

Q&A

VEX IQ Robotics Competition 2024-2025: Rapid Relay

Tagged: T11

Welcome to the official VEX IQ Robotics Competition Question & Answer system, where all registered teams have the opportunity to ask for official rules interpretations and clarifications. This Q&A system is the only source for official VIQRC Rapid Relay rules clarifications, and the clarifications made here from the Game Design Committee (GDC) are considered as official and binding as the written [Game Manual](#) itself.

Please review the [Q&A Usage Guidelines](#) before posting. This system is only intended for specific VIQRC Rapid Relay rules questions.

- For event, registration, or other competition support questions, please contact your [REC Foundation Regional Support Manager](#).
 - For VEX technical support, contact support@vex.com or sales@vex.com.
- For game questions, suggestions, or concerns outside of specific and official rules questions, contact GDC@vex.com

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2241: Marking of Balls (Revisited)

30-Oct-2024

T11

On May 17th a QA post was made about marking balls for identification for the scoring referees. On June 6th the GDC replied and stated that marking/decorating balls is not an approved modification but would later revisit the topic if needed.

[<T11>](#) now specifically mentions this QA post and outlines that ball decorations for identification are not permitted.

<https://events.vex.com/VIQRC/2024-2025/QA/2019>

Has the GDC reconsidered/revisited this stance since the posting? The volunteers at my events are older/retired individuals and have specifically asked if we could mark the balls so tracking them during passes would be easier for them. I unfortunately had to decline and say that under the current rules, this modification was not allowed.

Some teams also loan/borrow field elements to various events. In the past, these field elements sometimes have initials on the field elements written in permanent pen so that they can be returned to the correct school at the end of the event. Should these writings also not be allowed?

Answered by committee

Adding a small mark (for example, a Team number) to identify the team or organization that owns a Rapid Relay ball is permissible, but marking a Ball in a larger way to differentiate one Ball from another during Match play is still not permitted.

2019: Marking of Balls to Help with Pass Scoring

17-May-2024

SC5 T11

There exist rules about decorations on robots ([<R8>](#)), but no rules I can find on "decorating" field elements. The closest rules I could find are [<T11>](#), which relates specifically to repairs.

The manual authors appear to be *aware* of the potential referee-ing challenges associated with [<SC5>](#) sections (c) and (d). The manual makes specific note of cases where "a referee is uncertain."

In both (c) and (d) cases, referees have to be able to distinguish between two identical balls that are in motion simultaneously, in addition to dealing with their other duties.

To assist referees with tracking balls, would it be OK for EPs and other field element providers to "decorate" the balls in a manner to permit easier in-match identification? For example, a permanent marker to draw different shapes or numbers on each ball in a match or set of matches (assuming balls will get mixed up). This way a referee can short-term memory recall quickly that "ball #2" or "the one with the red triangle" was the Rapid Loaded ball, and has recorded a Pass already.

One potential concern I can see is if there are teams hoping to use sensors to find balls based on color. In this case, guidelines may be needed on the extent to which a Ball may be modified, and/or a warning for programmers that events may have variations on the Ball colors and patterns. BTW, for autonomous, or Skills in general, EPs could just provide unmarked Balls - if this is an issue. Those kinds of matches don't need referees to track Passes.

I'm sure the GDC has done a lot of match testing, probably discussed this already, and perhaps there are reasons for not being too concerned about the need to mark Balls? If it's not OK to "mark" balls, then please make that clear as well. Although, one could "get around" this perhaps by "repairing" balls with different colored thread, or even use different colored hexagonal or pentagonal repair patches as permitted by [<T11>](#).

Answered by committee

Currently, marking/decorating the balls is not an approved modification. However, as we progress through the season we will monitor feedback regarding difficulty of tracking passes and rapid loaded balls, and we may re-evaluate this topic if tracking these details proves to be an issue for referees.

2009: Colored Dots on the Field for help with Game Object Placement

15-May-2024

T11

[<T11>](#)

Would it be legal to place colored dots on the field where the rings are to be placed to be used as markers for field placement? Such as the pins from VEX IQ? These would just be to assist the field resetters in getting all of the rings placed correctly, and shouldn't affect game play.

Answered by committee

No, this modification is not recommended or legal. We suggest that Event Partners provide printed copies of the color-coded field layouts for Head-to-Head and Skills Matches for each field at the event. These layouts can be found in Sections 2 & 5 of the game manual, and in the article titled "[V5RC Field Reset Tips and Diagrams](#)" in the REC Library.

1970: Stickers to mark Triballs

26-Feb-2024

T4 T11

[<T4>](#) [<T11>](#)

To help event partners at events, can we use vinyl stickers to mark game elements to show them as EP/Event property? Specifically adding them to this year's triballs which gives better event branding and would allow us to give them out at the end of the event along with awards (reducing some of the waste produced from the yearly game elements). We've found it hasn't really changed any of the durability of the game elements with our teams and just gives a better visual appearance. Or would this be an option if we give adequate notice to all teams and allow them to practice with them the day before competition matches?







Answered by committee

To help event partners at events, can we use vinyl stickers to mark game elements to show them as EP/Event property?

Because stickers may affect the surface texture of the Triball, and could detach and impact the performance of a Robot, they are not a permitted modification for use during Matches.

Permanent marker may be used to mark Triballs for identification during Match play, and/or stickers may be applied to Triballs for distribution as souvenirs once they're no longer needed for use in Matches.

1966: Emergency Use of Replica Field Elements

22-Feb-2024

T4 T11

This season, lots of events have resulted in the breaking of Field Elements around the barrier, specifically the "VRC Large Pipe Cap" (276-8354-103) & the "VRC Large Pipe Extender" (276-8354-104). In the case that a competition can't get a replacement of these pieces, or backups when they break during competitions, does the Event Partner have the ability to use replacement elements? Assuming these elements match the dimensions and functionality of those elements shipped by Vex.

This also brings into question the hierarchy within tournament rules. Specifically if <T4> gives the EP discretion over <T11> in this case.

<T4> states that

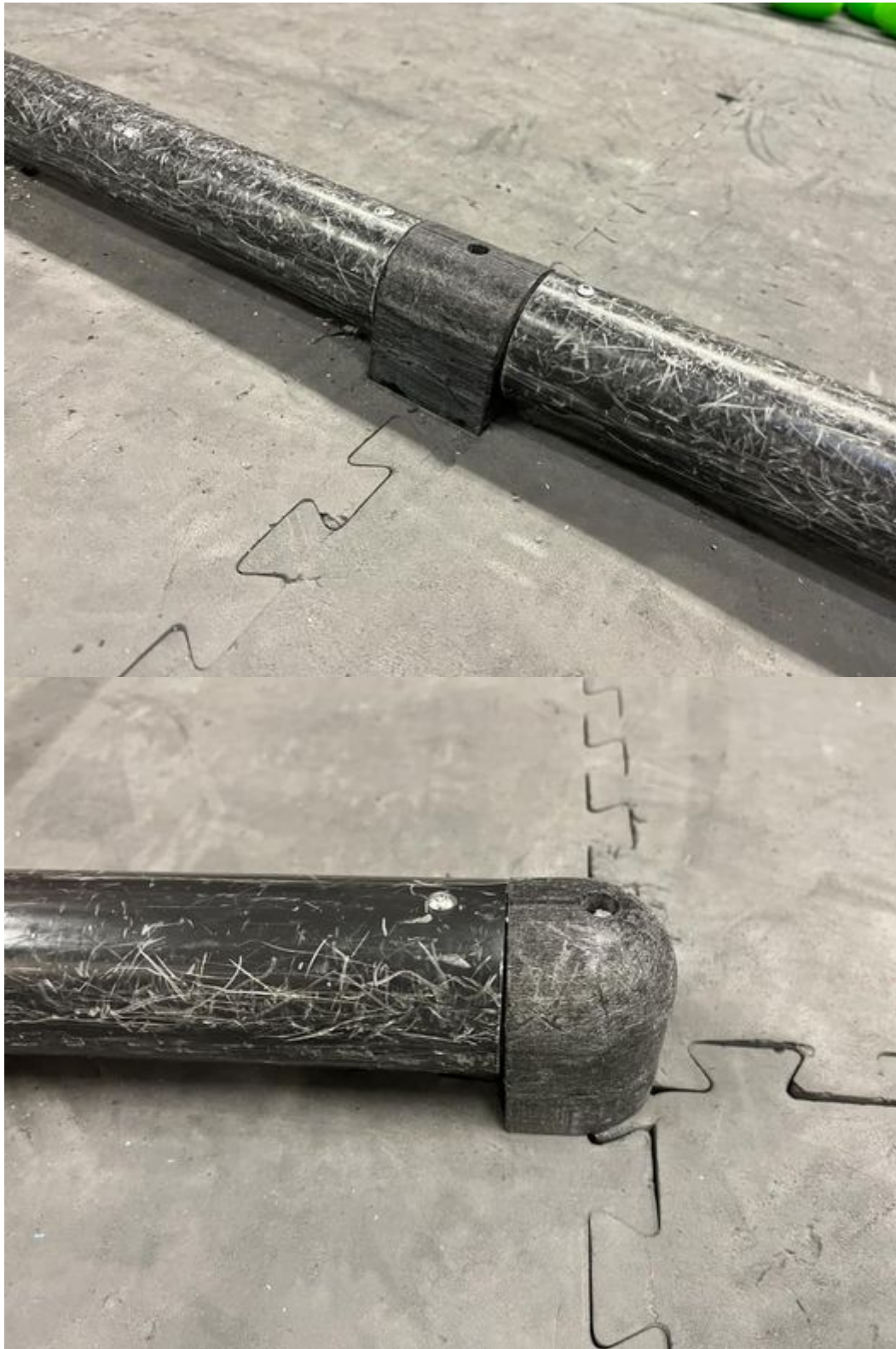
The Event Partner has ultimate authority regarding all non-gameplay decisions during an event.

<T11> states that

Fields may be repaired at the Event Partner's discretion. ... Examples of prohibited modifications include, but are not limited to: ... unofficial/replica Field Elements

You can see potential replacements here: https://www.vexforum.com/t/3d-printable-barrier-replacements-not-comp-legal-purdue-sigbots/122371?u=max_johnson03

Replacements in Use



Answered by committee

Replacing the VRC Large Pipe Cap and/or VRC Large Pipe Extender with functionally identical 3D printed replacements (e.g., from the models included in the linked [vexforum.com](#) post) is a permissible modification and a rare exception to the prohibition on unofficial/replica Field Elements in rule [<T11>](#). We strongly recommend that *black* filament be used whenever possible to create these replacement parts.

1656: Modification to Game Field

21-Sep-2023

[<T11>](#)

Q: Over the course of practice and a one day of tournament, our game elements are moving and ripping our field tiles. As teams play, they hit the pipes and it is causing rips when the single standoff slides as the large pipes that create the barrier are hit. Is it okay for us to add additional standoffs along the pipe axis (Under the pipes only) to reduce stress on that portion of the field tile? These standoffs should not cause any extra issues with driving over the bumps, It will only stop movement of the pipes from center.

Answered by committee

The October 3rd Game Manual update included additions to Appendix A to help with field durability, including this example.

As noted in rule [<T11>](#), minor field modifications or repairs are permitted provided that they do not impact gameplay.

Generally speaking, efforts taken underneath the field tiles to better secure the Barrier (that do not involve changing its shape or material) are going to be permissible.