Q&A

VEX V5 Robotics Competition 2024-2025: High Stakes

Tagged: G16

Welcome to the official VEX V5 Robotics Competition Question & Answer system, where all registered teams have the opportunity to ask for official rules interpretations and clarifications. This Q&A system is the only source for official V5RC High Stakes 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 V5RC High Stakes rules questions.

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972: <G16> Anchoring

9-Dec-2021
G16

<G16> "Strategies with mechanisms that react against multiple sides of a Field Element in an effort to latch or clamp onto said Field Element are prohibited" "The intent of this rule is to prevent Teams from both unintentionally damaging the field and / or from ***anchoring*** themselves to the field."

Q: When a robot/mechanism reacts against only 1 side of a Field Element can this ever be considered anchoring?

> **Answered by committee**
>
> It is impossible to give a blanket answer to this question that would address all hypothetical Robot designs and mechanisms.
>
> Please see this related Q&A for additional "thought experiments" that can be used to determine whether a Robot has "anchored" to the field or not:
>
> https://www.robotevents.com/VRC/2021-2022/QA/845
>
> And this Q&A, which expands on why is difficult to objectively answer questions involving edge-case G16 calls:
>
> https://www.robotevents.com/VRC/2021-2022/QA/919
>
> If you would like a blanket clarification regarding a specific mechanism, please feel free to rephrase and re-post with a diagram or photo.

919: Clarification on Cantilever Parking

8-Nov-2021
G16

Hello,

Q&A 853

> If the Robot were to hypothetically cantilever itself against the lip of the Platform in order to "hover" just slightly off of the black supporting structures, this would very likely be considered "clamping" and/or causing an unnecessary risk of damage to the polycarbonate Platform (in the context of G16).

G16

> Don’t clamp your Robot to the field. Robots may not intentionally grasp, grapple or attach to any Field Elements. Strategies with mechanisms that react against multiple sides of a Field Element in an effort to latch or clamp onto said Field Element are prohibited. The intent of this rule is to prevent Teams from both unintentionally damaging the field and / or from anchoring themselves to the field.
>
> 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.

Change Up Q&A on G16

> To test whether a Robot is violating G16, the Robot should be able to be pulled away from the Goal in some horizontal direction, without lifting the Robot off of the field tiles, and without damaging, disassembling, or

> violating any laws of physics of the Goal and/or Robot.

Assuming the robot is removable from a horizontal direction like in the Change Up Q&A and isn't causing unnecessary risk to the Platform or Field Elements...
If a Robot were to only be contacting one surface of the Platform (the floor) would this be a legal way to park?
Does this change if a Robot is contacting multiple surfaces?

Thank you for your time!

Answered by committee

> Assuming the robot is removable from a horizontal direction like in the Change Up Q&A and isn't causing unnecessary risk to the Platform or Field Elements... If a Robot were to only be contacting one surface of the Platform (the floor) would this be a legal way to park?

Yes, especially given that this description is essentially the same as the standard action of a Robot driving up and Balancing on the Platform.

> Does this change if a Robot is contacting multiple surfaces?

This question cannot be answered with a one-size-fits-all blanket response. However, we will at least try to explain why this is the case.

Much like R12, determining whether a specific mechanism or strategy has violated G16 requires a certain amount of context and subjective human judgment.

To help guide Head Referees who are faced with this subjective decision, we have attempted to provide a few guiding principles to watch for.

One guideline that can be objectively interpreted in a "black-and-white" litmus test is "reacting against multiple sides of a Field Element". Therefore - any time a mechanism has been designed to intentionally react against multiple sides of a Field Element in an attempt to remain attached to that Field Element, it should be immediately apparent that the mechanism is at a severe risk of violating G16.

Other guidelines are more subjective, such as "what does 'anchor' mean" and "what constitutes a risk of field damage". To address these, we have attempted to provide general hypothetical principles that can be applied to real-world situations. Namely, ,the "horizontal-pull-away" thought experiment, and "cantilevering off of the polycarbonate Platform is probably causing a risk of field damage" (853).

We cannot provide any further hypothetical clarifications that are not simply restating what has already been said. If you would like a blanket clarification regarding a specific mechanism, please feel free to rephrase and re-post with a diagram or photo.

845: How to determine the violation of G16

17-Aug-2021
G16

I remember last season one Q&A answer states that the method of determine whether a robot is clamped to the field is to pull it in a horizontal direction. If the robot can be pulled in one direction then it is not considered a violation of G16. Is this method still valid for judging this season?And is there any criterion of the distance that the robot can be pulled and the force used for pulling?

Answered by committee

> Please review the Q&A Usage Guidelines before posting, specifically point 3, "Quote the applicable rule from the latest version of the manual in your question".
>
> Rule G16 reads as follows:
>
> > <G16> Don’t clamp your Robot to the field. Robots may not intentionally grasp, grapple or attach to any Field Elements. Strategies with mechanisms that react against multiple sides of a Field Element in an effort to latch or clamp onto said Field Element are prohibited. The intent of this rule is to prevent Teams from both unintentionally damaging the field and / or from anchoring themselves to the field.
> >
> > 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.
>
> We are not going to define the phrases "grasp", "grapple", "attach to", "react against", "latch", "clamp", or "anchor" any further than their dictionary definitions. They are intended to be "common sense" terms (in line with rule G3) that apply to the vast majority of Robot interactions found in a typical Match. If a Head Referee has determined that a Robot is doing any of these actions while interacting with a Field Element, then the Robot will be considered in violation of G16.
>
> If a Head Referee is faced with a questionable situation during a Match, the following "thought experiments" can be used to dig into the definitions of these words. However, these questions are only intended to guide in this judgment call process alongside the context of the Match; they should should not be used as airtight/foolproof/black-and-white criteria.
>
> - If the ground underneath the field were to suddenly disappear, but the Robot was able to "float" (think Wile E. Coyote), would the Robot be "pulled down" with the Field Element, or would the Field Element fall away from it?
> - If the Robot were to be gently pulled in any random horizontal direction opposite the Field Element in question, by any random amount of force, would the Field Element be "pulled" with it (or otherwise hinder the Robot's movement)?
> - How many sides of the Field Element is the Robot contacting? To determine how many of those sides are "contact" vs "reacting against in an effort to latch or clamp onto", how would the Robot respond if one of those sides were to vanish?
> - Is the interaction causing any risk of field damage that is higher than normal gameplay? (this is the primary reason for rule G16 in the first place)

843: Elevating a robot using the platform base

14-Aug-2021
G16

According to this Q&A https://www.robotevents.com/VRC/2021-2022/QA/818, the Platform includes the black plastic towers. Would this mean that if a robot was able to lift itself just using the towers, it could count as elevated? The definition for elevated is:

1. The Robot or Mobile Goal is contacting their Alliance Platform.
2. The Platform meets the definition of Balanced.
3. The Robot or Mobile Goal is not contacting any other Field Element, such as the foam field tiles or the field perimeter.

Now most methods of trying to lift using the tower would be a G16 violation, which states:

<G16> Don’t clamp your Robot to the field. Robots may not intentionally grasp, grapple or attach to any Field Elements. Strategies with mechanisms that react against multiple sides of a Field Element in an effort to latch or clamp onto said

Field Element are prohibited. The intent of this rule is to prevent Teams from both unintentionally damaging the field and / or from anchoring themselves to the field.

However, through testing we found that there is a rectangular gap between the hinges and the tower, which is slightly smaller than a 2-wide c channel. If a robot were to stick a metal channel into there, and lift itself off of the ground using the channel, it could reach the definition of Elevated, as long as it doesn't cause the hinge to lift off of the tower, as per the definition of Balanced:

1. The Platform is roughly parallel to the field.
2. Both flat surfaces of the Platform hinges are contacting the Platform base, as shown in Figure 7.
3. Robots and / or Scoring Objects contacting the Platform in their Alliance Home Zone are not also contacting any other Field Elements, such as foam field tiles or the field perimeter

So would it be a legal strategy to elevate the robot using this method? It is reacting against multiple sides of the platform, but it is not latching on or clamping, and will fall out the moment the platform is tipped, so I don't believe it'd be a G16 violation.

> **Answered by committee**
>
> In version 2.0 of the Game Manual, the definition of Platform was updated to read as follows:
>
> > Platform - The 53.0” x 20.1” (1,346.2mm x 511mm) hinged polycarbonate device and the attached red or blue PVC pipes (highlighted below in Figure 17), located in each Alliance Home Zone, that sits 9.5” (241.5mm) high off of the ground when Balanced. The Platform is attached to a double hinge that allows it to tip towards the field in either direction.
>
> Q&A 818 was also updated accordingly.
>
> Under this revised definition, contact with the black supporting structures would cause the Robot to no longer meet the definition of Balanced.

775: .

5-Apr-2021
G16 Referee Decisions

.

> **Answered by committee**
>
> ,

642: Further Clarification On G16

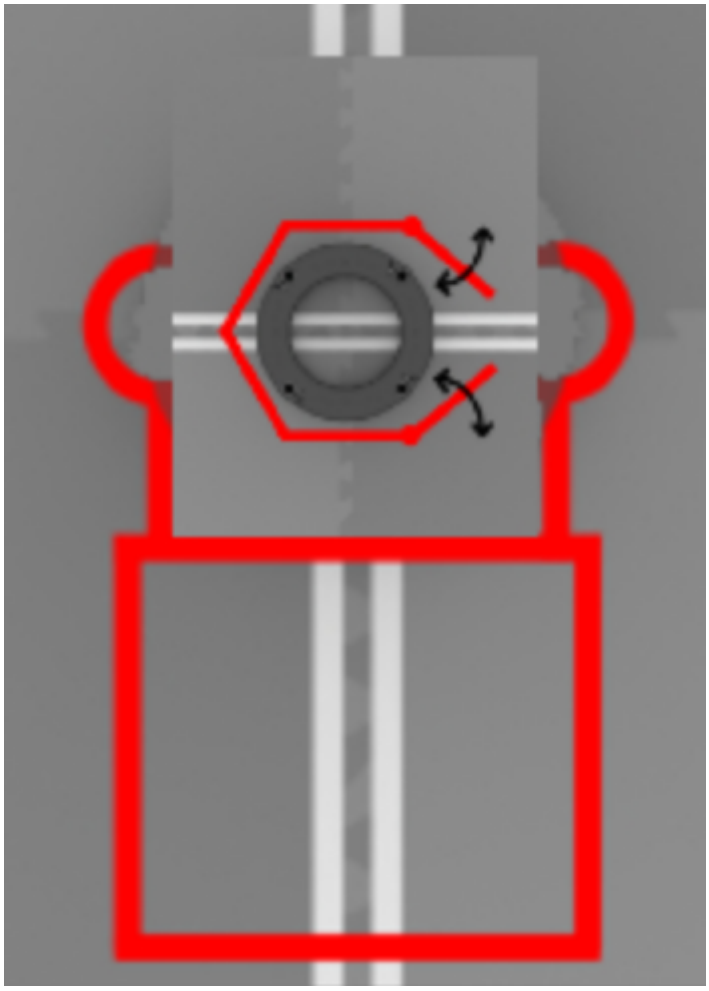
28-Aug-2020
G16

Assume that G16 is the only rule in consideration and the cage under discussion is the same as the one discussed in www.robotevents.com/VRC/2020-2021/QA/615

Is the use of a mechanism that makes the removal of a legal cage require a more accurate application of force, or require multiple applications of forces, legal? This would specifically mean that a safe application of force or combination of forces could remove the design without lifting the design or damaging the game pieces.

Example: a hypothetical robot wraps its intakers around a legal cage. The robot needs to be removed before the cage can be pulled away in some horizontal direction. (edited diagram originally sourced from Q&A 615 by Team 80X).

Thank you! -- Team 28007A



Answered by committee

There is not enough information given in this hypothetical, instantaneous example to provide a concrete answer. However, even if more information was given, it would still be impossible to issue a blanket ruling that would apply to all possible hypothetical interactions of this nature. Even if a video was provided of a whole Match, the answer would only be applicable to that particular Match and those particular mechanisms, and such an answer would not be helpful to Teams or Head Referees who find themselves in similar-but-slightly-different situations.

We would encourage you to consider the following possibilities, and walk through the logic provided in the previous Q&A's on this subject, alongside rules G5, G13, G16, and R29.

- If this question refers to two mechanisms on the same Robot, or two separate Robots
- If those two Robots were from the same or opposing alliances
- Match context prior to the interaction, e.g. if said interaction would be considered Match Affecting
- Match context after the interaction, e.g. if there were any damage to the Goal, or the opposing Robot (if one is present)
- Context of the mechanism(s) and/or Robot(s) in question, e.g. rule R29

615: Clarification on Q&A <G16> Answer (Reacting Against Multiple Sides of The Center Goal).

26-May-2020
G16

A question about "Reacting Against Multiple Sides of The Center Goal" was answered here in the Q&A: https://www.robotevents.com/VRC/2020-2021/QA/603. The answer was along the lines of imagine pulling the mechanism in a random direction, to comply it should not "get stuck" or risk damaging anything. We are worried this could interfere with the more intended game play and have some further questions regarding this matter.

Figure 1 shows a hypothetical robot with intakes around a goal. It interacts with multiple sides of the goal in order to descore ba vague term; does it mean there needs to be at least one direction for the robo e anything? If not how should a ref apply that to this case?.. since there is on nage anything can apply... Does this scenario comply with <G16>?

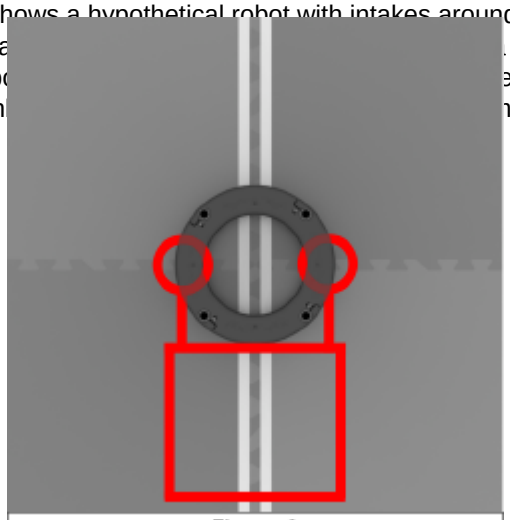


Figure 1

Additionally, what about a mechanism that releases when pulled a substantial enough force, but small enough to definitely not damage the field elements? Figure 2 shows an example of such a mechanism; the mechanism has "doors" which are closed using rubber bands, meaning if pulled with enough force, open. If such a mechanism required definitively less force to open then would damage a goal, would it be legal to put it around the center goal?

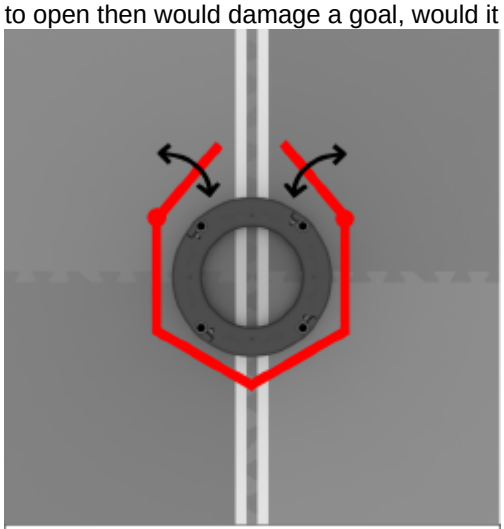


Figure 2

Finally, "pulled in random directions", from the linked Q&A answer it seems that directly up (lifting it) doesn't seem to be an option when doing this check, is that correct? If a mechanism can only be lifted up off a goal does it pass or fail the test to comply with <G16>?

Sorry for asking some slightly redundant seeming questions, we are just trying to be as thorough as possible.

Thank you from Vexmen Team 81K Magik

> **Answered by committee**
>
> For reference, G16 reads as follows:

> G16: Robots may not intentionally grasp, grapple or attach to any Field Elements. Strategies with mechanisms that react against multiple sides of a Field Element in an effort to latch or clamp onto said Field Element are prohibited. The intent of this rule is to prevent Teams from both unintentionally damaging the field and/or from anchoring themselves to the field.
>
> 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.

The relevant portion of the linked Q&A post is as follows:

> As noted in the quoted portion, one intent of G16 is to prevent teams from "anchoring" themselves to the field. The primary thought experiment that Head Referees should use to determine whether a Robot has "anchored" itself to a field element is to envision the Robot being pulled in any random direction by a strong force (such as a human or an opposing Robot).
>
> When it is pulled in random directions, does the Robot "get stuck" on the field element? Does it run a risk of damaging the field? Does it run the risk of damaging itself (a la G5)?

It may be more straightforward, albeit more verbose, to phrase as the following:

To test whether a Robot is violating G16, the Robot should be able to be pulled away from the Goal in some horizontal direction, without lifting the Robot off of the field tiles, and without damaging, disassembling, or violating any laws of physics of the Goal and/or Robot.

By this revised thought experiment, the two examples depicted would likely not be in violation of G16.

However, this judgment call is highly dependent on the specifics of the mechanism in question, how it interacts with the Goal, and any prior warnings/DQ's received by the Team. As always, it is impossible to provide a blanket answer that will definitively encompass all hypothetical mechanism designs and interactions. If a Team is concerned that a mechanism may dance on the edge of a potential G16 violation, we would advise them to design their Robot in such a way that it is abundantly clear to Head Referees that the Robot is not anchored, grappled, latched, clamped, or otherwise attached to the Goal.

603: Reacting Against Multiple Sides of The Center Goal

13-May-2020
G16

> G16: Robots may not intentionally grasp, grapple or attach to any Field Elements. Strategies with mechanisms that react against multiple sides of a Field Element in an effort to latch or clamp onto said Field Element are prohibited. The intent of this rule is to prevent Teams from both unintentionally damaging the field and/or from anchoring themselves to the field.
>
> 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.
>
> Field Element– The foam field tiles, field perimeter, white tape, Goal, and all supporting structures or accessories (such as driver station posts, field monitors, etc)

A team creates a square structure that surrounds the center goal in an effort to prevent the goal from being descored. If the structure were to remain stationary and not come in contact with the center goal, would the robot not be considered grasping, grappling, or attaching to the goal since it is not reacting against any sides? See Figure 1 for a visual.

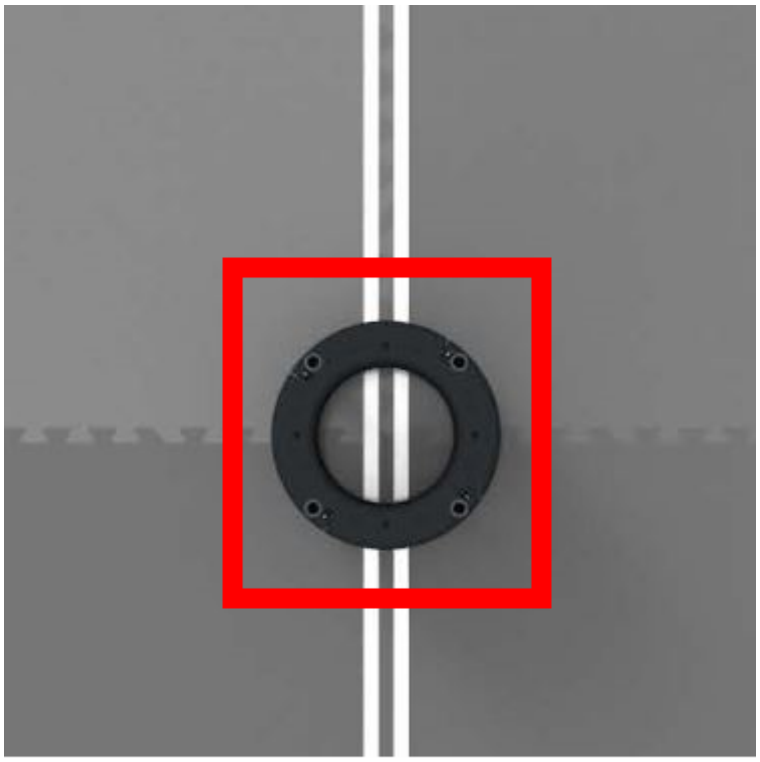


Figure 1

Say the same square structure is moved and is now in contact with the center goal at two different points. Would the robot now be considered grasping, grappling, or attaching to the goal since it is reacting against multiple sides? See Figure 2 for a visual.

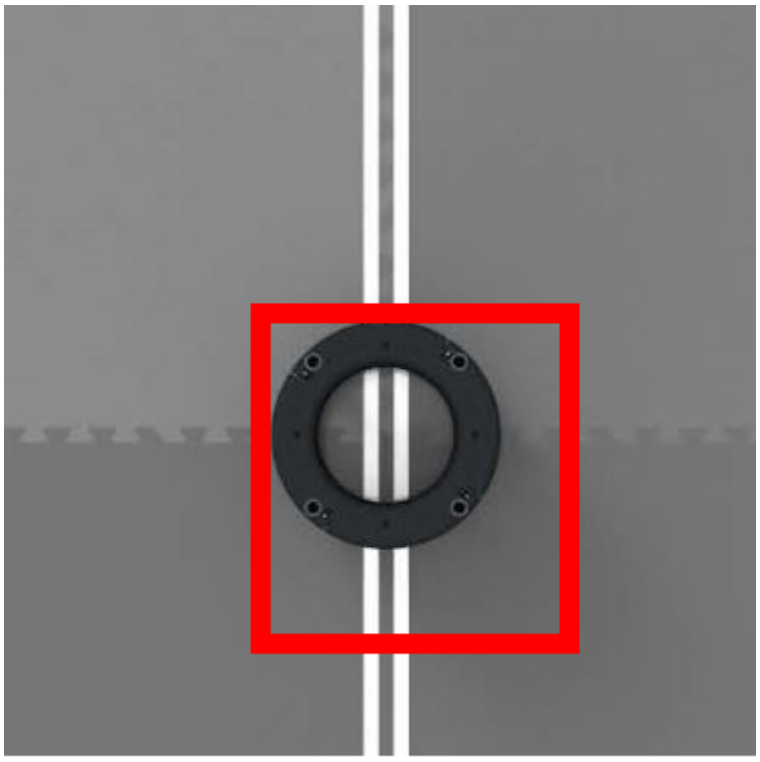


Figure 2

The square structure is now replaced with a circular structure. Is it moved against the center goal but is only in contact at one point. Would the robot not be considered grasping, grappling, or attaching to the goal since it is only reacting against one side instead of multiple sides? See Figure 3 for a visual.

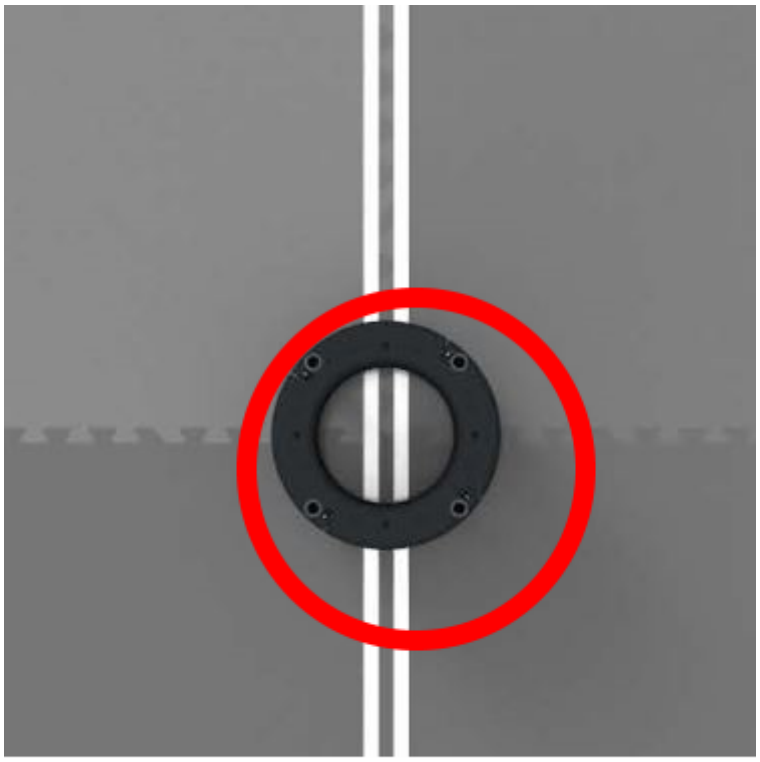


Figure 3

Answered by committee

Thank you for quoting the relevant portions of the Game Manual and providing images of your scenarios.

For the purposes of answering this question, we are assuming that the red lines represent hypothetical structures that satisfy all Robot rules, and the only rule in question is G16. We are not making any assumptions or blanket statements about the height, rigidity, or other design characteristics of the mechanisms, as it would be impossible to issue a blanket ruling that would satisfy all possible hypothetical Robot mechanisms.

As noted in the quoted portion, one intent of G16 is to prevent teams from "anchoring" themselves to the field. The primary thought experiment that Head Referees should use to determine whether a Robot has "anchored" itself to a field element is to envision the Robot being pulled in any random direction by a strong force (such as a human or an opposing Robot).

When it is pulled in random directions, does the Robot "get stuck" on the field element? Does it run a risk of damaging the field? Does it run the risk of damaging itself (a la G5)?

Based on this thought experiment, the three hypothetical depictions would not be legal.

373: Clarification on <G16>

10-Oct-2019
G16

Our team is seeking clarification regarding <G16> which states:

> "Robots may not intentionally grasp, grapple or attach to any Field Elements. Strategies with mechanisms that react against multiple sides of a Field Element in an effort to latch or clamp onto said Field Element are prohibited."

Regarding the field perimeter, would touching both the metal frame and the polycarbonate sheet on the exterior of the field perimeter at the same time be considered legal, given that the robot is not contacting the interior of the field perimeter?

> **Answered by committee**
>
> > Regarding the field perimeter, would touching both the metal frame and the polycarbonate sheet on the exterior of the field perimeter at the same time be considered legal, given that the robot is not contacting the interior of the field perimeter?
>
> We cannot provide a blanket ruling based on a the information provided of one possible hypothetical mechanism interaction.
>
> In addition to “grasp, grapple, or attach to”, you can also look towards the key words “latch onto” and “anchor” to help understand the intent of this rule. Some additional synonyms that are covered by the intent of this rule are “grip”, “pinch”, or “clamp”. These are all terms that describe active retention of the Field Element, such that a robot mechanism is actively exhibiting force on multiple sides of it.
>
> If this guidance is not enough to answer your question, please feel free to re-submit with further explanation, such as a photo or diagram, so that we can provide a more clear answer.

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 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.

2548: Interacting with another robot's mobile goal (Q&A 2026 clarification)

17-Feb-2025
G16 SG6

In the answer to Q&A 2026, it was stated that

> a Robot that is lifting, raising, or otherwise interacting with another Robot that is in Possession of one or more Scoring Objects is not considered to be in Possession of that Robot's Scoring Objects

However, this only covers scenarios where a robot is interacting with another robot and does not explicitly cover the case where a robot directly interacts with another robot's scoring objects.

In a hypothetical scenario, Robot A has mobile goal 1 being possessed in their back clamp while Robot B is also possessing mobile goal 2 in a similar manner. Robot A deploys a mechanism that directly grabs onto the rim of mobile goal 2, and Robot A uses this to pull mobile goal 2 (and Robot B along with it, as it is still clamped to mobile goal 2).

1a: Should there be a pinning count called here, as Robot B is being pulled by Robot A despite their ability to drop mobile goal 2 at any moment? 1b: Is Robot A double possessing, as they are directly pulling mobile goal 2 (which is also in possession by Robot B) while in possession of mobile goal 1? 1c: If Robot B releases mobile goal 2 and Robot A continues to drag mobile goal 2 for a short distance before the driver reacts and releases mobile goal 2, would this be a major, minor, or no violation of <SG6>? Robot B may have forced Robot A into a penalty because the driver of Robot A could not have reacted instantaneously, but Robot A also assumes this risk of double possession when they use this strategy.

Finally, if the answer to 1b is yes, what about an analogous version of Scenario B from Q&A 2520? That is, instead of grabbing onto the rim of mobile goal 2, Robot A uses a 2-bar mechanism to score a ring onto mobile goal 2 while it is in possession of robot B.

> **Answered by committee**
>
> 1a. This is not an example of Holding. Robot B has the option of releasing their Possessed Mobile Goal to free themselves.
>
> 1b. Yes, Robot A would be in Violation of <SG6> for Possession of two Mobile Goals as soon as the Robot grabs the second Mobile Goal. Mobile Goal 2 is simultaneously Possessed by both Robots in this scenario.
>
> 1c. As soon as Robot A is in Possession of two Mobile Goals as part of this intentional grabbing interaction, Robot A has intentionally violated <SG6>, and should receive a Major Violation and Disqualification for the Match.
>
> See Q&A 2184 for some legal examples of defensive Mobile Goal interactions that do not involve a Robot taking Possession of a second Mobile Goal.
>
> > Finally, if the answer to 1b is yes, what about an analogous version of Scenario B from Q&A 2520? That is, instead of grabbing onto the rim of mobile goal 2, Robot A uses a 2-bar mechanism to score a ring onto mobile goal 2 while it is in possession of robot B.
>
> The same answer applies here. This scenario could technically meet the definition of Possession, either directly or through <G17>. A Robot that Scores a Ring on one Mobile Goal while in Possession of another Mobile Goal is assuming the risk of Possessing two Mobile Goals at the same time and violating <SG6>. **However, it is important to note that scoring a Ring on a Mobile Goal does not always result in Possessing that Mobile Goal. Possession can occur based on the Robot's resulting control over the Mobile Goal due to the positioning of the Possessed Scored Ring around the Mobile Goal Stake.** We have revised our answer in Q&A 2520 to better match this one.

2547: G16 Clarification with negative corner

17-Feb-2025
G16

Situation: Blue1 in possession of a mobile goal with 6 red rings is trying to place the goal in a negative corner. Red1 pushes Blue1 into the field perimeter with 12 seconds left in the match. They are both trying to get to the negative corner,

one to place the goal and one to stop the goal from being placed. Blue1 is not trying to escape, Red1 holds them to stop them from placing the goal. Red1 was warned for pinning they backed away briefly Blue1 did not back away but tried to continue forward to place the goal in the negative corner. Red1 seeing Blue1 was still going for the corner continued to pin Blue1 for the remainder of the match. If Red1 moved back a full tile Blue1 would have been able to place the goal and won the match.

Essentially it is the same stalemate you see in positive corners just in the negative corner. Both robots, I believe, are being defensive. Blue1 is being defensive in trying to descore their opponents rings and Red1 one by trying to stop them.

Should this situation be called for pinning? Is Red1 required to move back a full tile to prove Blue1 is not trying to escape?

> **Answered by committee**
>
> Should this situation be called for pinning?
>
> Yes. Blue1 is trying to move. Red1 has them Pinned. The Referee should begin a Holding count.
>
> Is Red1 required to move back a full tile to prove Blue1 is not trying to escape?
>
> Yes, unless one of the other conditions to end the Holding count (see rule <G16>) is met.

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.

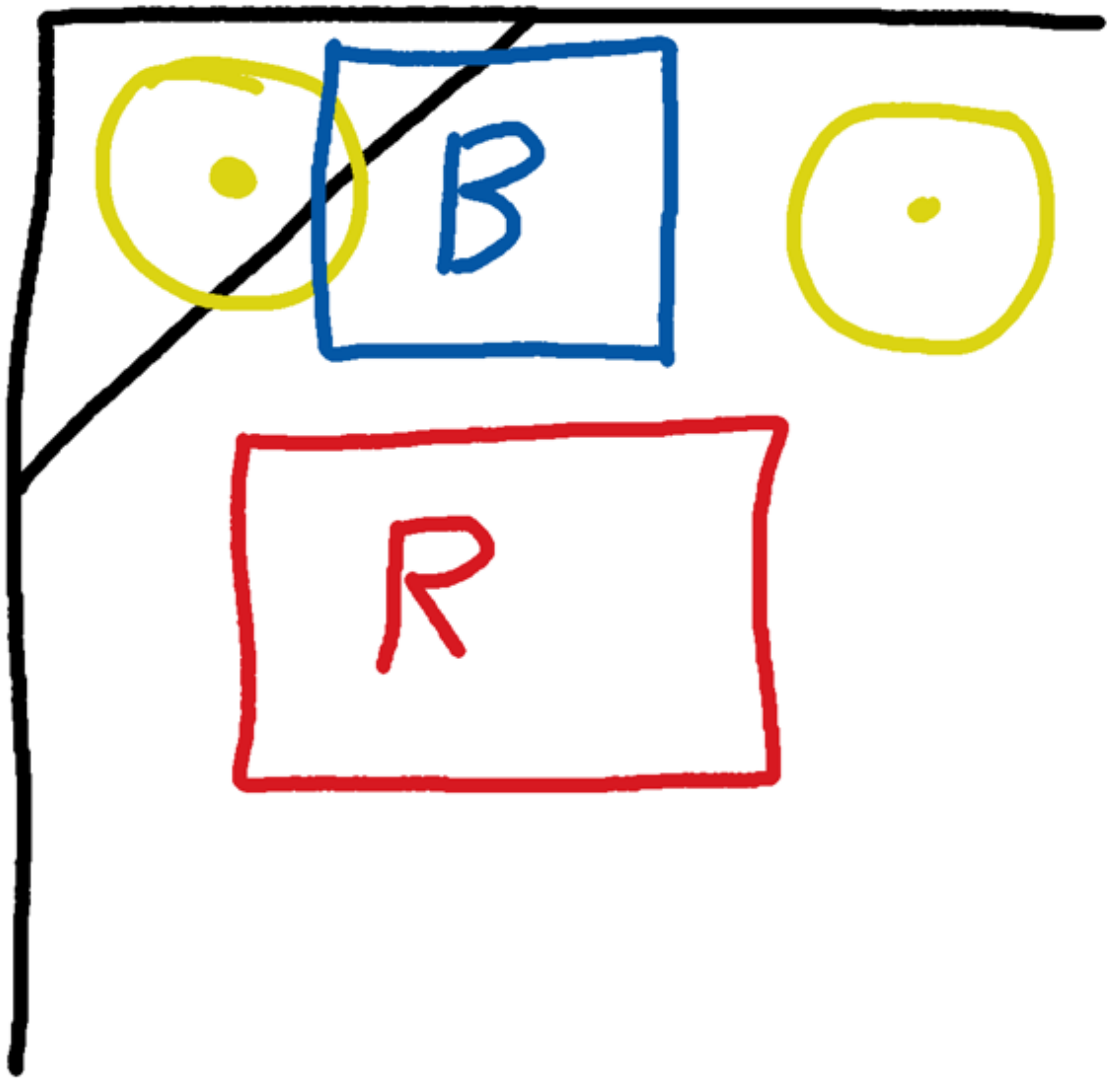
2483: <G16> Further Clarification/Expansion on Post 2432: : An avenue of escape for <G16>

30-Jan-2025
G16

<G16>

Trapping - Limiting the movement of an opponent Robot to a small or confined area of the Field, approximately the size of one foam field tile or less, without an avenue for escape. Note that if a Robot is not attempting to escape, it is not considered Trapped.

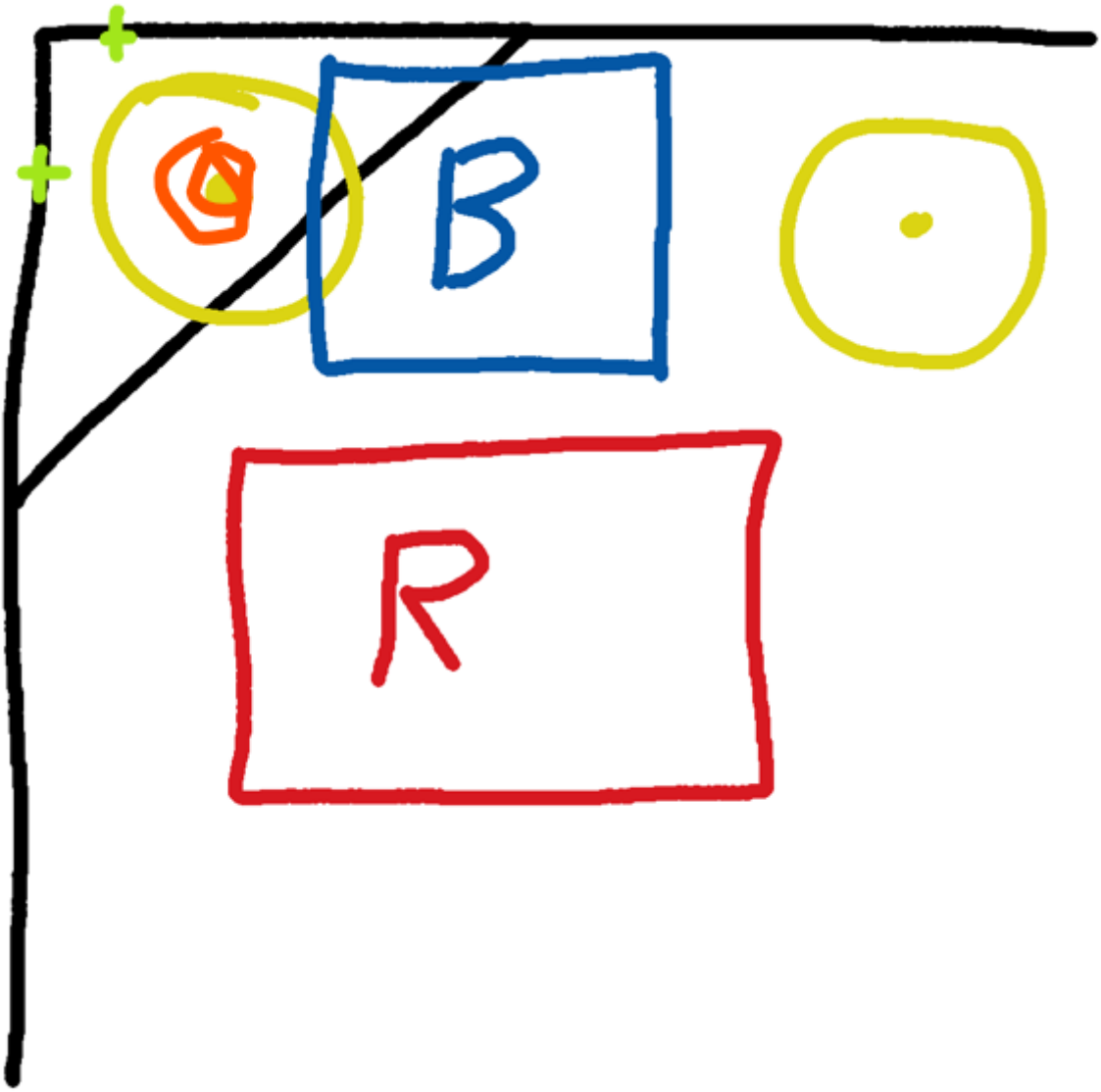
Post 2432 asked about holding and the GDC responded to it citing a specific scenario. I would like to see an expansion to that answer to cover different scenarios. The original scenario is: a blue robot holding a mobile goal in a corner, the red robot is blocking retreat in one direction and a second mobile goal is blocking retreat in a second direction (below on left)



The specific response from the GDC was "Our answer will assume that the blue Robot is attempting to remove a Mobile Goal filled with blue Rings from a Negative Corner." Based on that, the red robot is holding. You add "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."

In almost every scenario we have encountered, a robot is defending a mobile goal with its colored rings in the positive corner (blue robot with blue rings, red robot with red rings). We have been ruling that if the blue robot is defending a mobile goal with blue rings on it in the positive corner, it is not trying to escape and red cannot be holding. Blue has a clear avenue of escape if it released the mobile goal, but is guarding the mobile goal. It is the defensive robot in that scenario. Is this a correct interpretation?

But what if it is the exact same scenario as the diagram but the blue robot is trying to remove a mobile goal filled with red rings from the positive corner? (below on right)



Would that make blue the offensive robot and red the defensive robot and this would be red holding blue? If not, would it matter if red dropped the mobile goal to specifically force blue to drop the red mobile goal to escape? Or is this an effective strategy using the possession limits to force the other robot to release the scored mobile goal?

Thank you for your response

> **Answered by committee**

> Generally speaking, in a scenario when multiple Robots are playing defensively (like both scenarios in your question), any Robot that isn't directly interacting with a Ring or Mobile Goal should be considered "more defensive" and given "less benefit of the doubt."
>
> Because the red Robot in both of your scenarios does not have Rings or a Mobile Goal, it is playing "more defensively" than the blue Robot, which is actively interacting with a Mobile Goal.
>
> In your first scenario, because BLUE1 is not trying to escape there is no Holding/Trapping.
>
> In your second scenario, we'd generally consider this Holding/Trapping, but the final determination must be made by the Head Referee within the larger context of the Match and considering all contributing factors (like which Alliance put the Mobile Goal in that position).

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 positve 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 becauese 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 palced 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 1s 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 + mulitiplier 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 happend last weekend. The ref ruled that no violation has occured on either side.

I'm reffing 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

2465: G16 Pinning/Trapping/Holding

27-Jan-2025
G16

<G16><G16>

G16 States that if the opponent Robot is not attempting to **move** or escape, then it is not considered Pinned or Trapped.

In our last competition there were several disqualifications because the referee interpreted the rule as the robot was trying to "Move" into the positive corner.

Here is an example: Blue Robot A is trying to place a full goal into the positive corner Red Robot B is trying to stop them from doing so.

Blue Robot A is clearly not trying to Escape Red Robot B got called for Trapping

Please clarify what VEX intended with the word "Move"? Can a team just sit in the positive corner with a goal the entire length of the game and just wiggle back and forth and state that they are trying to move? Or was the intended definition to mean they were trying to move out of the corner?

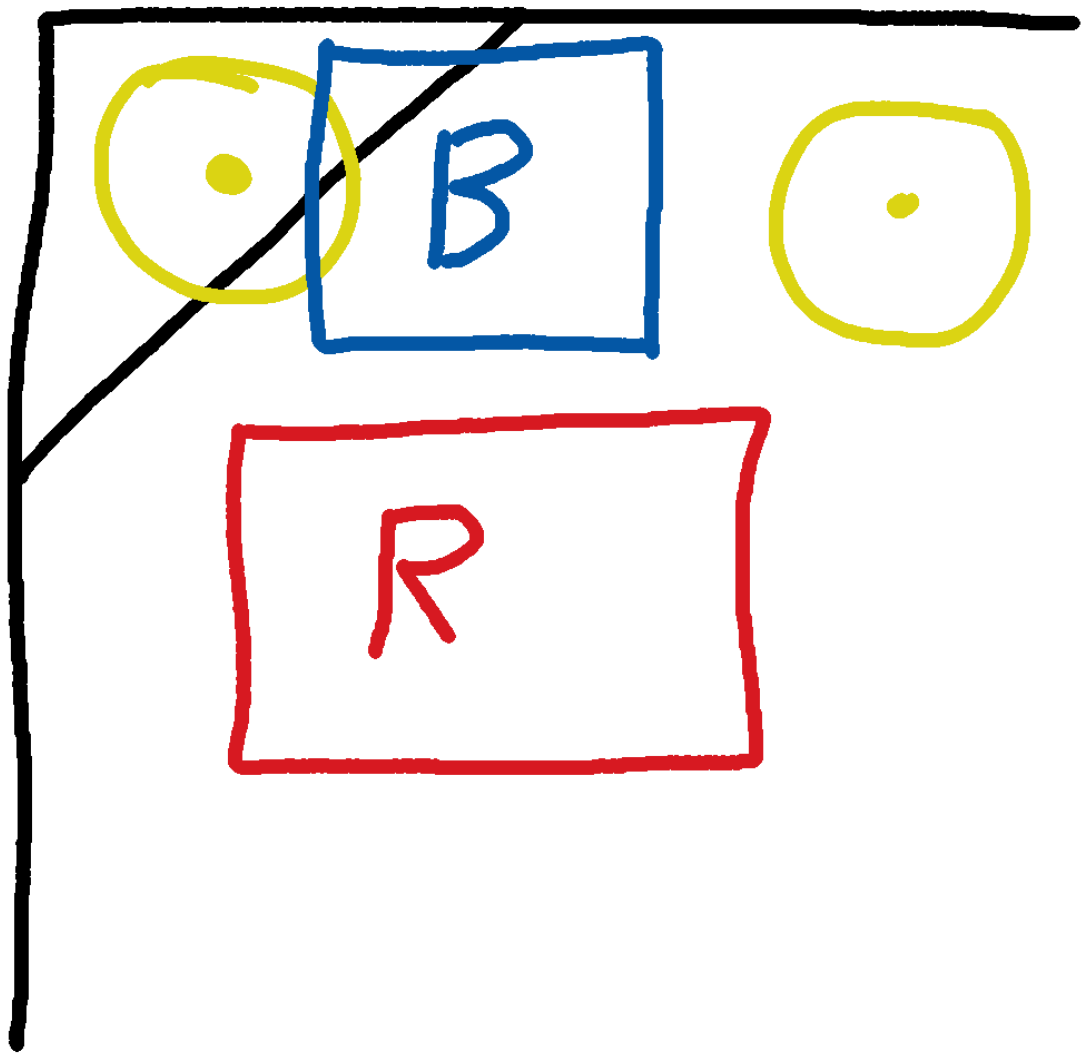
Thank you

> **Answered by committee**
>
> Thank you for pointing out this discrepancy. If a Robot is not actively trying to escape, it should not be considered Pinned or Trapped.

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.

2223: Stealing a Mobilegoal

24-Oct-2024
G16 G17

Is it legal to have a mechanism that is used to steal mobilegoal from the other team? More specifically, the idea is to grab into the opponent's mobilegoal while they are carrying it.

> **Answered by committee**
>
> There is no rule that prohibits this. However, if your Robot is in Possession of another Mobile Goal, the scenarios discussed in Q&A 2184 will apply.

22: Other Questions

7-Jun-2018
Center Platform G16 SG10

Can a team extend tabs from their robot which extend out over the edges of the center platform to keep them on when an opponent is attempting to push them off? This is assuming they do not grapple the platform in any capacity, so they don't "exert force or pressure on opposite sides of an object to control its position."

Can a team use a potential energy based series of actions which begins as time runs out, enabling them to score or descore after time has expired?

> **Answered by committee**
>
> Please review the Q&A Usage Guidelines before posting, specifically points 3 (quote the applicable rule), 4 (make a separate post for different questions), and 5 (use specific and appropriate question titles).
>
> - *Can a team extend tabs from their robot which extend out over the edges of the center platform to keep them on when an opponent is attempting to push them off? This is assuming they do not grapple the platform in any capacity, so they don't "exert force or pressure on opposite sides of an object to control its position."*
>
> It sounds like you're referring to SG10, quoted here for reference:
>
> *<SG10> Don't clamp your Robot to the field. Robots may not intentionally grasp, grapple or attach to any Field Elements, including the Platforms. Strategies with mechanisms that react against multiple sides of a Field Element in an effort to latch or clamp onto said Field Element are prohibited. The intent of this rule is to prevent Teams from both unintentionally damaging the field and/or from anchoring themselves to the field.*
>
> It is impossible to provide a blanket ruling on a hypothetical design. However, a static mechanism which extended past the edge of the Center Platform and did not clamp or anchor the robot to it would likely not violate this rule. A mechanism which reacted against multiple sides of the Center Platform, anchoring or latching the Robot to it, would likely violate this rule.

Of course, this assumes that no other rules, such as SG2, are violated in the process.

- *Can a team use a potential energy based series of actions which begins as time runs out, enabling them to score or descore after time has expired?*

Please see G16, quoted here for reference:

<G16> It's not over until it's over. Scores will be calculated for all Matches immediately after the Match, once all Game Objects, Field Elements, and Robots on the field come to rest.

Provided that no Robot or Safety rules were violated, there are no rules prohibiting this, and the scores would be calculated once all robots and game objects have come to rest. That said, please remember G2 - "common sense always applies in the VEX Robotics Competition".

207: Autonomous mode

11-Jan-2019
Programming Skills Challenge G16

In Autonomous mode as per <PSC1> A Team may handle their Robot as many times as desired during a Programming Skills Match.

We want to bring the robot back to base after the first mission (example push the hubs to the final target) and run the next mission (robot hang on the bar) from the base. Pls let us know if this is allowed.

Answered by committee

Please review the Q&A Usage Guidelines before posting, specifically point 2, "Read and search existing Q&A's before posting."

Your question appears to be similar to this Q&A post, as well as the other post that it links to. If these do not answer your question, please feel free to rephrase and re-submit.

https://www.robotevents.com/VIQC/2018-2019/QA/141