

Q&A

VRC 2023-2024: Over Under

Tagged: SG5

Welcome to the official VEX 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 VRC Over Under 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 VRC Over Under rules questions.

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 - For VEX technical support, contact support@vex.com or sales@vex.com.
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2068: Rapid loads briefly touching the floor

24-Jul-2024

SG5

During the rapid load period, does the load need to be released by the loader onto the floor? Or is it enough for the ball to briefly touch the floor, while remaining in the loader's hand, before being directly placed onto / thrown towards a robot.

Answered by committee

Thank you for your question! The intent of rule [<SG5>](#) is for Loaders to place Rapid Load Balls directly onto the Starting Zone, without any further interaction from the Loader.

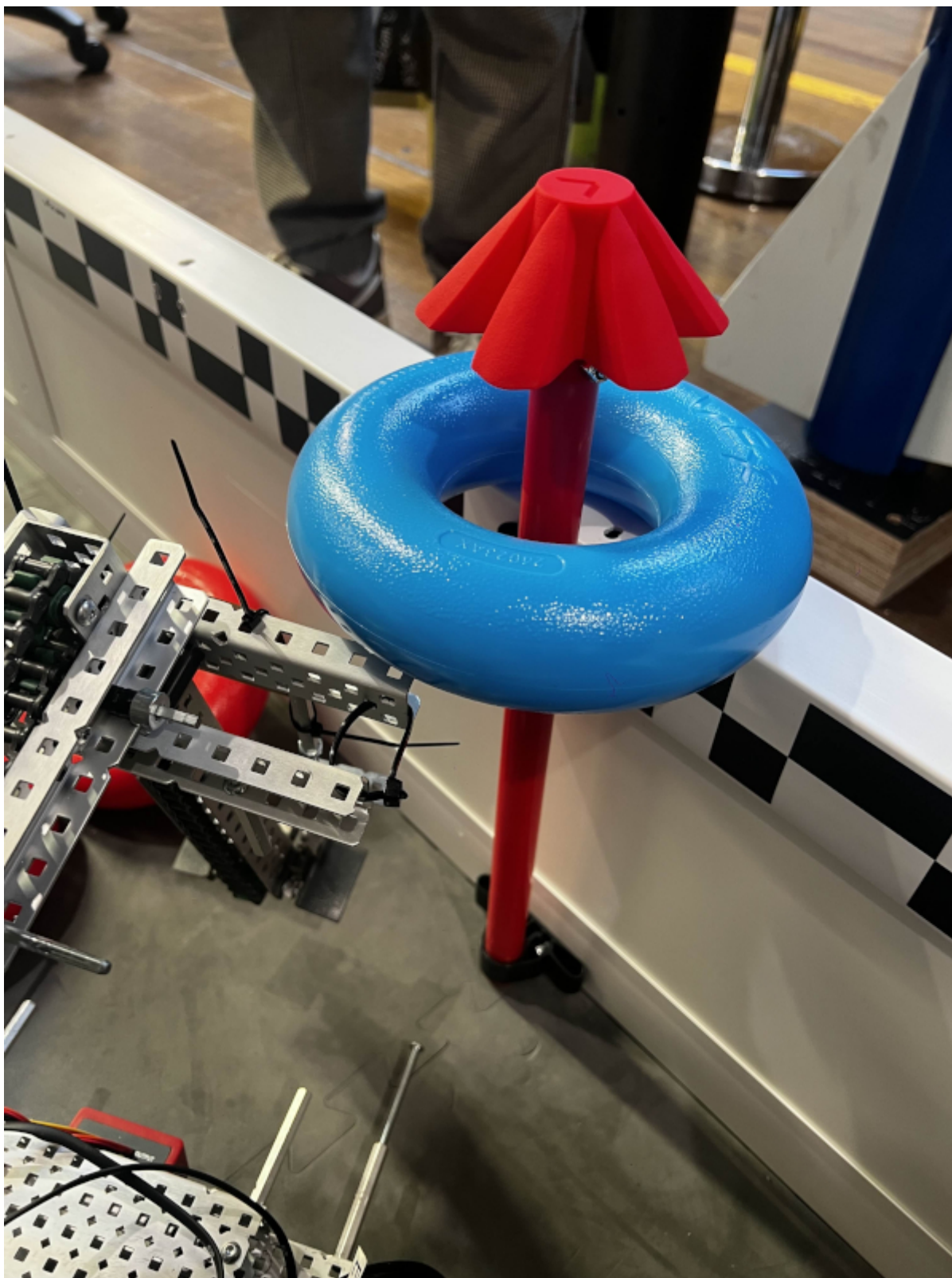
Rule [<SG5>](#) will be revised in an upcoming game manual update to specify that Rapid Load Balls may only be removed from the Starting Zone by a Robot, and cannot be bounced, rolled, or otherwise removed from the Starting Zone by a Loader.

2061: SG5: Preload 'encircling' the alliance wall stake

12-Jul-2024

SG5

Can a preload be placed in a position such that it is 'encircling' the alliance wall stake, but not touching the stake?



[<SG5>](#) states that the preload cannot be in a 'scored' position. However, as the preload is touching the robot, [<SC3>a.](#) states that the ring does not count as scored (so it is not possible for a preload to be in a 'scored' position).

Therefore, should contact with a robot be ignored for determining the legality of a preload per [<SG5>](#)?

Answered by committee

Thank you for your question! Clause C of rule [<SG5>](#) will be revised in the next game manual update to read as "Not contacting or encircling a Stake or any other Scoring Objects."

2050: Rapid Load Period

27-Jun-2024

SG5

If you load a ball through the Loading Station during the Rapid Load Period, are you still eligible to score points by passing with the ball the ball that was loaded through the Loading Station?

Answered by committee

Yes.

192: Blocking Opponent Shots

20-Dec-2018

G14 SG5

Hi There,

Would it be legal for a team, let's say BLUE1, to have a large piece of legal material, provided they have passed inspection and are within the expansion limits (18"x18"x18"), on field used *solely* with the intent to block opponent shots. In this hypothetical scenario, RED1 has lined up to take a shot at two flags, and BLUE1 has driven in front of RED1. From here, there are a few scenarios that can occur, I will outline them below.

Scenario 1) BLUE1 is holding a ball and actively pushing RED1, while RED1 is not showing any attempt to escape (eg. no drive motion on joysticks). RED1 fires two balls, both of which hit BLUE1's plate and then bounce off. Would this be legal, or would it go past the possession limits outlined in rule SG5?

Scenario 2) BLUE1 does not have any game objects and is actively pushing RED1, while RED1 is not showing any attempt to escape. Both balls are fired, again bouncing off. Would this be legal?

Scenario 3) BLUE1 has game objects and is actively pushing RED1, while RED1 is actively fighting back. RED1 is approximately 1 tile away from the platforms, and BLUE2 is behind RED1, however they are just "passing through", on their way to score their own game object and in no way showing an intent to block RED1. RED1 fires, again both balls bouncing off BLUE1's blocker. Would this violate SG5 for hoarding, as well as G14 for trapping. Would BLUE be called for trapping if this situation passed 5 seconds? There is an open avenue for espace on both sides of the RED1 robot, RED1's robot may not however, be capable of 'strafing', or sideways motion and are thus unable to back away.

Scenario 4) This is similar to Scenario 3), however BLUE1 is not holding any game objects (scenario 4 is to scenario 3 as scenario 2 is to scenario 1).

Scenario 5) BLUE1 has game objects, and is pushing both RED1 and RED2. RED is being pushed towards the alliance platforms, RED1 and RED2 both fire two balls and both are blocked by BLUE1 - what call (if any) would be made?

Last question - if BLUE1 has this blocker, but RED1 comes underneath and forces the blocker above 18" (for example, by bending a piece of metal). What is the ruling here? Would it be different if RED1 bent it with for example, an arm or lifting mechanism, or if RED1 bent it with the sheer force of hitting it repeatedly with a ball.

Thanks, Anthony.

Answered by committee

We apologize, but it is always difficult to rule absolutely on hypothetical scenarios, and we are having a hard time understanding the root of the question that you are attempting to ask.

Please review the [Q&A Usage Guidelines](#), specifically points 1, 3, 4, and 5, and re-submit your question. It will be much easier to provide a clear interpretation if you phrase your question concisely and in terms of a specific rule.

1850: Re moving triball from the top of the goal

1-Jan-2024

SG5

[<SG5>](#)

If a robot pushes or pulles the triballs from the top of the goal without touching the net, does it violate SG5?

Answered by committee

If a robot pushes or pulles the triballs from the top of the goal without touching the net, does it violate SG5?

If there is no interaction or Entanglement with the net, then no, an SG5 Violation is not likely. However, although we cannot comment absolutely on hypothetical scenarios, this interaction sounds more like [<SG8>](#) would be the rule to apply.

1808: <SG5> Lifting the Goal in an attempt to add or remove triballs

3-Dec-2023

SG5

Hello, Reading through [<SG5>](#), we can see that in the attached note, "Lifting the net structure in an attempt to add or remove Triballs is considered a Violation of [<SG5>](#)", recently [QA1684](#) had highlighted that pretty much all VRC rules are only intended to apply to one Team / Robot.

Given that lifting the net without adding or removing triballs is a legal action as per the note and shooting triballs is also a legal action, by this logic one robot may lift the net structure to open a goal for another robot to shoot directly into it.

In regards to [<G3>](#), there are no obvious typographical errors, and no rule is prohibiting this action and we are assuming that as it stands it is currently legal, given that there was leeway left for the net to be opened provided no triballs were added or removed, would it be correct to assume that this is not governed by [<G3>](#)?

Assuming that this is logic is sound, we would like to ask the following:

Provided that a robot does not contact the net, and lifts the net only by contacting the net structure, Is the strategy described above legal in VRC and VEXU?

In regards to the above, I want to also clarify how this would relate to [QA1685](#), in which it is stated that in safety or damage related circumstances robots may be disabled in the autonomous period, leading on to the following question:

If a net is open, it may lead to unanticipated risks of entanglement and damage to the field in autonomous, should robots that are heading in the direction of an open goal in the autonomous period be disabled before contact?

Lastly, regardless of whether a net was opened strategically or not, in the event that a net is open, how should triballs be considered scored in the following scenarios?

1. Triballs within the PVC pipes that are no longer underneath the net, as per [<SC3>](#):

at least (2) corners of the Triball are within the Goal (i.e., are under the Net and have "broken the plane" of the outer edge of the PVC pipes that define the goal volume.

Therefore, when a net has been opened, as the triballs are no longer underneath the net (but within the PVC pipes), are they considered scored in the goal? Based on Figure 24 under [<SC3>](#), it is shown that two corners are in the goal, not underneath the net and considered scored. Would it be correct to assume that triballs still count, and that they are not physically required to be under the new location of the net. 2. If the net is open, would triballs underneath the open net be

considered scored? Would the PVC pipes of the net structure be an extension of the "within the PVC pipes" part of <SC3>?

Cheers and thank you for your time, Southern Hemi-Spencer

Answered by committee

Provided that a robot does not contact the net, and lifts the net only by contacting the net structure, Is the strategy described above legal in VRC and VEXU?

No. As described in clause a of rule <T10>, "Field Element tolerances may vary from nominal by up to ± 1.0 ." Sheet 8 of 15 on page A13 of Appendix A illustrates that the nominal position of the Goal puts the Goal in contact with the top of the field perimeter. Cases in which a Robot intentionally moves a stationary Field Element out of tolerance should be ruled as Violations of rule <S1> and result in a DQ for that Robot (or Alliance, if the Violation occurs during an Elimination Match).

If a net is open, it may lead to unanticipated risks of entanglement and damage to the field in autonomous, should robots that are heading in the direction of an open goal in the autonomous period be disabled before contact?

No. The disablement described in the Note for rule <G11> and [Q&A 1685](#) is *only* intended for cases where a Robot is exhibiting an immediate safety hazard. It is not possible to accurately predict the severity or duration of a hypothetical future entanglement.

Lastly, regardless of whether a net was opened strategically or not, in the event that a net is open, how should triballs be considered scored ...?

If the Goal moves out of tolerance during a Match, a Triball should be considered scored in that Goal if it is not contacting a Robot of the same color Alliance as the Goal and if at least 2 corners of the Triball have broken the plane of the outer edge of the PVC pipes that define the Goal volume (i.e., would meet the requirements of <SC3> if the Goal were within tolerance).

Cases in which the Goal moves out of tolerance during normal gameplay or not due to Robot interactions may be eligible for a Match Replay as described in rule <T7>.

1738: Proper Action if Net Clamp comes loose?

31-Oct-2023

SG5

During our matches there have been situations where a robot bumps into plastic clip of the goal causing it to come loose even after we added tape inside the clip. It does not fall onto a robot or cause entanglement. Are the matches to just continue as normal with a fallen net? Should a team be disabled due to <SG5>?

Answered by committee

A fallen net could warrant a Match replay under clause A of rule <T7> if the Head Referee determines that it was Match Affecting, and if both the Head Referee and Event Partner agree that a replay is appropriate. If no Robots are entangled with the net, no Disablement is warranted.

1685: <SG5> Net Entanglement in Auton

9-Oct-2023

SG5

Hello!

Recently at an event, we had an interaction in the neutral zone which had resulted in a robot driving inside of the net, whilst underneath the net it fired its catapult repeatedly which began hitting the net,, as per [<SG5>](#) normally this type of interaction would result in the Disablement of the Entangled robot, or due to the risk of damage to the field, but as this interaction occurred during autonomous, there was no way to disable the robot without aborting early.

If this had happened at the beginning of autonomous, this could lead to serious damage to the field, and under normal conditions this interaction should not have occurred, what should Head Referees do if this situation arises, and what team would be responsible for entanglement with the net?

Cheers

Answered by committee

Teams are responsible for the actions of their own Robots at all times, including during the Autonomous Period.

In an extreme case such as the one described in your post, or if the Robot is exhibiting an immediate safety hazard (e.g. leaving the field) Teams may disable their own Robot by holding the power button on their Controller.

It should be noted that this exception is only intended for egregious safety- or damage-related circumstances; it is **not** acceptable for strategic purposes, such as disabling a Robot before it crosses the Neutral Zone.

As such, it would generally be assumed that Robot is in an unsafe/damage-prone state where it would be expected to stay Disabled for the rest of the Match. However, if the Head Referee wishes to grant the 5-second grace period allowed by [<SG5>](#), the Team may re-start their Robot's program during the pause between the Autonomous and Driver Control Periods. This must be done from the Controller; Teams must still abide by [<G9>](#).

This is a specific (and hopefully rare) exception to rule [<G11>](#), that will be added in the next Game Manual update.

1495: Wedges, G13, 14, SG4, and SG5

8-Mar-2023

[G13](#) [G14](#) [SG4](#) [SG5](#)

Q and A [1119](#) states that the sizing box does not rotate with the robot.

Q and A [1206](#) states that rotating you bot out of size could result in either an SG4 and/or SG5 violation.

G13 states

Offensive Robots get the “benefit of the doubt.” In a case where Head Referees are forced to make a judgment call regarding a destructive interaction between a defensive and an offensive Robot, or an interaction which results in a questionable Violation, referees will err on the side of the offensive Robot (i.e., the Robot that is actively attempting to score points).

G14 states

Intentional strategies that cause an opponent to break a rule are not permitted, and will not result in a Violation for the opposing Alliance. Violation Notes: In most cases, if a Team causes their opponent to break a rule, the Head Referee will simply not enforce the penalty on that opponent, and it will be considered a Minor Violation for the guilty Team. **However, if the forced situation becomes Match Affecting in favor of the guilty Team, it will be considered a Major Violation.**

SG4 states

Robots may not expand beyond a horizontal area of 18" x 18" at any point during the Match prior to the Endgame.

SG5 states

Vertical expansion is limited. Robots may expand vertically within the following conditions: a. The Robot must not be contacting the gray field tiles in either Low Goal. b. No part of the Robot may exceed an overall height of 24". This height limit is a "virtual ceiling," meaning that no part of any Robot may ever exceed 24" above the foam tiles, regardless of Robot orientation. c. Any extensions or combinations of extensions above 18" must fit within a vertical cylinder 2" in diameter. d. There are no vertical expansion limits during the Endgame. e. Robots may not contact the High Goal, Discs which are Scored in the High Goal, or the horizontal supporting structures directly underneath the High Goal. This rule applies at all times, regardless of Alliance / High Goal color.

Scenario 1: While a blue robot is attempting to score, a red robot uses a wedge to immobilize the blue robot. The act of rotating the blue robot causes the blue robot to be longer than 18 inches and taller than 18 inches. The red robot backs off after 4 seconds to avoid trapping, then repeats the action again after waiting 4 seconds. This continues through the remainder of the match severely limiting blue's offensive capability. Red wins by a small margin. Could this be considered a match affecting G14 violation as blue should receive the benefit of the doubt?

Scenario 2: Everything plays out the exact same as scenario 1 except that the blue robot's drive team members make it clear that the red robot is forcing them out of size. This know makes the G14 violation intentional. Does this change the ruling?

Scenario 3: Everything plays out the exact same as scenario 2; however, the red robot causes the blue robot to touch the high goal support at multiple times during the match. Does this change anything as this risks damage to the field elements?

Thank you in advance.

Answered by committee

As stated in the Violation Notes for rule [<G14>](#), "In most cases, if a Team causes their opponent to break a rule, the Head Referee will simply not enforce the penalty on that opponent..." There is nothing Match Affecting about repeatedly being tipped out of size by a small amount, and in general this should not even result in a Minor Violation for the Robot that is tipped out of size.

1450: <SG5> Robot Endgame Mechanism Hitting High Goal

12-Feb-2023

SG5

<SG5> Vertical expansion is limited. Robots may expand vertically within the following conditions:

[...]

e. Robots may not contact the High Goal, Discs which are Scored in the High Goal, or the horizontal supporting structures directly underneath the High Goal. This rule applies at all times, regardless of Alliance / High Goal color.

[...]

Violation Notes:

[...]

- Even if an expansion was accidental, it can still be considered a Major Violation if the Head Referee judges that the expansion was intentional, strategic, and / or Match Affecting. This especially applies to part "e" of this rule.

Scenario:

It is the Endgame period of a Head-to-Head Match. A Robot has an Endgame mechanism that shoots 2 strings. The Robot is sitting in between two Rollers in a corner (Covering 1 tile), and deploys their mechanism by shooting string across the field. One string flies normally across the field and covers 2 tiles that otherwise would not be considered Covered. The other string hits the side of a High Goal and then rests on the ground, covering 1 tile that would otherwise not be considered Covered. This is a clear Violation of <SG5> part (e). The Head Referee determined this Violation to be non-strategic and incidental. The Robot Covers a total of 4 tiles.

Question 1

What should be considered when determining whether this Violation is Match Affecting or not?

1. Should it depend on the string that touched the High Goal?
2. Should it depend on both strings?
3. Should it depend on all of the Covered tiles the Robot covers (that isn't also Covered by its Alliance partner)?

Or is there an alternative interpretation entirely?

Question 2

Would the answer to Question 1 be different depending on whether the Robot has 1 Endgame mechanism that shoots both strings, or 2 Endgame mechanisms that each shoot 1 string? I understand the line between those is blurry, and so it might be up to the Head Referee's as to whether there is one mechanism or two.

Thank you for your time.

Answered by committee

Teams **must** always be in control of their Robots, particularly expansion mechanisms. If an expansion cannot be deployed safely and without breaking game rules, it should not be deployed.

As noted in clause E of rule <SG5>SG5 and the note following that rule, Robots may never contact the High Goal or its structure, and a Match Affecting violation of SG5 should be considered a Major Violation.

If an Endgame expansion mechanism contacts the High Goal or its structure, *all* points earned by that Robot for Covered tiles should be identified and considered as a whole when determining whether or not the <SG5>SG5 violation is Match Affecting.

For example, if Robot RED1 launches five strings during the Endgame and one of them contacts a High Goal, all Field Tiles contacted by any one of the Robot's strings and/or its drivebase (that are *not* also contacted by RED2) will be counted. If RED1 is contacting eight (8) tiles (that aren't also being contacted by RED2) and wins the Match by 24 or fewer points, the violation is Match Affecting and RED1 should receive a Major <SG5> Violation and a Disqualification for the Match.

145: Hoarding Resolution - Hoarding Definition and SG5

15-Nov-2018

Caps SG5

Hoarding is defined as placing two or more caps . . . in one of the four corners of the field and actively preventing your opponent from gaining access to them. If a team placed two caps between two flag towers, would that be a legal means of hoarding?

Answered by committee

The definition of Hoarding is as follows:

Hoarding – A Robot status. A Robot is Hoarding if it is actively blocking opposing Robot access to more than two (2) Balls, or more than one (1) Cap, in any of the four (4) corners of the field (i.e. positioned in the corner roughly the size of one foam field tile).

The area between the Flags is not called out as a possible destination for Hoarding; therefore, placing two Caps between two Flag towers would not be considered Hoarding, and would be legal.

1436: Expansions after the Endgame, <SC1>, and <SG5>

7-Feb-2023

SC1 SG5

<SC1> <SG5>

Rule definitions: <SC1> “All Scoring statuses are evaluated immediately after the Match ends a. For the purposes of this rule, “immediately after” means when all Discs, Field Elements, and Robots on the field come to rest.” <SG5e> “Robots may not contact the High Goal, Discs which are Scored in the High Goal, or the horizontal supporting structures directly underneath the High Goal. This rule applies at all times, regardless of Alliance / High Goal color.”

Questions: <SC1> states that the match is scored once all objects have come to rest. In a Q&A (<https://www.robotevents.com/VRC/2022-2023/QA/1214>), it was determined that a passive mechanism that fires after the end-of-match buzzer sounds would not count as scored. Extending this logic to endgame mechanisms, would a mechanism that fires well after (20-30 seconds) the buzzer still have an impact on the match outcome? Or would it be disregarded entirely? The second part of this question relates to when a field is “frozen” for scoring, such that no new actions will be considered in the match outcome. Once referees start to score a match, is there still a possibility for game elements to be scored, i.e a passive mechanism? Or is it understood that once referees begin to score a match, they have determined that all objects have come to rest and the field is frozen? Most referees enter the field to score, so is the status of all elements and robots frozen once the first referee steps foot on the field? If either of these are the case, would this then end the time period set forth by <SG5> part e, in relation to contacting the high goal?

Answered by committee

If an action occurs after Robots, Discs, and Field Elements have come to rest, it is not considered part of the Match and does not impact scoring.

It is impossible to make a blanket ruling that would apply to all possible post-Match scenarios. If the Head Referee determines that a violation (e.g., <G1>, <S1>, or <S2>) is necessary for a post-Match action, it is within their purview to issue one.

1226: SG5 Vertical Expansion Not Perpendicular to the Floor

10-Oct-2022

SG5

Hello,

SG5

Vertical expansion is limited. Robots may expand vertically within the following conditions:

- a. The Robot must not be contacting the gray field tiles in either Low Goal.
- b. No part of the Robot may exceed an overall height of 24”. This height limit is a “virtual ceiling,” meaning that no part of any Robot may ever exceed 24” above the foam tiles, regardless of Robot orientation.

- c. Any extensions or combinations of extensions above 18" must fit within a vertical cylinder 2" in diameter.
- d. There are no vertical expansion limits during the Endgame.
- e. Robots may not contact the High Goal, Discs which are Scored in the High Goal, or the horizontal supporting structures directly underneath the High Goal. This rule applies at all times, regardless of Alliance / High Goal color.

Definition of Vertical (Merriam-Webster)

perpendicular to the plane of the horizon or to a primary axis

Below are two images of a robot greater than 18"

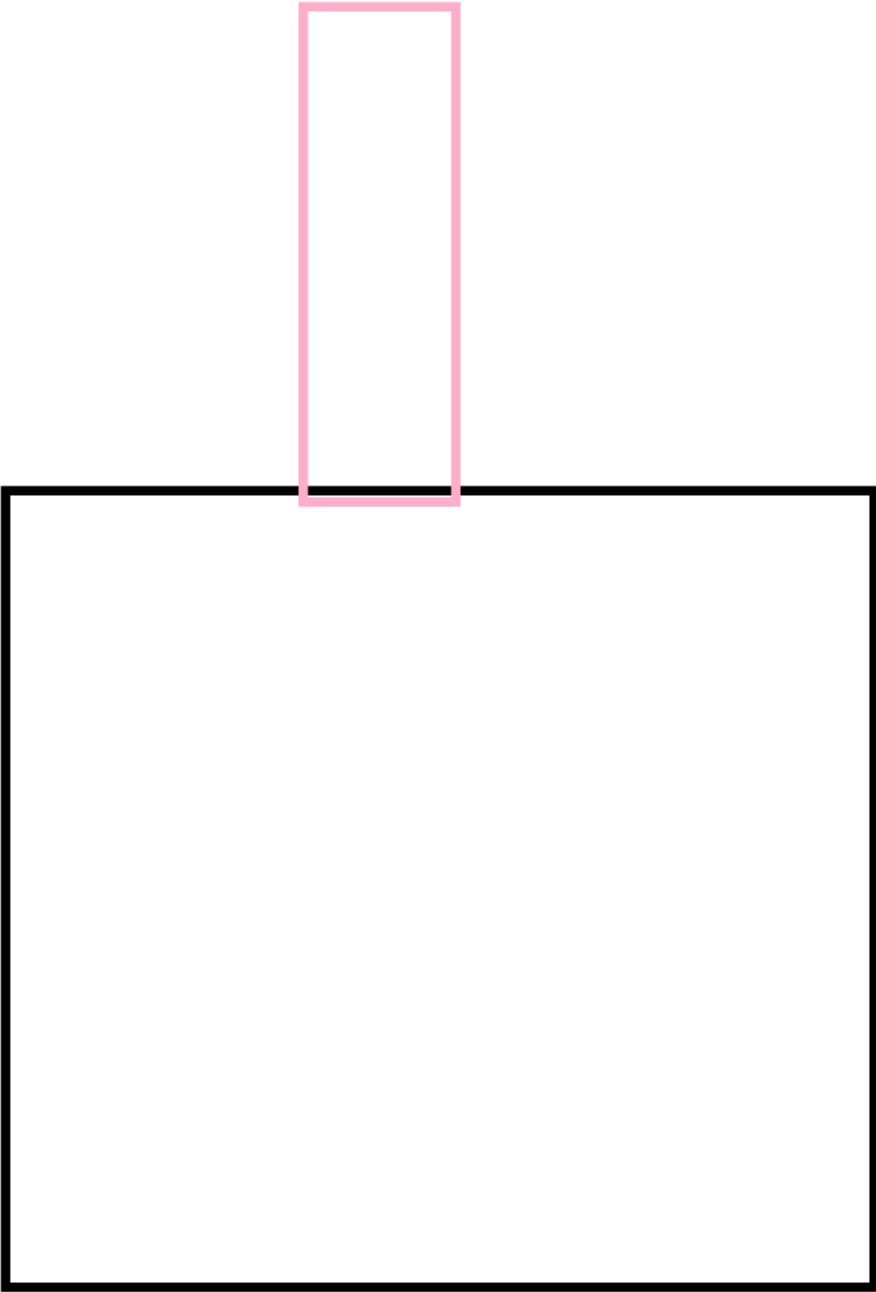
Pink - mechanism that is able to flip out and exceed 18" but is within a 2" diameter, and is able to rotationally retract when entering a Low Goal.

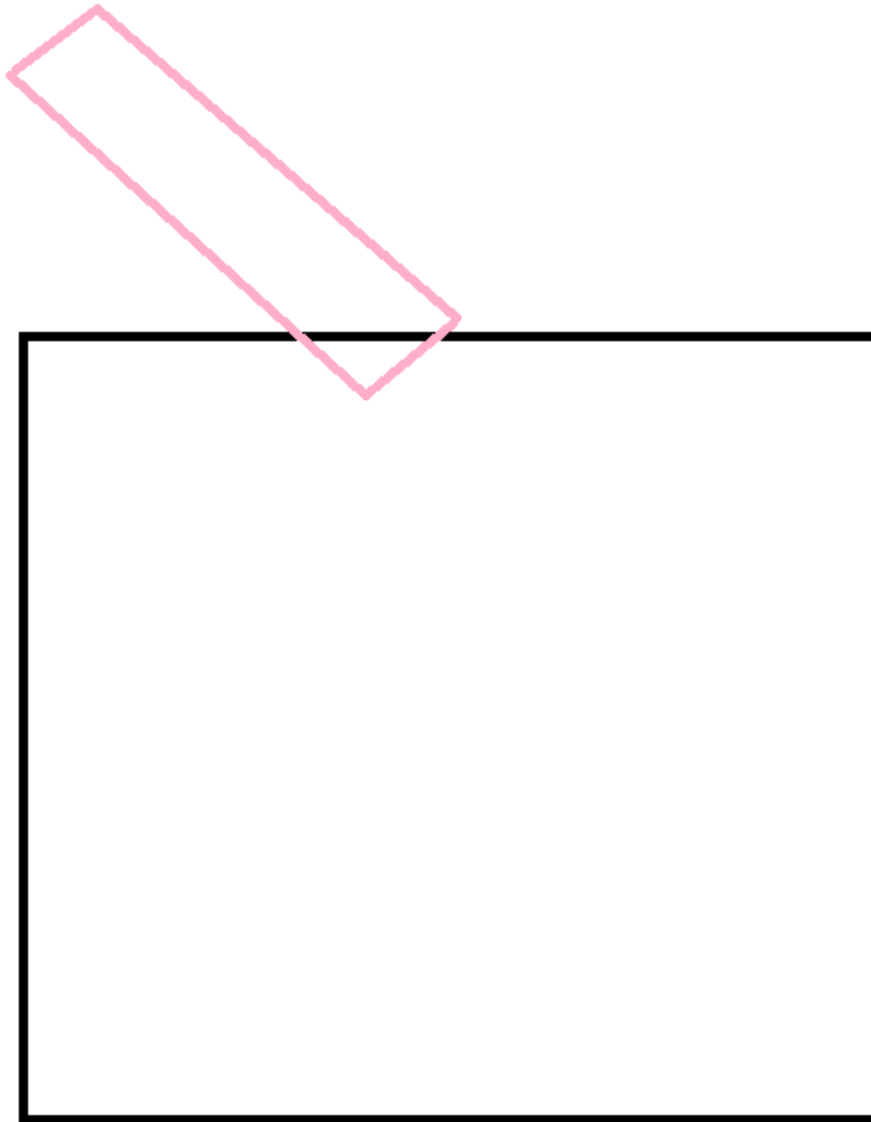
Black - 18"x18"x18" robot

Do mechanisms that exceed 18" height have to be perpendicular to the floor?

If yes, is the mechanism in violation of SG5c while rotationally flipping out?

Thank you for your time!





Answered by committee

Do mechanisms that exceed 18" height have to be perpendicular to the floor?
If yes, is the mechanism in violation of SG5c while rotationally flipping out?

Thank you for your questions! Yes; mechanisms that cause a Robot to exceed 18" in height must **always** be perpendicular to the floor, in agreement with the dictionary definition of 'vertical' you provided.

Yes; the mechanism you depicted in the 2nd image would be in violation of rule <SG5c> while rotating into position.

1206: Q and A 1185 and SG5 follow up

21-Sep-2022

SG5

Q&Q 1185 references robots momentarily breaking the 18" or 24" limits when they drive over a disk.

Q and A 1185 reads as follows:

"At most, this would be considered a warning, although in most cases this would simply be considered standard gameplay and not addressed by the Head Referee."

And SG5 also reads:

"These will likely only result in a warning, if no gameplay interference occurs"

Driving over a disc is almost always not gameplay affecting. However, the Q and A did not address issues where momentarily breaking expansion could affect gameplay. Would these examples be considered "gameplay interference"?

Example 1: A red robot height, blocks the exit from the low goal, the blue robot, sized at 18", drives over the barrier to escape, causing their robot height to momentarily be 20" from the floor.

Example 2: An 18" tall robot notices that their angle of elevation is too low to make disks in the high goal, they drive onto barrier to increase their angle of elevation as they launch disks, momentarily making their height 20".

The argument could be made that it is a team's own responsibility to know the size of their robot, and the team would be making a conscious decision to drive over the barrier thus intentionally violating the rule intentionally. Also, this violation would strategically impact gameplay as it would save the team time rather than driving around the barrier.

Thanks for your time!

Answered by committee

Q and A 1185 reads as follows: "At most, this would be considered a warning, although in most cases this would simply be considered standard gameplay and not addressed by the Head Referee."

And SG5 also reads: "These will likely only result in a warning, if no gameplay interference occurs"

Driving over a disc is almost always not gameplay affecting. However, the Q and A did not address issues where momentarily breaking expansion could affect gameplay. Would these examples be considered "gameplay interference"?

Your specific questions are extremely context-sensitive, and we cannot provide blanket answers that will accommodate all possible situations.

In any situation where a Robot's actions and its potential effects on gameplay must be interpreted, it is up to the Head Referee to determine whether a Minor or Major Violation should or should not be awarded. As described in the 3rd Violation Note of <SG5>, if the Head Referee judges that the expansion was intentional, strategic, and/or Match Affecting, it should be considered a Major Violation.

1199: SG5d Vertical Expansion in Low Goal during End Game

19-Sep-2022

SG5

Hello,

While practicing one of our teams shot their end game mechanism in the low goal area. This led to looking at SG5.

<SG5> Vertical expansion is limited. Robots may expand vertically within the following conditions: a. The Robot must not be contacting the gray field tiles in either Low Goal. b. No part of the Robot may exceed an overall height of 24". This height limit is a "virtual ceiling," meaning that no part of any Robot may ever exceed 24" above the foam tiles, regardless of Robot orientation. c. Any extensions or combinations of extensions above 18" must fit within a vertical cylinder 2" in diameter. d. There are no vertical expansion limits during the Endgame.

Based on the rules stated in SG5d there are no vertical expansion limits during the end game. If a robot was to expand vertically in the low goal area, contacting the gray field tiles during the endgame, is this a violation of SG5a? Or is the wording of Vertical Expansion Limits only about vertical height? Basically, is SG5a considered a limit to expansion during

end game?

Thank you for the clarification!

I Noticed the question has been answered in another Q&A
<https://www.robotevents.com/VRC/2022-2023/QA/1159>
Sorry for the repeated question.

Answered by committee

[redacted per the OP's note]

1161: <SG5c> Clarification Concerning Robot Expansion Limits

23-Jul-2022

SG5 Robot Rules and Inspection

<SG5c> states, "Any extensions or combinations of extensions above 18 inches must fit within a vertical cylinder 2 inches in diameter." However, <SG4> states, "There are no horizontal expansion limits during the Endgame," and <SG5d> states, "There are no vertical expansion limits during the Endgame." Thus, does <SG5c> apply during the endgame?

Answered by committee

Thus, does <SG5c> apply during the endgame?

No, it does not.

1128: Endgame Deploy Vertical Expansion

9-Jun-2022

G14 SG5 Robot Rules and Inspection

Relevant Rules:

<SG5> Vertical expansion is limited. Robots may expand vertically within the following conditions: c. Any extension or combinations of extensions above 18" must fit within a vertical cylinder 2" in diameter.

<G14>You can't force an opponent into a penalty. Intentional strategies that cause an opponent to break a rule are not permitted, and will not result in a Violation for the opposing Alliance

We have two questions regarding how SG5 and G14 will be interpreted:

1. Checking for violations While testing our endgame mechanism, we realized that it is difficult to determine if a rope shooting at a high velocity across the field stays within the 18 inch height limit at all times. During our development, we use the sizing tool to test the limit; obviously, that is not possible during a match. How will referees of a match determine if an endgame extension stays within size vertically?
2. Forced violations Consider the likely case that a team (Deployer) deploys multiple endgame ropes or other extensions, and one or more of those ropes or extensions collides with an opposing robot (Defender). If one or more of the extensions bounces (up) off another robot and becomes out of size, whose fault would this be (i.e. who, if anyone, receives the violation): the robot that deployed the rope/extension or the one that deflected it? Here

is a video for reference: <https://youtu.be/SJGO9AJz8zE>

Possible ruling: As G14 explains, a robot can not force another into a penalty. The Deployer's endgame mechanism's trajectory was changed by coming into contact with the Defender and thus the Defender is clearly the cause of violation. Therefore, in most cases, there is no penalty.

Another interpretation to consider: The state of violation is dependent on the robot that caused it. If the Deployer's alliance robot deflected the mechanism out of size, then all tile points that could have been earned by that respective mechanism (e.g. single rope) are nullified. However, if a Defender deflected the mechanism out of size, then all tile points that are currently earned by the Deployer for that mechanism (e.g. rope) remain earned. Whether the robot shoots out 5 ropes, scissor lifts, or anything else that works, each mechanism (e.g. rope) is considered individually and scored individually.

Would you please further clarify these rules and likely cases?

Thank you for your time.

Answered by committee

This question will be clarified in the June 28 Game Manual update. If it is still unclear after that release, please feel free to rephrase and re-submit at that time.

1033: Referee Certification Error - SG5c

3-Feb-2022

SG5

There are some discrepancies between the game manual and the Tipping Point Referee Certification Exam with respect to SG5c. The specific questions I am referring to are attached as images to this post.

VRC Tipping Point Head Referee Certification Course - Unit 6 Exam

4 minutes

What action should the Head Referee take if a red Alliance Robot gets bumped by the action of a blue Robot in the Neutral Zone and then moves into the blue Alliance's Home Zone during the Autonomous Period?

Automatically give the blue Alliance the Autonomous Bonus

Next Question >

VRC Tipping Point Head Referee Certification Course - Unit 6 Exam

4 minutes

What action should the Head Referee take if the red and blue Robots bump into each other during Autonomous, causing both to end up in their opponents' Home Zones?

Score the Autonomous winner as None, giving neither Team an Autonomous Bonus

< Previous Question Next Question >

SG5c states:

If opposing Robots contact one another while both engaging with the Neutral Zone, and an incidental violation of SG4 occurs, no penalty will be assessed on either Alliance

The questions appear to directly contradict SG5c, as the violations of SG4 mentioned appear to be entirely incidental, and no penalty should be assessed to either alliance. Is this correct?

Answered by committee

Thank you for bringing this to our attention. In the future, please email Referee Certification feedback/corrections to GDC@vex.com. In the event of a discrepancy between the Referee Certification materials and the Game Manual, please refer to rule G22:

If there are any conflicts between the Game Manual and other supplemental materials (e.g. Referee Training videos, VRC Hub app, etc), the most current version of the Game Manual takes precedent.