

Team Update 02

GENERAL

A Note from Frank Merrick, Director *FIRST* Robotics Competition

Hello, Teams! I hope you are having a great start to the 2021 season.

By this time, we probably don't need to point out that this is an unusual season. The rules for the At Home Challenges are unusual, too. You may find them to be more open-ended and flexible than the rules we typically have for in-person competitions. This is intentional. At the time of this writing, we expect nearly 3,000 teams from all over the world to be competing in these challenges, and each is dealing with a unique set of circumstances. We made the rules more flexible to make it easier for teams to say yes to these challenges.

But this means we need your help to make this work. More than in any other year, we are asking you to do your best to follow the spirit of the rules. If you compete in the INFINITE RECHARGE at Home skills competition, no referees will be watching. While we won't be defining every possible situation that is outside the spirit of the rules, the best advice we can give is for you to, as Woodie used to say, "behave in a way that would make your grandmother proud."

This does not mean you can't ask rules questions in the Q&A! We want to clarify the rules where we can. That's important. But our hope is that this year teams will be able to make more of their own judgments about the rules, considering their spirit, and thinking about what grandma would say.

On to another great season!

Frank

3D Printed Field Files

AutomationDirect.com has released updated files for 3D printing the 2021 INFINITE RECHARGE Field. See more information on [the Playing Field webpage](#).

Chairman's Award Webpage Update

The [Chairman's Award webpage](#) now includes information about the 2021 Chairman's Feedback Form.

2021 AT HOME CHALLENGES MANUAL

Section 1.6 This Document & its Conventions

The intent of this manual is that the text means exactly, and only, what it says. Please avoid interpreting the text based on assumptions about intent, implementation of past rules, or how a situation might be in "real life." There are no hidden requirements or restrictions. If you've read everything, you know everything.

This document is unique from typical *FIRST* Robotics Competition manuals in that this is an unusual season; the rules for the At Home Challenges are unusual too. They are intentionally more open-ended and flexible than typical rules for in-person competitions to make it easier for teams with a wide variety of resources and restrictions to participate. For this reason, it's important to make good-faith efforts to be thoughtful about, and follow, the spirit of the rules.



Section 2 INFINITE RECHARGE at Home

Section 2.2 Submission Information

See How to Submit and Deadlines for additional details on how to submit. To participate in INFINITE RECHARGE at Home, teams must opt into the Judged Awards component. Teams are asked to provide the following:

- ...
- ...
- ...

Do not include links or redirects to additional content outside the bullets described above (e.g. include a link to webpage with additional images or content); such references will not be reviewed.

Section 2.3.2 Judging Groups

Teams are assigned to a GROUP by FIRST Headquarters. After assignments have been made, on or around Monday, March 8th, the GROUP is shown on the [FRC Events webpage](#).

Section 2.3.3

- Teams must submit all content described in the Submission Information section by the deadline as described in [Deadlines](#).
- Judge Advisors contact teams (via the email they supplied when submitting) to schedule an interview with a panel of judges.
- Judges 'spread the wealth' within this challenge so no team wins more than one (1) judged award for INFINITE RECHARGE at Home. Skills Competition Awards are not judged awards, so a team may win a Skills Competition Award in addition to a judged award.

Section 2.3.4 Interview Process

Teams with a completed INFINITE RECHARGE at Home submission receive an interview with a panel of FIRST Robotics Competition judges. The default format is a video conference, but a call-in number can be provided if needed.

A Judge Advisor will contact the team's mentors identified in the team's submission with the team's assigned time slot. If that slot doesn't work for the team, they should inform the Judge Advisor as soon as possible.

For all At Home Challenges, interviews occur between Monday, March 15th and Sunday, April 11th.

Section 2.4.3 ROBOT & Inspection Rules

SC10. A ROBOT attempting a challenge must do so in a way that complies with G1-C in the [2021 Game Manual](#).

SC11. A ROBOT attempting a challenge must do so in a way that complies with G17 in the [2021 Game Manual](#).

Section 2.4.4

For each challenge, a layout diagram indicates which NAV POINTS are used and the placement of MARKERS. MARKERS are physical objects with a minimal cross-section of 2.5 in (~63 mm) wide by 2.5 in (~63 mm) deep and at least 6 in (~152 mm) tall used to mark specific locations relevant to each challenge.

MARKERS on the field should have a contrasting color or otherwise be easily distinguishable, allowing them to be easily recognizable to the operator and throughout the video.

Some examples of MARKERS include but are not limited to: 4" x 4" lumber, 2 Liter bottles, small cones, etc.

Additional markings may be added on the floor or POWER PORT at team discretion. No other physical elements may be added within the Challenge Space for the purpose of aiding ROBOT or DRIVE TEAM performance. Other static elements outside the Challenge Space may be placed to aid robot navigation, provided the robot does not physically interact with them.

Note that per GSC2-1, teams may not use placement of static elements to signal to the ROBOT which set of paths is being run.

Section 2.4.6.2

GSC2. Teams must randomly determine (e.g. coin, die, phone app, etc.) if they run the red or blue paths.

Teams make a single random determination and then run the same color on both paths.

~~The intent is that teams do not signal directly to the ROBOT which option has been chosen. Placement of the ROBOT is not considered signaling.~~

GSC2-1 Teams may signal neither the path (A or B) nor the GSC2 determination (red or blue) to the ROBOT. Placement of the ROBOT is not considered signaling.

Section 3 Game Design Challenge

Section 3.2 Submission Information

See How to Submit and Deadlines for additional details on how to submit. For the Game Design Challenge, teams are asked to provide the following information when they submit:

- ...
- ...
- ...

Do not include links or redirects to additional content outside the bullets described above (e.g. include a link to webpage with additional images or content); such references will not be reviewed.

Section 3.4.2 Judging Groups

Teams are assigned to a GROUP by *FIRST* Headquarters. After assignments have been made, on or around Monday, March 8th, the GROUP is shown on the [FRC Events webpage](#).

Section 3.4.4 Interview Process

Teams with a completed INFINITE RECHARGE at Home submission receive an interview with a panel of *FIRST* Robotics Competition judges. The default format is a video conference, but a call-in number can be provided if needed.

A Judge Advisor will contact the team's mentors identified in the team's submission with the team's assigned time slot. If that slot doesn't work for the team, they should inform the Judge Advisor as soon as possible.

For all At Home Challenges, interviews occur between Monday, March 15th and Sunday, April 11th.

Section 4 *FIRST* Innovation Challenge presented by Qualcomm

Section 4.3 Submission Information

See How to Submit and Deadlines for additional details on how to submit. For the *FIRST* Innovation Challenge, teams are asked the following questions when they submit:

- ...
- ...
- ...

Do not include links or redirects to additional content outside the bullets described above (e.g. include a link to webpage with additional images or content); such references will not be reviewed.

Section 4.4.2 Judging Groups

Teams are assigned to a GROUP by *FIRST* Headquarters. After assignments have been made, on or around Monday, March 8th, the GROUP is shown on the [FRC Events webpage](#).

Section 4.4.5 Interview Process

Teams who complete the *FIRST* Innovation Challenge submission receive a remote interview with a panel of Judges. We prefer team members presenting information to judging have access to a web camera and be on screen. The default format is a video conference, but a call-in number can be provided if needed.

A Judge Advisor will contact the team's mentors identified in the team's submission with the team's assigned time slot. If that slot doesn't work for the team, they should inform the Judge Advisor as soon as possible.

For all At Home Challenges, interviews occur between Monday, March 15th and Sunday, April 11th.

Section 4.6 Advancement

The table below shows how many Semi-Finalists are chosen per GROUP depending on the number of teams that applied. Please note if there are fewer than 400 **126** teams who submit for the *FIRST* Innovation Challenge, advancement to the Finalist level occurs directly. Semi-Finalists vie for 20 Finalist spots. Semi-Finalist teams are placed into new GROUPS of approximately 25 teams using the process described in Judging GROUPS. A panel of different judges review these teams' innovation solution submissions; there is no live remote judging at the Semi-Finalist level.

Total Number of Teams	# of Semi-Finalists per GROUP
0 – 150 125	4 teams receive the <i>FIRST</i> Innovation Challenge Semi-Finalist Award and become Finalists
151 126 - 1000	4
1,001 - 1900	3
1901 - 3000	2

Section 5 Traditional Submitted Awards

Section 5.2.1 Interview Process

Teams who have submitted for the Chairman's Award and/or the *FIRST* Dean's List Award receive a remote interview with a panel of *FIRST* Robotics Competition judges. The default format is a video conference, but a call-in number can be provided if needed for team members. Additional details are described on the [submitted awards webpage](#).



A Judge Advisor will contact the team's mentor(s) (Lead Mentors 1 and 2 for Chairman's Award submissions and the submitting Mentor for Dean's List submissions) with the team's assigned time slot. If that slot doesn't work for the team, they should inform the Judge Advisor as soon as possible.

The first round of District interviews occur as follows:

- Dean's List Award interviews are between March 5th and April 1st
- Chairman's Award interviews are between March 12th and April 1st.

The second round of District interviews occur between April 11th and Apr 25th.

Region interviews occur as follows:

- Dean's List interviews are between March 5th and April 11th.
- Chairman's Award interviews are between March 12th and April 11th.

Additional details are described on the [submitted awards](#) webpage.

2021 FRC GAME MANUAL

No changes.