

Q&A

VRC 2023-2024: Over Under

Tagged: G15

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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- For game questions, suggestions, or concerns outside of specific and official rules questions, contact GDC@vex.com.

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765: Field setup question

22-Mar-2021

G15

We watched some matches recently this season where teams set field elements in such a way that it made their skills drive or autonomous run easier. Examples include rotating risers so standoffs are off side for easier pickup. Another one is moving the single riser away from the adjacent double stack riser so they can grab the double stack riser without disturbing the single riser making it easier for autonomous routines.

As per Game Definitions, Field is defined as: Field – The entire playing Field, being six (6) field tiles wide by eight (8) field tiles long totalling forty-eight (48) field tiles, surrounded by the field perimeter consisting of four (4) outside corners and twenty-four (24) straight sections

Rule <G15> states "Be prepared for minor field variance. Field tolerances may vary by as much as ± 1 " unless otherwise specified. Teams must design Robots accordingly."

As field is defined as just the tile field and side walls without mention of field elements, our interpretation is that ± 1 " does not apply to field elements and as such, manipulating field elements even within ± 1 " would not be legal. We also assume this rule was in place to address uncontrollable and minor fluctuations in field variances during tournaments. As such, deliberate manipulation of the field elements to gain advantage in skills would be against the spirit of the rule.

Our interpretation of the above rule is that all field elements must be set according to the game manual. Please confirm if our interpretation is correct or if it is indeed acceptable for teams to purposely manipulate field element setup to gain advantage as long as it is within ± 1 " such as the field setup below.

<https://ca01downloadstor.blob.core.windows.net/software/viqc/riser-setup.png>

Answered by committee

Your interpretation is correct. Risers should be set up as close as reasonably possible to what is shown in the manual, with regards to both placement and rotation.

That being said, this placement should be feasible without the aid of a measuring device or other unreasonably close scrutiny, thus the allowance for ± 1 ".

Intentionally or strategically "pushing the limits" of this allowance would be outside of the spirit of the rule, and would not be permissible. It will be the Head Referee's responsibility and discretion to determine what is considered "intentional" or "strategic".

712: Tetherbot Pinning

11-Dec-2020

G15

See the previous question defining a "tetherbot".

Regarding trapping and pinning as it pertains to tetherbots. The game manual defines trapping as:

Trapping – A Robot status. A Robot is Trapping if it has restricted an opposing Robot into a small, confined area of the field, approximately the size of one foam field tile or less, and has not provided an avenue for escape. Trapping can be direct (e.g. pinning an opponent to a field perimeter wall) or indirect (e.g. preventing a Robot from escaping from a corner of the field).

Rule G15 says:

No Trapping for more than five seconds (0:05). A Robot may not Trap an opposing Robot for more than five seconds (0:05) during the Driver Controlled Period. A Trap is officially over once the Trapping Robot has moved away and the Robots are separated by at least two (2) feet (approximately one foam tile). After ending a Trap, a Robot may not Trap the same Robot again for a duration of five seconds (0:05). If a Team does Trap the same Robot again, the count will resume from where it left off when the Trapping Robot initially backed off. 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.

Should the robot on an opposing alliance be called for pinning a tetherbot, if part of the tetherbot is still free to move?

Can a robot that occupies a large part of the field ever be considered trapped (or pinned), because it occupies much more than one foam tile?

Answered by committee

Should the robot on an opposing alliance be called for pinning a tetherbot, if part of the tetherbot is still free to move?

No, this would not fall within the intent of the definition of Trapping. The intent of the Trapping rule is to cover scenarios when a Robot is physically prohibited from playing the game.

Can a robot that occupies a large part of the field ever be considered trapped (or pinned), because it occupies much more than one foam tile?

It is impossible to provide a blanket answer that would encompass all hypothetical Robot designs and Match contexts. We would not advise using "approximately one foam field tile" as a strict pass/fail for the definition of Trapping. Rather, we would advise reviewing the implications of Trapping and G15 that are described in the associated [Referee Training video](#). Many of the broader definitions of Trapping, such as "actively preventing a Robot from escaping", would tend not to apply if an 18"-wide Robot is playing defense against a 60" wide Robot with multiple moving parts.

568: <G15> Clarification on when trapping is official over.

23-Feb-2020

G15

<G15> "A Trap is officially over once the Trapping Robot has moved away and the Robots are separated by at least two (2) feet (approximately one (1) foam tile). Should the "two (2) feet" be interpreted as a 3-dimensional volume extending upwards? We've had a few matches where a robot base does separate by at least two (2) feet, but the the arms, tray anglers, etc. do not.

Answered by committee

Thank you for quoting the relevant rule in your question.

The intent of the 2-foot reference in G15 is to ensure that Robots being Trapped are provided with an ample avenue for escape. If a Trapping Robot has a mechanism that is causing an opponent Robot to be restricted to a small space without an avenue for escape, then the Trapping count should continue.

However, it would not be feasible to expect a Head Referee to visualize four moving 3D volumes and measure their exact distances apart at any given instant. There are situations which may technically result in less than two feet separating two Robot mechanisms, but would not be restricting one Robot to a confined area (such as a tall "tray" hanging over a Clawbot-sized Robot).

Therefore, we cannot provide an overarching blanket statement that would encompass all hypothetical Robot interactions, while being realistic for a Head Referee to judge during a Match. We are going to use G3 to assist in Head Referee judgments involving this scenario:

<G3> Use common sense. When reading and applying the various rules in this document, please remember that common sense always applies in the VEX Robotics Competition.

534: Clarification on Trapping: Game Manual vs. Referee Training Video

3-Feb-2020

G15

Is a robot considered trapped while not attempting to escape? There is a major discrepancy between the referee video on trapping and the game manual. In the referee training video, it is stated multiple times that for a robot to be considered trapped it must be actively trying to get out of the trap. However, in the game manual trapping is defined as "A Robot is considered Trapped if an opposing Robot has restricted it into a small, confined area of the field, approximately the size of one foam field tile or less, and has not provided an avenue for escape. Trapping can be direct (e.g. pinning an opponent to a field wall) or indirect (e.g. preventing a Robot from escaping a corner of the field)." By definition, a robot is trapped whether or not it is attempting to get out of the trap. This training video causes the referees to rule trapping incorrectly as it would be believed that the training videos would be accurate to the game manual. However, it is stated in the game manual that "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." Useful info Game Manual Link:

<https://content.vexrobotics.com/docs/vrc-tower-takeover/GameManual-20190816.pdf>

Referee Video Link: <https://www.youtube.com/watch?v=UsFRgTikQVg>

Answered by committee

To emphasize a few specific portions of the Trapping definition:

A Robot is considered Trapped if an opposing Robot has restricted it into a small, confined area of the field, approximately the size of one foam field tile or less, and **has not provided an avenue for escape**. Trapping can be direct (e.g. pinning an opponent to a field wall) or indirect (e.g. **preventing a Robot from escaping** a corner of the field).

In order to know whether "an avenue for escape" has been provided, the opponent must be attempting to escape. In order to "prevent" an opponent from "escaping", they must be attempting to escape.

The Referee Training video intentionally goes into additional detail on this point to help make the distinction clear, and there was not intended to be any discrepancy. We will be sure to take this into consideration for future Game Manuals.

514: Entanglement during a trapping call.

29-Jan-2020

G15

During a trapping count, if the bots become entangled, what is the right call?

Here is a scenario that played out this past weekend, more than once.

Blue alliance is trying to score in their goal zone, and gets rammed by red alliance.

Blue does not make an action to leave, continuing to attempt to stack.

However they then try to fight off the defending robot by backing up to push them off, thus causing a trapping count to begin from the referee. It is apparent that in the process of backing up the robots have become entangled, with the anti-tip

mechanism of the defensive red robot getting caught on the frame of the blue bot. Blue still has a set of cubes and is attempting to score, but cannot disconnect from the red robot. As a result their movement is restricted for roughly 25 seconds, but at the same time, blue has been trying to score the whole time.

The training videos stress that even if the offending robot becomes stalled during a trap, the trapping count continues. Is this true for entanglement as well, assuming it to be accidental in nature? What is the proper way to respond to a robot that becomes entangled while trapped.

Additionally if a trapping count starts, and the trapped robot stops trying to escape and attempts to score, is the count continued, paused, or canceled?

Answered by committee

In the specific scenario you have described, G13 would take precedence:

<G13> Offensive Robots get the "benefit of the doubt". In the case where referees are forced to make a judgment call regarding a destructive interaction between a defensive and offensive Robot, or an interaction which results in a questionable rules violation, the referees will err on the side of the offensive Robot.

The snapshot description implied that Blue was clearly playing offensively, and Red was clearly playing defensively (Trapping is, by definition, a defensive interaction). A Team is responsible for the actions of its Robot at all times; a Robot which has engaged in objectively defensive behavior has assumed an element of risk under G13.

The training videos stress that even if the offending robot becomes stalled during a trap, the trapping count continues. Is this true for entanglement as well, assuming it to be accidental in nature? What is the proper way to respond to a robot that becomes entangled while trapped.

Entanglement during Trapping should be handled similarly to a stall. Again, because a Robot is responsible for its own actions at all times, a Robot which chooses to engage in this strategy should be prepared to minimize the risk of any Entanglement, stalling, or other situations which could turn the legal Trap into a G15 violation.

Additionally if a trapping count starts, and the trapped robot stops trying to escape and attempts to score, is the count continued, paused, or canceled?

This question is answered in the [associated Referee Training video](#), around the 2:00 time.

353: Attempting to score in the non-protected goal zone

9-Sep-2019

G15 SG3

At a recent tournament, when teams were trying to score in their non-protected goal zone faced near-constant defense (bumping, etc.) before any of the cubes were released and met the definition of scored. Many teams complained that this was a violation and said that it had been called as a disqualification at previous events. We were unable to find anywhere in the rules that this was illegal. The closest two rules that were argued was that it could have constituted trapping

G15 No Trapping for more than 5 seconds

Or that it could be a violation of the second clause of SG3

"Robots may not intentionally or accidentally, directly or indirectly, perform the following actions: B Contact any Scored Cubes in either of opposing Alliance's Goal Zones"

Neither of these arguments seemed to be valid to us, but we didn't know if there was something we were missing.

So to summarize, can you bump a robot that is in the process of scoring in the non-protected goal zone before its cubes have met the definition of scored?

Answered by committee

can you bump a robot that is in the process of scoring in the non-protected goal zone before its cubes have met the definition of scored?

Please see these two similar Q&A's for reference:

<https://www.robotevents.com/VRC/2019-2020/QA/288>

<https://www.robotevents.com/VRC/2019-2020/QA/296>

As well as the Referee Training video that discusses Protected Zone interactions:

<https://www.youtube.com/watch?v=Y4nziGzN9ik>

These three links all refer to the full text of SG3, so we would advise reviewing that as well, taking note of which parts refer to Goal Zones vs Protected Zones. The only parts of SG3 that refer to the non-protected Goal Zones are B and D:

<SG3> Stay away from your opponent's protected areas. Robots may not intentionally or accidentally, directly or indirectly, perform the following actions:

B - Contact any Scored Cubes in either of opposing Alliance's Goal Zones.

D - Contact either of the opposing Alliance's Goal Zones or Barriers.

It is impossible to issue a blanket ruling that would cover all hypothetical robot-to-robot interactions. In most cases, if parts B and/or D have not been violated, then no violation of SG3 has occurred. You are correct that whether or not a given Cube is Scored is the key point to determining if SG3-B is being violated. Other rules, such as G14, G15, or SG6 may still apply, as they do in all robot-to-robot interactions; there is nothing special about them with regard to the hypothetical scenario being asked about here (i.e. "bumping a robot in the process of scoring").

328: <G15> Trapping Clarification

4-Aug-2019

G15

So with the release of NorCal's wall-bot, a few others and I brainstormed ways to negate its defensive effect. We came up with the idea of after autonomous (since wall-bots can't deploy till after autonomous) keeping one robot in the protected zone to secure access to that scoring zone. We thought that since we are in that corner the wall-bot can't deploy without trapping us but after reading the rules again we noticed trapping states:

A Robot is considered *Trapped* if an opposing Robot has restricted it into a small, confined area of the field, approximately the size of one foam tile or less and has not provided an avenue for escape. Trapping can be direct (pinning) or indirect (preventing a Robot from escaping the corner of the field).

So the approximately one foam tile or less means we can be trapped in the corner, our protected zone, by their bot based off the rule. However, in In The Zone's ref training it showed an example of trapping and the trapped robot was moving around between three tiles. Could you clarify if this would be trapping or not?

If it is ruled as trapping someone stated that the robot sitting in the protected zone violates <G14> which I believe is incorrect. The robot in the corner isn't forcing the wall-bot to come to the corner and trap it, it is strategically holding open the avenue so their partner can score in the area. Does this fall under G14?

Here are the videos I talked about for reference: [NorCal's Wall-bot](#) [ITZ Ref Training, 1:10 is the example](#)

There's two links here, formatting is being weird

Answered by committee

So the approximately one foam tile or less means we can be trapped in the corner, our protected zone, by their bot based off the rule. However, in In The Zone's ref training it showed an example of trapping and the trapped robot was moving around between three tiles.

First, please remember that support materials from previous seasons do not apply to the current competition season, as rules, interpretations, or game-specific contexts may have changed.

Could you clarify if this would be trapping or not?

Indirect trapping is one of the more difficult calls for a Head Referee to interpret, and is largely dependent upon in-match context. The video clip that you referenced (if we were to assume that we are now interpreting it using Tower Takeover rules, not In the Zone rules) would be considered Trapping.

In this clip, the red Robot was very clearly intending to hold the blue Robot to a small, confined area, without providing any avenues for escape. The definition of Trapping does include the word "approximately" to imply that the Robot being Trapped may not always neatly line up into a specific foam tile without crossing any seams. Head Referees should not need to (and are not expected to) measure the precise area in which the Robot is being held to confirm if it is exactly 24" wide or not. Similarly, the blue Robot is clearly attempting to escape, which is another key thing that Head Referees will look for when determining if a given interaction is a Trap or not.

If it is ruled as trapping someone stated that the robot sitting in the protected zone violates <G14> which I believe is incorrect. The robot in the corner isn't forcing the wall-bot to come to the corner and trap it, it is strategically holding open the avenue so their partner can score in the area. Does this fall under G14?

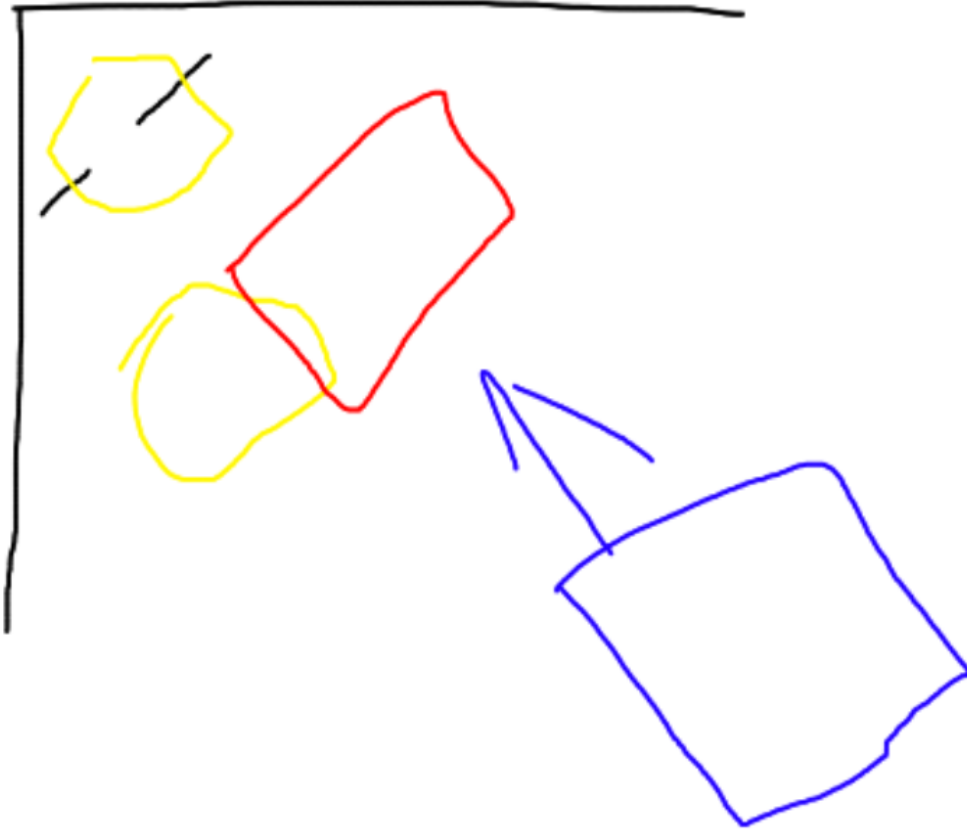
It is impossible to issue a blanket ruling based on a snapshot description of a hypothetical match. The Head Referee would need to take into account the context of previous matches, the offensive Robot's intent for being in the corner, if they were attempting to escape, etc.

2565: Forcing a DQ through SG6, G15, and diagonal corner guarding

23-Feb-2025

G15 SG6

At our state championship, the head referee decided that when a robot is guarding a Mobile Goal placed in a corner while possessing another Mobile Goal, another team could push them into the goal they were guarding, and the defensive (guarding) team would automatically receive an <SG6> violation. Below is a diagram of how this could happen, with the red alliance defending the goals and the blue alliance pushing them into the corner:



However, most of us at the competition thought that this ruling was in direct contradiction with [<G15>](#), which states:

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.

During the competition, teams were able to ram a bot guarding a corner while possessing a goal into the corner (in the scenario described above), giving the guarding team an instant [<SG6>](#) violation and giving the alliance an instantaneous 2 win points. The referee's logic for this decision was that by guarding the positive corner while possessing a Mobile Goal, the guarding team was forcing any team that wanted to contest the corner into a [<G15>](#) violation, and consequentially, the [<G15>](#) violations "canceled out." They also stated that the guarding team should be able to move out of the way or drop their goal to avoid a disqualification, but this logic doesn't make sense, because it forces the guarding team to either give up a mobile goal or give up the positive corner to avoid a disqualification.

This leads us to our main question:

- Does guarding a Mobile Goal placed in a positive corner while possessing another goal void you from [<G15>](#) protections? (i.e, should a team be able to force you into a Disqualification if you are guarding a corner in the scenario described in this post?)

Answered by committee

We'll start by reminding you that Head Referees' ruling are final, and that we cannot and will not overturn them. However, should similar scenarios come up at future events, the following guidance applies.

...the head referee decided that when a robot is guarding a Mobile Goal placed in a corner while possessing another Mobile Goal, another team could push them into the goal they were guarding, and

the defensive (guarding) team would automatically receive an SG6 violation.

To violate <SG6> in this scenario, the red Robot would have to Plow or Possess that second Mobile Goal in the Corner. Contact alone does not warrant a violation. As described in our answer to Q&A 2304, minor, incidental contact with a Mobile Goal likely wouldn't be considered Plowing. Unless the actions of the blue Robot are forcing the red Robot to Plow or Possess the second Mobile Goal that's in the Corner, there is no <SG6> violation being forced upon the red Robot. If the red Robot is indeed forced into Plowing or Possessing a second Mobile Goal by the blue Robot, the <SG6> Violation simply wouldn't be enforced on the red Robot in accordance with <G15>.

The referee's logic for this decision was that by guarding the positive corner while possessing a Mobile Goal, the guarding team was forcing any team that wanted to contest the corner into a G15 violation...

It is perfectly legal for the red Robot to defend a Mobile Goal in the Corner while Possessing a different Mobile Goal, as stated in Q&A 2013. More importantly, this action alone cannot be a <G15> Violation. The red Robot defending the Corner is not forcing the blue Robot into doing anything in this scenario. In an effort to gain access to the Mobile Goal in the Corner, the blue Robot is choosing to drive into the red Robot and push it into contact with the Mobile Goal in the Corner. The blue Robot might be incentivized to make a play for the Mobile Goal in the Corner, but that doesn't mean the blue Robot is forced to go along with that play. That is a critical distinction that must be made in regards to <G15>.

2518: Determining Holding When Defensive Robot Drives On Top of Offensive Robot

9-Feb-2025

G14 G15 G16

SITUATION: RED is camping in the positive corner holding a goal while protecting its placed goal (not touching placed goal). A lightweight, BLUE pushbot comes quickly at RED in order to get to the placed goal and remove it. RED never moved in the direction of BLUE. BLUE drives upon the side of RED and gets stuck. Blue cannot free themselves despite still having two wheels on the ground. Offensive RED in no way is controlling the movements of the BLUE defensive robot. RED sits still until the 30-second buzzer, then drives straight, which frees the BLUE robot from their side. Obviously, RED could have moved earlier and freed the BLUE robot that drove on top of them, but it would have been at the risk of letting the defensive robot drive in and remove their goal from the positive corner.

QUESTION: Should RED be called for lifting and a 5-count started? Or would it not be considered lifting because of the following reasons: 1) the RED robot never "raised or tilted" the blue robot off the ground. Instead, the BLUE robot drove on top of the RED. 2) The RED robot never was controlling the BLUE robot's movements. 3) According to <G15>, you can't force an opponent into a violation. 4) According to <G14>, the offensive robot gets the benefit of the doubt.

I called it the latter yesterday and feel like it's the correction interpretation of the combined rules, but I thought it would be beneficial for the VEX community as a whole (Refs and students) to get it clarified in a Q&A. As a ref, I'd love to have a specific Q&A to point the teams to. Or, if I'm incorrect, it would also be beneficial to know the correct interpretation.

RULES IN CONSIDERATION:

Lifting – Controlling an opponent's movements by raising or tilting the opponent's Robot off of the foam tiles.

<G16> No Holding for more than a 5-count. A Robot may not Hold an opposing Robot for more than a 5-count during the Driver Controlled Period

<G14> 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 offensive Robot, or an interaction which results in a questionable Violation, referees will decide in favor of the offensive Robot.

<G15> 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.

Thank you! The GDC is doing an awesome job this year answering our questions. Much appreciated!

Answered by committee

This falls squarely under [<G15>](#), and the red Robot has no obligation to move in this scenario. Blue got themselves stuck, and the red Robot has broken no rules.

2499: Autonomous Period Goal/Ring Rush in Regards to [<G15>](#) , [<SG7>](#) , and [<SG8>](#)

3-Feb-2025

[G15](#) [SG7](#) [SG8](#)

A question about a potential situation was asked this past weekend at an event and **the way the rules are currently written**, it could be answered in two different ways.

For Reference:

[<G15>](#) **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.

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.

[<SG7>](#) **Don't cross the Autonomous Line.** During the Autonomous Period, Robots may not contact foam tiles, Scoring Objects, or Field Elements which are on the opposing Alliance's side of the Autonomous Line.

Note: Scoring Objects, Wall Stakes, and portions of the Ladder that contact or are positioned above the Autonomous Line are not considered to be on either side, and may be utilized by either Alliance during the Autonomous Period.

Violation Notes: • All Violations of this rule (Major or Minor) will result in the Autonomous Bonus being awarded to the opposing Alliance. See SG8b for a potential exception caused by Autonomous Line interactions. • Intentional, strategic, or egregious Violations, such as intentional contact with an opposing Robot while contacting the foam tiles on the opposing side of the Autonomous Line, will be considered Major Violations.

[<SG8>](#) **Engage with the Autonomous Line at your own risk.** Any Robot who engages with Scoring Objects and/or Wall Stakes on the Autonomous Line should be aware that opponent Robots may also choose to do the same. Per G11 and G12, Teams are responsible for the actions of their Robots at all times.

During the Autonomous Period, when Robots from opposing Alliances are both engaged with the same Scoring Object or Wall Stake:

- If a possible [<G13>](#) Violation occurs (e.g., damage, Entanglement, or tipping over), a judgment call will be made by the Head Referee within the context of G13 and G14 (just as it would if the interaction had occurred during the Driver Controlled Period).
- Incidental Violations of [<SG7>](#) will not be penalized, nor will they result in an automatic loss of the Autonomous Bonus as described by G12. However, this allowance only applies when opposing Robots are interacting with the same element.
- Intentional, strategic, repeated, or egregious offenses may still be deemed a Violation of G12, G13, G14, SG7, G1, and / or S1 at the Head Referee's discretion.

These gameplay elements are intended to be utilized by either Alliance during the Autonomous Period. This will inevitably result in Robot-on-Robot interactions, both incidental and intentional. The overarching intent of SG8 is for the vast majority of these interactions to result in no rule Violations and/or penalties for either Alliance, just as no rules Violations occur in 99% of Driver Controlled interactions.

The Situation: RED1 and BLUE1 both interact with the mobile goal positioned on the autonomous line. RED1 is the stronger robot and pulls the mobile goal and BLUE1 across the autonomous line. BLUE1 crosses, but per SG8b, BLUE1 is not penalized as RED1 and BLUE1 were interacting with the same element. However as the autonomous period continues, BLUE1 releases the goal clamp and continues with its autonomous program. While the program is continuing, BLUE1 crosses over the autonomous line again, this time **not** interacting with the same element as RED1 or RED2.

The Question: How should the *second* autonomous line cross of BLUE2 be called?

Potential Answers:

1. BLUE1 should have the protections of G15 and SG8b as the interaction with the same element as RED1 (autonomous line mobile goal) caused their (BLUE1) autonomous program to run off course. RED1 cannot force BLUE1 into a violation per G15, so this situation is a no-call scenario and the autonomous period is scored as normal.
2. BLUE should forfeit autonomous due to violating SG7 when they crossed the autonomous line a second time. Performing a goal/ring rush is a strategy that has risks associated with it and teams should account for those risks in their programming strategy.

Thank you for your time, -Cowboy

Answered by committee

The blue Robot's second crossing of the Autonomous Line would not be considered incidental, and would be a Violation of [<SG7>](#). Therefore, they are not eligible for any part of the Autonomous Bonus or an Autonomous Win Point. Performing a Mobile Goal or Ring rush is a strategy with associated risks, and Teams should account for those risks in their coding strategy.

2474: Placing, protecting, and pinning: Offense and defense around corner mogos.

28-Jan-2025

G15 G16 SG11

Red 1 places a mogo with red rings in the positive corner and then protects it from being stolen by Blue 1. Blue 1 is aggressively attempting to push past or dislodge Red 1 to get to the mogo. With 16 seconds left, Red 1 tries to leave the corner and the mogo, which, so far, has gone back and forth from being placed because of Blue 1 pushing Red 1 into the mogo. Blue 1 begins a pin, since Red 1 is now trying to leave the corner, and the ref begins the count. At 15 seconds, Red 1 is contacting the mogo because of Blue 1's pin, and so the mogo is not placed. Blue 1 holds the pin for a few more seconds, and at 12 seconds left, Blue 1 backs away and Red 1 leaves the corner as a result (having been trying to escape). Red 1 accidentally drags the goal out of the corner because the mogo lip has gotten lodged under the corner of the robot and is dragged out.

A few questions:

Who's playing offense and defense in this situation, and does it matter?

In this particular situation, did Blue 1 do anything wrong by pinning at or past 15 seconds? (Now 30 seconds with the new rule update.)

Would Red 1 be DQed for pulling the goal out? Technically, they weren't changing the status of the mogo since it wasn't placed at 15 sec. It also wasn't intentional. It was match affecting, though.

What if Red 1 hadn't gotten caught on the mogo, and left the corner with 12 seconds left, changing the status from not placed to placed because they were no longer contacting the mogo?

Would Blue 1 be DQed for using Red 1's robot to do something illegal (strategically contacting protected mogos?)

It could be interpreted as a legal and brilliant move by Blue 1 to shut down Red 1's + multiplier by playing offense at the mogo.

It could also be interpreted as Red 1 playing offense by trying to score by placing and protecting a mogo, and Blue 1 was playing defense by taking away their score.

This happened last weekend. The ref ruled that no violation has occurred on either side.

I'm refing this weekend, and would like to have a guide on sorting out similar situations going forward.

I'd also like to advise my teams in terms of do's and don'ts from the perspective of both sides.

I'm inclined to say that Red 1 should have stayed put after 15 seconds trusting the the ref would know that they were held against their will, but also that the mogo would not be placed. I'm also inclined to say that Blue 1 played well (offense or defense, I'm still not sure), and that if Red didn't like it, they should have protected the goal without touching it. I'm happy to be corrected.

Thanks in advance.

Matt Monahan Coach, 663 Teams Chattanooga, TN

Answered by committee

Please review the [Q&A Usage Guidelines](#) before posting, specifically point 2, "Read and search existing Q&As before posting." We believe the following previously answered post answers your question; if it does not, please feel free to rephrase and re-submit.

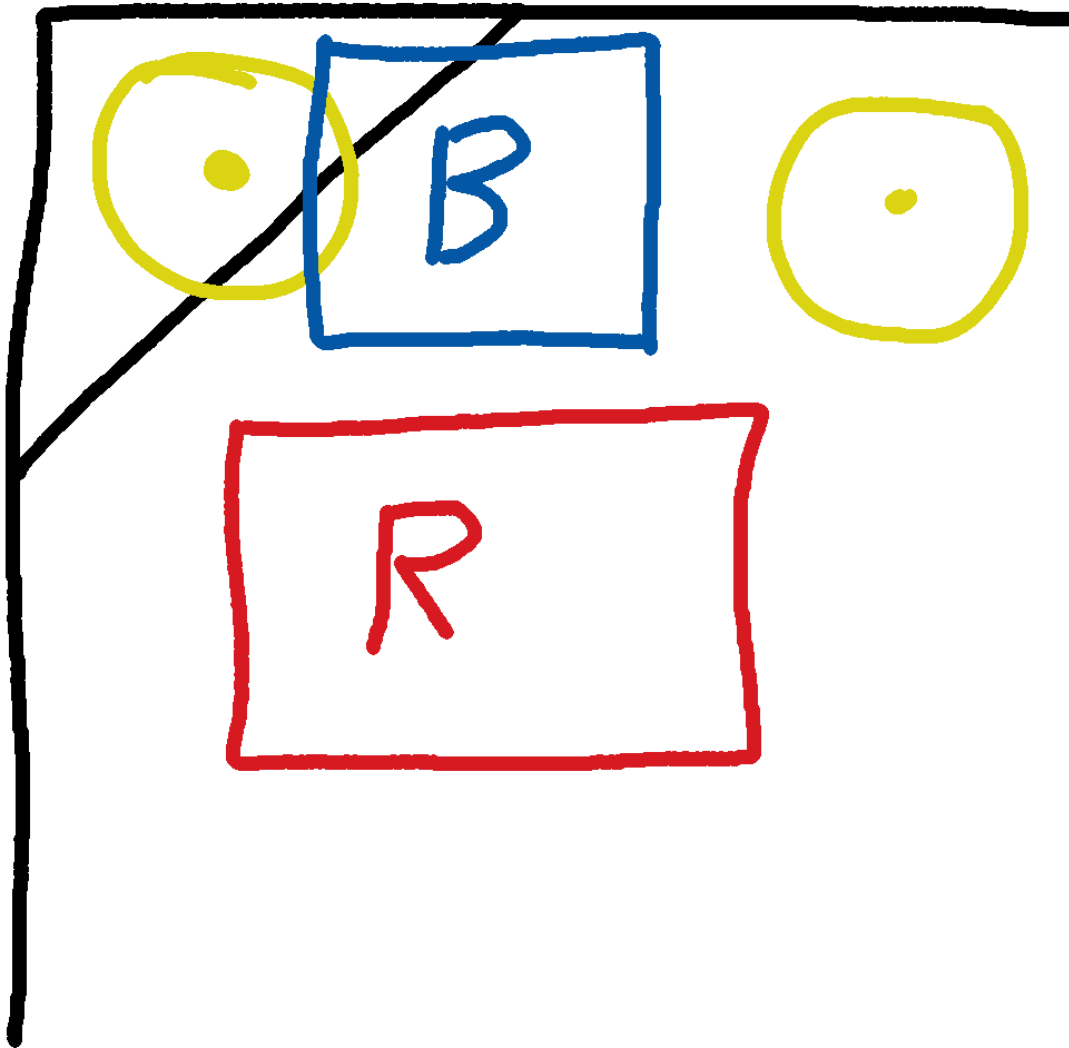
[Q&A 2201 - <SG11> and <G15> interaction](#)

2432: An avenue of escape for <G16>

12-Jan-2025

G15 G16 SG6

In the image below, we have a blue robot which is possessing a goal in the corner, a red robot, and a mobile goal which is loose on the field. Blue wishes to leave the corner, but blue does not want to release the mobile goal in their possession.



If blue were to drive to the right, they would violate [<SG6>](#) by plowing a mobile goal whilst in possession of one.

However, blue is able to release the goal which is in their possession before driving to the right, which would not violate [<SG6>](#)

With regards to [<G16>](#), is this considered an 'avenue of escape' for blue, and so we would not begin a trapping count on Red? Or is would Red be violating [<G15>](#) by forcing Blue into a [<SG6>](#) violation (as blue does not want to release the goal), and we would begin a trapping count?

Does the answer to this change if Blue is unable to release the goal (for example it is stuck inside the robot)?

Answered by committee

With regards to [<G16>](#), is this considered an 'avenue of escape' for blue?

There are a lot of unknowns in this scenario, such as what colors of Rings are on the Mobile Goal and whether the Corner is Positive or Negative. Our answer will assume that the blue Robot is attempting to remove a Mobile Goal filled with blue Rings from a Negative Corner. Our answer only applies in that specific scenario, and Head Referees must use their judgment and the context of the Match to determine whether this logic applies in any other scenario.

Because the red Robot is playing purely defensively in this scenario ([<G14>](#)), and their actions could reasonably be interpreted as *trying* to force an opponent into a penalty ([<G15>](#)), this would not be considered an avenue of escape

for blue. The Head Referee should begin a Holding count on the red Robot, and award a penalty if the Holding extends beyond a 5-count ([<G16>](#)).

Does the answer to this change if Blue is unable to release the goal (for example it is stuck inside the robot)?

No.

2201: [<SG11>](#) and [<G15>](#) interaction

17-Oct-2024

[G15](#) [SG11](#)

With 17 seconds remaining, blue is holding a mobile goal with a robot mechanism above the ground. This goal is above a positive corner but is not yet placed. A red robot now begins a pin on the blue robot.

At 16 seconds left, the blue robot attempts to release the mobile goal but is unable to place it due to the pin, for example the goal is wedged between the robot and a ring on the floor.

At 14 seconds left, red backs away and the goal has not yet been placed, but because blue tried to release it, the goal will inevitably become placed if blue moves away from the corner.

How do [<G15>](#) and [<SG11>](#) interact in this scenario?

Also, does the ruling change if the goal was originally placed in the corner at 17 seconds, but then was removed from the corner at 16 seconds due to the action of the pin, for example by lifting it off the ground so that it is no longer in contact with the floor?

Answered by committee

In the first scenario, the answer comes down to exactly when the pinned blue Robot releases its hold on the Mobile Goal. If the Mobile Goal is released before the final 15 seconds of the Match, the blue Robot should not be penalized if moving away causes the Mobile Goal to fall into a Placed position. The red Robot would likely receive a Minor Violation as described in the Violation Note for [<G15>](#). However, if the blue Robot in this scenario does not release the raised Mobile Goal until after the protected period begins, driving away and causing the Mobile Goal to become Placed would be an intentional and Major Violation of [<SG11>](#).

In the second scenario, because the Mobile Goal was placed at 17 seconds, the blue Robot would not be penalized for driving away and causing the Mobile Goal to return to a Placed position after the pin ends (assuming the red Robot's pinning action caused the blue robot to inadvertently remove the Mobile Goal from the Corner). The red Robot would likely receive a Minor Violation as described in the Violation Note for [<G15>](#).

2092: SG11 Clarification

7-Aug-2024

[G15](#)

[<SG11>](#) [<G15>](#)

Hello! I just wanted to seek some clarification on the below scenario:

In the last 14 seconds of a match, BLUE1 is attempting to descore a mobile stake with 6 Red rings from a Positive corner, in this time frame, RED1 pushes BLUE1 into the corner such that BLUE1 tips over the goal so that it is leaning on the robot. RED1 than backs away from BLUE1 with 10 seconds remaining.

BLUE1 is currently in a position where if it moves, the mobile stake will tip so that the rings will be touching the foam tiles and no longer count as scored. What should take place in the following scenarios:

1. BLUE1 remains in the corner to prevent descoring the rings on the stake, but are not actively trying to leave the protected corner and continue to violate SG11.
2. BLUE1 leaves the corner as soon as the hold ends, causing the rings to contact the ground and become match-affecting.

Would G15 come into play in this situation as RED1 forced the opponent into a position where they had to violate a rule?

Similarly, if no holding was taking place and the blue robot drove into the corner in the last 14 seconds and got caught in the situation above where a stake was resting on it, how would the above two scenarios play out?

Cheers,

Answered by committee

What should take place in the following scenarios:

1. BLUE1 remains in the corner to prevent descoring the rings on the stake, but are not actively trying to leave the protected corner and continue to violate SG11.

Because RED1 forced BLUE1 into this violation, BLUE1 should not be penalized in this scenario based on rule [<G15>](#), which states that "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." RED1 should receive a Minor Violation of [<G15>](#).

2. BLUE1 leaves the corner as soon as the hold ends, causing the rings to contact the ground and become match-affecting.

This outcome of this scenario is similar, although in this case the forced Violation changes the outcome of the Match. Because the interaction changes the outcome in favor of the not-guilty Team, the end result should still be a Minor Violation of [<G15>](#) to RED1, and no penalty to BLUE1. Had the Match outcome been changed in favor of RED1, they'd instead get a Major Violation as described in the Violation Note for [<G15>](#).

Similarly, if no holding was taking place and the blue robot drove into the corner in the last 14 seconds and got caught in the situation above where a stake was resting on it, how would the above two scenarios play out?

If BLUE1 contacts a Placed Mobile Goal in a Positive Corner during the final 10 seconds of a Match and were not forced into the Violation by an opponent, the appropriate penalty will depend on whether their [<SG11>](#) Violation affected the final outcome of the Match. If the outcome isn't changed, it's likely a Minor [<SG11>](#) Violation. If the outcome changes, it's by definition a Major [<SG11>](#) Violation.

1776: How to consider G14 and G15 when determining a potential SG11 violations

20-Nov-2023

G14 G15 SG11

Hello, At a recent tournament we encountered a situation where there was a robot that disconnected and was unable to move, but happened to be in front of the opposing elevation bars. We determined that going into the 30 second mark the robot was not in violation of [<SG11>](#) until an opposing robot attempting to elevate pushed them into the elevation bar. The disconnected robot was then preventing them from elevating. We interpreted that because they were pushed into the elevation bar, they would not be penalized as per [<G15>](#). We considered that in Tipping point there was an explicit phrase that said the offensive robot gets the benefit of the doubt supersedes you cannot force an opponent into a penalty, this year that clause is absent so we determined that [<G14>](#) does not supersede G15. Is this the correct interpretation.

If this is the correct interpretation, if a robot were intentionally try to block an opponent's access to their elevation bars, would they be afforded the same protections against being forced into an SG11 violation.

Answered by committee

Your interpretation is correct. As described in rule [<G15>](#), a Robot cannot be forced into a penalty for a Violation of [<SG11>](#).

We believe [our response to Q&A 1725](#) addresses your follow-up question, regarding a Robot that blocks an opponent's access to their Elevation Bars without violating rule [<SG11>](#).

1669: Blue robot pushing red robot into blue elevation short bar during last 30 sec

28-Sep-2023

G15 SG11

If red robot is on blue offensive side during the final final 30 secs. and the blue robot starts maneuvering toward the blue elevation bar, but the red robot is between the blue bot and blue elevation bar. If the blue robot drives into or bumps the red robot and in that process pushes the red robot into the lower short bar of the blue elevation bar is that a violation for the red bot or not. One of my students felt this falls into a SG11 violation due to blocking or preventing elevation. My head ref and I felt this was not intentional and that G15 applied. Can you provide direction on which rule takes precedence?

[<SG11>](#)

[<G15>](#)

Thanks

Answered by committee

In your scenario, the blue Robot has forced the red Robot into contact with the blue Elevation Bars during the final 30 seconds of the Match. Rule [<G15>](#) specifies that a Team cannot force an opponent into a penalty, so the red Robot should not be penalized for the contact.

Given the potential for restricted views in the area of the Elevation Bars, Head Referees may not be able to determine whether a Robot is in Violation of rule [<SG11>](#) or should instead receive protection from [<G15>](#). The first Violation Note for rule [<SG11>](#) should be used to help guide the referees' decision:

Regarding points "a" and "d": If no opponent Robots are in the process of Elevating, then most incidental or momentary contact is unlikely to be Match Affecting, and should only be considered a Minor Violation.

Our answer to [this unrelated question about Tipping](#) takes a deep dive into the need for Head Referees to consider the context of the Match when making judgment calls, which also applies in this and other situations.

1667: Forced into Possession Penalty

26-Sep-2023

G15 SG7

Hello,

When the red robot is in possession of a triball in their intake, and a blue robot forcefully pushes another triball into their intake resulting in the red robot in possession of two triballs, The red robot is not immediately penalized due to [<G15>](#) is the red robot allowed to push one of the triballs in possession into the goal, or is the only action that the red robot can take is to immediately remove the triball? can the robot bump against a wall or barrier to get the triball out? If the triball is stuck and unable to be removed, does the blue robot get a major violation if the blue team wins because the red robot is not

longer able to function?

[<SG7>](#) states, Robots in Violation of this rule must immediately stop all Robot actions except for attempting to remove the excess Triball(s). This rule applies to both intentional and accidental Possession.

Answered by committee

is the red robot allowed to push one of the triballs in possession into the goal, or is the only action that the red robot can take is to immediately remove the triball?

Teams should avoid scoring excess Triballs directly into a Goal. However, it would be permissible to remove a Triball into the same Offensive Zone that the Robot is already in. Since the extra Triball was presumably already Scored in that Offensive Zone before being forced into the red Robot, this would be considered a neutral action in terms of Match Affecting concerns.

However, if the Robot intentionally moved into their own Offensive Zone before removing the extra, this would be considered a Minor Violation at a minimum.

can the robot bump against a wall or barrier to get the triball out?

There are no rules prohibiting this; therefore, it is legal.

If the triball is stuck and unable to be removed, does the blue robot get a major violation if the blue team wins because the red robot is no longer able to function?

Unfortunately, as with most questions impacting Match Affecting calculation, it is impossible to provide a blanket answer that will encompass all possible scenarios.

Yes, the Violation Note in rule [<G15>](#) would make it feasible for the blue Team to receive a Major Violation if the Head Referee determines that the forced situation was directly Match Affecting. To help with this determination, the Head Referee may use questions such as (but not limited to) the following:

- When did the interaction occur?
- Has the blue Robot received prior warnings or Minor Violations?
- What could the red Robot reasonably have done differently during the Match if their actions weren't limited by over-Possession?
- Did the interaction involve any egregious/intentional [<G13>](#) Violations?

1549: Forcing your opponent into Double-Zoned status

15-Jun-2023

G15

(https://www.robotevents.com/storage/game_manual/VRC_2023-2024_Over_Under/rules/G15.html)

In this year's game, the rules allow a robot to enter an opponents goal if the opponents' robots are Double-Zoned. Rule G15 says you can't force your opponent into a penalty situation, but it does not penalize forcing your opponents into the alliance status of Double-Zoned.

In playing the game this week, multiple teams have adopted a strategy of pushing an opponents second robot into their Offensive Zone late in the game, forcing the opposing alliance into a Double-Zoned status. Then their partner zooms in and clears the opponents' goal.

Please clarify that rule G15, nor any other rule, prohibits a alliance from forcing their opponents into a Double-Zoned Status.

Answered by committee

You are correct. No rules prohibit an Alliance from forcing an opponent into a Double-Zoned status, assuming no other rules are violated in the process.

1541: SG11 and interactions between two protected robots

12-Jun-2023

G14 G15 SG11

Elevated – A Robot status. A Robot is considered Elevated at the end of the Match if it meets the following criteria:

1. The Robot is contacting at least one of the following: a. One or more of their Alliance's Elevation Bars b. The Barrier c. An Alliance partner Robot which meets the requirements of points 1-3 in this definition
2. The Robot is not contacting any Field Elements other than those listed in point 1. This includes gray field tiles, the field perimeter, Goals, the opposing Alliance's Elevation Bar, etc. a. Contact with (or Possession of) Triballs is irrelevant when determining a Robot's Elevated status.
3. The Robot is not contacting the yellow Elevation Bar Cap

Barrier – The black structure, made up of 2" Schedule 40 PVC pipe (with a 2.375" outer diameter) PVC pipe and associated connectors/hardware, that sits in the middle of the field. For some rules, the Barrier is divided into one Long Barrier and two Short Barriers, but it is usually referred to collectively as just "the Barrier."

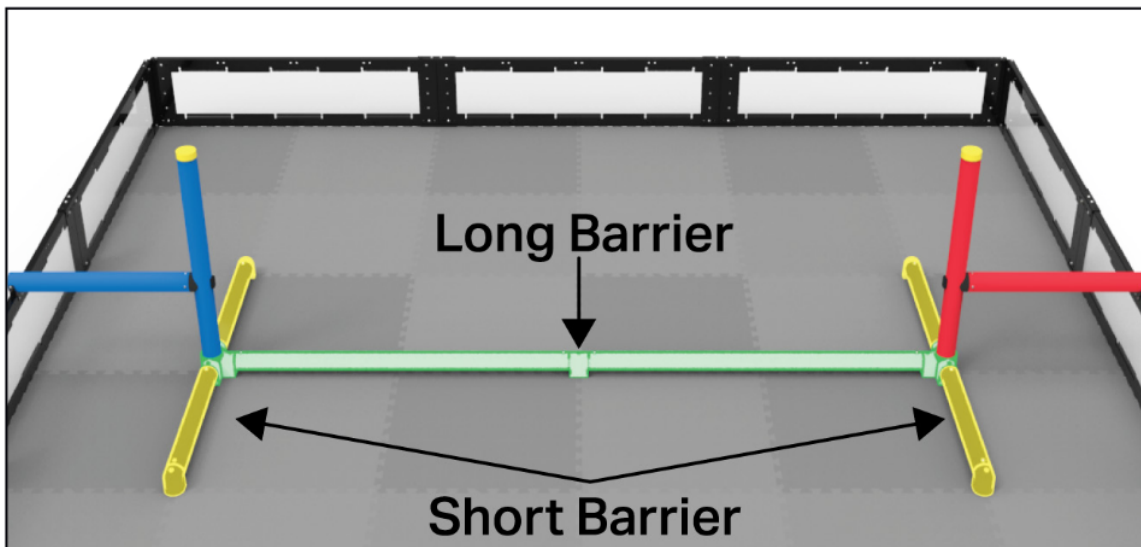


Figure 4: A view of the field, with the Short Barriers (yellow) and Long Barrier (green) highlighted.

[<SG11>](#) Elevated Robots are protected. During the last 30 seconds of the Match, Robots may not contact the following:

- The opposing Alliance's Elevation Bars
- Opponent Robots who are contacting their Elevation Bars
- Opponent Robots who meet the definition of Elevated

[<G14>](#) 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 offensive Robot, or an interaction which results in a questionable Violation, referees will err on the side of the offensive Robot.

[<G15>](#) 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.

With 35 seconds to go, a blue robot elevates itself by only contacting the long and short barriers, the blue robot is very close to, but not touching, the red elevation bars. The robot is therefore considered elevated as per the definitions of the barrier and elevated and is therefore protected by [<SG11>](#) in the last 30 seconds,

With 25 seconds left, a red robot begins an attempt to climb the red elevation bar. The red robot is in contact with the red elevation bar, so is protected by [<SG11>](#) when it hits the blue robot, which is elevated, so is protected by [<SG11>](#)

In the following cases, how should the referees interpret [<SG11>](#), [<G14>](#) and [<G15>](#) when deciding on appropriate ruling:

1. The red robot contacts the blue robot with no elevation change from the red robot
2. The red robot contacts the blue robot, elevates and falls due to the positioning of the blue robot
3. The red robot contacts the blue robot, causing the blue robot to no longer be elevated either from falling or contacting the elevation pole

Answered by committee

An upcoming game manual update will include modifications to rule [<SG11>](#) and/or the definition of Elevated that will address scenarios like those you have described. If you still have questions about these interactions after that update, please feel free to rephrase and resubmit your question.

1485: Netting thrown over another robot

2-Mar-2023

G15

Is it legal to throw a net over another robot in the end game of spin-up?

Answered by committee

As long as the net is created by the Team using legal materials and deployed only during the Endgame period, this would be legal.

A net that is not manufactured by the Team, or that is made out of string that measures less than 3mm at its narrowest point (or more than 1/4" at its widest point), would not be legal. Teams should be prepared to provide documentation that proves they created the net.

If a net is deployed before the Endgame, it will likely violate rules [<G12>](#) (entanglement), [<G15>](#) (trapping), and [<SG4>](#)/[<SG5>](#) (expansion).