



Section 3 - Student Collaboration

In person

As mentioned at the introduction of this guidance, **your local health and safety regulations and guidance should precede any of the recommendations in this guide.** If you are required to social distance in your classrooms or for your team gatherings, strategies below may be useful to think about how you might organize our *FIRST* experience this season.

LEGO Education has some great ideas for [managing today's classroom](#).

Student Cohorts

One of the solutions some schools and organizations are implementing is student cohorts. If you are using this strategy, there are two methods that can work for your situation:

- 1) Have all members of a team in the same cohort. This will ensure that they are able to collaborate in person when that small group rotates to in person class time.
- 2) Have team members split between cohorts and assign specific tasks to each group using the guidance in the team meeting guides for splitting up teams. This solution will provide time between teams to clean and sanitize materials.

Team Meetings

Our friends at FLL Tutorials in collaboration with *FIRST* Robotics Challenge team 8027, have created a sample plan for team meetings that you can view [here](#). This is one example of how you can use local health department and government guidelines and orders to facilitate team meetings. The following are details to consider when planning and creating a plan that works for your local scenario:

- Who needs to attend the meeting?
- Can a large team be divided into smaller cohorts based on task to complete?
- How can you use remote tools when possible to facilitate meetings and collaboration?
- What are your local social distancing requirements?
- What is the other local health organization guidance regarding gatherings and how does that impact your plan?
- What documentation of this plan will you create and share with all stakeholders?
- What communication of this plan do you need to do?
- How long should each meeting be? (consider that things make take longer with safety measures like social distancing.

Remote Collaboration

Gracious Professionalism Check In

Wondering how to align a team meeting or remote classroom to ensure Gracious Professionalism is present in all you do or just ensure all students have a platform to share and be heard? Use this [guide](#) to compose your meetings and spark ideas for questioning techniques in a remote environment, and how to incorporate student voice and choice in activities.



Remote Collaborations Practices

- Involve the team in the discussions.
- Keep Core Values at the forefront of how to work together.
- Have students create new team norms for working remotely.
- Keep the whole team involved by ensuring everyone has a role that is valuable to overall team success.

Youth Protection

All *FIRST* activities, including online team meetings, are expected to follow the standards set in the [Youth Protection Program](#) in addition to those set by the school or organization hosting the team and/or activity.

What you might see/hear/learn during an on-line meeting

- When you have a remote meeting, you are virtually walking into someone's home.
- When hosting a *FIRST* team meeting, it is important for you set up your home environment to ensure anything the team members see live from your home feed is appropriate.
- Team members home life will vary, and you may see/hear/learn about home situations that go beyond the normal role of a mentor/coach, which may require your advocacy, guidance or help.

Digital Tools

One of the challenges with remote collaboration is the inspiration that happens by working together and making improvements in real time. Being remote sometimes makes this difficult when programming or editing documents.

Our friends on FRC Team 8027 created a video [tutorial](#) for setting up a remote desktop so students can collaborate in real time while coding.

Choose a [Video Conferencing service and apps](#) to host your meetings

- Review settings to ensure safety for the participants.
- Limit meetings to invited team members and specific invited guests only.
- Practice using the tool with the team, so all are comfortable with the platform and its features.

Other useful digital tools for sharing include:

Remote Collaboration – [Google Classroom](#), [Zoom](#) or [Discord](#)

Interactive slideshows – [Peardeck](#)

Social Learning – [Flipgrid](#)

Collaborative Brainstorming - [Google Drawings](#) or [Teams Whiteboard](#)

Create Multimodal Content - [Buncee](#) or [Adobe Spark](#)

Surveys or Interactive Stories - [Google Forms](#) or [Microsoft Forms](#)

Project Management or Organization – [Trello](#) or [Freedcamp](#)

Bring the FUN! - [Meme Generators](#) or [Kahoot](#)



Choice Board

Give students a digital media choice board and let them select the tool they can use to show their knowledge or collaborate as a team. You can demonstrate how each work to build the background knowledge they are sharing with the rest of the team.

ScreenCastify: Watch the [video](#). Then, go to the Chrome Web Store and add Screencastify as an extension.

Google Slides Watch this [video](#) about functions in Google Slides. Watch this [video](#) about Slide Carnival a site that you can find new and interesting templates for Google Slides. Click on the [Slide Carnival](#) Site to find an appropriate slide and start planning your presentation.

Google Docs Watch the [video](#) on How to write an Informational Essay. Especially focus on Step #3, #6, #7, and #8. Grab an informational planner and get started on your prewrite!

Google Drawings Start at 0:55 on this [video](#) about how to create a poster in Google Drawings. Then start planning your poster!

Google Sites Click here to watch a [tutorial](#) on all of the features for Google Sites. Then, start planning your site.

Prezi Watch the [tutorial](#) on how to create a Prezi. Then, start planning how you would like your Prezi to look.
Username: perkinsc@fortschools.org
Password: fourthgrade

PowToon Here are [tutorial videos](#) all about Powtoon. Watch the first video on this tutorial page, and pick one more before you start experimenting.
Username: perkinsc@fortschools.org
Password: fourthgrade

Poster/Model Create a plan: How is this model/poster going to show all that I learned during Genius Hour? Also, what additional materials am I going to need for the rest of this unit? Grab an informational prewrite.

Genius Hour Project Ideas

Write and record a speech using [ScreenCastify](#) about what you learned.

Create an [iMovie](#) about what you learned.

Create a [new](#) Google Site about what you learned.

Create a [Prezi](#) about what you learned.

Create a [Google Slide](#) presentation about what you learned.

Create a [PowToon](#) presentation about what you learned.

Write an informational essay using [Google Docs](#) about what you learned.

Come up with your own project idea and get it approved by your teacher.

Create a Digital Poster, [Google Drawings](#), about what you learned.

Create a [poster](#) about what you learned using poster board.

Create a model of what you learned.

Parent and Caregiver at Home Considerations

Finding yourself with a lot to manage and struggling with resources to manage it all? *FIRST* is here to help. One of the most valuable elements of *FIRST* are the life skills it instills in students in the face of challenges. One of these skills is time/project management. Within this [guide](#), you will find resources to help you and your child develop and implement time management with a Core Values mindset at home.

Accessibility

What do I need to consider getting ready for a remote team experience? Whether you have a retuning team or new team members, there are important access considerations to understand that lead to positive experience for all participants. Don't assume the team members have the necessary technology and permission to use it, the time to participate in team meetings, other limitations or responsibilities the team member may have because of family needs (parental work schedules/commitments/etc.).

Advocacy for your students starts with you. Below are some considerations to think about and resources to help you ensure you are modeling your *FIRST* core values as an adult leader.

[Gathering Information from Families](#) quick tips on gathering the most useful information from families to make accommodations for *FIRST* team members.

Start with a phone call or parent survey to the caregiver to understand the following considerations.

Parent Questions

1. Understand what technology they have access to.
 - a. Do they have internet/a computer/smart phone/zoom or Microsoft teams or other communication platforms?
 - b. Do they have the bandwidth and internet access stability?
 - c. Are they able to download LEGO Education software or Apps on to their device?
2. How much access does the child have?
 - a. Are they sharing their computer or mobile phone with other members of the household?
 - b. Does the computer or phone have a camera?
 - c. How well does the internet work?
 - d. Are there limits on the amount of data for their phone or internet?
 - e. What permissions/limits does the team member have to use the home technology i.e. computer, smart phone, internet?
 - f. There are websites created by educational entities for interactive learning (Nearpod as an example) that can assist the team with their teamwork. Would the family allow their child to use this type of platform?
3. What resources are available at home for the child to use?
 - a. Paper/pens/pencils/ items that can used to make things (cardboard, and carboard tubes, blank paper, scissors, glue, LEGO elements, storage container for work completed during the meeting, a space
4. Would the parents like to participate/support the team and if so, how much and what might they like to do?
 - a. What kind of communication/platform would be helpful to the family and how often?
 - b. How/when should parents communicate with you?
5. Discuss days and times for team meetings to determine if there are family needs that impact participation?

Resources to support creating an accessible experience

[Training modules](#) to learn how to help all students be successful:

If a parent confides that their child has a specific diagnosis so the coach is aware, [here](#) is a guide to help determine what information should be gathered.





5 Questions to Ask Team Members

1

What are you looking forward to as a *FIRST* team member?

This sets the tone for a respectful conversation.

2

What makes you smile or feel happy?

This helps you understand the youth's favorite activities, strengths, reason they chose to be a part of FIRST, etc.

3

What makes you angry or sad?

This lets you know what triggers there may be to behaviors so you can anticipate them.

4

What does it look like when you are angry or sad?

This will let you know what you will see if a youth is angry or sad (gestures, facial expressions, etc).

5

What should we do when that happens?

This lets you know what calming techniques work for the youth.

Remember:

You don't need to know a diagnosis!

You just need to know what will help the team member to be successful on your team.

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Providing Material/Content

Make any document you create user friendly:

- Increase the font size to 14
- The more white space in the document, the easier it is to read and use
- If you expect the team member to write on the paper – leave enough space for the student to easily write, draw, design etc.
- Use headings for each section of the document
- If you use color contrast, (words on a colored background), make sure there is enough contrast that the words are easy to read
 - Black on white or white on black – easy to read
 - Red background with yellow words – hard to read
- How much color are you using? Is one color on top of another color? If so, how easy is it to read the words that are a different color from the background color?
- If you have Microsoft word, after you create a document you can click on the Review menu and then click on check accessibility and icon. The system will review your document and make recommendations on issues with accessibility.



Section 4 - Adult and Student Collaboration

Accessing Experts Remotely

Mentoring a team remotely is different, and we know you have a lot of questions, and want some guidance on how to begin as you and your team members get ready to start the upcoming challenge season. You are not alone in this experience. There is a new *FIRST* Mentor Platform that allows you to connect with other mentors to share ideas, stories, resources and support so everyone has a better remote experience.

In addition to the *FIRST* Mentor Platform, topic experts can be found and engaged through social media channels or virtual visits. Coaches should plan to take the lead on these platforms but can facilitate questions and conversations between their team members and adult experts. Utilizing a topic-specific hashtag can help filter responses. For example, search for the hashtag #shapedbyplay using a [hashtag search engine](#), you will find tagged posts over multiple platforms from designers, architects and companies who are talking about play spaces.

Don't overlook the experts from your own school or community. Your school's physical education instructor, representatives from a local sports team or the designer of a local playground may all be interested and willing to talk to your team via webinar or virtual meeting. Make sure any expert you engage understands the age level of the students on your team.

Virtual Field Trips

Giving students real world life experience connected to their season learning journey is an important part of the *FIRST* experience. This season may place limitations on these types of expeditions. We have a list of some of the existing resources for providing a virtual field trip. The resources below all have free access and are aligned with STEM or inspiring students as they harness their natural curiosity and use their critical thinking and imaginations to explore what future spaces for play will look like. Consider incorporating one or more of these into your teams' season plan to spark inspiration for ideas or stretch student's knowledge outside of their own community.

UNICEF Kid Power	UNICEF Kid Power is a FREE interactive platform that connects students' everyday activity to real-world impact.
X-STEM All Access	Virtual interactive speaker series
Discovery Education	Virtual field trips on a variety of topics
EF Tours	Get inspired by locations from all over the globe.
National Football League (NFL) Play 60	Immerse your students in a series of dynamic virtual experiences that offer an exclusive behind the scenes pass to exciting state of the art locations that bring critical topics to life and captivate students like never before.
Girl Scouts	Unleash your inner citizen scientist!
And More!	List of other ideas to make connections with your students.



Free Professional Learning

Our friends at [Ariel](#), who are leaders in developing experiential training programs have shared two courses that are relevant to preparing for the various scenarios that we will experience this season: *Leading and Engaging Remote Teams* and *Teaching in a Virtual Classroom*. A summary of the courses is listed below along with the information on accessing the courses.

Leading and Engaging Remote Teams

This module is designed for leaders who are new to engaging remote teams. You'll be able to learn new techniques and behaviors to ensure you are engaging your people, whether that is your adult peers or students. This module can be completed at your own pace and you are able to get what you want out of the experience. One of the tasks is to create your SMART goal outcomes. Here are some considerations for your goals related to *FIRST*:

- How can you use *FIRST* Core Values to build trust and engage your remote team?
- What team dynamics do you want to ensure are still experienced in a remote environment?
- How might team building be achieved in a remote environment?

Teaching in a Virtual Classroom

This module is designed for educators who are teaching in a virtual classroom.

By the end of this experience you will be able to:

- Engage your virtual student audiences more effectively.
- Develop stronger and more intentional physical and vocal presence for class presentations.
- Make more authentic, trusting connections with remote students.
- Deliver more engaging virtual presentations.
- Facilitate more successful student interactions.

Equity, diversity and inclusion training modules

<https://www.firstinspires.org/resource-library/training-equity-diversity-inclusion>

Youth Protection Program

<https://www.firstinspires.org/resource-library/youth-protection-policy>

Helpful Articles

[Collaborative Learning in the Age of Social-Distancing](#), Digital Promise – The science of collaborative learning and setting the tone for accountability.



Section 5 - Community Engagement

Recruitment

With all the guidance here and other creative solutions in our community, the *FIRST* Game Changers season will play on! Along with a normal season comes recruiting your team. Problem-solving is at the core of *FIRST* LEGO League, regardless of the season. Remind students that their own experiences during lockdowns and social distancing will be especially useful as starting points for brainstorming new ways to move and motivate people to be active this season. The hands-on learning experience is central to each division of *FIRST* LEGO League.

Remember: The students will take their cues from you, as their coach. Reminding them that the conditions presented by COVID-19 are temporary but their work on the team can have a long-lasting impact.

U.S and Canada

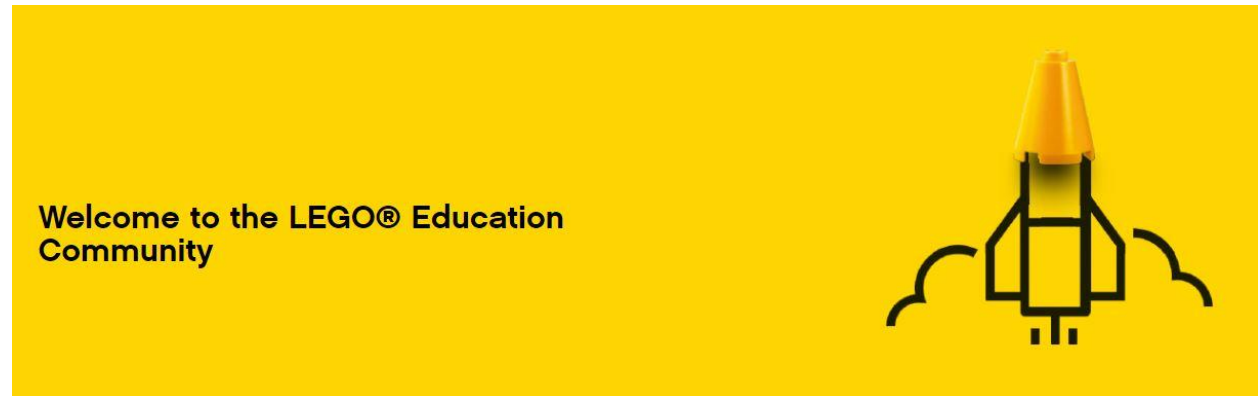
Our *FIRST* community has a variety of ways to access resources and information from forums, how-to videos, websites and social media platforms. New this year is the Thinkscape resource platform for both Teams and Class Packs. Each location contains a variety of assets like the guidebooks previously mentioned but also tips, videos, and useful links.

Thinkscape Forum – Professional Learning Community

This forum is a **NEW** resource for coaches, teachers and other adults associated via the *FIRST* dashboard with registered teams and class pack groups. The forum is a place to ask questions, share resources and get more ideas how *FIRST* can be run this season. This community will allow you to connect with coaches and teachers easily and share your resources for others to use.



ALL – Global Resource



Click [here](#) to join the LEGO Education Community

We are a passionate group of educators from around the world who believe that play and exploration build successful life-long learners. We strive to do our best work every day so our students can explore, learn and challenge themselves without barriers. Our community mission is to support and learn from one another, to find inspiration and to connect with our peers.

Section 6 - Events

Remote Event Manual and Platform

The remote events manual and platform will be provided as part two of this guidance, released in late September 2020. It will provide guidance on participating in remote events along with details about the platform where teams will participate in the culminating event.

Staggered Events Schedule

Staggered events will be a tool that regional territories use to provide a more traditional *FIRST* event experience at various times during the season or at times that vary from the typical schedule. This information will be released in late September 2020.

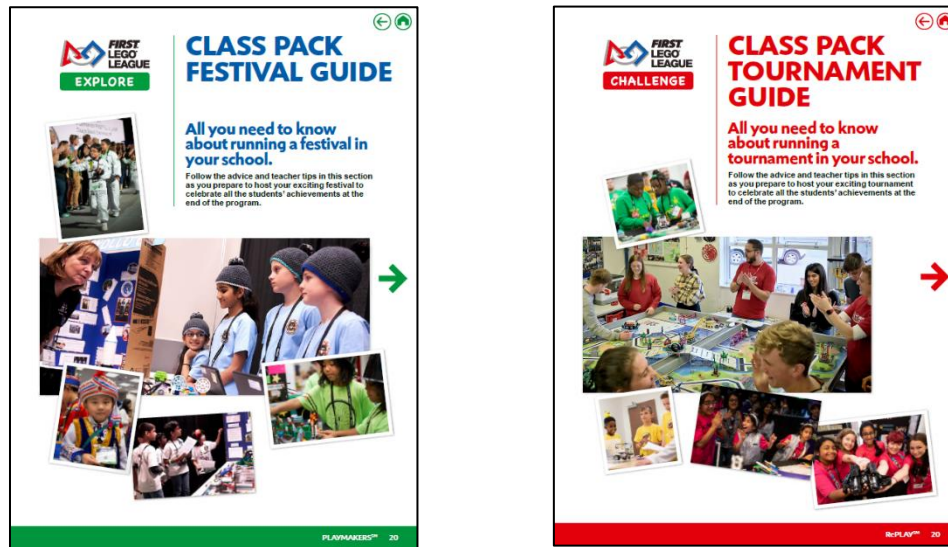
Recording Robot Action

The *FIRST* LEGO League Challenge game development team has created these [instructions](#) for teams who may need to make videos of robot game matches for remote scoring. There are great tips on videography, field setup and what to record to document the match.



Class Pack Event Guidance

One of the most important aspects of all *FIRST* LEGO League Program Divisions is a culminating event or celebration at the completion of the guided experience. For Class Pack there is a guide for both the Explore and Challenge Divisions.



The event guidance can be found in the following locations on August 4th

***FIRST* LEGO League Challenge Tournament Guide & Explore Festival Guide** –Located on the Thinkscape Class Pack Course, accessible through the *FIRST* Dashboard.

These guides are written for a scenario where an in-person experience is possible. Use the guidance to adjust your in-person events as needed. Remember for Class Pack there is no timeline for when you need to finish so if you can hold your culminating event once you are able to gather in person that should also be considered.

This is not an exhaustive list; we will be working to bring you new ideas from the community as the season progresses. Remember we are in this together and build from these to make your season work! Don't forget to share your great ideas with the community using the Thinkscape platform or LEGO community and as always, keep our [mission](#) and your team's unique situation in mind when planning your season!