

Q&A

VRC 2023-2024: Over Under

Tagged: SG4

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.

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466: <SG4> introducing match loads with new all gray anti static tiles

19-Dec-2019

SG4

Now with the releasing of the all gray anti static tiles, does that mean now we can introduce match loads on the previous colored tiles?

<https://www.robotevents.com/VEXU/2019-2020/QA/412>

In this QA it was ruled that match loads **cannot** be introduced onto colored tiles.

<SG4> Match Load entry. Drive Team Members may introduce Match Loads during the Driver Controlled Period by placing them gently onto a gray foam field tile such that they satisfy the following conditions: a. Contacting the field perimeter wall on the side that coincides with their Alliance's Goal Zones and Alliance Station.

- b. Contacting the **gray** foam field tiles.
- c. Not contacting a Tower.
- d. Not contacting any Cubes besides another Match Load.
- e. Not contacting a Goal Zone or a Barrier.
- f. Not contacting a Robot.

Answered by committee

SG4 should be ruled as applicable for the fields at any given event. If the event is using anti-static tiles (i.e. all gray), then the Match Loads may be placed on the tile that would have otherwise been red/blue (provided that all other conditions in SG4 are met). Teams should be cognizant of the possibility that an event may use either of the two possible sets of field tiles, and plan to accommodate accordingly.

412: Introducing match loads, GRAY tiles <SG4>

10-Nov-2019

SG4

SG4 b. specifies match loads are required to be introduced onto GRAY foam tiles. The VRC Tower Takeover - Referee Training - Chapter 8: Cube Do's & Don'ts, at 1:22, it gives the thumbs up and a green check for match loads being introduced on a BLUE tile (https://youtu.be/ksrJ1_rdv0?t=80).

Are teams not allowed to introduce match loads onto red and blue foam field tiles? If they are restricted from those tiles, can you clarify that teams ARE allowed to introduce match loads onto their alliance's inner protected zone gray foam tile (providing the cubes satisfy SG4 and specifically aren't touching a barrier or goal zone)?

<SG4> Match Load entry. Drive Team Members may introduce Match Loads during the Driver Controlled Period by placing them gently onto a gray foam field tile such that they satisfy the following conditions: a. Contacting the field perimeter wall on the side that coincides with their Alliance's Goal Zones and Alliance Station. **b. Contacting the gray foam field tiles.** c. Not contacting a Tower. d. Not contacting any Cubes besides another Match Load. e. Not contacting a Goal Zone or a Barrier. f. Not contacting a Robot.

Answered by committee

Well.... good catch. Thank you for noticing this and bringing it to our attention!

Please see rule G22, which was primarily written to account for the unfortunate realization that we on the GDC are only human and mistakes sometimes happen:

The 2019 - 2020 Q&A is the ONLY official source for rulings besides the Game Manual. 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.

2579: Ball Loading Through the Load Station

26-Feb-2025

SG4

Once a ball legally enters the loading station and passes through it does the robot have to retrieve ball from the load zone itself, or can it be loaded in a way that bypasses the load zone and enters the field directly -similar to a spin entry? According to the Q&A, the ball does not need to make contact with the load zone floor [<SG4>](#)

Answered by committee

We're not certain that we're understanding your question, but we believe that our answer to [Q&A 2428](#) applies here as well.

Provided the human Loader meets all requirements of [<SG4>](#) and causes no damage to the Loading Station, Ball, or other Field Element, there is no rule against Loaders attempting to influence how the Ball exits the Loading Station.

2572: SG4 Complications for finals

24-Feb-2025

SG4

How are we handling illegally loaded balls in the finals matches.

SG4 Says that it is head ref discretion. So I guess my question is: How can all of the head refs be consistent in the finals with Disqualifications and calls for things such as starting early, switching late, and illegally loaded balls.

Answered by committee

Balls that are Loaded improperly through the Loading Station are handled as described in clauses E & F of rule [<SG4>](#), regardless of the type of Match.

Balls that are Rapid Loaded improperly are handled as described in clause G of rule [<SG5>](#), regardless of the type of Match. As described in the 2nd Violation Note for [<SG5>](#), all Score Affecting Violations of [<SG5>](#) in Finals Matches and repeated Score Affecting Violations in Qualification Matches are treated as Major Violations.

As to consistency of calls, the blue box following rule [<T1>](#) describes the intent of rules that may require Head Referee judgment. In short, when judgment is required there is no "right" ruling beyond the one made by the Head Referee.

2542: How can a team rectify an SG4 violation?

16-Feb-2025

During a recent competition, a question came up that we couldn't answer. If a ball is improperly loaded, following rule SG4, it states in part e: "The Ball must then be removed from the Load Zone by a Loader before it is retrieved by a Robot and legally Loaded again.". The question came up of what should be the recommended course of action if it is retrieved by a robot. From our understanding, if the ball is scored in anyway (a goal or a pass), that is score affecting, then the team or teams involved should be disqualified. But, what if it isn't. Can the team rectify the situation?

A. Can the team remove the ball from their robot? Would that require a full robot reset?

B. Can the team's robot remove it from itself? By shooting it out or by unloading it? Can the loader then retrieve the ball from the field and have it remain a minor violation?

C. What if the robot shot it outside of the field? Can the loader retrieve it then?

In all three cases, it is assumed the offending ball was not scored in any way.

Answered by committee

The Team could use any of the methods you describe to remove the incorrectly-Loaded Ball from play before it is Passed or used to score a Goal. If the Ball is removed from play before it is used for a Score Affecting action, the Team should only receive a Minor Violation.

If the Ball is directly removed from a Robot by a Drive Team Member, it must be as part of a full Robot reset as described in rules [<G10>](#) and [<RSC8>](#).

253: < SG4 > Accidental Ball Possession Limit Exceeded and Remediation Options

26-Feb-2019

SG4

This is a multi-part question around < SG4 > The Possession limit of balls, and disqualifications.

These questions are related to the "Match Effecting" interpretations of excess ball possession.

< SG4 > Watch your Possession limit. Robots may Possess a maximum of one (1) Cap and two (2) Balls at a time. Note: Robots that interact with High Scored Caps while already Possessing a Cap will undergo additional scrutiny regarding this rule. Minor violations of this rule that do not affect the Match will result in a warning. Match Affecting offenses will result in a Disqualification. Teams that receive multiple warnings may also receive a Disqualification at the Head Referee's discretion.

During recent events as the pace of the game has picked up, it has become fairly common for robots to accidentally ingest more than the two-ball possession limit as the balls bounce around and ricochet into the intake mechanisms. At a recent event a team was disqualified for possessing 4 balls at the end of the match that were never used to score. Since the difference in the final score was 4-points and the two extra balls could have been used to score those 4 points the referee called for the disqualification as the possession was match effecting.

Definition: Part 1: Is there a scenario where accidentally possessing 3 or more balls is considered match effecting even if the balls are never used to score a flag? it has been argued that simply possessing excess balls is match effecting since the robot is now controlling balls that are not available for the opposing alliance to score (effectively "hoarding"). Therefore, If the balls in possession have the potential to score points that are equal to, or greater than the match differential, then should this be considered match effecting? (also similar to the point differential when caps that are knocked out of bounds being a match effecting disqualification)

Remediation Options?: Part 2: If simply exceeding the possession limit is not match effecting (i.e. Part 1), is it then permissible for a team announce to the referee that they have excess capacity and they intend to safely discharge the excess balls in such a way as to not attempt to score? (either through reversing the intake, or if that isn't possible, discharge the excess balls with the launcher directly and safely into the net while avoiding changing the state of any flag)

Part 3: Finally, if a team does score a flag while unintentionally possessing more than 2 balls, could the team: a. announce to the referee they intend to de-score the illegal flag (that is return the scored flag to its previous state) before scoring additional points so as to make the accidental score impossible to affect the match? b. after scoring the flag, announce to the referee they intend to safely discharge all remaining balls in possession before scoring additional points?

This post is for clarification for future occurrences, and in no way trying to modify a previous ruling.

Thank you!

Answered by committee

Part 1: Is there a scenario where accidentally possessing 3 or more balls is considered match effecting even if the balls are never used to score a flag?

Yes, for exactly the reason you imply - in a game with neutral Game Objects of a limited quantity, any additional Possession has the potential to limit the opposing Alliance's ability to play the game.

Part 2: If simply exceeding the possession limit is not match effecting (i.e. Part 1), is it then permissible for a team announce to the referee that they are have excess capacity and they intend to safely discharge the excess balls in such a way as to not attempt to score?

Discharging the extra Game Objects would not just be permissible, it would be required. If a Robot comes into Possession of more than the permitted number of Game Objects, then they should immediately attempt to rectify the situation. We would expect that the Head Referee would instruct the Team to do so, not the other way around as proposed here, but the philosophy is the same.

Part 3: Finally, if a team does score a flag while unintentionally possessing more than 2 balls, could the team: a. announce to the referee they intend to de-score the illegal flag (that is return the scored flag to its previous state) before scoring additional points so as to make the accidental score impossible to affect the match? b. after scoring the flag, announce to the referee they intend to safely discharge all remaining balls in possession before scoring additional points?

First, <SG4> does not contain "intentional" or "unintentional" verbiage, so whether they intentionally or unintentionally Possessed the extra Game Object is irrelevant; Toggling the Flag in this situation is a clear-cut violation of <SG4> (see [this similar Q&A](#) for more thoughts on this topic).

In general, it is a Team's responsibility to ensure that:

- a) Their Robots are designed to mitigate the possibility of controversial rulings (e.g. they cannot Possess more than the permitted Game Object limit), and
- b) Their strategies during a Match mitigate the possibility of controversial rulings (e.g. they do not Toggle Flags while Possessing three Balls).

We typically try not to comment on previous rulings (and appreciate that you did not ask us to). However, given the explanations above, the example that you provided is actually a pretty good one to demonstrate these principles.

At a recent event a team was disqualified for possessing 4 balls at the end of the match that were never used to score. Since the difference in the final score was 4-points and the two extra balls could have been used to score those 4 points the referee called for the disqualification as the possession was match effecting.

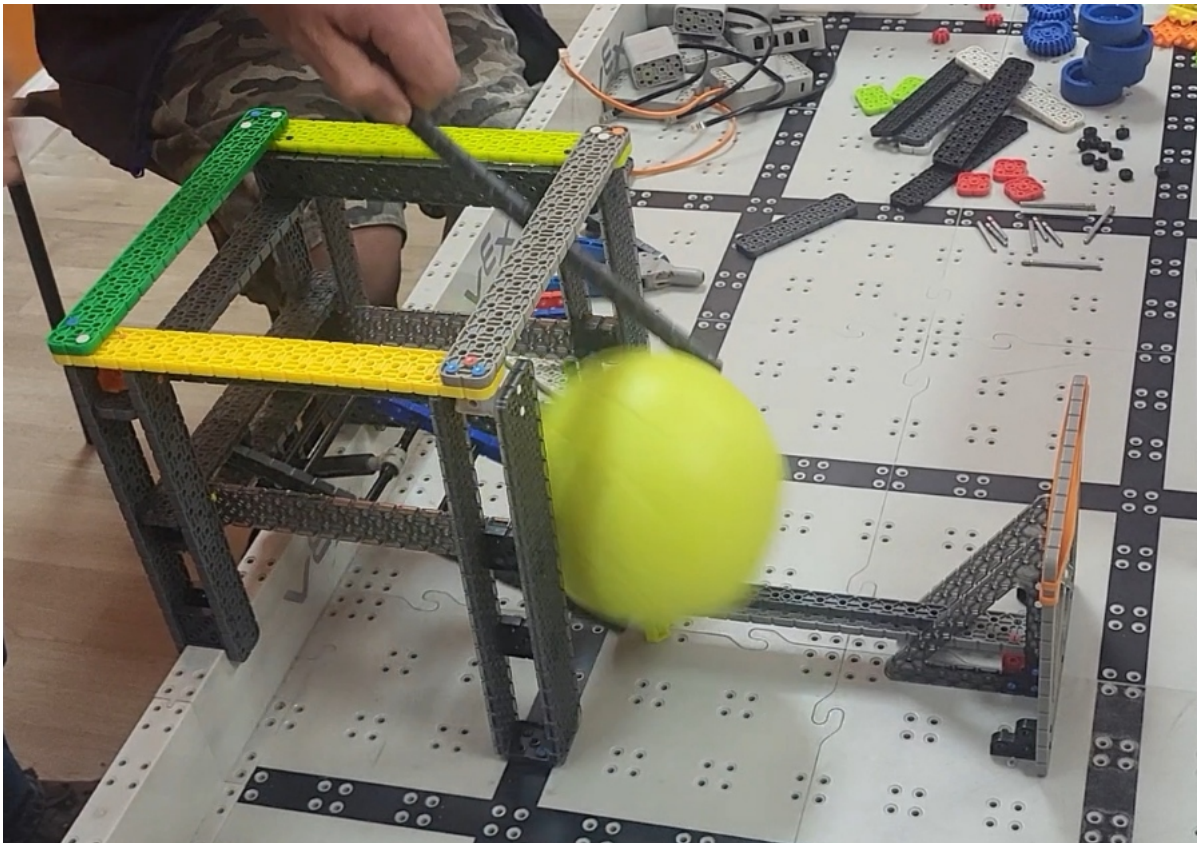
It is always difficult to provide a blanket ruling without the full context of a Match; however, based on the information given in this snapshot, this would be a correct interpretation of the answer provided above.

2519: Can a loader use a tool (a 1x20 beam for example) influence the ball to exit the loading station in a particular direction?

9-Feb-2025

G9 SG4

Is the loader allowed to use a something like a beam to influence which way the ball exits the loading station. Example in image:



According to this QA: <https://www.robotevents.com/VIQRC/2024-2025/QA/2428>

"Provided the human Loader meets all requirements of rule <SG4>, there is no rule against Loaders attempting to influence the Ball to exit the Loading Station in a particular direction."

And SG4 b. states: "The Loader must be the last human to contact the Ball before it is released."

Is this covered by G9?: "During a Match, Drive Team Members are prohibited from making intentional contact with any Field Element, Robot, or Ball that has been introduced to the Field, except for the allowances in <G10>, <RSC8>, <SG4> and/or <SG6>."

Answered by committee

Is the loader allowed to use a something like a beam to influence which way the ball exits the loading station?

No. This is a direct Violation of both <G8> clause C, which disallows materials that simplify the game challenge, and <G9>, which says that a Drive Team Member cannot contact a Ball after it has been introduced to the Field.

2514: Clarification on rules

7-Feb-2025

G1 SG4

The latest official ruling in the Q&A have caused some confusion for the kids on our team. Below is how the team have interpreted the game and how they formulated their robot and game strategies.

Referencing the Game Manual Version 3.0

Page 1 — Introduction

The primary objectives of the game are to Pass the Balls between Robots, score Balls through Targets, and Clear Switches. Balls are introduced to the field through the Loading Station or, during the last 15 seconds of a Match, a Rapid Load Zone.

Page 6 — General Definitions

Field – The entire playing Field, being six (6) field tiles wide by eight (8) field tiles long (totaling forty-eight (48) field tiles), including the Field Perimeter.

Page 12 — Game-Specific Definitions

Loading Station – The gray structure, built out of VEX IQ parts, that is attached to the Field Perimeter opposite the Goal Wall. The Loading Station is intended to receive Balls from a human Loader and randomly send them left or right into the Load Zone.

Load Zone – An area of the Field containing the Loading Station, bound by the Field Perimeter and the inside of the second solid black line from the edge of the Field (marked by two yellow VEX IQ beams). The Load Zone is an infinitely tall 3-dimensional volume; “reaching over” the black line without contacting the Floor would still constitute being partially in the Load Zone.

Page 2 — About the Game Manual - A Note from the GDC

Obviously, all Teams must adhere to these rules, and any stated intents of these rules.

In consideration of everything listed above, our team has interpreted the above manual entries as follows:

The team must adhere to all rules and stated intents in the manual, including the intended use of the loading station; it receives balls from a human loader and randomly send them left or right into the 3-dimensional volume of the load zone at which point the robot can pickup the ball.

The team’s understanding is any robot action that prevents the completion of the intended use of the Loading Station would be a violation, specifically its ability to randomize.

2052: <SG4d> - Additional Clarification on Robots in Loading Zone

If the human Loader is no longer contacting a Ball that is being (or has been) Loaded, it is legal for a Robot to enter the Load Zone.

In consideration of Q&A 2052, our team’s interpretation of the game remained the same.

When a human loader is no longer in contact with a ball that is being loaded, the robot can enter the load zone and its 3-dimensional volume, including contact with the loading station, as long as the robot does not violate the intended use of the loading station to introduce the ball into the field randomly left or right.

2484: Can a robot extend over the front of the Loading Station

There is no rule prohibiting a Robot from making contact with a Ball in the Loading Station before the Ball is "randomized" by falling left or right onto the Floor.

<SG4> clause D simply states, "No Robot(s) may be in the Load Zone at the time the Ball is released by the Loader."

The answer to 2484 counters and negates the intended use of the Loading Station per the definition in the manual as highlighted previously.

The definition of “loading station” applies every time “loading station” is referenced in the manual, therefore, it isn’t defined under any Rules, but defined in the “Game-Specific Definitions” section of the manual.

The ruling in Q&A 2484 changes the definition and intention of Loading Station.

In this case, would the committee be able to reevaluate the official ruling in Q&A 2484 to match the definition of Loading station per the game manual?

Else, which takes precedence—the definition of Loading Station in the latest version of the game manual or the definition of Loading Station without the intent of randomizing as described in the official ruling in the

Answered by committee

Per clause D of rule [<SG4>](#), "No Robot(s) may be in the Load Zone at the time the Ball is released by the Loader."

Per [Q&A 2052](#), if the human Loader is no longer contacting a Ball that is being (or has been) Loaded, it is legal for a Robot to enter the Load Zone.

After the Ball is released by the Loader, per [Q&A 2484](#), there is no rule prohibiting a Robot from making contact with a Ball in the Loading Station before the Ball is "randomized" by falling left or right onto the Floor.

Once the Loader has released the Ball into the Loading Station, there aren't any rules that define how and when a Robot can or can't contact the Ball.

2511: SG4 Intentional Strategy

6-Feb-2025

[SG4](#)

[<SG4>](#) states that "blatantly intentional and/or Match Affecting Violations (especially during Elimination Matches) may still immediately escalate to a Major Violation at the Head Referee's discretion."

My question is how one would categorize an "intentional" violation. In one particular example, a robot is holding a mobile goal and drives directly into the positive corners where 4 rings are currently stacked (as in the initial field setup). They repeatedly back up and drive forward to bash into the rings and make them move. The intention of this robot is to clear the corner of the rings to place their mobile goal.

Should this "bashing corner rings" strategy be considered an intentional violation of [<SG4>](#) if one of the rings leave the field?

In this example, the strategy is intentionally trying to remove rings from the corner, but not intentionally trying to remove them from the field per se. How should this be ruled?

Answered by committee

Although the underlying rule is different, our logic from [Q&A 2420](#) applies here.

In your example, the Robot is trying to make space for a Mobile Goal, and is not intentionally trying to fling Rings out of the Field. We wouldn't consider this intentional. Similarly, if a Robot is trying to descend an opponent's Top Ring from a Wall Stake and knocks it out of the Field, we wouldn't see that as intentional (it's not what they were *trying* to do).

If a Robot picks up two opponent Rings and tosses them over the field wall, we'd call that blatantly intentional.

As always, the Head Referee is responsible for determining intent within the context of the Match and the violating Robot's actions.

2484: Can a robot extend over the front of the Loading Station

30-Jan-2025

[SG4](#)

[<SG4>](#)

As long as the robot doesn't break the plane of the load zone prior to the ball being released, can a robot extract the ball from the loading station before it is 'randomized' into the load zone.

For example, is this legal? https://youtu.be/SNF6m3-aY_U?si=ibUy6luElcfCgL5A

Answered by committee

There is no rule prohibiting a Robot from making contact with a Ball in the Loading Station before the Ball is "randomized" by falling left or right onto the Floor.

<SG4> clause D simply states, "No Robot(s) may be in the Load Zone at the time the Ball is released by the Loader."

2458: Stuck ball in the loading station.

24-Jan-2025

SG4

At a recent competition, the ball being introduced by the loader into the loading station became stuck within the loading station and didn't exit from the randomizer and floor. The loader is not allowed to put their hands in the volume of the loading station when loading, so the loader sat their looking at the referee who had no clue what to do either. After a few seconds the referee told the loader to pull it out and reload. Can this be clarified for what (and who) is allowed in this situation?

Two side notes: First, the referee is standing behind the goal in order to watch for balls getting stuck in the goal, that expecting a referee to try to run around to the loading station to get it would take a good 5+ seconds.

The second comment which i think is called out already, is if a ball becomes stuck in a loading station, it is likely due to a build error, which it was in this case and fixed after the match. Should this type of build error qualify for a match replay if discovered after the match but before teams scores are agreed on?

Answered by committee

If a Ball becomes stuck in the Loading Station, the Drive Team Members should notify the Head Referee. The Head Referee should then allow the Loader to remove the stuck Ball from the Loading Station, at which point the Ball can be legally Loaded back into the field.

As always, Match replays are at the discretion of the Event Partner and Head Referee. A Ball becoming stuck in an improperly built Loading Station for a period of time could reasonably be considered a Score Affecting field fault, which could warrant a match replay under clause A of rule <T7>.

2452: Waiting to deliver balls into the Loading Station

21-Jan-2025

SG4

According to rule SG4d, which states that "No Robot(s) may be in the Load Zone at the time the Ball is released by the loader," I would like to ask a question. If another robot is interacting with and trying to pick up one ball in the Load Zone, does the Human Loader have to wait for this robot to complete interacting with the ball and get out of the Load Zone before the second ball is dropped into the Loading Station during a qualification or finals match? If waiting is required and one robot is taking a considerable amount of time to interact with the ball and leave the Load Zone, this will prevent a second ball from being reintroduced back into the field after any scoring with the target happens, delaying the second robot from being able to do anything. For judging purposes, am I interpreting this correctly that the Human Loader will have to wait to place the ball into the Loading Station until the first robot is completely out of the Load Zone, even if it was interacting with another ball? Enforcement of this may mean if it takes a while for one robot to finish an interaction with a ball and get out of the Load Zone, there could be a period of time during which only one ball is actually legal to be in the field during this time, if my interpretation of this rule is correct. Thank you.

Answered by committee

As described in clause D of rule [<SG4>](#):

No Robot(s) may be in the Load Zone at the time the Ball is released by the Loader.

If a Robot is in the Load Zone (for any reason), a Ball cannot be legally Loaded through the Loading Station. There are no exceptions to this requirement.

To legally Load a Ball through the Loading Station, all Robots in the Load Zone must be fully removed from the Load Zone by driving out or—in the case of a stuck, tipped over, damaged, or otherwise inoperable Robot—through a Robot reset as allowed by rule [<G10>](#).

2428: Excessive force when match loading

11-Jan-2025

SG4

[<SC4><SG4><SG4>](#)

When placing a ball into the loader, the intent is for the ball to be able to randomly move right and left. If a loader instead of placing a ball into the loader, throws the ball into the loader with the intent to influence the random nature of the output, would this be a violation of SG4? Or with the nature of the VEX IQ piston, would this be considered a violation of S1 in which this will, and did, break the piston in the loader by this process being repeated?

Answered by committee

Provided the human Loader meets all requirements of rule [<SG4>](#), there is no rule against Loaders attempting to influence the Ball to exit the Loading Station in a particular direction.

However, if excessive force causes damage to the Loading Station, another Field Element, or a Ball, the Team should receive a Major [<S1>](#) Violation and a Disqualification from the Match. The human Loader should not be allowed to continue using excessive force--during the current **and** any future Matches--while Loading after causing damage.

2387: Own color ring leaving the field and AWP

13-Dec-2024

SC8 SG4

In rule [<SC8>](#) regarding the scoring of Autonomous Win Points, one of the criteria is given as "has not broken any rules during the Autonomous Period". In [<SG4>](#), the title of "Keep Scoring Objects in the field" suggests that the removal of any ring from the field results in the loss of the AWP by SC8, but the text of the rule never mentions rings of the offending robot's own alliance, which suggests that the removal of a ring of the same alliance should not result in the loss of the AWP. We have had it ruled both ways at different competitions so far.

If a robot on the red alliance removes a red ring from the field, does that result in an automatic loss of AWP by SC8 and SG4?

Answered by committee

Removing a Ring of your own Alliance color is not a Violation of <SG4>, which applies only to Mobile Goals and to Rings of the opposing Alliance color. If a Robot on the red Alliance removes a red Ring from the Field, no rule has been broken.

2351: Clarification on <SG4> Point D Regarding Ball Release in Loading Station

6-Dec-2024

SG4

<SG4>

Dear VEX IQ Team,

I am writing to seek clarification regarding rule <SG4>, specifically point D, which states: "No Robot(s) may be in the Load Zone at the time the Ball is released by the Loader."

I would like to confirm the interpretation of the phrase "the time the Ball is released by the Loader." Does this refer to the moment the Ball leaves the Loader's hand, or the moment the Ball makes contact with the Field?

This distinction is crucial for understanding gameplay. Allowing robots to enter the Load Zone as soon as the Ball leaves the Loader's hand significantly impacts the competition's challenge and fairness. For example, it reduces the unpredictability and skill required for robot design and operation, as robots can pick up balls in predictable patterns mid-air before they land. This may lead to less diversity in robot designs and strategies, diminishing the overall excitement and competitiveness of the event.

At the same time, the note in Q&A2052 contradicts the entire <SG4> clause, and even more so the picture and explanation: "Figure SG-4: This Robot is breaking the plane of the Loading Zone while the Ball is being entered. This Ball would need to be removed from the Loading Zone, and legally reintroduced."

In some matches, I have observed teams allowing robots to enter the Load Zone as soon as the Ball leaves the Loader's hand (example in these videos: <https://github.com/Aaron-Man/VEX-IQ/tree/32ec5530340f4e3b4474c72f89ac113db26b80ee/Game%20Rules>).

In addition, I would like to understand how this rule aligns with rule 2052, which states: "If the human Loader is no longer contacting a Ball that is being (or has been) Loaded, it is legal for a Robot to enter the Load Zone."

These two statements seem contradictory. For example:

1. If the Loader has released the Ball but the Ball is still in the process of being Loaded (e.g., in mid-air or rolling toward the Field), does this mean the Robot can legally enter the Load Zone?
2. In Violation Note under <SG4>, it is mentioned: "Robot contact with the Loading Station while a Ball is being Loaded is considered an egregious Violation of point D for the Robot's Team, and is an exception to all previous notes. Repeated occurrences by the same Robot, even if not Score Affecting, may escalate to a Major Violation for that Robot's Team at the Head Referee's discretion."
3. Figure SG-4 in the Game Manual suggests that even if the Loader has released the Ball but the Ball has not yet fully entered the Field (e.g., still inside the Ball chute), this would result in a Violation. It further states: "This Robot is breaking the plane of the Loading Zone while the Ball is being entered. This Ball would need to be removed from the Loading Zone and legally reintroduced."

Given these scenarios, I am seeking clarification on the following:

1. When precisely is it legal for a Robot to enter the Load Zone after a Ball is released by the Loader?
2. How should the rules be interpreted to ensure consistency in enforcement across all competitions?
3. Considering the importance of fairness and maintaining the competitive spirit of the game, is there any consideration for refining these rules to enhance the clarity and challenge of the event?

Thank you for addressing these questions. I look forward to your guidance and clarification to help ensure the integrity and excitement of the competition.

Answered by committee

I would like to confirm the interpretation of the phrase "the time the Ball is released by the Loader."
Does this refer to the moment the Ball leaves the Loader's hand, or the moment the Ball makes contact with the Field?

This refers to the moment the Ball leaves the Loader's hand and is no longer in contact with the human Loader. [Q&A 2052](#) asks the same question, and provides several specific examples of legal interactions with Loaded Balls that are no longer in contact with the human Loader.

Figure SG-4 will be replaced in the next game manual update to show that the Ball is still in contact with the human Loader's hand.

Considering the importance of fairness and maintaining the competitive spirit of the game, is there any consideration for refining these rules to enhance the clarity and challenge of the event?

Please review the [Q&A Usage Guidelines](#), specifically note 1, "The Q&A system is for rules clarifications only." Put more pointedly: the Q&A platform is intended to be a communication channel for questions such as "is this interpretation of a rule legal", not a discussion forum for questions such as "I disagree with this rule, can it be changed?" For suggestions or concerns outside of specific and official rules questions, please use the official [VEX Forum](#) or email GDC@vex.com.

2336: Clarification with SC3 and SG4

29-Nov-2024

SC3 SG4

If the top ring on a stake still meets the criteria for being scored, satisfying the rules for SC3, but if the top ring on the stake is violating the Field (breaking the field perimeter) as per SG4, which takes priority?

Should the top ring be removed at the end of the match or should it be still counted as scored and left as is?

What should happen?

Answered by committee

A Ring that is on a Stake has not left the Field unless that Stake also leaves the Field. There is no rule that prohibits a Ring from breaking the perimeter of the Field.

2316: A new idea on the basis of < SG4>2.1

20-Nov-2024

SG4

<SG4> According to SG4 and Q&A 2052,

d. No Robot(s) may be in the Load Zone at the time the Ball is released by the Loader. 2052 - If the human Loader is no longer contacting a Ball that is being (or has been)Loaded, it is legal for a Robot to enter the Load Zone

it means that as soon as human loader opens his/her hands, Robot can go into Load Zone and load the ball. However, some umpires think that based on Figure SG-4, Robot has to wait until the ball goes on the field.

Our team wants to design a new Robot to achieve the following target: Robot waits near by the Load Zone. As soon as human loader opens his/her hands, the driver controls the Robot, and the robot goes into the Load Zone and gets the ball,

before the ball touch the field.

Is this idea legal?

Answered by committee

Because there may be Loading methods in which a human Loader "opens their hands" but is still in contact with the Ball, we cannot agree with your rephrasing of our ruling from [Q&A 2052](#).

If the human Loader is still in contact with the Ball, the Robot cannot legally enter the Load Zone. Any strategy, including the one you've described, in which the Robot remains outside of the Load Zone until the human Loader has released the Ball is likely to be legal.

230: Blocking Opponent Shots, Possession limit.

3-Feb-2019

SG4

Hi There, per request of the GDC, I am not splitting up my questions.

This is the first question, and concerns "Possession", with the definition being "a robot has possession of a game object if it is carrying, holding, or encompassing it". rule <SG4> outlines specific limits, where <robots may possess a maximum of one (1) cap and two (2) balls at a time>. The game manual also states that <Minor violations of this rule that do not affect the Match will result in a warning. Match Affecting offenses will result in a Disqualification. Teams that receive multiple warnings may also receive a Disqualification at the Head Referee's discretion.>. If a team were to block opponent shots while at the possession limit, would they be breaking the rule.

In this instance, blocking a shot may involve interacting with 1 opponent shot, or 2 opponent shots using a legal vex material. If it is impossible to give a blanket ruling, if the balls were to glance off of a piece of aluminum or otherwise rigid material, would the robot be breaking the possession limit?

Answered by committee

In this instance, blocking a shot may involve interacting with 1 opponent shot, or 2 opponent shots using a legal vex material. If it is impossible to give a blanket ruling, if the balls were to glance off of a piece of aluminum or otherwise rigid material, would the robot be breaking the possession limit?

It is always difficult to provide a blanket ruling on a snapshot description of a hypothetical Robot and interaction. However, a "blocked shot" would typically not be considered Possession, provided the following assumptions are met:

- A "shot" is a Ball which has been launched through the air in the direction of the Flags.
- The "blocking Robot" is not violating any other rules, such as <SG2>.
- The "blocking Robot" does not meet the definition of Possession in order to block the shot:

A Robot has Possession of a Game Object if it is carrying, holding, or encompassing it.

The relevant [Referee Training video](#) provides the following "rule of thumb": if the Game Object turns with the Robot as the Robot turns, then it is probably being Possessed. For example, a flat vertical wall would not be considered Possession; a "catcher" would be considered Possession.

2294: SC4 - Switch cleared by ball, but ball fails to go into the goal - Disqualification

13-Nov-2024

SG4

[<SC4><SC4>](#)

This has come up in a discussion with other local coaches.

If a ball is launched and the ball causes the switch to be cleared, but the ball itself doesn't go into the goal, is this a disqualifying event? Would it disqualify the team for the match if it happens twice or more times?

Again, the robot is not touching the switch. The ball is launched, hits the switch, the switch clears, but the ball doesn't go into the goal: Is this a violation and would it result in a disqualification?

Thank you!

Answered by committee

As described in the blue box for rule [<SC4>](#), which was revised in the October 8 game manual update:

Sometimes a Switch gets Cleared without scoring a Ball through the Target, or a Ball is Scored through a Target but the Switch is not Cleared. That's okay. Switches must be Cleared as part of normal gameplay, and by Balls, not Robots or humans. Beyond that, there are no restrictions on what type of Robot action, mechanism, strategy, or technique is used to Score Balls and Clear Switches.

The scenarios you describe do not violate any rules, and the Switches should be recorded as Cleared if they remain Cleared at the end of the Match.

2291: 3rd Ball accidentally being added to the field

12-Nov-2024

SG4

The question I have is what happens if a 3rd ball ever enters the field of play during a teamwork match or skills match. I have had some discussion with coaches about this rule to make sure to give our teams the correct guidance on how to approach the issue. The rule reads:

[<SG4>](#)

a. No more than two (2) Balls may be in play at any one time (i.e., the next Ball should not be Loaded until a previous Ball is either scored or leaves the Field).

1. If the loader didn't catch the ball while it was tossed to them from another loader and the 3rd ball fall onto the field during a match?
2. If the loader drops the ball early before checking the ball has made it through the goal?
3. If the loader doesn't see a ball because it is inside a robot

I've heard some teams say that if a third ball ends up on the field it is an automatic disqualification because the rules states (NO MORE THAN TWO)

My students and I have interpreted the rule as the 3rd ball was improperly introduced and:

From SG4 E and F point this out:

e. If a Ball is introduced improperly through the Loading Station, the Head Referee will verbally notify the Loader as soon as possible (e.g., "your hand crossed, load that one again"). The Ball must then be removed from the Load Zone by a Loader before it is retrieved by a Robot and legally Loaded again.

f. If a Ball is introduced improperly outside of the Loading Station (e.g., into the middle of the Field prior to the Rapid Load Period), the Ball must be retrieved by a referee and handed to a Loader.

By adding a third ball does nothing for score affecting or anything else I can find in the rules about being a major violation and causing a team to receive a disqualification.

Answered by committee

If a Ball is introduced improperly through either the Loading Station (rule [<SG4>](#)) or as a Rapid Load Ball (rule [<SG5>](#)), it should be removed from the Field and reintroduced by a Loader.

As described in the Violation notes for [<SG4>](#), "Most Violations which are not Score Affecting (i.e., where a Robot never retrieves the illegally Loaded Ball) are considered Minor Violations, even after repeated occurrences. The primary penalty is intended to be the Match time that is lost from retrieving and re-introducing the Ball." If a Ball is mis-loaded through the Loading Station or before the Rapid Load Period and is then Scored through a Target or used to Clear a Switch, the Violation becomes Score Affecting and should result in a Disqualification for that Match.

As described in the Violation notes for [<SG5>](#), "It is expected that most Violations of this rule will be accidental. In accidental cases that end up being Score Affecting (i.e., an illegally-Loaded Ball scores a Goal), the first occurrence during a Qualification Match may be treated as a Minor Violation and a "final warning" for any future Violations." This allowance only applies to Balls introduced as Rapid Loads during a Rapid Load Period.