

# **FIRST® Robotics Competition Alliance Selection Changes**

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The Alliance Selection Task Force has recommended multiple ways to improve team experience while ensuring that Alliance Selection does not exceed the allotted time. The group was tasked with developing a proposal that ensured Alliance Selection stayed within ~30 minutes. In looking at historical data, Alliance Selection was on average 30-40 minutes and the group was tasked to ensure it stayed at or under that time.

## **What Changes are being implemented?**

- Standardized Alliance Selection Start Time
- Three Representatives per Team
- Time Limits
- Break Between Picking Rounds
- Centralized Emcee
- Modified Captain Introductions

## **Standardized Alliance Selection Start Time**

Alliance Selection will begin 8 minutes after scores are posted for the final qualification match (or replay, if applicable). This will help provide a consistent, predictable time for teams and volunteers to know when Alliance Selection begins. It also allows for a few minutes of discussion time after rankings are finalized.

A timer will be displayed with a countdown to the start of Alliance Selection. During this time, there may be videos, music, etc., including an explanation of the Alliance Selection process for the audience.

## **Three Representatives Per Team**

Each team may send up to 3 representatives for Alliance Selection. Up to 1 representative may be an adult, provided that a team's student representatives outnumber a team's adult representatives. In other words, teams may send:

- one student,
- two students,
- two students and one adult,
- or three students

The Alliance Captain must be a student, and they are the only one allowed to make a pick. Additionally, only students are allowed to accept/decline.

This moves existing discussions onto the field, hopefully reducing delays (teams don't have to find each other in the stands, make phone calls, etc.) It should also reduce

pressure on individual student representatives and help teams make more informed decisions.

## Time Limits

Teams will have 45-seconds (0:45) to make their first selection and 1-minute and 30-seconds (1:30) to make subsequent selections. The timer does not begin until scheduled breaks (before the first pick, and between rounds) have run to completion.

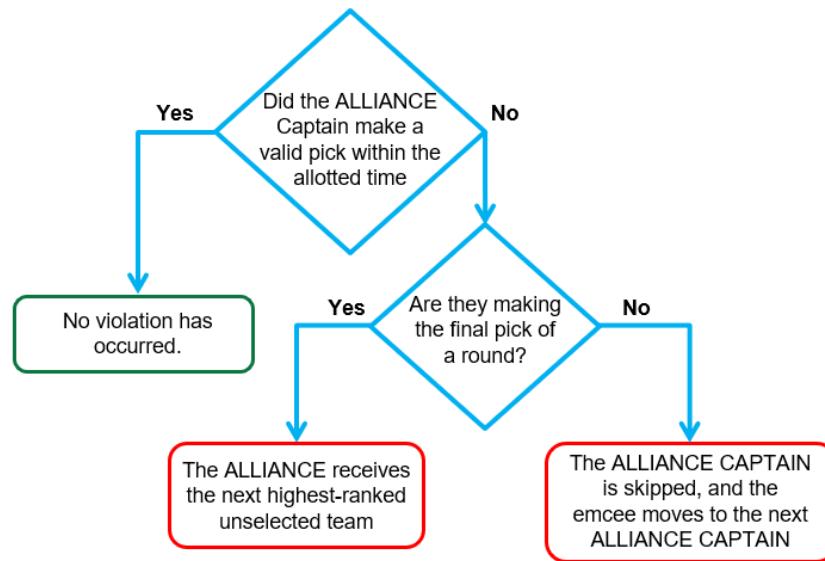
The only way to ensure a maximum total time is to enforce individual pick time limits. This proposal maximizes the amount of time allotted per pick, taking into consideration the other items which take up time.

While looking into time limits, the group reviewed past data by sampling ~30 events. On average, it took 37-seconds for round 1, and 51-seconds for round 2 for an alliance to invite their pick and for the team to come to the field to accept. In our proposal, teams are given more time than the average to make their pick.

### How it works:

- The timer starts when the emcee finishes asking the team to make their selection (e.g. “Team X, who would you like to join your Alliance?”) and stops when the team makes a valid selection (e.g. “Team X would like to invite Team Y to join our Alliance”).
  - The timer will continue to run for an invalid selection, such as attempting to pick a team that is not at the event or is already a member of another alliance
- Teams making a good faith effort (e.g. walking towards the emcee or starting to announce their pick) when the clock hits zero will be allowed to finish their pick.
- In the event of a decline, the timer is reset for the current pick.
- If a team does not make a valid selection before time expires, they are skipped. Skipped teams will be revisited, in order, after each pick.
  - Skipped teams will be skipped again, until after the next pick, if they are not immediately ready to make a valid selection.
- If a team does not make a valid selection before time expires in the final pick of each round, they are assigned the next highest ranked, unpicked team automatically.

Figure 1: Flowchart for violating pick clock



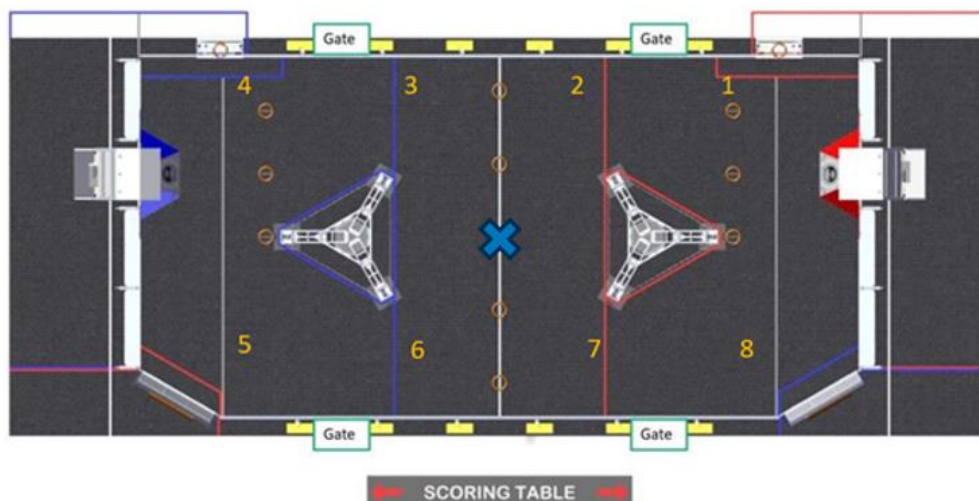
## Breaks Between Rounds

Between picking rounds (after Alliance 8’s 1<sup>st</sup> pick and, at the *FIRST*® Championship, after Alliance 1’s 2<sup>nd</sup> pick), there is a 2-minute (2:00) break. Data shows that the longest picks are those which an Alliance Lead needs to make back-to-back. This break will be provided regardless of whether or not that Alliance is ready to make a pick to ensure all alliances are given the benefit of the additional time.

## Centralized Emcee

Team representatives will move to the emcee, at a centralized location on the field, to make their pick. Viewers at home should be able to follow and understand the selection process more easily at events without a camera that moves.

Figure 2: Example of Centralized Emcee



## Modified Captain Introductions

Significant time is spent introducing the top 8 alliances who get reintroduced when it is time for their pick. Time is also spent shuffling teams around and bringing in new Alliance Leads.

For 2025, we are eliminating the shuffling and reintroducing of teams by only bringing out an Alliance Lead when it is their turn to pick. All teams are staged off of the field. Teams are invited to the field and introduced when it is their turn to pick, or they are invited to join an alliance. Additionally, representatives for the top 8 alliances will be staged as close to the field as possible to reduce walking time to the field.