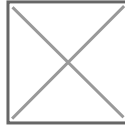


Q&A

VRC 2019-2020: Tower Takeover

Tagged: G13



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 Tower Takeover rules clarifications, and the clarifications made here from the Game Design Committee (GDC) are considered as official and binding as the written [Game Manual](#) itself.

Please review the [Q&A Usage Guidelines](#) before posting. This system is only intended for specific VRC Tower Takeover rules questions.

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948: SG3 Clarification

30-Nov-2021

G13 G14 SG3 Referee Decisions

Here are 2 possible ways of interpreting SG3. Please let us know which is correct.

Scenario In Question: You get the scenario where there are 10 seconds left in the match and you (red) are going back towards your platform with a neutral mogo (ie going from neutral zone to your alliance zone) and there is a blue robot playing defense on you to prevent you from getting back to your platform. The result of the interaction is that the blue robot gets pushed into the red platform by the you (red robot)

Relevant Rules: **SG3** states:

"Platforms are "safe" during the endgame. During the last thirty (30) seconds, Robots may not contact the opposing Alliance's Platform."

SG3b states:

"For the purposes of this rule, G13 supersedes rule G14. Any Robot which is contacting its own Platform during the last thirty (30) seconds, provided that no other rules are being violated, will automatically receive the "benefit of the doubt". Therefore, any contact with this Robot will be considered a violation, regardless of intent"

G13 states:

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

G14 states:

"You can't force an opponent into a penalty. Intentional strategies that cause an opponent to violate a rule are not permitted, and will not result in an infraction on the opposing Alliance. 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"

Interpretation A: You can interpret this as SG3 saying the platform is safe and offensive robots get the benefit of the doubt supersedes the ruling of forcing an opponent into a penalty (i.e you cannot apply G14 to a ruling on this interaction because it explicitly says that G13 supersedes G14 and we must err on the side of the offensive robot) This ruling would result in issuing the red alliance a free elevated robot or DQing the blue robot for interfering with gameplay by not letting you score your mogo on the platform. (the DQ comes from the last lines of SG3 "Violations of this rule which do interfere with gameplay, such as preventing a Platform from becoming Balanced, will result in a Disqualification, regardless of whether the interference was Match Affecting or not")

Interpretation B: You can also interpret this ruling as SG3 saying platforms are safe and SG3B clarifying the context of G13 superseding G14 to mean "if you are touching your platform, you will receive the benefit of the doubt" (i.e if you are already touching your platform and an opposing robot touches you, we err on your side and award you the free elevated robot). This ruling would result in not issuing the red alliance a free elevated robot because SG3b is not meant to apply to this type of interaction based on its clarification of what context it applies to ("Any Robot which is contacting its own Platform during the last thirty (30) seconds, provided that no other rules are being violated, will automatically receive the "benefit of the doubt")

I can kind of understand both interpretations but would like to know which is correct.

Answered by Game Design Committee

We apologize for the delay in responding to this question. Thank you for the well thought-out post with all relevant rules / quotes included.

Please see these similar Q&A's for more detail on this subject:

<https://events.vex.com/VRC/2021-2022/QA/968>

<https://events.vex.com/VRC/2021-2022/QA/973>

Interpretation A: You can interpret this as SG3 saying the platform is safe and offensive robots get the benefit of the doubt supersedes the ruling of forcing an opponent into a penalty (i.e you cannot apply G14 to a ruling on this interaction because it explicitly says that G13 supersedes G14 and we must err on the side of the offensive robot) This ruling would result in issuing the red alliance a free elevated robot or DQing the blue robot for interfering with gameplay by not letting you score your mogo on the platform. (the DQ comes from the last lines of SG3 "Violations of this rule which do interfere with gameplay, such as preventing a Platform from becoming Balanced, will result in a Disqualification, regardless of whether the interference was Match Affecting or not")

This interpretation is correct. That is to say, the intent of SG3-b is to remove any need for Head Referee judgment regarding "offense"/"defense", "which Robot touched first", etc. Put simply, any time when the following criteria are met, SG3-b has been violated, regardless of intent or context:

- It is during the last 30 seconds of the Match
- A Robot is physically contacting its own Alliance Platform, either directly or transitively through other Robots or Scoring Objects
- An opposing Robot is physically contacting that Robot, either directly or transitively through other Robots or Scoring Objects

773: scoring in opponents home row during auton??

1-Apr-2021

G13 SG2 SG3 SG7

Would it be legal to score a ball in one of the opponent's home row goals during the autonomous period? Rule that apply: <SG2> The robot itself isn't crossing the autonomous line. <SG3> The ball would not contact the field tiles on the opposing side. <SG7> The balls are being used to "play the game" and would not interfere with the opponents autonomous routine. <G13> This is an offensive strategy, which should get the "benefit of the doubt"

Thanks #50075 Margaret, Coach

Answered by Game Design Committee

Yes, this would be legal provided that the following are all true:

- The Goals of the opposing Alliance's Home Zone are not contacted by your Robot, per <SG2>
- No opposing Alliance Robots or Balls are contacted by your Robot, per <SG2>
- Balls that start on your Robot's side of the field do not contact the foam tiles or opposing Alliance Robots, per <SG3>
- The Balls do not leave the field while attempting to be Scored, per <SG6>

452: <G12> How to determine if incidental entanglement is egregious

10-Dec-2019

G12 R3 G13

<G12> Don't destroy other Robots. But, be prepared to encounter defense. Strategies aimed solely at the destruction, damage, tipping over, or Entanglement of opposing Robots are not part of the ethos of the VEX Robotics Competition and are not allowed. If the tipping, Entanglement, or damage is ruled to be intentional or **egregious**, the offending Team may be Disqualified from that Match. Repeated offenses could result in Disqualification from the entirety of the competition. b. VEX Robotics Competition Tower Takeover is an interactive game. Some incidental tipping, Entanglement, and damage may occur as a part of normal gameplay without violation. It will be up to the Head Referee's discretion whether the interaction was incidental or intentional.

<R3> Robots must be safe. The following types of mechanisms and components are NOT allowed: c. Those that pose an unnecessary risk of Entanglement.

<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.

Egregious is not defined in the game manual, by Oxford Dictionary
<https://www.oxfordlearnersdictionaries.com/us/definition/english/egregious>

extremely bad

the definition of extremely

to a very high degree

extremely is a very subjective adjective, how should one determine if the incidental tipping is egregious? Does the duration of the entanglement(usually starts from the time of entanglement to the end of the game) matter? Does the scoring capability of the robots that are entangled matter(how much points would they score if they are not entangled)? Does the context when the entanglement happened(whether the robot was playing defense or offense) matter? Does R3 come into play as well, and we need to determine whether there was unnecessary risk of entanglement?

Two reference videos:

<https://youtu.be/AGJUUpDCF0nQ?t=25953>

at 7:12:33 the blue robot was playing defense and has entangled with the red robot. Red won the match so the entanglement is not match affecting.

<https://youtu.be/EXhWerDR03w?t=187>

at 3:07 the red robot was playing defense and has entangled with the blue robot. Red was DQed for that match, I couldn't find any other violations in this game other than the entanglement, so I believe red is DQed for "egregious entanglement" since it was not intentional.

Answered by Game Design Committee

extremely is a very subjective adjective, how should one determine if the incidental tipping is egregious?

As you noted, this is a very subjective question. If it was possible to provide a black-and-white definition, then human Head Referees would not be necessary. It is the judgment and discretion of these Head Referees which determines if a given interaction is egregious or not.

We are not going to be able to provide a point-by-point checklist to determine where to draw this line. The answer to all of your specific questions is, "it could". In general, we would provide the following overarching guidelines:

- Context matters. As noted in [this similar Q&A](#), if a game is played more defensively at a different event, then it would stand to reason that the judgment calls would be handled differently in the context of that event.

- Offense vs defense matters. Per G13, offensive Robots usually get the "benefit of the doubt".
- On-field performance of the tipped/Entangled/damaged Robot generally does not matter. This is why G12 is one of the only rules in the Game Manual that does not hinge upon Match Affecting verbiage, and instead uses "egregious".

451: <SG3> indirectly contacting scored stack

10-Dec-2019

G13 G14 SG3

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

A> Contact an opponent Robot which is fully contained within their Protected Zone.

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.

Minor violations of points A, B, C, or D 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.

E> Contact an opposing Alliance's Inner Protected Zone

F> Cause Scored Cubes within the opponent's Protected Zone to no longer meet the definition of Scored (i.e. "knock over their stack"). Any violation of points E, F, or G will result in a Disqualification, whether the interaction was Match Affecting or not.

<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.

<G14> You can't force an opponent into a penalty. Intentional strategies that cause an opponent to violate a rule are not permitted, and will not result in an infraction on the opposing Alliance. from QA 376, <https://events.vex.com/VEXU/2019-2020/QA/376>, "one Robot pushing another into causing some action is considered "indirect contact" by the first Robot."

<https://youtu.be/66ef8Nk3NsM?t=109> At 1:55, one blue robot bumped into another blue robot, causing cubes from one of the blue robot's tray to hit the stacked cube and descored the stack.

Now, if, in the case where the robot got hit was a **red** robot, would this fall under the case of SG3 case F, since the robot that was hit "accidentally, indirectly" caused the blue scored stack to no longer meet the definition of scored? G14 only considers **intentional strategies**, where in this case, it is clearly not a intentional strategy, the intention of the robot is clearly trying to score, Thus G14 would not apply in this case.

To summarize it, if a red robot is hit by a blue robot, and the end result is blue's scored stack is no longer scored, will the red robot be DQed for violating SG3 case F, provided that the blue robot didn't intentionally try to force red into a penalty?

Thanks for taking your time to answer this question!

Answered by Game Design Committee

It is impossible to issue a blanket ruling to this question that would cover all hypothetical interactions without the context of a Match.

If all contact was completely incidental, such as two Robots driving past each other in the middle of the field, a Head Referee would likely make the judgment call that no G14 or SG3 violation has occurred.

There are context factors that could lead a Head Referee to make the judgment call that the actions of the Blue Robot were intentional (and therefore a G14 violation). One example would be driving directly into an opponent near the Blue Goal Zone with a Cube precariously balanced on the edge of their (Blue) Robot.

There are context factors that could lead a Head Referee to make the judgment call that the actions of the Red Robot were intentional (and therefore an SG3 violation). One example would be playing defense around the Blue Goal Zone for an entire Match, therefore forcing the Blue Robot into some Robot-to-Robot interaction.

449: Wallbot/Protected Zone Clarifications

9-Dec-2019

G13 G14 SG3

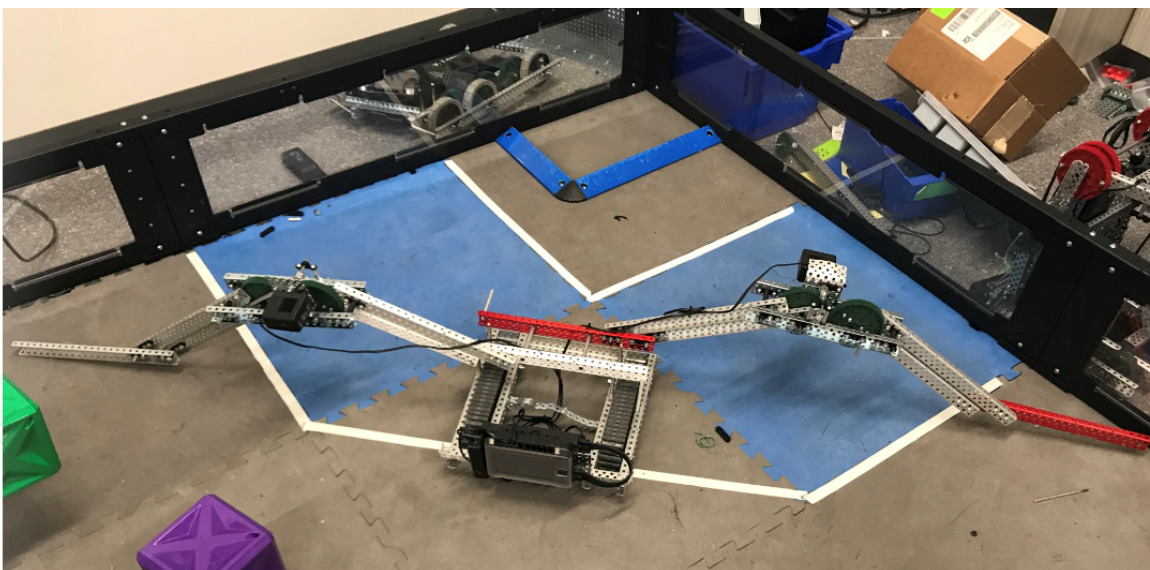
At our previous tournament, one of our teams took a wallbot and the referees were making some calls that we did not understand. While my students came with the rulebook highlighted, and met with the referees before the first round to discuss rules, they disagreed with our interpretation. Normally I would let it go, but these referees will also be judging our state event and they recommended posting on the Q&A to get an official ruling. We realize that in the heat of the moment these minute decisions are tough for a referee to make. This was more a case of after the tournament was over that we could not agree on definitions in the rules.

Relevant rules for reference: **SG3 A** (robots may not) Contact an opponent Robot which is fully contained within their Protected Zone **SG3 E** (robots may not) Contact an opposing Alliance's Inner Protected Zone

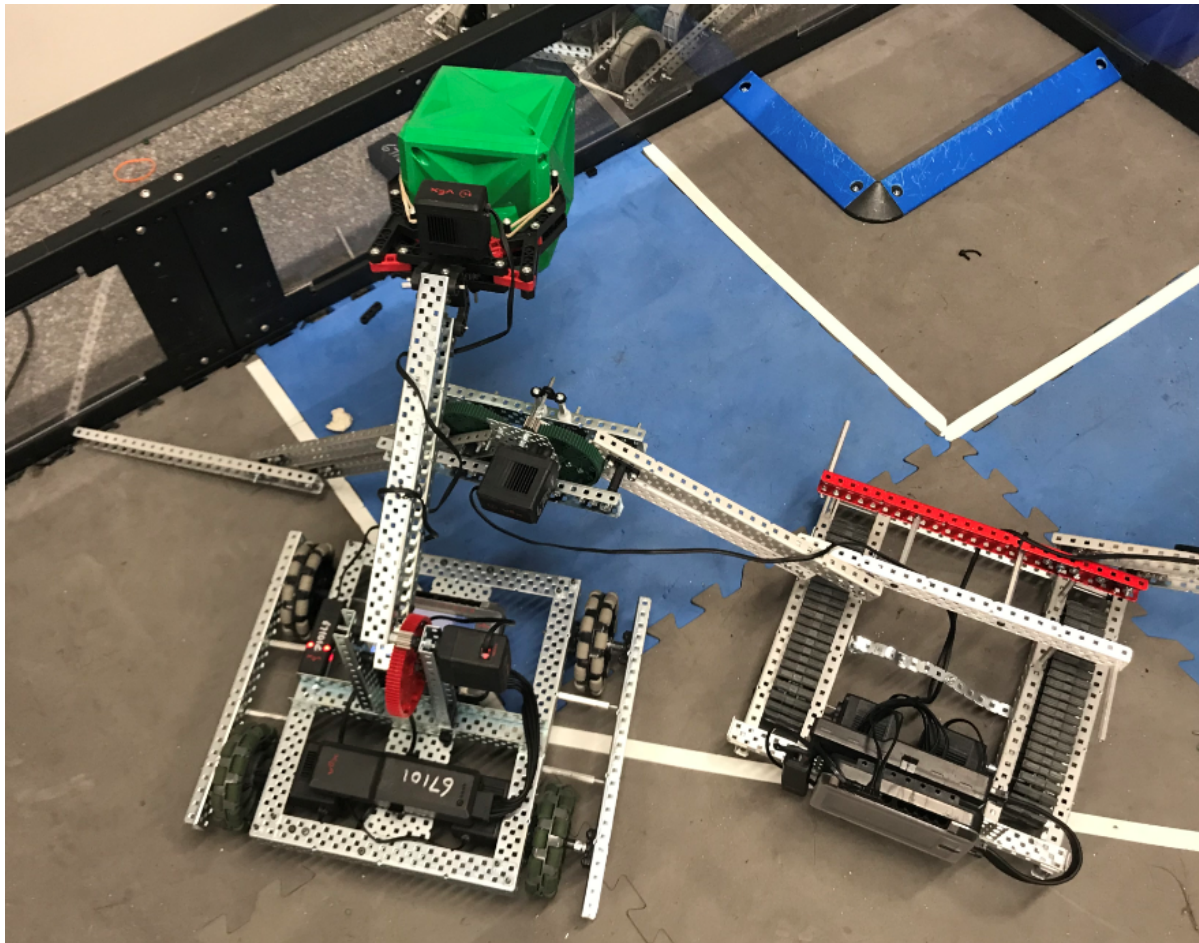
Definition of outer protected Zone: The 3-dimensional volume extending upwards from the foam tiles and bound by the field perimeter, outer edge of the Protected Zone tape line, and the inner edge of the Inner Protected Zone tape line.

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. **G14** You can't force an opponent into a penalty. Intentional strategies that cause an opponent to violate a rule are not permitted, and will not result in an infraction on the opposing Alliance. 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.

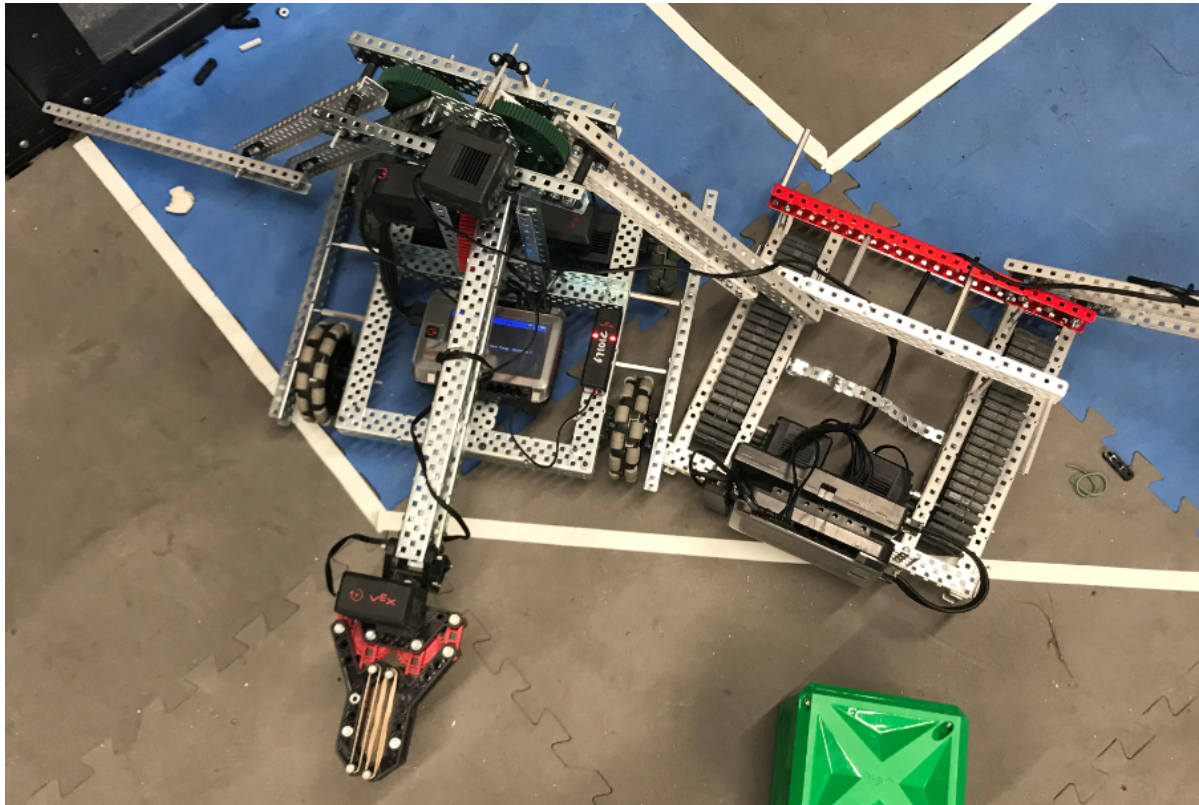
Here is what our robot looks like fully deployed. I will lay out 3 scenarios with pictures. Take a look at each of the scenarios before answering as I tried to cover the different ways it could play out.



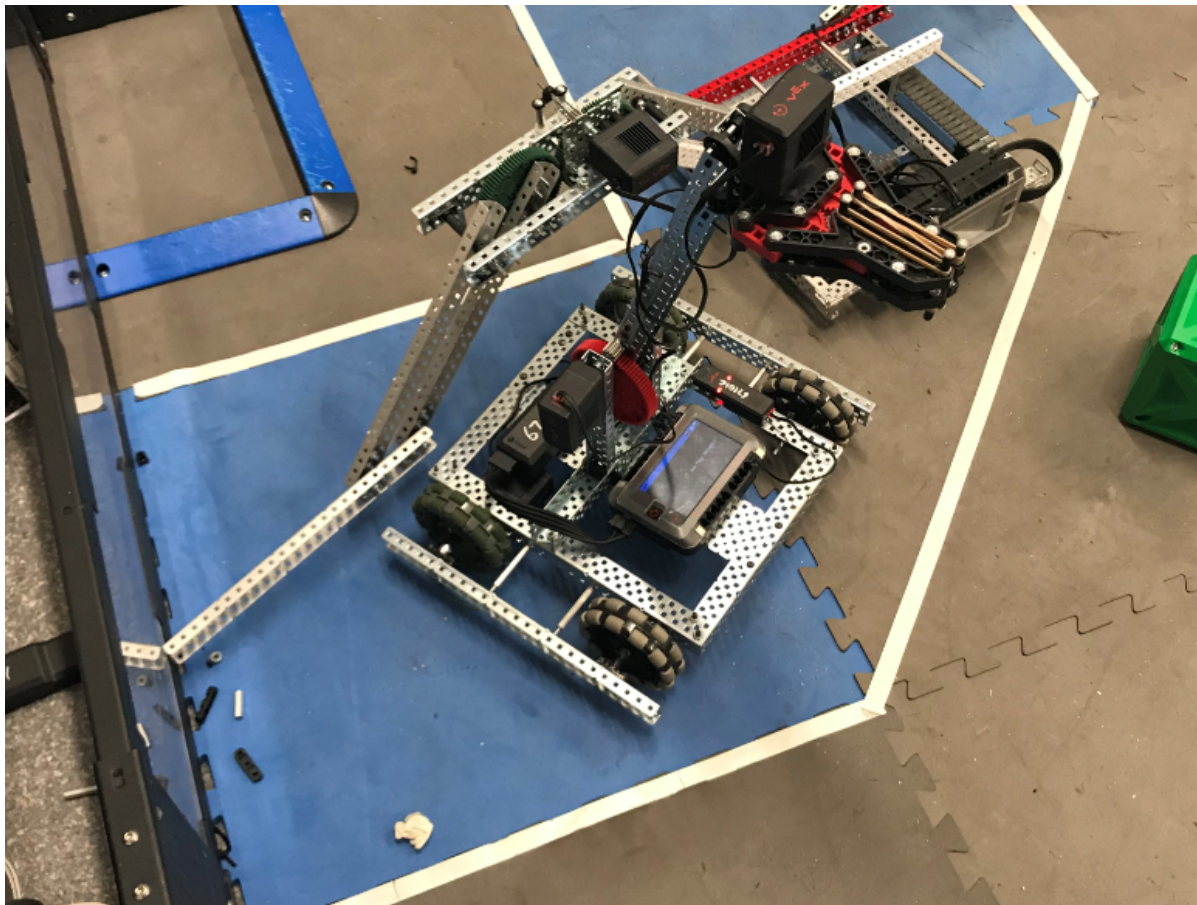
Scenario 1: A robot possessing a cube comes to score against our deployed wallbot. When part of the offensive robot entered the outer protected zone we were warned that we must move our robot because of rule G13. While we were definitely playing defense and they were on offense, there were no rules being broken, so we did not see why our robot should have to move. In the picture below, is the wallbot under any obligation to move/retract at this point?



Scenario 2: A robot attempts to push us out of the way, and all 4 of their wheels are in the outer protected zone, but part of their robot was in the vertical space outside the zone. We were told to move because they met the definition of a "protected robot" under SG3 A. We argued that because the protected zone is a volume, not an area (per definition of the outer protected zone), that their robot was not fully contained within the outer protected zone. In the picture below, is the clawbot (offensive) protected? Is the wallbot under obligation to move/retract?



Scenario 3: A robot attempts to push us out of the way and forces our robot deep into the protected zone. The offensive robot is now fully in the outer protected zone and/or our robot is now contacting the inner protected zone and we are in violation of SG3 A and/or E. The referees recognized that we should not be DQ'ed because we were forced there, but they then said that we had to retract and move because of rule G13 gives the benefit of the doubt to the offensive robot. I recognize that if the offensive robot backed away that our defensive robot should drive out of the zone and get in legal position, my questions are assuming that they continue to push on us. In the picture below, where the defensive robot has been forced into an illegal position under SG3 A or E, does the wallbot have to retract and exit the protected zone? Or may they simply sit still? Or may they push back on the robot pushing them into the protected zones?



Goodness! Just writing these questions I have a new appreciation for your job to answer them. Thanks in advance!

Answered by Game Design Committee

Thank you for quoting the relevant rules, providing photos to help understand the scenarios, and being patient with the Head Referee who volunteered at your event.

Scenario 1: A robot possessing a cube comes to score against our deployed wallbot. When part of the offensive robot entered the outer protected zone we were warned that we must move our robot because of rule G13. While we were definitely playing defense and they were on offense, there were no rules being broken, so we did not see why our robot should have to move. In the picture below, is the wallbot under any obligation to move/retract at this point?

SG3 does not contain any restrictions on a Robot encroaching on an opponent's Outer Protected Zone. One intent is for it to be a "warning" zone for Head Referees, since a Robot that is in an opponent's Outer Protected Zone is very likely about to violate SG3-B, D, or E.

In the instant captured by the attached photo, the defensive Robot is not under any obligation from SG3 or G13 to move, provided that no other rules are being violated.

Scenario 2: A robot attempts to push us out of the way, and all 4 of their wheels are in the outer protected zone, but part of their robot was in the vertical space outside the zone. We were told to move because they met the definition of a "protected robot" under SG3 A. We argued that because the protected zone is a volume, not an area (per definition of the outer protected zone), that their robot was not fully contained within the outer protected zone. In the picture below, is the clawbot (offensive) protected? Is the wallbot under obligation to move/retract?

Your interpretation of the Outer Protected Zone as a volume, not an area, is correct. In the instant captured by the attached photo, the defensive Robot is not under any obligation from SG3 or G13 to move, provided that no other rules are being violated.

Scenario 3: A robot attempts to push us out of the way and forces our robot deep into the protected zone. The offensive robot is now fully in the outer protected zone and/or our robot is now contacting the inner protected zone and we are in violation of SG3 A and/or E. The referees recognized that we should not be DQ'ed because we were forced there, but they then said that we had to retract and move because of rule G13 gives the benefit of the doubt to the offensive robot. I recognize that if the offensive robot backed away that our defensive robot should drive out of the zone and get in legal position, my questions are assuming that they continue to push on us. In the picture below, where the defensive robot has been forced into an illegal position under SG3 A or E, does the wallbot have to retract and exit the protected zone? Or may they simply sit still? Or may they push back on the robot pushing them into the protected zones?

This question is more context-sensitive, and it is impossible to provide a blanket answer that would cover all hypothetical interactions. In general:

- All Robots are responsible for their own actions. An offensive Robot who pushes a defensive Robot into any SG3 violation, as the result of offensive maneuvers, should be considered a G13 interaction. Therefore, the offensive Robot should receive the "benefit of the doubt", and the defensive Robot should receive the appropriate penalty for whichever portion of SG3 was violated (B, D, E, or F).
- However, in order to be considered a G13 interaction, the Head Referee must judge that the offensive Robot is actually acting "offensively", not just trying to draw a penalty. An example of "offensive intent" could mean a traditionally offensive Robot carrying Cubes towards an empty Goal Zone.
- If the Head Referee determines that the Robot in question is not acting offensively, then the interaction would be considered a G14 violation on the non-defensive Robot.
- However, in either case, if the defensive Robot does not make an immediate and visible attempt to escape upon landing in their violation, this interaction could then return to an SG3 violation. The defensive Robot is still responsible for their actions, and is now using their position for a defensive advantage.

With the above points in mind, the instant captured by the attached photo would likely be considered a G14 violation on the Clawbot. It is not carrying any Cubes and therefore not capable of acting offensively. "Defending a defender" does not equal "offense".

441: Inconsistent interpretation of G12d

5-Dec-2019

G12 G13 Cubes

I am an Event Partner and have a question about rule G12d, after a discussion and concern with an area Head Ref.

<G12> Don't destroy other Robots. But, be prepared to encounter defense. d. Game elements in possession of a Robot are an extension of that Robot. Therefore, Entanglement (e.g., grasping, hooking, attaching) with Cubes that are in the possession of an opposing Robot is a violation of this rule.

Our head ref has seen a lot of game play from around the USA on YouTube that is alarming. It seems there is a strategy where teams will ram, or spin into other tray-bots in an attempt to knock cubes out of the trays of the other robot. This seems to be a direct violation of G12d, and G13 would also be in effect since offensive robots get benefit of doubt. So, if a red robot is near the unprotected goal zone and is trying to score a stack and a blue robot rams them and knocks cubes out of the tray, we believe this would be violating G12d and G13 since red is clearly trying to score.

Our biggest issue is the inconsistencies of Head Refs calling this type of game play. We are trying to prepare teams for Worlds but we seem to play different versions of these games state by state, depending on interpretation of the rules by Head Refs and EP's. As a Head Ref, he wants to be able to have teams ready for the game when they get to Worlds, but based on past experiences, the game is played much more defensively at Worlds than what we played in our region throughout the season. When this happens, as a volunteer he feels as though he let the kids down and did not properly prepare them for the Worlds in which they qualify for.

Could you please clarify G12d, especially as it pertains to robots in possession of cubes and trying to score while encountering these defensive actions?

Answered by Game Design Committee

We are not going to be able to provide a blanket answer that encompasses all hypothetical Robot-to-Robot interactions of this type. The best way to approach this question is going to be to look at the broader context of G12 beyond the portion that was quoted.

<G12>Don't destroy other Robots. But, be prepared to encounter defense. Strategies aimed solely at the destruction, damage, tipping over, or Entanglement of opposing Robots are not part of the ethos of the VEX Robotics Competition and are not allowed. If the tipping, Entanglement, or damage is ruled to be intentional or egregious, the offending Team may be Disqualified from that Match. Repeated offenses could result in Disqualification from the entirety of the competition.

c. A Team is responsible for the actions of its Robot at all times, including the Autonomous Period. This applies both to Teams that are driving recklessly or potentially causing damage, and to Teams that drive around with a small wheel base. A Team should design its Robot such that it is not easily tipped over or damaged by minor contact.

d. Game elements in possession of a Robot are an extension of that Robot. Therefore, Entanglement (e.g., grasping, hooking, attaching) with Cubes that are in the possession of an opposing Robot is a violation of this rule.

G12 is not intended to be a "don't play defense" rule; it is a "don't destroy other Robots" rule. This core principle should be obvious - VRC is not Battlebots. However, VRC games *are* designed to encourage Robot-to-Robot interactions, so there is always a possibility of an interaction which results in a Robot being destroyed, damaged, tipped, or Entangled. G12 then exists to provide guidance for a Head Referee to walk through when determining whether that damage should result in a violation.

It seems there is a strategy where teams will ram, or spin into other tray-bots in an attempt to knock cubes out of the trays of the other robot. This seems to be a direct violation of G12d, and G13 would also be in effect since offensive robots get benefit of doubt.

Since Entanglement is not occurring, G12d should only be used as the general guideline that Cubes are an extension of their Robot. So, picture this interaction as if the Cubes were just square metal mechanisms resting on a Robot.

- Bumping into opponents is not illegal in itself. However, there is a threshold where bumping becomes reckless ramming, and could be considered a violation of G12, S1, or G1.
- Dislodging parts of your opponent's robot (without Entangling them) is not illegal in itself, because part (c) puts some responsibility on the opponent to design their robot such that it is not easily damaged by minor contact. However, there is a threshold where incidental damage becomes intentional/egregious destruction, and could be considered a violation of G12, S1, or G1.

The only pure grounds provided in the Game Manual for a G12 violation are "destruction, damage, tipping over, or Entanglement [...] ruled to be intentional or egregious". Ultimately, whether something is "intentional or egregious" is a line that cannot be drawn rigidly in black-and-white; the need for contextualized interpretation of this threshold is why VRC relies upon the in-Match judgment of human Head Referees. We cannot make rulings from afar or provide answers for every possible hypothetical scenario; we can only implore Head Referees to make their best personal judgments based on the rules as written, and provide as many guidelines as possible via the Q&A.

As a Head Ref, he wants to be able to have teams ready for the game when they get to Worlds, but based on past experiences, the game is played much more defensively at Worlds than what we played in our region throughout the season. When this happens, as a volunteer he feels as though he let the kids down and did not properly prepare them for the Worlds in which they qualify for.

A volunteer Head Referees' primary responsibility should be to interpret the rules as written and as the context of their event necessitates. If a game is played more defensively at a different event, then it would stand to reason that the judgment calls would be handled accordingly in the context of that event.

367: Playing offense while a part of your robot is playing defense

30-Sep-2019

G12 G13 G14

Hello my team was wandering what rules could and could not be used on a possible design, a design that has a big defensive strategy (a part of the robot) and an offensive strategy(a cube stacker). So if a robot got in tangled, flipped over, or stuck on the defensive part of our robot while we were playing offense and not moving or forcing the defensive part of our robot to do such things would that count as our fault or would the team that got suck on us be there fault. I was wandering this because some of the defense rules use words like solely, only, and purely defensive strategies will pretty much always be at fault but this design is not a purely, solely or only a defensive robot it is both. Sent from my iPhone

Answered by Game Design Committee

It is impossible to issue a blanket ruling that would cover all hypothetical interactions or Robot designs. This is the type of question that is why VRC utilizes human Head Referees who can observe the context of a specific Robot and/or Match to provide a judgment call when needed.

G13 states the following:

< 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 Note in G12 states the following:

Note: A Robot which has expanded horizontally in an effort to obstruct the field, or is legally covering the top of a Tower in a solely defensive manner, should expect vigorous interactions from opponent Robots. Damage that is caused by opponent Robots pushing, tipping, or Entangling with them would not be considered a violation of <G12>. Gratuitous damage or dangerous mechanisms may still be considered a violation of <R3>, <S1>, or <G1> at the Head Referee's discretion.

The first portion of this Note does not require a "solely defensive manner", it simply requires the Robot to have expanded horizontally in an effort to obstruct the field.

In the context of these rules, specific mechanisms or Robots are not assigned "defensive" or "offensive" roles. It is interactions and strategies that are assigned "defensive" and "offensive" roles.

There are scenarios where a primarily offensive mechanism is used defensively (e.g. an intake being used to entangle an opponent). There are scenarios where a primarily defensive mechanism is found on a Robot playing offense at any given moment (e.g. [this video](#) which has now been referenced on the Q&A three times).

When making a G12 or G13 judgment call, Head Referees will need to look at the specific interaction at the moment it occurred, alongside any relevant context (such as previous interactions or strategies of those two Robots).

2619: When is Entanglement not "Normal Gameplay"?

12-Mar-2025

G13 G14 G16

Hello GDC!

Is it ok if a team uses their lady brown to stop another team's lady brown from raising, even if some entanglement occurs that a Head Referee determines was incidental?

Is there any guidance that can be given to help Head Referee's in determining when edge case entanglement situations should be considered outside of "normal gameplay"?

Relevant rules are [<G13>](#), [<G14>](#), possibly [<G16>](#)

Thank you for your time! :D

Answered by Game Design Committee

Entanglement situations should be considered outside of "normal gameplay" and result in [<G13>](#) Violations when a Robot that is playing offensively is tipped, Entangled, or damaged by an opponent Robot that is playing purely defensively. Per [<G14>](#), the offensive Robot gets the benefit of the doubt if a judgment call must be made.

In cases where it's not clear which Robot should get the benefit of the doubt from rule [<G14>](#), a Robot that is actively interacting with a Ring (including de-scoring) should be considered "more offensive" than a Robot that is not interacting with a Ring.

If both Robots are playing offensively (for example, two Robots that are pushing each other back and forth while each is trying to put a Ring on a Wall Stake) it should generally qualify as normal gameplay that does not result in a [<G13>](#) Violation for either Team even if they become Entangled.

2596: <G13> : Is a violation using a hook or grab?

3-Mar-2025

G13

A robot can drag out another robot with a hook. Is it a violation to pull a robot without committing a holding violation ([<G16>](#))? (e.g., entanglement violation in [<G13>](#)...)

Is a violation to use a grab and pull strategy or a hook to attack a robot defending a corner?

Answered by Game Design Committee

This is a Violation of rule [<G13>](#), which includes "Strategies aimed solely at the destruction, damage, tipping over, or Entanglement of opposing Robots are not part of the ethos of the VEX V5 Robotics Competition and are not allowed."

From the definition of Entanglement, "A Robot is Entangled if it has grabbed, hooked, or attached to an opposing Robot or a Field Element."

2595: Follow-on to 2544: SG7 & SC8: Forcing Loss of AWP

2-Mar-2025

G1 G13 G17 SG7

Looking for clarification to answers to 2544: SG7 & SC8: Forcing Loss of AWP.

While at a tournament this weekend, prior to start of match R1 appeared to program a new auton to their robot. At the start of auton period, R1 drove in a straight line crossing the auton line and going all the way over to the Blue side while pushing red and blue rings with it and stopping near the field wall disrupting the auton of B1. Referees deliberated for a while and ultimately gave auton bonus to Blue but no win point for Blue and no disqualification for R1. The crossing appeared intentional to deliberately impact B1 from achieving winpoint bonus. Not getting winpoint caused B1 to drop from 1st place to 3rd place in qualifications (this was B1's last quals match) and changed the dynamic of alliance selection. Questions: If intentional, is there any situation where Referees replay autonomous period? Can referees ask to see autonomous code to make determination if intentional? Seems as if G1, G13c, G17, as well as SG7 would apply. R1 losing auton bonus was consequence of crossing, but B1 was essentially penalized by not having opportunity to finish match auton to try to complete the requirements for winpoint. Believe some additional rule clarification is needed for this type of situation/action or to discourage this.

<https://www.youtube.com/watch?v=GW44S5ESwdY&t=22684s> Match 91 at the 6 hr 17 second mark

Answered by Game Design Committee

If intentional, is there any situation where Referees replay autonomous period?

Match Replays, as described in rule [<T7>](#), are warranted when Matches are negatively affected by field faults or game rule issues. Rule Violations by Teams are not situations that should result in Match Replays, and should instead be handled through Major and/or Minor Violations as appropriate.

Can referees ask to see autonomous code to make determination if intentional?

No. The referee's judgment call must be made based on the context of the Match and the event. Based on your description, the Head Referee could reasonably have considered Robot R1's actions as an intentional, strategic, or egregious Violation and given them a Disqualification for the Match based on the 2nd Violation Note for [<SG7>](#), although that decision can only be made by the Head Referee.

Note: This guidance may be expanded or revised in the April 2, 2025, Game Manual update for the VEX Robotics World Championship.

2578: Cell Phone Use During Alliance Selection

26-Feb-2025

G13

[<G13>](#)

I apologize in advance if this has been answered already. I looked but couldn't find anything specific about it. Is there a rule that states that a team member can not be on the phone with their team during alliance selection? I know that there can only be one physical person at alliance selection, but what is the rule for cellular communication during alliance selection with their team mates? Can you please make a ruling on it? We had a very rude encounter from an Event Partner at a competition recently. Thanks!

Answered by Game Design Committee

Is there a rule that states that a team member can not be on the phone with their team during alliance selection?

No, but rule [<T4>](#) allows Event Partners to make and enforce rules that do not impact Match play. This could include disallowing electronic communication during Alliance Selection.

Teams are advised to complete their scouting prior to the beginning of Alliance Selection, and to come to Alliance Selection prepared with a written list of potential Alliance Partners. Non-electronic methods of communication are recommended if necessary, and rule [<G2>](#) and the Student-Centered Policy still apply during Alliance Selection. Any communication about Alliance Selection and specific Teams should be limited to Student Team Members.

Note: Additional restrictions may apply at the VEX Robotics World Championship. Any changes will be reflected in the April 2, 2025, Game Manual update.

232: clarification on trapping.

3-Feb-2019

G11 G13 G14

This question focuses around "trapping", which is defined in the game manual as a robot status where "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). <G14> also states that there should be no trapping for more than 5-seconds, and is effectively over once the opposing robot has driven away by 2 feet and has driven away for 5 seconds.

Trapping however, has a loose definition of "avenue of escape" and "confined area of the field". Pinning, has also not been defined. If a robot were to push an opposing robot, this would be deemed legal, because there is open space around the robot. If a robot were to push another robot into the wall, and then back away, leaving enough space in the front and back for the robot to escape, but would push the robot every couple seconds, would this be legal? The defending robot in this instance, is not technically trapping the robot as it has not confined the robot, the robot can escape, however is not doing so fast enough, and the defending robot is pushing (which, is not trapping), the robot ever so slightly. Would this be considered trapping?

A follow up to the above question, what is the definition of an avenue of escape? If there is a robots-width of space between a post and my robot, then that should be sufficient for a count to NOT be held against me. By that sense, if a robot is in a corner, and caps/balls are piled beside them (which should not be hoarding, the caps are not in the corner because the corner is occupied by a robot), and can not escape, it should not be a trap, correct?

We would also like to seek clarification on pushing, there have been many referees at local tournaments who start counting as soon as robot-robot contact has been made (ie, RED1 pushing BLUE1 away from flags so they can not line up for flags), however, as per the rules, this should be legal, correct? Now, suppose a robot, say BLUE1 were to push RED1 into their partner, RED2, in the middle of the field. RED1 has a clear avenue of escape, all RED needs to do is have RED2 drive away, and RED1 can then drive away. Would this still be counted as a trap? Now what if BLUE1 was preventing RED1 from moving, who was then preventing RED2 from moving. If BLUE1 backed away, then returned to trap RED2, should the count be restarted (BLUE1 was never defending RED2) or should the count continue (BLUE1 has been preventing RED2 from moving as well, albeit indirectly). It would be nice if the GDC could give clarifications on these, as the local refs have had very unclear rules, and there has been a lot of variation with the rulings, which means that students are often left confused to as why one team at one tournament could act in such a way, whereas these actions were ruled illegal at another tournament.

The last question, if RED1 were trapping BLUE1 against a perimeter, and BLUE1 was then incidentally trapping RED2, would there also be a count against BLUE1? Even if RED1 were to back away at 5 seconds, it would be almost impossible for BLUE1 to also move away fast enough (especially if the trap has put them in an awkward position) to allow RED2 to move away. Again, this refers to <G13> and <G11>. If BLUE1 were an offensive robot about to score, but then got trapped by RED1 - they should not be at fault, and should not be allowed to be forced into a penalty, correct?

Thank you for taking the time to carefully read and answer these questions!

Answered by Game Design Committee

Your question(s) appear to be answered by [this similar Q&A](#). If this is not the case, please feel free to rephrase and re-submit. Please especially take note of the following portions:

Please remember that the VEX Robotics Competition is a volunteer-driven program with over 1700 events across 50 countries each season. While the Game Design Committee and the REC Foundation strive to continuously improve our training materials, requisite certifications to run an event, and overall consistency between events, providing absolute guidelines for subjective topics is one of the largest challenges that we face each year.

The interactive and dynamic nature of a VEX Robotics Competition game makes it impossible to provide absolutely black-and-white clarifications of inherently non-black-and-white topics, such as defensive interactions. If everything in a game was absolute and explicitly clear, then the role of a Head Referee to provide in-the-moment interpretations would not be needed!

These answers represent the intent of the Game Design Committee within the guidelines and training materials that we have provided for VRC Turning Point referees, not an ultimate expectation or guarantee that all Head Referees will interpret a given edge case in exactly the same way.

231: Blocking Opponent Shots, Vertical Expansion Limit.

3-Feb-2019

G11 G13 SG2

Hi Again,

This is the second question that I have been asked to rephrase and repost.

The game manual states, in <SG2a> that "Once the match begins, a robot which is contacting the expansion zone may expand vertically with no height limit. However, once fully outside the expansion zone (ie, no longer contact it), the robot must return to a height limit of 18" tall." The follow-up info also states that <A robot which interferes with gameplay as a result of violating this rule, such as scoring a high flag or blocking a launched ball while outside the expansion zone, will result in a disqualification, whether the interference is match affecting or not.> The game manual also states in <G11> that <you can't force an opponent into a penalty. intentional strategies that cause an opponent to violate a rule are not permitted, and will not result in an infraction on the opposing alliance.>

The issue then follows: if a robot is designed to block opponent shots, say by expanding horizontally over the opponent robot, and the opponent robot fires a shot, causing the defending robot to expand over 18", who would be at fault? The game manual states through <G13> that offensive robots get the "benefit of the doubt". In this instance, the defending robot is not actively seeking to break the rules, and has taken reasonable measures to prevent this (through proper bracing, good build quality, etc. etc.) If the offensive robot however, then decided to shoot the ball and cause the defending robot to violate the 18" limit (perhaps through a powerful launcher), who would be at fault? The offensive robot could have driven somewhere else and fired the shot, and if they had fired the shot with the intention to cause a rule violation, would also receive scrutiny from <G11>.

Answered by Game Design Committee

If a robot is designed to block opponent shots, say by expanding horizontally over the opponent robot, and the opponent robot fires a shot, causing the defending robot to expand over 18", who would be at fault?

In this hypothetical situation, <G13> would apply, quoted here for reference with a portion bolded for emphasis.

<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 Robot which is attempting to block the opponent would be considered the defensive Robot, and would be considered in violation of <SG2>.

Furthermore, if the intent of such a "blocker" mechanism (as defined in your question) is to prevent launched Balls from reaching their intended target, and it extends past 18" tall when it succeeds in preventing a launched Ball from reaching its intended target, then the following portion <SG2> would likely apply on its own, even without <G13>.

Note: A Robot which interferes with gameplay as a result of violating this rule, such as Toggling a High Flag **or blocking a launched Ball while outside of the Expansion Zone**, will result in a Disqualification, whether the interference is Match Affecting or not.

We would advise that Teams attempting this type of strategy design their Robot such that they minimize the possibility of any edge cases such as these.

1975: tipping blocking robots

27-Feb-2024

G13 G14

<g14> states that the offensive robot will receive the benefit of the doubt when determining if something was match affecting. Does this refer to the robot that is performing an offensive action or that it is in its offensive zone? <g13> states that "A Team is responsible for the actions of its Robot at all times, including the Autonomous Period. This applies both to Teams that are driving recklessly or potentially causing damage, and to Teams that drive around with a small wheel base. A Team should design its Robot such that it is not easily tipped over or damaged by minor contact."

With this in mind if a red robot was shooting from the match load zone and had a low hanging mechanism that was low enough for a blue robot to drive on and it results in the blue robot being tipped would the red robot be penalized? The blue robot stays on the red robot after the red robot finishes shooting and the only things the red robot can do is drive forward or raise the low hanging mechanism. Both of these options will result in the tipping of the blue robot but staying still will not tip the blue robot. They were performing an offensive action and the mechanism in question is an intake and not meant for tipping other robots, but <g13> states that a team is responsible for the actions of their robot at all times

Would the red robot be penalized for moving? If the blue robot is successfully blocking the red robot would the red robot be penalized for driving forward to push the blue robot off and returning to shoot if the blue robot got tipped in the process?

Answered by Game Design Committee

<g14> states that the offensive robot will receive the benefit of the doubt when determining if something was match affecting. Does this refer to the robot that is performing an offensive action or that it is in its offensive zone?

Rule [<G14>](#) protects robots that are engaged in offensive actions (e.g., scoring, match loading, elevating) during a Match, regardless of their position on the field. This guidance is modified by clause B of rule [<SG10>](#), which specifies that during the Autonomous Period of a Match a Robot is considered to be playing offense only when in its own Offensive Zone.

In the scenario you've described, once the red Robot stops Match Loading and begins to move away from the Match Load bar, the Head Referee should begin a Holding count. Holding is an inherently defensive action, regardless of where on the field it occurs. If red attempts to escape blue's Holding and cannot do so without incidentally tipping the blue Robot, the red Robot will generally have the benefit of the doubt provided by rule [<G14>](#) and should not be penalized.

1843: Tipping in Match Load Zone & G13 / G14

26-Dec-2023

G13 G14

[<G13>](#)

A blue alliance robot was in their own match load zone and a team member was placing triballs in the robot to be introduced to the field. A red alliance robot came over quickly to the blue robot, and the blue robot team member stopped match loading to avoid injury. The immediate contact interaction between the red and blue robots resulted in the tipping of the blue robot into the blue match load zone. Upon completion of the match, the referee ruled that the red alliance robot would not receive a major violation and disqualification for the tipping of the blue alliance robot citing G13a/b.

<G13> Don't destroy other Robots. But, be prepared to encounter defense. Strategies aimed solely at the destruction, damage, tipping over, or Entanglement of opposing Robots are not part of the ethos of the VEX Robotics Competition and are not allowed. VRC Over Under is intended to be an offensive game. Teams that partake in solely defensive or destructive strategies will not have the protections implied by <G13> (see <G14>). However, defensive play which does not involve destructive or illegal strategies is still within the spirit of this rule. VRC Over Under is also intended to be an interactive game. Some incidental tipping, Entanglement, and damage may occur as a part of normal gameplay without violation. It will be up to the Head Referee's discretion whether the interaction was incidental or intentional.

The head referee stated that G14 would not be applicable due to the statement given by the blue alliance team member, who was engaged in the match loading, in which they stated that they stopped match loading just prior to the interaction to

avoid being injured in contact from the oncoming red robot.

<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.

The referee ruled that the blue alliance robot was not engaged in any offensive actions and therefore not considered the offensive robot in this situation due to the blue alliance team not being actively engaged in match loading at the moment of interaction that resulted in the tipping, and therefore the contact between the red and blue robots was deemed incidental per G13b.

The question regarding the situation is as follows:

Due to the nature of match loading for this game and the safety concern of the blue alliance team member, and given that active match loading was occurring immediately prior to the action that resulted in the tipping, should the blue robot have still been considered as the offensive robot?

Answered by Game Design Committee

First - when a ruling is made that required an in-match judgment call, it is difficult for us to provide an answer that directly justifies or vilifies a given Head Referee's handling of a given situation. We weren't there, and didn't see what they saw; the red box note in [<G1>](#) should be kept in mind.

Note from the VEX GDC: The rules contained in this Game Manual are written to be enforced by human Head Referees. Many rules have “black-and-white” criteria that can be easily checked. However, some rulings will rely on a judgment call from this human Head Referee. In these cases, Head Referees will make their calls based on what they and the Scorekeeper Referees saw, what guidance is provided by their official support materials (the Game Manual and the Q&A), and most crucially, the context of the Match in question. The VEX Robotics Competition does not have video replay, our fields do not have absolute sensors to count scores, and most events do not have the resources for an extensive review conference between each Match. When an ambiguous rule results in a controversial call, there is a natural instinct to wonder what the “right” ruling “should have been,” or what the GDC “would have ruled.” This is ultimately an irrelevant question; our answer is that when a rule specifies “Head Referee's discretion” (or similar), then the “right” call is the one made by a Head Referee in the moment. The VEX GDC designs games, and writes rules, with this expectation (constraint) in mind.

With that all being said, we do not see any decision-making in this scenario that was outside the boundaries of “Head Referee discretion” provided by [<G13>](#) and [<G14>](#).

Yes, in most cases, Match Loading can be considered an offensive action. However, this does not mean that “any Robot near a Match Load Zone is immediately offensive”, and it is within the Head Referee's discretion to judge whether [<G14>](#) applies to a given interaction. We cannot provide a blanket “yes/no” answer to all possible versions of these interactions.

1837: Signs to Help Determine if Tipping is Legal or Illegal

19-Dec-2023

G13

<G13> states:

Don't destroy other Robots. But, be prepared to encounter defense. Strategies aimed solely at the destruction, damage, tipping over, or Entanglement of opposing Robots are not part of the ethos of the VEX Robotics Competition and are not allowed.

VRC Over Under is intended to be an offensive game. Teams that partake in solely defensive or destructive strategies will not have the protections implied by <G13> (see <G14>). However, defensive play which does not involve destructive or illegal strategies is still within the spirit of this rule.

a. VRC Over Under is also intended to be an interactive game. Some incidental tipping, Entanglement, and damage may occur as a part of normal gameplay without violation. It will be up to the Head Referee's discretion whether the interaction was incidental or intentional.

b. A Team is responsible for the actions of its Robot at all times, including the Autonomous Period. This applies both to Teams that are driving recklessly or potentially causing damage, and to Teams that drive around with a small wheel base. A Team should design its Robot such that it is not easily tipped over or damaged by minor contact.

Violation Notes: • Major Violations of this rule are not required to be Match Affecting. Intentional and/or egregious tipping, Entanglement, or damage may be considered a Major Violation at the Head Referee's discretion. • Repeated Violations within a Match or tournament could be considered a Violation of <G1> and/or <S1> at the Head Referee's discretion.

<G14> states Offensive Robots get the "benefit of the doubt." In a case where Head Referees are forced to make a judgment call regarding a destructive interaction between a defensive and offensive Robot, or an interaction which results in a questionable Violation, referees will decide in favor of the offensive Robot.

Q&A post <https://events.vex.com/VRC/2023-2024/QA/1628> states:

"Regarding your final question, in which an Alliance tips over an opponent and then takes immediate action to right them, that is part of the larger context of the Match that the Head Referee should consider when determining whether or not a Violation has occurred."

Robot tipping seems to be an inherent problem this year as robots are designed to climb and cross over the low barrier which also cause it to easily climb up an opposing robot in a collision. As such, incidental tipping can occur easily and often and can be difficult to distinguish from intentional tipping strategies. As per the above Q&A post, we understand referees will consider the larger context of the tipping. However, there appears to be considerable ambiguity in terms of what some of the common tipping signs mean in the larger context. We hope you can provide guidance in the interpretation of some of these commons signs during tipping incidents so referee rulings are less subjective and more consistent across events. We understand these signs or indicators would never be definitive and would be situational dependent.

Here are some common signs of intent we noticed during tipping:

1. Two robots collide and both bots are tipped upwards toward each other. Our interpretation is any tipping that results from this is generally considered not egregious since both parties are engaged in similar behaviour?
2. Two robots collide, 1 robot starts to lift up, the other robot had sufficient time to back up but continues to push forward, causing the other robot to flip over. Our interpretation is this would generally be considered egregious if it is match effecting since the guilty robot chose not to stop but continue to push and tip over their opponent.
3. One robot attempts to cross a low barrier, the front of the robot tips upwards considerably due to design. The opponent robot drives to the low barrier at the same causing the other robot to tip backwards and become immobilized. Based on rulings we have seen, this is generally considered not egregious.
4. Two robots try to intake the same triball from opposite directions and collide, one robot flips. Our interpretation is this is generally considered not egregious since both parties were fighting for the ball, the tipping is most likely incidental.
5. Two robots collide; one robot is clearly and verifiably tippy even before the collision, tips over upon contact and is immobilized. Our interpretation is as long as the robot is clearly tippy during normal drive then the tipping is generally not egregious but rather due to design.
6. After tipping over an opponent's robot, the alliance immediately begins matchloading to take advantage of the situation. Should this be generally considered signs that the tipping was egregious if the intent of the topping is uncertain otherwise?
7. After tipping over an opponent's robot, driver makes genuine attempts to right the opponent's robot back up (successful or not). Should this be generally considered signs that the tipping was non-intentional if the intent of the topping is uncertain otherwise?

Robot tipping generally occurs very quickly and is difficult to observe exactly how it transpired. Does G14 apply to tipping calls so when it is too close to call, the benefit of the doubt goes to the robot that was flipped since tipping over a robot is a defensive maneuver. This would encourage teams to be more responsible with their actions and avoid flipping over opponent's robot.

Thank you

Answered by Game Design Committee

We understand these signs or indicators would never be definitive and would be situational dependent.

This point is ultimately the most relevant line in the post. When it comes to [G13](#), there are always edge cases and exceptions, and it will never be possible to provide blanket answers to hypothetical scenarios.

The intent of this response is not to explicitly codify the specific descriptions in your post as absolute. To provide a blatant example: if we were to say that your point 1 was *always* correct, then an alliance could conceivably get ahead by a narrow margin, intentionally tip over all 4 robots, and then cite this Q&A post as evidence that it was fair game.

With that being said... outside of extenuating circumstances, repeated warnings, or other relevant context:

- Statements 1-5: Yes, these are generally in line with the expectations of G13.
- Statement 6: This may be a factor in the larger context of the Match that the Head Referee takes into consideration, but it should not necessarily be a deciding factor one way or the other. "Correlation does not always imply causation".
- Statement 7: This is essentially the same scenario as your quote from Q&A 1628.

1731: Incidental vs Intentional Tipping

29-Oct-2023

G13 G14

Per [G14](#), offensive robots get the "benefit of the doubt".

Per [G13](#), point b, robots may encounter defense, including "incidental tipping, Entanglement, and damage... It will be up to the Head Referee's discretion whether the interaction was incidental or intentional."

Considering the below scenarios:

- What would be considered intentional versus incidental?
- What would be considered offensive versus defensive?
- Which alliance, if any, would be issued a minor violation? A major violation? A DQ?

1. Blue goes to get a triball on the red offensive side and causes Red to tip.
2. Blue goes to get a triball on the blue offensive side and causes Red to tip.
3. Blue goes to park and causes Red to tip.
4. Blue tries to manipulate some triballs with subsystem(s), Red gets caught on the subsystem, and Red tips when robots disengage.
5. Blue merely goes to prevent Red from crossing into the red offensive zone and tips the Red robot.
6. Blue tries to get to the blue offensive zone and is taking the shortest route to get there, thus going through/pushing the red alliance robot.
7. Blue goes to get a triball; said triball unintentionally gets underneath Red's drivetrain; Red tries to get off the triball and tips.

Would the Blue robot position relative to its own offensive zone play a role in determining whether it is considered the offensive/defensive robot? How does this affect the issuance of a warning/DQ?

How much does the direction of the robot's travel affect offensive versus defensive, intentional versus incidental?

Answered by Game Design Committee

We believe [our response to Q&A 1628](#) answers your question. In each of the scenarios you propose, the Head Referee would have to consider the larger context of the interaction to determine whether it was incidental or intentional. 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 interaction.

When deciding whether tipping, entanglement, or damage should be penalized for being intentional or egregious, pay attention to whether the 'pushing' robot backs away when their opponent begins to tip, become entangled, or risk damage or if they continue to force the other robot over or into entanglement or damage. A team that backs away should generally *not* be penalized based on intent, and the one that continues to push probably should. Clear verbal warnings are important in this situation, to give all teams opportunities to avoid violations. For more information on these interactions, view the Head Referee training videos from the [Turning Point](#) or [Change Up](#) seasons (note that the pertinent rule number has changed since these seasons, and some of the game-specific information no longer applies). These tips and links have also been added to the [VRC Referee Guide in the REC Library](#).

1708: Jamming a Robot Into a Match Load Zone

18-Oct-2023

G13

In a recent tournament, some teams seemed to be applying the strategy of knocking into an opposing robot who was contacting the bar of their Match Load Zone and loading / throwing triballs to their own Offensive Zone. The result often was that the offensive robot was knocked back into the Match Load Zone and stuck there, unable to escape or even continue to throw triballs due to the angle it was stuck at. Some of these interactions could have been accidental due to the Match Load Zone being lined up with the open pathway between the two sides of the field and robots running full speed back and forth, but at least some (including those repeated a few times) were intentional.

The interactions were very quick so <G16> Holding rules don't seem to apply. Being stuck on the bar doesn't seem to fit the definition of "entanglement" or being tipped over, but I wonder if it would be considered against the "ethos of the VEX Robotics Competition" mentioned in <G13> because it effectively eliminated the stuck robot from the rest of the match. On the other hand, <G13> also states that robots should be "prepared to encounter defense," and being able to climb out of the Match Load Zone may be something they need to be capable of.

What is the best action from the Head Ref in this situation?

Thank you,

Answered by Game Design Committee

Assuming no other rules are broken in the process (e.g., Holding/Lifting for more than 5 seconds in Violation of rule [<G16>](#)), there are no rules preventing the interaction you've described. Therefore, it is legal.

1628: G13 - Tipping

29-Aug-2023

G13

[<G13>](#)

In many of the early season matches, there seems to be many more robots tipping over and becoming immobilized than in recent years.

For emphasis, G13a specifies:

VRC Over Under is intended to be an offensive game. Teams that partake in solely defensive or destructive strategies will not have the protections implied by <G13> (see <G14>). However, defensive play which does not involve destructive or illegal strategies is still within the spirit of this rule.

There are at least 2 scenarios (with permutations) I would like clarification on as a referee:

1. Red Robot and Blue Robot engage in a pushing battle in one of the "side alleys" of the field. In the course of the pushing contest, the Robots start to raise up, and eventually one robot winds up on its back, immobilized. There are many permutations of this, namely:

A. Red Robot has a Triball while Blue Robot does not. Assume the pushing contest goes back and forth between each team's Offensive Zone.

B. Both Red Robot and Blue Robot possess a Triball. Assume the pushing contest goes back and forth between each team's Offensive Zone

C. Neither Red nor Blue Robot possess a Triball. Assume the pushing contest goes back and forth between each team's Offensive Zone.

2. Red Robot and Blue Robot are in the middle of the field, each in their Defensive Zone. The Blue Robot attempts to cross the Barrier while the Red Robot attempts to prevent this movement. In the course of the interaction, the Blue Robot tips over and becomes immobilized.

A. The Red Robot possesses a Triball while the Blue Robot does not.

B. The Blue Robot possesses a Triball while the Red Robot does not.

C. Neither possess a Triball.

D. Both possess a Triball.

E. Neither possess Triballs, but one or both are pushing them across the center barrier and / or trying to prevent the other Robot from doing same.

Additionally, G13c specifies:

This applies both to Teams that are driving recklessly or potentially causing damage, and to Teams that drive around with a small wheel base. A Team should design its Robot such that it is not easily tipped over or damaged by minor contact.

To what degree, if any, are robots that are designed without features to prevent themselves from being tipped over unable to benefit from G13 should their robot be tipped over during "normal" robot-on-robot interaction? For example, a Robot that winds up every match on its back would seem to have a design flaw. Such flaws may not be apparent during Robot Inspection, and may not be exposed until the Robot has played several matches.

If the Alliance that tips over an opposing Robot then attempts to provide aid (nearly immediately) to the tipped over Robot (e.g. makes efforts and/or succeeds in righting the Robot), should the Head Referee take that into account when determining whether the interaction is "Intentional and/or egregious tipping"

Thank you for your time.

Answered by Game Design Committee

Thank you for your question, which highlights the importance of having human Head Referees who are able to observe Matches and make snap judgments based on the available information and the context of the Match. As described in rule [<G13b>](#) and bolded for emphasis:

VRC Over Under is also intended to be an interactive game. Some incidental tipping, Entanglement, and damage may occur as a part of normal gameplay without violation. **It will be up to the Head Referee's discretion whether the interaction was incidental or intentional.**

Ultimately, any potential tipping scenario can only be judged within the larger context of the Match. The red box following rule [<T1>](#) is particularly relevant to your question, and should be remembered by all participants:

The rules contained in this Game Manual are written to be enforced by human Head Referees. Many rules have “black-and-white” criteria that can be easily checked. However, some rulings will rely on a judgment call from this human Head Referee. In these cases, Head Referees will make their calls based on what they and the Scorekeeper Referees saw, what guidance is provided by their official support materials (the Game Manual and the Q&A), and most crucially, the context of the Match in question.

The VEX Robotics Competition does not have video replay, our fields do not have absolute sensors to count scores, and most events do not have the resources for an extensive review conference between each Match.

When an ambiguous rule results in a controversial call, there is a natural instinct to wonder what the “right” ruling “should have been,” or what the GDC “would have ruled.” This is ultimately an irrelevant question; our answer is that when a rule specifies “Head Referee’s discretion” (or similar), then the “right” call is the one made by a Head Referee in the moment. The VEX GDC designs games, and writes rules, with this expectation (constraint) in mind.

Regarding your final question, in which an Alliance tips over an opponent and then takes immediate action to right them, that is part of the larger context of the Match that the Head Referee should consider when determining whether or not a Violation has occurred.