

Q&A

VEX IQ Robotics Competition 2024-2025: Rapid Relay

Tagged: S2

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.

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 - 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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2187: Clarification regarding the definition of a student/IQ eligibility

10-Oct-2024

S2

[<S2>](#)

Please note that there is no option to tag the general definitions area of the game manual, so S2 is tagged as it has the link to the definition of a student. The definition of a student is as follows: Student – Anyone born after May 1, 2009 (i.e., who will be 15 or younger at VEX Worlds 2025). Eligibility may also be granted based on a disability that has delayed education by at least one year. Students are the individuals who design, build, repair, and program the Robot with minimal Adult assistance.

Based on this definition, would students who are technically in high school but are under the age of 15 be eligible for Vex IQ? Some people say that High schoolers cannot participate in IQ despite meeting these constraints, but others say it is completely fine.

Thanks! -282S

Answered by committee

Based on this definition, would students who are technically in high school but are under the age of 15 be eligible for Vex IQ?

Yes. Because the VEX Robotics Competitions are global, and the term "high school" is specific to the United States, age limits are the only restriction on student participation for specific programs.

1467: <S2> Definition of Outside Face

19-Feb-2023

SG4 S2

In <S2> it states the following:

If a Robot comes in contact with anything outside of the field during the Endgame period or due to an early expansion, including the floor or the outside face of the Field Perimeter, it will automatically receive a Disqualification for that Match.

What parts of the wall and other elements would be considered an outside face? A few spots that are in question are the following:

- A) The upward facing surface of the field perimeter / the top of the field perimeter
- B) The top side of the Roller brackets
- C) The outward face of the pole supporting the net
- D) On top of the Match Loader
- E) Underneath the Match Loader
- F) On legacy fields, the face of the field control tower that is closest to the inside of the field

Thank you for your time.

Answered by committee

As stated in rule [<S2>](#) and the Note at the end of rule [<S2>](#), the intent of the rule is to ensure that Robots do go out-of-bounds by **crossing the field perimeter**. [Q&A 1229](#) clarifies the intent of [<S2>](#), and indicates that the top surface of the Field Perimeter is not considered to be outside the Field. Those two rules, and taking a "top-down" view of the Field perimeter and the objects on and around it, allow us to classify the elements in your question in terms of whether a Robot crosses the field perimeter when contacting them, and thus whether or not contact with them would generally violate [<S2>](#) if the expansion is otherwise inside the field. As with all rules, the final determination of whether a rule has been violated must be made by the Head Referee within the full context of the Match.

Inside the field, and generally not in violation of [<S2>](#):

- The top face of the field perimeter
- The rollers and their brackets (see related [Q&A 1457](#))
- The outer face of the poles that support the Nets
- Most of the Match Loader (see the next list for more info)
- Underneath the Match Loader, on the top surface of the perimeter

Probably outside the field, and generally in violation of [<S2>](#), earning a DQ:

- The outside edge of the Match Loader that extends slightly beyond the field perimeter
- The inside face of the legacy field control tower, unless it is clearly "above" the field perimeter and not beyond it

Note that [Q&A 1229](#) also specifies that an expansion that extends through a Net is in violation of [<S2>](#).

1457: Does outside of roller bracket count as outside of the field S2

14-Feb-2023

S2

Does the outside of the roller bracket count as the outside of the field for the purposes of S2?

[<S2>](#) specifically says:

If a Robot comes in contact with anything outside of the field during the Endgame period or due to an early expansion, including the floor or the outside face of the Field Perimeter, it will automatically receive a Disqualification for that Match

Q&A1307 (<https://events.vex.com/VRC/2022-2023/QA/1307>) clarifies that endgames going through the net is also a violation of S2 even if it does not touch the outer face of the field walls or anything else. I interpreted that to mean the outer face of the string is considered something outside the field. Does a similar principle apply for touching out outside face of the roller bracket?

In this image you can see the string touches the upper face of the roller bracket on the right and the back face of the roller bracket on the left. https://drive.google.com/file/d/144FWz4hJLxsGLZCxWh_jtqL-MGyx_VFz/view?usp=share_link Currently I interpret the outside face of the roller bracket to not be considered outside the field because it is not specifically "anything outside of the field" or "the floor or outside face of the field perimeter" and does not have a Q&A that specifically clarifies it as being considered outside the field. Is that a correct interpretation?

I dont want to be pointlessly punitive but I understand safety is important and want to enforce the rules for that correctly.

Thank you, Afnan Ali

Answered by committee

In some instances, the Head Referee will have to make a judgment call as to whether they feel a Robot was, as stated in rule [<S2>](#), "out of the field during the Endgame period or due to an early expansion" or not. Because the

entire Roller structure sits within or on the Field Perimeter with no parts crossing the outside edge of the Field Perimeter, we would consider this specific example to be inside the field and not in violation of [<S2>](#). See related [Q&A 1467](#) for additional examples.

1451: <G3><S2> Endgame Launcher Firing During Match Scoring and Landing Outside the Field

12-Feb-2023

G3 S2

This past weekend, there was an instance where a team did not fire their endgame, but while the match was being scored it fired and landed outside the field. I was already over at the next match as everything already "came to rest" and was ready to be scored. I went over to the field after my match ended and talked to the team about how their robot fires their endgame. Due to how they have their pneumatics hooked up, a loss in pressure can cause the launcher to fire. They did inform me that they had a slight pneumatic leak and that is what caused it to fire. *I will note that my scorekeepers said that none of them touched the robot.*

This could be one of two scenarios for rulings based on which of the two rules takes precedence: < G3 > or < S2 >.

< G3 > : If this rule takes precedence, then it should not be ruled a DQ per < S2 > as the team did not intend to fire the mechanism. < S2 > : If this rule takes precedence, then it should be ruled a DQ as they are "responsible for the actions of their robots at all times"

As the Head Referee, I ruled it as a DQ per < S2 > due to the reasoning above.

Can further clarification be provided on which of these two rules would take precedence so that we know for future events?

Thank you,

Cowboy Chris

Answered by committee

We believe [our response to Q&A 1436](#) answers your question. If you need more clarification, feel free to rephrase and resubmit.

1425: Endgame deployed outside the field or entangled in the net

3-Feb-2023

SG3 S2

In match play when a robot is entangled with the net they are disabled but still scores covered tiles if applicable. Would mean in skills if the endgame gets entangled in the net without contacting the outside of the field perimeter the tiles covered would score?

In skills if the end game contacts anything outside the field perimeter the run is scored as a zero since there is no way to mark DQ for skills (based on a previous Q&A response). Would the outside of the net be considered outside the field? For example, an endgame deploys through the net by 2 feet and then hangs down but never contacts the outside of the walls, floor, or person this would only count as a disable and still score or DQ under S2 since the object could have hit someone.

Answered by committee

We believe your question has been addressed in the response to [Q&A 1307](#). If you still have question after reviewing that response, feel free to clarify and resubmit your question.

1376: S2 - expansion during end game that comes detached from string

9-Jan-2023

S2

I was the head ref at a tournament this past Saturday. During the event, we had a robot legally deploy their endgame string during the last 10 seconds of a skills run. When the string was shot, one of the rubberband/weight attachments became detached from the end of the string and exited the field (hitting the floor outside the perimeter). Everything that was still attached to the robot fell legally within the field perimeter (including the other 5 rubberband/weight attachments still connected to the other strings). The detachment was accidental, did not hit anyone, and did not happen during any other deployment during the tournament.

We cited [<S2>](#) (if a robot comes in contact with anything outside the field during the endgame period, it will automatically receive a DQ for the match) and ruled the skills run a "DQ" and awarded zero points for the run. A coach (not even related to the team in violation) later asked if this case should be treated differently since the robot did not come in contact with anything outside the field (because everything attached to it was legally within the perimeter). That coach compared it to the fact that we don't consider loose chain that pops off before endgame an early expansion violation (as long as it isn't attached to the robot and violating the 18" rule).

If the deploy was strategic and routinely shot objects out of the field, I feel we'd have a clean cut answer. Since this was a "once-off," I'm second guessing our decision. I'd like to know if you think we could have let the score stand and should have issued a warning, rather than a DQ/Zero Score.

Thanks for all your hard work!

Answered by committee

Thank you for your question. In most cases, you are correct: parts that come detached from a robot are no longer considered "part of the Robot." However, because the focus of rule [<S2>](#) is the safety of nearby participants and observers, **if part of a Robot comes in contact with anything outside of the field--whether or not that part remains connected to the larger Robot--the Team should receive a Disqualification for the Match.** Teams are responsible for the actions of their Robots at all times, including during the Endgame or an early expansion.

1364: Causing Opponent Disqualification in End Game as a Strategy

4-Jan-2023

S2 G14

In endgame. Robot 1 shoots a string shooter in an attempt to touch tiles. Robot 2 deploys a large screen attached to it. The string from Robot 1 bounces off the large section screen deployed by Robot 2. The end of the string lands outside of the field. The string is laying on both a tile and also out of the field. Is Robot 1 disqualified?

The manual says G14 doesn't apply for S2. It seems that there is a legal game strategy to force a penalty in endgame to make your opponent shoot out of the field and become disqualified.

Answered by committee

Thank you for your question! As described in rule [<S2>](#), Teams are responsible for the actions of their Robots at all times. Each Team must decide whether or not to deploy an expansion based on their current surroundings, and is responsible for any outcome of that action. Contacting anything outside the Field will earn a Major [<S2>](#) Violation for the Team whose Robot leaves the Field; per the 3rd paragraph of [<S2>](#), rule [<G1>](#) may still apply to these interactions at the Head Referee's discretion.

1307: Got a question about endgame flying out

20-Nov-2022

S2

we know with the new ruling of endgame coming in contact with the outside field perimeter or the floor that its considered a DQ, but how about if the endgame it hanging on the outside of the net barrier, it has not touched the outer walls, its just hanging outside the net

I have images if needed, just no where to post it right now.

Answered by committee

Thank you for your question. An expansion that extends through a Net is in violation of [<S2>](#) (as well as [<SG3>](#)) and will automatically receive a Disqualification.

1295: Field Displays <S2> <S1> <R4>

12-Nov-2022

S2 S1 R4

[<SC2>](#) states:

If a Robot comes in contact with anything outside of the field during the Endgame period or due to an early expansion, including the floor or the outside face of the Field Perimeter, it will automatically receive a Disqualification for that Match.

1. If a Field Display is in use, is it considered outside the field perimeter, such that a team automatically receives a Disqualification if it contacts the field display during Endgame or due to an early expansion?

[<S1>](#) and [<R4>](#) protect field elements, including Field Displays. [<Q&A1263>](#) Asks if pneumatic reservoir nuts are legal for use as a projectile in an Endgame expansion system. The response indicates latitude for inspectors and Head Referees to determine the safety of an expansion system:

The type of Endgame mechanism you describe is potentially legal. Teams, Inspectors, and Head Referees must apply judgment to determine whether any specific mechanism is unsafe as described in rule [<R4>](#), and in particular [<R4d>](#)

2. Is potential damage to a Field Display by an expansion system (such as use of pneumatic reservoir nuts as projectiles) a valid reason to fail a team at inspection based on [R4a](#)?

Answered by committee

1. If a Field Display is in use, is it considered outside the field perimeter, such that a team automatically receives a Disqualification if it contacts the field display during Endgame or due to an early expansion?

Yes. The Field Display is considered to be outside the Field Perimeter, and contact with the Field Display by a Robot during during Endgame or due to an early expansion is a violation of [<S2>](#) that will result in an automatic Disqualification.

2. Is potential damage to a Field Display by an expansion system (such as use of pneumatic reservoir nuts as projectiles) a valid reason to fail a team at inspection based on [R4a](#)?

It is possible to use pneumatic reservoir nuts as part of a safe and legal expansion mechanism. Inspectors and Head Referees must consider the entire mechanism when determining whether a specific expansion mechanism should be allowed. In the right (or wrong) circumstances, nearly any Robot on the Field *could* cause damage to a Field Display in nearly any VRC season. This possibility is not, by itself, a valid reason to fail a Robot at inspection.