

Q&A

VEX V5 Robotics Competition 2026-2027: Override

Markiert: SG9

Welcome to the official VEX V5 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 V5RC 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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978: When a mobile goal leaves the field during skills?

18-Dec-2021

Referee Decisions Scoring SG9

How should a skills run be scored/referee'd if a robot interacts with a mobile goal that is on a balanced platform and causes it or any other elevated mobile goal to fall over such that its stem extends over the field perimeter and touches the ground outside of the field but the base remains on the platform? We are under the assumption that once a stem touches the ground outside the arena then that mobile goal is considered to have left the field but this may be erroneous on our part.

Appendix B States: **"Please note that all rules from "The Game" section of the manual apply to the Robot Skills Challenge, unless otherwise specified.**

SG9 Keep Scoring Objects in the field. Teams may not intentionally remove Scoring Objects from the field. While Scoring Objects may accidentally leave the field, doing so intentionally or repeatedly would be a violation of this rule. **Scoring Objects that leave the field during Match play, intentionally or unintentionally, will be returned to the field at the location nearest the point at which they exited. Referees will return the Scoring Object to the field when it is deemed safe to do so, at the leisure of the referee.** 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 Mobile Goal leaves the field, any Rings that were Scored in the Mobile Goal Base, or on Mobile Goal Branches, will be returned to the field in a non-Scored state, on the field tile closest to where they exited. **** Note: During the last 30 seconds of the Match: • Any Scoring Object that leaves the field will not be returned. • If a Scoring Object is leaving the Field (as determined by the Head Referee), but is deflected back into the field by a Drive Team Member, field monitor, ceiling / wall, or other external factor, it should still be considered "out of the field" and removed by a scorekeeper or Head Referee.** If the redirection occurred due to contact with a Drive Team Member, it will be at the Head Referee's discretion whether or should apply.

-Is that neutral mobile goal officially considered out of play once any part of it touches the ground outside of the arena and should be removed and replaced on the nearest field tile, but not within the last 30 seconds of the skills run? OR -Should it remain in place, thus deeming the platform to be unbalanced and disallowing any elevated points to additional goals on the platform? OR -Other?

Thank you for your time and effort to clarify as we prepare to host an event. Apologies if this has been answered elsewhere.

Beantwortet von committee

As quoted in your post, all standard gameplay rules apply in the Robot Skills Challenge, unless otherwise specified. There are no Skills-specific rules pertaining to Scoring Objects exiting the field, so you are correct, SG9 would apply.

For more information regarding how to apply SG9 in this case, please see this related Q&A:

<https://www.robotevents.com/VRC/2021-2022/QA/888>

If this does not answer your question, please feel free to rephrase and re-submit.

888: Neutral Mobile Goal Scored but touching outside floor

20-Oct-2021

Scoring SG9

In two recent events, I have seen the tall neutral mobile goal legally placed on the platform and fall with the branch going outside the field of play - touching the floor outside the field. 1) The first (pictured) was not on a balanced platform, but it technically meets all of the definitions for being scored in the Home Zone (Scoring Notes 3) since the base was in the 3D of the Home Zone. 2) The second (not pictured) was on a balanced platform while not contacting any other Field Elements, such as foam field tiles or the field perimeter. So, again technically meets all of the definitions of being scored

and elevated (Scoring Notes 3 and 6 and definition of Balanced).

The common sense rule may come into play since it is touching the floor outside the field of play ... but if that does and you declare the game object outside the field of play, should it be placed back in the field of play (if not within 30 seconds) SG9? And if so, where would you put it as the "the location nearest the point at which they exited" is on the platform?



Beantwortet von committee

The full text of SG9 reads as follows:

<SG9> Keep Scoring Objects in the field. Teams may not intentionally remove Scoring Objects from the field. While Scoring Objects may accidentally leave the field, doing so intentionally or repeatedly would be a violation of this rule. Scoring Objects that leave the field during Match play, intentionally or unintentionally, will be returned to the field at the location nearest the point at which they exited. Referees will return the Scoring Object to the field when it is deemed safe to do so, at the leisure of the referee.

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 Mobile Goal leaves the field, any Rings that were Scored in the Mobile Goal Base, or on Mobile Goal Branches, will be returned to the field in a non-Scored state, on the field tile closest to where they exited.

Note: During the last 30 seconds of the Match:

- Any Scoring Object that leaves the field will not be returned.
- If a Scoring Object is leaving the Field (as determined by the Head Referee), but is deflected back into the field by a Drive Team Member, field monitor, ceiling / wall, or other external factor, it should still be considered "out of the field" and removed by a scorekeeper or Head Referee. If the redirection occurred due to contact with a Drive Team Member, it will be at the Head Referee's discretion whether <G9> or <SG9> should apply.

The intent of the Note's second bullet point is to say that as soon as a Scoring Object makes contact with anything outside of the field, it should be considered "out of the field" and dealt with accordingly.

Therefore, the Mobile Goal in the attached image should be considered "out of the field". If the contact occurred during the last 30 seconds of the Match, it should be removed from the field. If it cannot be removed from the field safely and/or in a timely manner, it should simply be considered "not scored".

If the contact occurred before the last 30 seconds of the Match, then the Mobile Goal should be returned to a field tile closest to where it exited. It should not be returned to a Platform.

3019: Using pvc piping to hep with loading

6-Jan-2026

SG9

My team planned on using a length of 4 inch PVC piping to allow them to load 6 balls in quick succession into an empty loader, I was wondering if this would be a violation of SG9? <SG9>

Beantwortet von committee

Using a section of PVC pipe to help with Match Loads is an example of using additional materials to simplify the game challenge during a Match, which is specifically disallowed by clause Aiii of rule <GG1>.

2949: SG9 Match Loading Clarification

25-Nov-2025

SG9

As defined in SG9, "introduced" is when a Block has been released into a Loader (presumably then falling completely or partially below the orange portion of the loader to "finish" the introduction). The third line of SG9, shown above, states that Blocks may be introduced only one at a time.

It is stated that during the action of introducing a block, a Drive Team Members' hands may temporarily break the plane. If a Drive Team Member is introducing Blocks, are they allowed to have multiple hands break the plane of the field perimeter at the same time? And is there any importance in how many Drive Team Members have hands holding Blocks breaking the plane of the field perimeter?

Additionally, how many Blocks is a Drive Team Member allowed to hold in one hand while introducing Blocks? If a Drive Team Member holds two Blocks in their left hand and introduces one after another in quick succession, how does a referee determine if two Blocks were loaded at once? (timestamp 1:40, blue alliance top right corner of Smoky Mountain Forge Finals 2 versus timestamp 0:56, red alliance top left corner of Smoky Mountain Forge Finals 1)

SM Forge Finals 2 <https://www.youtube.com/watch?v=GvFO2SD3Dq8> SM Forge Finals 1 https://www.youtube.com/watch?v=_K50JGCxkmw

So:

1. How many hands are allowed to break the field at a time and is that limited to one person? 2, Can you hold multiple blocks at a time and if so how does holding 2 not connect to introducing 2?

Beantwortet von committee

Thanks for these questions!

The December 4 game manual update will include the following changes, which are effective immediately.

1. The words "one at a time" will be removed from the 3rd paragraph of the rule. Clause E will still apply, and the intent is that a Loader must have available space for a loaded Block, and Loaded Blocks should drop into the Loader and not roll into the Field.
2. Violation Note D will be converted into a red box for improved visibility. That note provides a good summary of our intent for Match Loads.

Regarding your specific questions,

How many hands are allowed to break the field at a time and is that limited to one person?

There's no limit to the number of hands that can break the plane of the Field while introducing Blocks to a Loader, and it's not limited to one person.

Can you hold multiple blocks at a time and if so how does holding 2 not connect to introducing 2?

Drive Team Members can hold as many Blocks as they like.

2948: <SG9> Illegal BLOCK Introduction Scoring for Cross-Alliance Blocks

24-Nov-2025

SG9

Per Rule SG9, each illegally introduced block shall be deemed as 3 points, in which case the following scenarios may occur: During the autonomous period, the interaction between the red alliance's robot and the introduction tube causes the blue block at the top of the introduction tube to fly up and then directly fall into the field. Should this blue block that fell into the field be deemed as an illegally introduced block? If it is deemed an illegal introduction and the red alliance is consequently deemed to have lost the autonomous period, should this block be counted as 3 points for illegal introduction? In this scenario, the violation is caused by the red alliance, yet the block itself is blue—so which alliance should the 3 points for illegal introduction be attributed to? During the driver controlled period, the interaction between the red alliance's robot and the introduction tube causes the blue block at the top of the introduction tube to fly up and then directly fall into the field. Should this blue block that fell into the field be deemed as an illegally introduced block? If it is deemed an illegal introduction, the violation is caused by the red alliance while the block itself is blue—so which alliance should the 3 points for illegal introduction be attributed to? During the driver controlled period, the interaction between the red alliance's robot and the introduction tube causes the red block at the top of the introduction tube to fly up and then directly fall into the field. Should this red block that fell into the field be deemed as an illegally introduced block? We hope

the Game Design Committee (GDC) can clarify the adjudication guidelines for such violations. [<SG9>](#)

Beantwortet von committee

Robot actions that cause one or more Blocks to leave a Loader and land inside the Field do not Violate any rules if the Loader isn't damaged by those actions. This guidance applies to all Match periods and Match types.

Regarding potential Violations (of any rule) that include a Robot and a Block of opposite colors, any penalty should always go to the Robot that committed the Violation, regardless of the color of the Block involved.

2925: GG13 question for violations after auton, but before driver

17-Nov-2025

GG13 SG9

This question revolves around violations that happen between the buzzer of autonomous period ending and the end of the 3, 2, 1 countdown for driver control to start.

[<GG13>](#) All rules still apply in the Autonomous Period

Violation Note: In general, Minor Violations of SG rules that occur during the Autonomous Period should only affect the outcome of the Autonomous Period (i.e., the Alliance can't win the Autonomous Bonus or earn an Autonomous Win Point) and should not be considered when determining whether a Violation has been repeated during the event."

[<SG9>](#) Match Loads may be introduced during the Match under certain conditions. a. Blocks may only be added to Loaders during the Driver Controlled Period of a Match.

At recent event, we had several instances of SG9a violations after auton, but before driver started.

Scenario: Autonomous ends. Autonomous winner declared. Before Driver starts, RED1 team member puts two blocks in loader. SG9a violation has occurred.

Instance A:

1. Is this considered to be during autonomous and therefore GG13 (paraphrased to: 'what happens in auton, stays in auton') comes into play or does SG9 violation need to be tracked for future potential minor violations escalating to a major?
2. Should the autonomous award be changed if RED had been awarded autonomous before the violation?
3. If the SG9 violation does stay in auton, do the points for the blocks loaded illegally need to be tracked for the potential match affecting violation?

Instance B: What if above scenario happens BEFORE autonomous winner is declared? Same questions - 1, 2 & 3

Beantwortet von committee

Hello, Katie. Thanks for your question!

If a Violation doesn't happen during the Autonomous Period, it cannot affect the outcome of the Autonomous Period. For the purpose of recording and tracking Violations of [<SG9>](#) or other rules that occur between the Autonomous and Driver Controlled Periods, and for considering any related Violation Notes, these Violations should be considered the same way as Violations during the Driver Controlled Period.

A Match Load Block that is added to a Loader between the periods of a Match should count toward [<SG9>](#) Violation Notes A & B.

2840: Loading blocks into loader with excessive force

6-Oct-2025

SG9

<SG9> says "Match Loads may be introduced during the Match under certain conditions. For the purpose of this rule, "introduce" refers to the moment when a Drive Team Member has released a Block into a Loader. During this action, Drive Team Members' hands may temporarily break the plane of the Field Perimeter. This momentary interaction is an exception to rule <GG4>. Excessive, unnecessary, or unsafe actions while introducing a Match Load may be considered a Violation of <S1> and/or <G1> at the Head Referee's discretion."

Some teams are throwing the blocks into the match loader and some are dropping them. Throwing them with excessive force can benefit a team by forcing the bottom block to fall out of the loader. Are there rules for how teams are to put the blocks into the loaders. Specifically, are teams allowed to throw blocks into the loader with excessive force or should blocks simply be dropped into the loader without added force?

Thank you!

Beantwortet von committee

Thanks for this question.

The rules do not specify exactly how a Block has to be added to a Loader. In general, Head Referees should only consider it excessive force if the Loader is damaged in the process, which would qualify as an [<S1>](#) Violation.

2750: introduce the block

1-Aug-2025

SG9

is it legal when the team player introducing the block, the robot is touch the loader. in that case the robot can easily get the block out the loader. [<SG9>](#) is it legal when the team member introducing the block, the robot is touching loader. in that case the robot can easily get the block. [<SG9>](#)

Beantwortet von committee

Yes, it is legal for Drive Team Members to introduce Match Load Blocks to a Loader that is in contact with a Robot.

2536: [SG9][SC9][2480] Match Affecting Calculations with High Stake Scored

15-Feb-2025

SC9 SG9

As a follow-up to [Q&A 2480](#), I wanted to know if the 2 additional bonus points should be considered in Match Affecting calculations if a destructive [<SG9>](#) situation were to happen where the alliance has **already scored** a ring on a high stake.

From my understanding of [Q&A 2480](#) it seems to not consider the ring that is already scored on the high stake and only "award 12 points for a Tier 3 Climb." Per [<SC9>](#):

Each Robot from that Alliance which has earned points for a Climb will receive an additional two (2) points for that Climb.

Example Scenario: **Red1** has just **scored a red ring** onto the high stake, and then **Blue1** creates a destructive scenario to remove **Red1** from being considered climbed.

My current understanding is that **Red1** should only receive a 12 point Match Affecting calculation from the guidance and responses given, even though they would receive an additional 2 points if they were at a Tier 3 climb.

Is it the correct interpretation to only apply 12 points to the Match Affecting calculation instead of 14 in this specific scenario?

Beantwortet von committee

My current understanding is that **Red1** should only receive a 12 point Match Affecting calculation from the guidance and responses given, even though they would receive an additional 2 points if they were at a Tier 3 climb.

Is it the correct interpretation to only apply 12 points to the Match Affecting calculation instead of 14 in this specific scenario?

Yes.

2500: High Stake Match Affecting Calculations

3-Feb-2025

SG9

[<SG9>](#)

Hello,

As more teams begin to build higher tier hangs, we had some questions regarding the point values in certain scenarios.

The scenario is as follows:

A red robot has a third-tier elevation climb and has proven in previous matches that they are capable of scoring on the high stake. They begin their climb, by latching onto the first rung now meeting the definition of climbed(it has intentionally grasped, grabbed, or attached itself to a rung).

A blue robot recognizes this.

1. If blue allows the red robot to ascend to the third tier, and score on the high stake, red would earn 20 points.
2. If the blue robot decides to slightly knock the red robot off of the first rung(and no damage is done to the red robot), they would receive a violation per SG9. According to Q&A 2552, "it should be assumed that the Violation was Match Affecting if awarding the opposing Alliance the 12 points for a Tier 3 Climb (in place of any Climb points they actually earned in the Match, and regardless of the Robot's capabilities) would result in either them winning or tying the Match." Due to this, a blue robot is incentivized by the rules to remove opponents from the ladder(given no other rules are broken and no damage is caused to the opponent).

For example, if Blue Alliance was currently winning by 13 points, and saw the red robot attempting a hang with a ring in possession, they knew knocking their robot off of the bar would win them the match. However, allowing them to continue and score onto the high stake(as they have displayed in previous matches) would lose them the match.

So, if a robot has clearly displayed they are capable of scoring the high stake, and a robot has removed them from the ladder violating SG9, how many points would be awarded to determine if it's match affecting?

As a separate follow-up question, Q&A 2282 states the high stake bonus(SC9) is not provided in skills matches. However with the update to the rule(of an additional 3 points), and the Vex V5RC Hub(acknowledging it's unofficial) including these 3 points in a skills match, does the ruling of Q&A 2282 remain or has the point value of the high stake bonus changed in skills?

Thank you for your time

Beantwortet von committee

Our response to [Q&A 2252](#) applies, and specifies that the Violation should be considered Match Affecting "if awarding the opposing Alliance the 12 points for a Tier 3 Climb (in place of any Climb points they actually earned in the Match, and regardless of the Robot's capabilities) would result in either them winning or tying the Match." This would include Robots capable of scoring a Ring on the High Stake.

Scoring values for Skills Matches were not changed in the January 28, 2025, game manual update.

2480: [SG9] Match Affecting Calculations with SC9

29-Jan-2025

SG9

If a robot is climbing and has the intention to put a ring on the high stake, should that be considered in a match affecting calculation if they are knocked off the ladder?

Also, if there already is a ring on the high stake and the alliance whose ring is scored is knocked off the ladder, should the bonus points from the high stake be included in the match affecting calculation?

Beantwortet von committee

Our response to [Q&A 2252](#) applies, and specifies that the Violation should be considered Match Affecting "if awarding the opposing Alliance the 12 points for a Tier 3 Climb (in place of any Climb points they actually earned in the Match, and regardless of the Robot's capabilities) would result in either them winning or tying the Match." This would include Robots capable of scoring a Ring on the High Stake.

2431: SG9 Protection / Violations for Passive Climbing Mechanism

11-Jan-2025

SG9

The definition of Climb in Game-Specific Definitions is as follows: A Robot action. A Robot is considered to be Climbing if it has intentionally grasped, grabbed, or attached itself to the bottom/black rung of the Ladder and/or a higher point of the Ladder. In most cases, this means a Robot mechanism will be reacting against multiple sides of a rung or vertical section in an effort to latch, clamp, or hook onto the Ladder. See <SC7> for the criteria for a Robot to be considered to have Climbed to a Level.

At a recent tournament, the RED1 robot, which had an arm on top and one side of the bottom rung of the ladder, was not given the protection of <SG9>(a)(i) when the BLUE1 robot, which was not Climbing or attempting to Climb, drove into the RED1 robot. No violation was issued to BLUE1. It was stated that because the RED1 robot's arm was not being mechanically driven by a motor or pneumatic, it did not qualify as a mechanism.

Can you clarify the definition of a mechanism in relation to the definition of Climbing and <SG9>? In this scenario, should RED1 have received the protection of <SG9> and BLUE1 issued a Minor or Major Violation?

Beantwortet von committee

It is impossible to issue a blanket answer beyond what is written in the game manual that encompasses all possible situations based on a snapshot description of a hypothetical Robot or mechanism.

However, there is no requirement that a mechanism used for Climbing be mechanically driven by a motor or pneumatic system. Passive mechanisms that are used for Climbing should receive the same consideration as powered mechanisms under rule [<SG9>](#).

If a Robot has intentionally grasped, grabbed, or attached itself to the black rung or any higher point on the Ladder, it should receive the protection of rule [<SG9>](#). However, incidental or accidental (i.e., not intentional) contact with multiple sides of a rung is not enough to meet the definition of Climb. If, in the Head Referee's judgment, the Robot does not meet the definition of Climb, it cannot receive the protection of rule [<SG9>](#).

2292: Clarification on SC7 and SG9: Protection when holding mobile goals

12-Nov-2024

SC7 SG9

[<SC7>](#)

Hello!

If RED1 is elevated at Level 2, and is currently holding a mobile goal underneath itself, If BLUE1 pushes the mobile goal, causing RED1 to fall off the ladder, is RED1 offered protections from SG9?

Our main concern is that as per SC7 RED1 would not be considered to have "Climbed to a Level" as it is contacting a mobile goal.

Would the correct interpretation of this scenario be to assume that as RED1 was on a "higher level" regardless of whether it meets the definition of "climbed to a level", that BLUE1 can not cause a destructive incident with RED1 to remove it from the ladder?

Essentially, is a robot offered the same protections from SG9 if it is climbing the ladder with a Mobile Goal?

Cheers

Beantwortet von committee

Note: As of the January 28, 2025, game manual update, a Robot may be in contact with a Mobile Goal and still be considered as having Climbed to a Level. Portions of the original question no longer apply, and our answer has been revised to reflect the revised rule.

Essentially, is a robot offered the same protections from SG9 if it is climbing the ladder with a Mobile Goal?

Yes. A Robot meets the definition of Climbing and receives the protections of rule [<SG9>](#) even if it Climbs with a Mobile Goal.

2252: Clarification regarding hanging interference during the end game phase.

4-Nov-2024

SG9

[<SG9>](#)

There has been some activity online recently that suggests some teams have developed or are developing a Tier 3 hang or high stake mechanism. However, there is an interesting conundrum that arises with how a match affecting violation is ruled when an opponent blocks an attempt to achieve such a hang.

The scenario is as follows:

Red alliance: Has a tier 3 high stake capable robot that has demonstrated mostly consistent performance in achieving this, enough for an argument to be made that they could have done it had an interference not occurred, BUT they could not demonstrate 100% consistency, maybe it fell off the rung at an earlier match, but enough to detract refs thinking they have 100% reliability.

Blue alliance: All the important context is that their relevant bot is strong enough to interfere with the red alliances hang attempts to sufficiently make it clear that they were interfering with the hang.

The match has been going strong, and red alliances only hope to win is if they execute on their high hang and high stake. They rush the climbing structure, and begin phase 1 of their climbing procedure. For simplicities sake, lets just say it counts as attempting a hang and nothing specific like a claw, hook, etc.

Blue alliance rushes in, and stops them from actually completing phase 1 of their hang,

In this scenario, blue gets a violation that may or may not be match affecting.

Since the calculation of whether or not a violation is match affecting is based on if the result of the match would have changed if it had not occurred, blue argues that red was not going to land the hang, and the points the violation could have affected would have been 3, for a Tier 1 hang.

Red argues that, had blue not interfered, they would have made the full procedure and won the match.

How would this be counted? On one hand, red very easily could have won the match had blue not interfered, however on the other hand, they could have made it to tier 1, 2, 3, or done all 3 and gotten the high stake, and blue argues that it is unlikely that red could have achieved this, which would make it not match affecting.

This question would either require the referee to fully understand red's robot, either via watching, interviewing, etc to properly make a call, but volunteers are not expected to do so for every team at a competition. If this referee did not have this knowledge, which they are not required to have, the valuation of the violation is quite literally impossible to determine, since it is essentially random chance to an uninformed ref if red made it to max potential or not.

How would this be rightly decided? A new rule? A coin flip? A replay? We would love to hear your thoughts!

Beantwortet von committee

We'll start by pointing out that there is no rule that prohibits a Robot from blocking an opponent's attempt to Climb. However, once a Robot meets the definition of Climbing, it gains the protection of rule <SG9>. Intentional or egregious strategies aimed solely at removing an opponent from the Ladder, or interactions that result in damage to a Climbing Robot, are at minimum Minor Violations.

Per the 2nd Violation Note for <SG9>, "Major Violations are not required to be Match Affecting, at the Head Referee's discretion."

Because it may not be possible to determine which Tier the Climbing Robot "could have" reached if the <SG9> Violation hadn't occurred, Head Referees should apply the following logic to decide whether or not the Violation was Match Affecting. If an egregious Violation results in opponent Robot damage or otherwise severely impedes an opponent's Climb, then it should be assumed that the Violation was Match Affecting if awarding the opposing Alliance the 12 points for a Tier 3 Climb (in place of any Climb points they actually earned in the Match, and regardless of the Robot's capabilities) would result in either them winning or tying the Match. Note that the opponent should not actually be awarded these points on the scoresheet! If needed, these points can be entered as a placeholder during Match Affecting calculations, and used as a demonstration to the Teams during any post-Match explanation, but the 12-point Climb should **not** be saved as part of the score.

2177: Interfering with opponents ability to climb vs SG9 (Game manual v2.0) - clarification requested

6-Oct-2024

SG9

In our recent scrimmage event (first of the season for us) some students and coaches seemed to have different opinions about this - possibly somewhat because of protected periods in last season's game. Could you please provide

confirmation on whether the scenarios labeled below are correctly interpreted.

I've seen the Q&A post **Defence and SG9** from Sept 16 and the updated definition of *climbing* from that post (included below), which helps a lot. <https://www.robotevents.com/V5RC/2024-2025/QA/2139>

"Climb - A Robot action. A Robot is considered to be Climbing if it has intentionally grasped, grabbed, or attached itself to the bottom/black rung of the Ladder and/or a higher point of the Ladder. In most cases, this means a Robot mechanism will be reacting against multiple sides of a rung or vertical section in an effort to latch, clamp, or hook onto the Ladder. See <SC7> for the criteria for a Robot to be considered to have Climbed to a Level."

Clarification on the points below would still help explain application of the rules regarding climbing protections to student competitors and coaches in a timely manner.

From my understanding there is no rule prohibiting robots from preventing other robots from reaching the ladder, at any point in the driver controlled period, provided they have not yet met the definition of climbing.

(a) It would be a valid strategy for a non-climbing robot to position itself between the ladder and an opposing robot that wants to reach the ladder to climb at any point in time, providing that the robot attempting to climb has not yet contacted the horizontal rungs of the ladder. There would be no violation in this case.

(b) Similar to above, if incidental contact occurs when a robot is blocking, and the robot that would like to climb has not yet reached the ladder, there is no violation.

(c) Similar to above, but the blocking robot simply places itself underneath the horizontal rungs of the ladder on the side of the alliance attempting to climb in order to prevent access. No violation.

(d) In the above situation, if the blocking robot is excessively aggressive, for instance ramming into the robot that is attempting to reach the ladder, in order to push them back. The Referee should warn the aggressive robot to be less aggressive as per G13. If they back off after a bit, this could initially be a minor violation of G13, but the temporary excessive aggressive attacks cause the robot attempting to climb to run out of time to perform their climb. The minor violation could become a match-affecting violation if the score is close, even if no visible damage occurs to the robot. (Does it matter whether they meet the definition of climbing in this case or if they simply have a mechanism and are making an attempt to reach the ladder?)

(e) A robot with a climbing mechanism is reaching for the ladder, and is quite close but has not contacted the ladder yet. An opposing robot quickly moves in front blocking access to the ladder before the climbing robot reaches it. Contact may occur between robots. If the contact is not excessively aggressive, and simply involves the blocking robot pushing the other back, G13 does not seem to be violated. There is no violation since the robot attempting to climb has not yet reached the horizontal rungs.

(f) A robot that is attempting to climb and an opposing robot attempting to prevent access to the ladder (and clearly not attempting to climb) are jostling for position. The robot attempting to climb manages to make contact with the side of the ladder rungs. The blocking robot fails to back off and give space to the climber - for instance maybe they just sit in the same position.

- Regarding the updated definition: if the robot has grasped/grabbed the rungs, they meet the definition of climbing, and the blocking robot not giving space would lead to a violation of SG9.a -if the robot is merely contacting the rung (e.g., their climbing mechanism is meant to hook on top but is contacting below, they do not meet the definition, and SG9.a won't apply, so the blocking robot need not move out of the way. However if the rungs of the ladder are on their alliance side, the blocking robot would need to back off, due to SG9.b, which gives the robot in contact with the rungs on their own alliance's side the more "offensive/safe" position.

Part of the reason this came up in our recent scrimmage event (first of the season for us) is that most climbing teams only attempted their climbs in end game, and robots that couldn't climb were seeking to play defensively. Some students felt that no-violation calls for preventing access to the ladder were controversial - this could be a misunderstanding because the previous year's game had a protected period for climbing. The rules don't supply any special protections to climbing late in the game, and the competitors should probably expect climbing to be more challenging late in the game as their opponents will be expecting them to make climbs then, after positive corner protection kicks in.

Beantwortet von committee

In all of your scenarios, if neither Robot meets the definition of Climbing, there cannot be an [<SG9>](#) Violation (major or minor).

Scenario D could lead to a Major [<G13>](#) Violation if the Head Referee rules the interaction has led to intentional or egregious tipping, Entanglement, or damage. [<G16>](#) could also come into play if the aggressive Robot is Holding the other Robot for more than a 5-count.

In Scenario F, the Robot with an extended Climbing mechanism will only have the protection of rule [<SG9>](#) once it meets the definition of Climbing. However, this is an inherently risky strategy. It may be difficult for a Head Referee to definitively know whether a Robot meets the definition of Climbing or is simply contacting the Ladder. If they must make a judgment call on a potential [<SG9>](#) violation, the referee should rule in favor of the offensive (Climbing) Robot per [<G14>](#).

2139: SG9 and Defense

16-Sep-2024

SC7 SG9

[<SG9><SC7>](#)

SG9a states:

- a. If the two Robots are not at the same Level, the higher Robot has the "right of way." i. Point A especially applies if one Robot is not Climbing, i.e., is still in contact with the Floor. Driving directly into a Climbing Robot will always incur a Minor Violation at a minimum, even if no damage occurs.

Does "Climbing" in SG9ai refer to the criteria for "Climbed to a Level" defined by SC7? For example, RED1 is attempting to climb and BLUE1 is on the ground trying to defend them. Is it legal for a BLUE1 to drive into RED1 to stop them from climbing if RED1 is touching the ladder but still contacting the tiles? If not, what criteria should referees use to determine when a robot starts "climbing"?

Beantwortet von committee

Thank you for your question, and for allowing us to clarify the intent of rule [<SG9>](#). The definition of Climb will be revised as follows in the next game manual update, and this change is effective immediately.

Climb - A Robot action. A Robot is considered to be Climbing if it has intentionally grasped, grabbed, or attached itself to the bottom/black rung of the Ladder and/or a higher point of the Ladder. In most cases, this means a Robot mechanism will be reacting against multiple sides of a rung or vertical section in an effort to latch, clamp, or hook onto the Ladder. See [<SC7>](#) for the criteria for a Robot to be considered to have Climbed to a Level.

As stated in Clause Ai of rule [<SG9>](#), "Driving directly into a Climbing Robot will always incur a Minor Violation at a minimum, even if no damage occurs."

1963: SG9 - Contacting Triballs on opposite side of barrier

20-Feb-2024

SG9

[<SG9>](#)Rule [<SG9>](#) States: That Triballs that began entirely on the opposing side cannot be touched by a robot during autonomous. This would imply that if a robot that pushes two Triballs over the barrier in autonomous and their teammates then touches them, this would count as a minor violation. However, This rule has not been enforced in many signature's events. Would it also be a larger violation to score the triball into a goal that your opponent or teammate pushed onto your robots side of the field?

Example of Autonomous Path: <https://youtu.be/rZQ8dvnQ-sl?si=ZsU037LhPtsK6EcZ> - Blue Alliance 98548J - Pushes one Triball over the Barrier 2131H - Touches the Triball on the last Push into the goal, but does not score it.

Note: <G15> (You can't force an opponent into a DQ) Doesn't apply as it is the same alliance.

Thanks for Clarification, 2131H

Beantwortet von committee

Rule <SG9> is intended to refer to interactions in which a Robot reaches across the Neutral Zone or Barrier and directly contacts a Triball that began the Match entirely within another 'quadrant' of the field. Scenarios like the one you've described, in which one Robot 'delivers' legally-obtained Triballs across the Neutral Zone or Barrier for use by another Robot, are legal.

1908: <SG9> "They" Clarification

30-Jan-2024

SG9

In <SG9> it states that:

Stay in your starting Zone during Autonomous. During the Autonomous Period, Robots may not contact foam tiles, Triballs, or Field Elements that are entirely on the opposing Alliance's side of the Neutral Zone, or entirely in the opposite Offensive Zone from which they began the Match.

In the last section of the sentence of "from which they began the Match" could be read and interpreted weirdly as to where the **they** applies to.

I would just like a clearer clarification as to whether it applies to: a. Robots b. foam tiles, Triballs, or Field Elements

Beantwortet von committee

The word "they" in rule SG9 is intended to refer to Robots.

1890: Where do Offensive Zones end under the elevation bars?

23-Jan-2024

SG9

Offensive Zone – One of two halves of the field, divided by the Barrier. See Figure 20.

- Each Alliance has an Offensive Zone. An Alliance's Offensive Zone is on the side furthest from their Alliance Station and closest to that Alliance's colored Goal.
- Each Offensive Zone consists of the gray foam tiles on one side of the Barrier. It is not a 3-dimensional volume.
- The Long Barrier is not considered to be in either Offensive Zone.
- The Match Load Zones are not considered to be part of either Offensive Zone.

I can see two possible interpretations of the second bullet point in the definition of "Offensive Zone":

1. Each Offensive Zone consists of *the portions* of the foam tiles on one side of the Barrier. (See attachment A)
2. Each Offensive Zone consists of the *entirety* of any foam tiles partially or completely on one side of the barrier. (See attachment B)

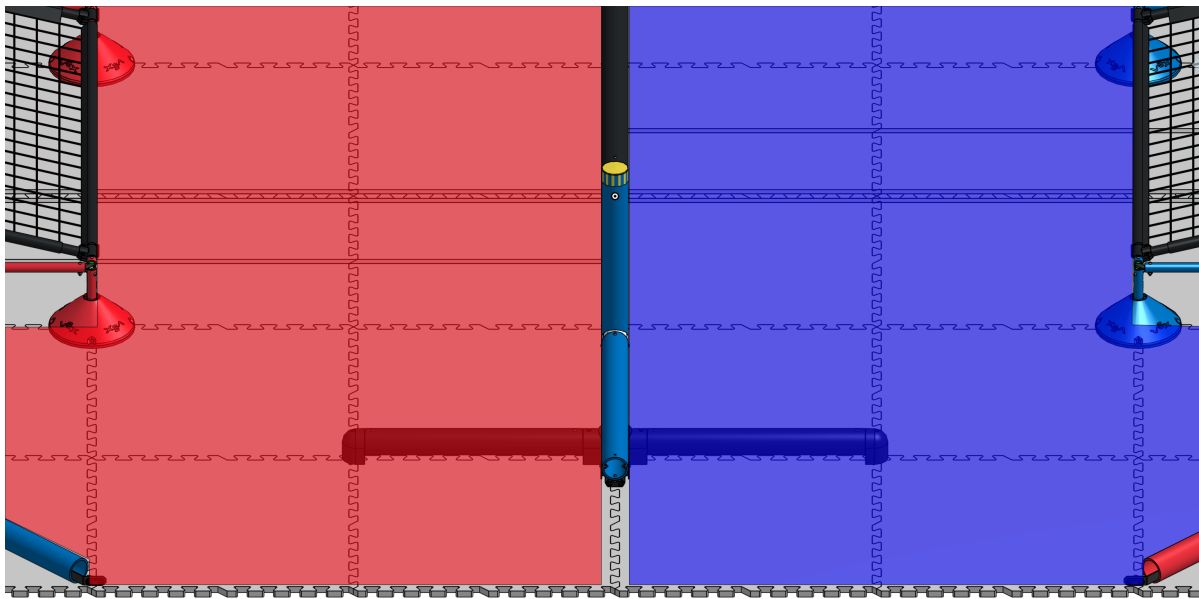
The difference between these two interpretations lies under the horizontal elevation bars. Under interpretation 1, there is a strip of foam directly below the bar not in either Offensive Zone. Under interpretation 2, the two offensive zones share a border under the bar, following the shape of the foam tiles' interlocking tabs. Figure 20 seems to support interpretation 1, however text takes precedence over figures, and I have seen interpretation 2 enforced at some events.

This difference is particularly important when enforcing rule SG9. If a robot ends the autonomous period contacting the region under the bar where tiles interlock, it can be very difficult to determine whether the robot is contacting the tile on the other side of the barrier – doubly so if the robot only briefly contacts this area and then drives away. In contrast, it is much easier to visually determine whether a robot contacts the foam past the far edge of the barrier.

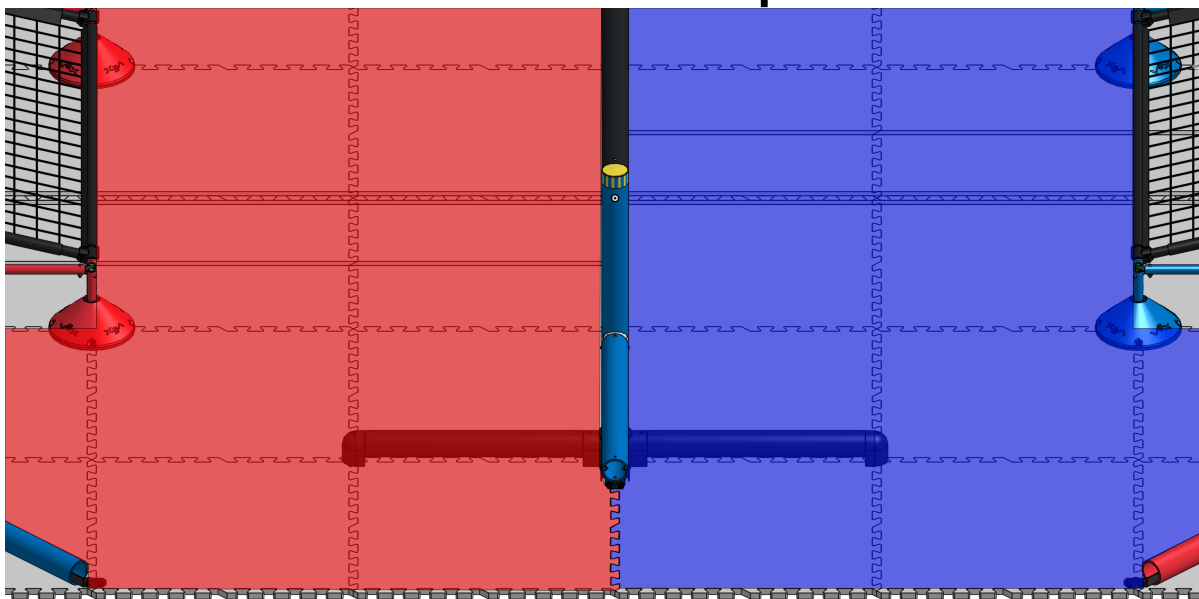
Additionally, interpretation 1 makes it clear that the triballs starting under the two elevation bars are not scored in either offensive zone at the beginning of the match (and therefore are legal to contact during autonomous). Under interpretation 2, the status of these triballs is somewhat ambiguous, as raised in the recent Q&As [1884](#) and [1885](#).

Which of these two interpretations of the definition of “Offensive Zone” is correct?

Thanks for your time!



Attachment A: Interpretation 1



Attachment B: Interpretation 2

Beantwortet von committee

Interpretation 2 is correct.

Generally speaking, when a rule refers to "the foam tiles" as a boundary, it is intended to be taken literally, i.e. following the shape of the interlocking tabs. This is done so that Head Referees can easily "paper test" close calls if needed.