

Q&A

VEX IQ Robotics Competition 2024-2025: Rapid Relay

Tagged: G10

Welcome to the official VEX IQ 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 VIQRC Rapid Relay 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 VIQRC Rapid Relay rules questions.

- For event, registration, or other competition support questions, please contact your [REC Foundation Regional Support Manager](#).
 - For VEX technical support, contact support@vex.com or sales@vex.com.
- For game questions, suggestions, or concerns outside of specific and official rules questions, contact GDC@vex.com

Index

[Ball inside cube, both are "out of the field"](#)

[Cube](#)

[Returning Game Elements Back to Field](#)

[Do teams have to put their controllers down at the end of a match?](#)

[What if a robot continues lifting after the buzzer but the controller is down?](#)

[Resetting](#)

[can we retrieve the ball after a missed so called "china loading"](#)

[Passing with a robot getting fixed](#)

[G10: Potential typo, referencing non-existing clause D of SG3](#)

[cannot shoot while holding the ball](#)

[Must drivers put controller down at the end of the match and do they lose a high hang if robot drops only because of putting controller down](#)

[Parts Knocked Off Mid-Match](#)

[Definition of controlling in the context of <RSC8> and <G10>](#)

[Legality of Crossing Into the Field](#)

[Clarification of <S1> as it pertains to <RSC5> \(autonomous\) and <G10> \(general\) - robot motion while repositioning/repairing](#)

[Clarification of a "damaged" robot for the Violation Note of <G10>](#)

[Accidentally Knocking Off Red Block](#)

[Driving the Robot while one team member \("non-active driver"\) is outside of the Driver Station](#)

[Hanging robots](#)

[<G10> and the Vision Sensor](#)

513: Ball inside cube, both are "out of the field"

28-Jan-2020

G10 Scoring

A ball and a cube both leave the field as described in **G10** , with the ball coming to rest inside the cube. Going strictly by the definition of **scored** , the ball meets all conditions.

In <https://events.vex.com/VIQC/2019-2020/QA/308> the cube was considered scored because it met all conditions despite touching the actual floor outside of the field

In <https://events.vex.com/VIQC/2019-2020/QA/414> the cube that was "out of the field" was determined to be ineligible for gameplay.

Would the ball not be considered scored because the cube is "out of the field"?

Answered by committee

As noted in your linked Q&A 414, a Game Object which is "outside of the vertical projection of the Field Perimeter and no longer in contact with the Field, Field Elements, other Game Objects, or Robots", is now considered "out of the Field", and is ineligible for gameplay. "Ineligible for gameplay" is intended to encompass "ineligible for any Scoring".

No, the Ball would not be considered Scored.

424: Cube

15-Nov-2019

G10

How many cubes can a robot pick up at one time?

Answered by committee

There are no rules limiting the number of Cubes a Robot may pick up at one time.

354: Returning Game Elements Back to Field

9-Sep-2019

G10 G17

This year game elements that leave the field during the match are not returned to the field per rule <G10>.

If a robot is still holding onto a cube or ball but it touches the floor outside of the field can the team still bring this element back into the field as long as it never left contact with the robot?

Would a team be able to utilize <G17> to handle their robot and put the cube/ball back into play, or should this cube/ball be considered to have left the field?

Answered by committee

Would a team be able to utilize <G17> to handle their robot and put the cube/ball back into play, or should this cube/ball be considered to have left the field?

In the future, please quote the applicable rules from the Game Manual so that future visitors can have a better understanding of a question's context.

G10 states the following, with a portion bolded for emphasis:

<G10> Keep Game Objects in the Field. Game Objects that leave the Field during a Match will not be returned. "Leaving the Field" means that a Game Object is outside of the vertical projection of the Field Perimeter **and no longer in contact with** the Field, Field Elements, other Game Objects, or **Robots**.

G17 states the following, with a portion bolded for emphasis:

<G17> Handling the Robot mid-match is allowed under certain circumstances. If a Robot goes completely outside the playing Field, gets stuck, tips over, or otherwise requires assistance, the Team's Drivers may retrieve & reset the Robot. To do so, they must:

- a. Signal the Head Referee by placing their VEX IQ Controller on the ground.
- b. Move the Robot to any legal Starting Position.
- c. **Any Game Object being controlled by the Robot while being handled must be removed from the Robot and gently placed in a non-Scored position by the Team.**
- d. Any Game Objects in the Starting Position may be moved out of the Starting Position and gently placed into a non-Scored position by the Team.

This rule is intended so Teams can fix damaged Robots or help get their Robots "out of trouble." It is not intended for Teams to use as part of a strategy to gain an advantage during a Match, including via moving Game Objects per parts c and d above. If a Head Referee sees Teams strategically exploiting this rule, they may be Disqualified from said Match.

Per G10, as long as the Game Object was still in contact with a Robot, then it has not "left the field". Therefore, G17c can be utilized to return the Game Object to a non-Scored position.

32: Do teams have to put their controllers down at the end of a match?

5-Jul-2018

Tournament Structure Hanging G10

At the 2018 VIQC World Championships teams were asked to put their controllers down at the end of a match. In addition I believe it is common practice for refs to ask them to.

The definition of *match stop time* says that students put their controllers down to set their match stop time if they want to end early.

As far as I can see the manual never states that teams must put their controllers down at the end of a match. This would possibly allow a team to hold onto their controller and keep pressing a button to keep their robot high hanging.

Please could you clarify what teams can/must do with their controllers at the end of a match. I request a rule be added that requires teams to put the controllers down as they can use software to hold the robot up if they want to.

Answered by committee

The end of the match procedure is currently defined by G10:

<G10> When it's over, it's over. Scores will be calculated for all Matches immediately after the Match is complete and once all objects on the Field come to rest. Any Scoring, Removing, Parking, or Hanging that takes place after the Match due to Robots continuing to drive will not count.

The key words in this rule are "Robots continuing to drive". The intent of this rule is for all Driver inputs and all Robot motion to cease at T=0. Holding a button down to continue moving after a Match would be outside the intent of this rule. However, a Robot holding its position steady (i.e. the default Driver Control behavior) would be permissible.

We highly recommend that Drivers place their controllers on the ground, or otherwise let go of them, to make it perfectly clear to referees that they have stopped driving. However, it is not an explicit requirement of the rule. We will look at clarifying this further in the August manual update.

30: What if a robot continues lifting after the buzzer but the controller is down?

20-Jun-2018

Hanging G10

Let's say that a team has latched onto the bar and they can push a button to lift the robot autonomously. So the team pushes the button and sets the controller down with 1 second left. The robot earns a low hang at the time the buzzer rings, but continues to lift until the robot high hangs. Should the robot get credit for this as the team was not controlling it, or should the referee try to determine where the robot would be hanging if it had stopped with the buzzer?

Thanks!

Answered by committee

Please see G10, quoted here for reference:

<G10> When it's over, it's over. Scores will be calculated for all Matches immediately after the Match is complete and once all objects on the Field come to rest. Any Scoring, Removing, Parking, or Hanging that takes place after the Match due to Robots continuing to drive will not count.

Initiating an autonomous routine just before the timer hits zero that caused the Robot to continue moving would be considered Hanging after the Match, and would not count. In the case where a Robot does continue to move after the match, the referee should use their best judgment to determine if the Robot had made it to the High Hang point when the timer hit zero. If it is too close to call, then it should be considered a Low Hang.

2591: Resetting

1-Mar-2025

G10

[<G10>](#) Hello REC!

From the rule G10, it tells us rule about resetting the robot in matches, there are some question that I want to ask if it is legal (Teamwork matches):

1. Robot is stuck in the field, and it is too big which need 2 person to reset the robot, can the two driver place their controller on ground and go reset the robot? 2.Can the driver that is not controlling/driving go reset the robot?
2. Can the student reset the robot without asking the referee?
3. Can the student reset the robot by place or push the robot to the starting zone while didn't affect the balls and your alliance? (I want to ask can we reset while the bot didn't leave the field)
4. Is there a number of limit of resetting in a game match?

Thank you! 5491M

Answered by committee

1. Robot is stuck in the field, and it is too big which need 2 person to reset the robot, can the two driver place their controller on ground and go reset the robot?

Yes, but as described in rules [<S1>](#) & [<G10>](#), Students are not permitted to step into the Field at any time during a Match, including while resetting the Robot.

2. Can the student reset the robot without asking the referee?

No. Signalling the referee is the first step in a legal Robot reset, as listed in rule [<G10>](#).

3. Can the student reset the robot by place or push the robot to the starting zone while didn't affect the balls and your alliance? (I want to ask can we reset while the bot didn't leave the field)

There is no requirement that the Robot be removed from the Field during a [<G10>](#) reset.

4. Is there a number of limit of resetting in a game match?

No, but Teams are not allowed to use rule [<G10>](#) as a strategy. Resetting a Robot that is not stuck, tipped over, damaged, or otherwise inoperable should result in a Major Violation and Disqualification for the Match if the Robot participates in game play after the reset.

2586: can we retrieve the ball after a missed so called "china loading"

27-Feb-2025

G10 RSC8

Many teams are doing so called "China loading" now where the ball is retrieved directly from the loading station after it leaves the loader's hand and before it touches the ground of either left or right side.

Some teams are also use 2 very long wall riders to align the robot, an example of this is shown in <https://www.youtube.com/shorts/mjQIXh7A7rc>.

The drawback of this approach is that if the robot enters the loading zone too late and the ball falls to the ground, the 2 wall riders will block the partner's robot from retrieving that ball as well.

According to [<RSC8>](#), all balls on the field can be retrieved if the robot is reset back to the starting zone, does this apply to team match event as well? It seems didn't mentioned according to [<G10>](#)

If this is not allowed, according to <https://events.vex.com/VIQRC/2024-2025/QA/2174>, reattaching parts is allowed, can the team members simple remove the 2 wall riders during a reset, this will unblock the path and at least allow the partner robot to retrieve the ball in the loading zone.

Answered by committee

According to RSC8, all balls on the field can be retrieved if the robot is reset back to the starting zone, does this apply to team match event as well?

No. [<RSC8>](#) only applies in Autonomous Coding Skills Matches. Balls on the Field during a [<G10>](#) reset remain in play and cannot be contacted by Drive Team Members unless they are being controlled by the Robot that is being handled, as described in clause B of [<G10>](#).

If this is not allowed, according to <https://events.vex.com/VIQRC/2024-2025/QA/2174>, reattaching parts is allowed, can the team members simple remove the 2 wall riders during a reset, this will unblock the path and at least allow the partner robot to retrieve the ball in the loading zone.

No. The Robot in your scenario is not broken, disabled, inoperable, or stuck, and the Violation Note following rule [<G10>](#) would apply if the Team were to handle the Robot. Resetting this Robot would count as a strategic exploit, and should result in a Major Violation and Disqualification for the Match if the reset Robot participates in later game play.

Additionally, per rule [<G6>](#), "Robots may not intentionally detach parts or leave mechanisms on the Field during any Match." This would apply in situations where a Team intentionally removes Robot parts or mechanisms during a legal (or illegal) Robot reset under [<G10>](#).

2546: Passing with a robot getting fixed

17-Feb-2025

G10 SC5

[<G10>](#)

When a robot needs assistance while on the field a student must:

1. Put their controller down
2. Remove any balls in their possession (getting "controlled" by robot)
3. Assist the robot as necessary
4. Replace the robot in a legal starting position

G10 does not currently require that the robot is removed from the field while assisting it, whether that is reattaching pieces, putting wheels back on etc.

[<SC5>](#)

A pass is counted after:

1. Both robots have independent contact with the ball
2. The ball having met the above criteria has not already been counted for a pass
3. The ball has not been "rapid loaded"

SC5 does not currently exclude robots that are being assisted through G10 from receiving a pass.

Here are a couple important scenarios to consider:

1. Should a pass be counted if the robot still driving on the field grabs a new ball from the load station and pushes it into the robot getting fixed?
2. Should that same pass as described above still count if the robot is moved into the ball by the drivers that are fixing the robot? (My thoughts right now are that 1 should count but that 2 would be in violation of G10 based on the violation notes describing possible exploitation of this action)
3. Should a pass be counted if a robot being assisted touched a ball before being assisted but was not controlling it when enacting G10, and the robot still driving then goes over and touches the ball?
4. Should teams be required to remove their robots from the field if they are fixing something over a length of time?

The questions I'm posing revolve around the specificity of G10, and whether or not robots are treated the same while being assisted or not. I believe that 1 and 3 should be considered passes, and that 2 would be violating G10.

Answered by committee

Robots being handled during a [<G10>](#) interaction are effectively "out of play." Robot contact with a Ball during a [<G10>](#) interaction should not count toward a Pass.

As described in the Violation Notes for [<G10>](#), "Strategically exploiting this rule may be considered a Minor Violation or Major Violation at the Head Referee's discretion." This would include intentionally moving the Robot to affect game play during a Robot reset.

Your scenario 3, in which the Robot was contacting the Ball before being handled through [<G10>](#), could still be recorded as a legal Pass.

Teams are not required to remove their Robots from the Field during [<G10>](#) or [<RSC8>](#) interactions.

2485: G10: Potential typo, referencing non-existing clause D of SG3

30-Jan-2025

G10

In Version 3.0 of the game manual rule [<G10>](#) still references clause D in [<SG3>](#) which does not exist. Should G10.b.ii be ignored, or does it mean to reference another clause?

- ii. Clause d of [<SG3>](#) applies to Balls that are removed from the Field during the last 15 seconds of the Match

Answered by committee

Thank you for pointing out this error. Clause Bii of rule [<G10>](#) can be disregarded and will be removed in the next game manual update.

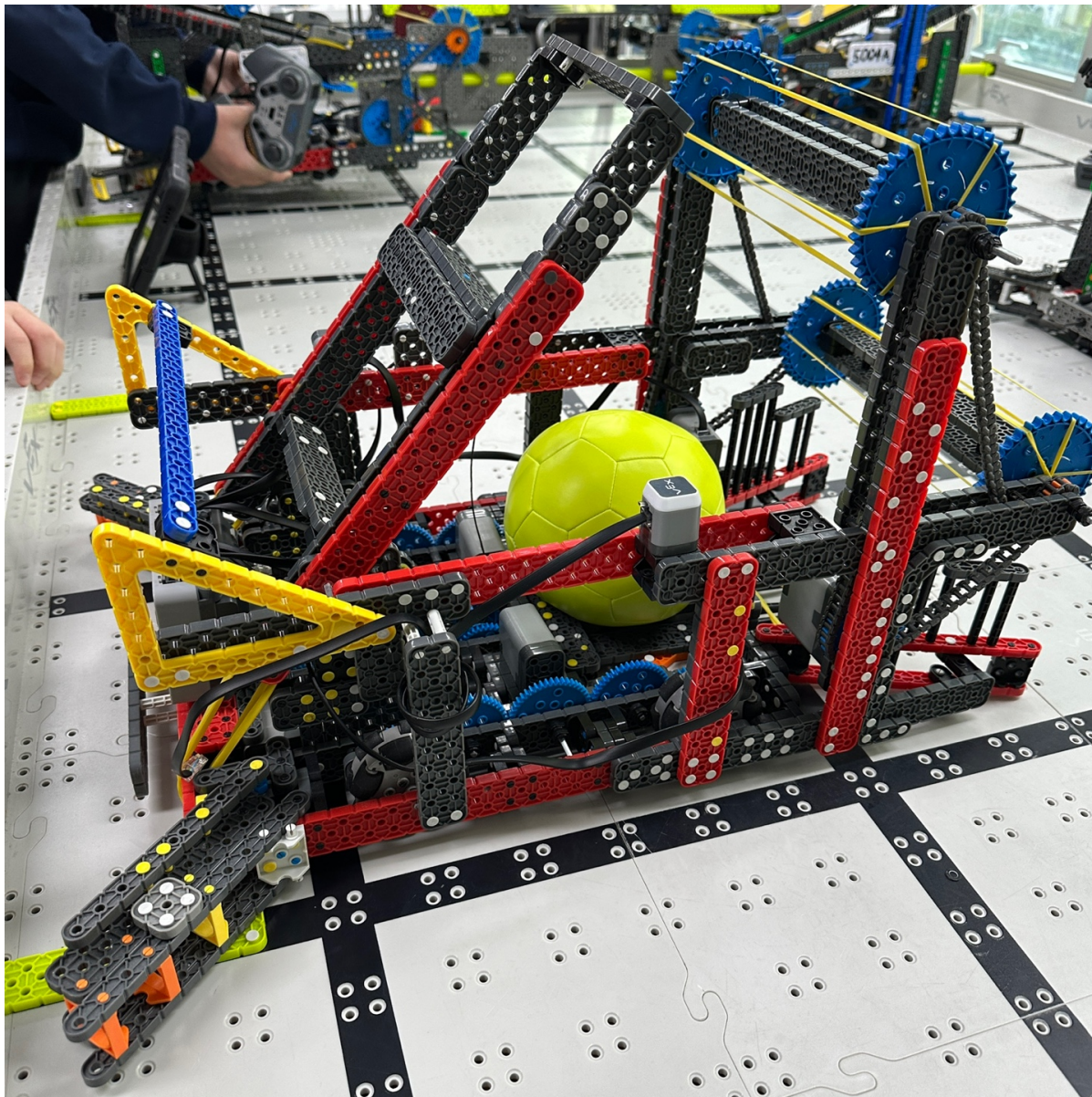
2408: cannot shoot while holding the ball

22-Dec-2024

G10

[<G10>](https://events.vex.com/storage/game_manual/VEX_IQ_Robotics_Competition_2024-2025_Rapid_Relay/rules/G10.html)

In a situation where a robot intakes the ball under the catapult and can no longer perform a shooting action, can the ball be removed according to 'G10' and restarted from the starting zone?



Answered by committee

Yes, an inoperable mechanism could be a legal reason to retrieve and reset the Robot and Ball as described in rule [<G10>](#).

240: Must drivers put controller down at the end of the match and do they lose a high hang if robot drops only because of putting controller down

11-Feb-2019

G10 Hanging

Hello,

At a recent match, another team was told they must put their controller down. Their robot was clearly high hanging. However, when releasing the button controlling the arm motors, it dropped. Only One point for parking was awarded. However, the rules state the scoring should occur immediately at the conclusion of the match after all components have come to rest. They were until being forced to drop their controller. Another rule says common sense should dictate enforcement of the rules. As it was ruled, both teams lost 3 points that was there when the match ended. It changed the placement of teams for Finals and resulted in a team earning a state spot that might not have otherwise. Followup

question to be specific to Grant Cox's suggestion: Should the team have received a high hanging score?

Answered by committee

We believe that this general question is answered by [this similar Q&A post](#), and that your specific question is answered by this portion of that post:

The intent of this rule is for all Driver inputs and all Robot motion to cease at T=0. Holding a button down to continue moving after a Match would be outside the intent of this rule. However, a Robot holding its position steady (i.e. the default Driver Control behavior) would be permissible.

Thus, a Robot which can not High Hang without Driver inputs after T=0 should not receive points for High Hanging.

2174: Parts Knocked Off Mid-Match

4-Oct-2024

G10 G6

Rule [<G6>](#) includes the note:

Note: Adding or replacing mechanisms on a Robot mid-Match is considered a Violation of the intent and spirit of this rule.

Does this mean that if a piece breaks off a robot Mid-Match the team members are not allowed to repair it, as allowed in [<G10>](#)? What is considered a mechanism? Is it one piece or a collection of pieces(how many?)?

I understand that teams should not use part detachment as a part of their team's strategy, but is the intent of this rule to not allow team members to repair their robots Mid-Match?

Answered by committee

Repairing a Robot, or reattaching parts of the Robot that fall off during a Match, is allowed. Rule [<G10>](#) and its note specifically allow Drive Team Members to fix damaged robots during a match.

The note you quoted from rule [<G6>](#) is intended to prevent Drive Team Members from swapping one mechanism for another or adding entirely new parts to the Robot mid-Match. Swapping one set of parts for another, or adding new pieces to a Robot during a Match, is *not* allowed.

We will attempt to clarify this language in the next game manual update, and for future seasons.

2152: Definition of controlling in the context of <RSC8> and <G10>

24-Sep-2024

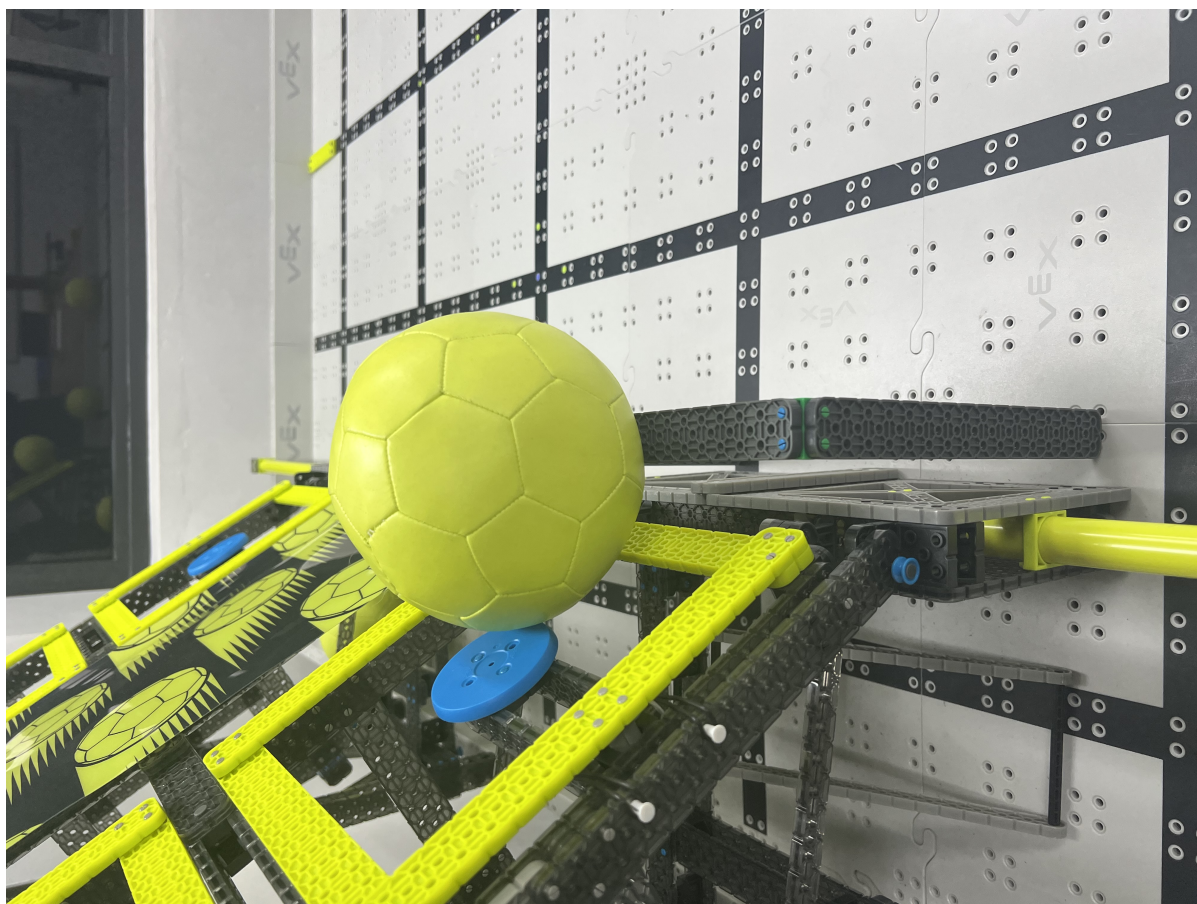
G10 RSC8

[<G10>](#) provides a definition of "controlled" for teamwork matches, but [<RSC8>](#) is listed as an explicit exception to [<G10>](#). Should the definition for "controlled" from [<G10>](#) also apply to [<RSC8>](#)?

Secondly, if a robot is partially surrounding a ball, or the ball is in a concave part of the robot but not contacting it, would the ball still be considered being controlled? If the robot's concavity results in the ball being moved when the robot turns as per [<G10>](#), should this still be considered controlling the ball?

Thirdly, if a robot is supporting a ball that is also supported by the goal or goal wall, is this considered controlled by the robot? This could involve three scenarios after the robot is pulled away:

1. the ball remains partially in the goal due to the switch mechanism squeezing it,
2. the ball falls down onto the field tiles, out of the goal once the robot is handled (attached image).
3. the ball falls through the goal wall, would the ball be considered scored or removed?.



Scenario 3 video: <https://sydneyrobotics.sharepoint.com/:v:/s/srstaffgroup/Eds6-pBhY01KI75J2-geoABDPoeJZxbP9Sz3B6WvOEJvg?e=d93bjg>

Answered by committee

Thank you for your questions!

Yes, the definition for "controlled" in rule [<G10>](#) applies to rule [<RSC8>](#). The blue box following rule [<RSC8>](#) will be revised in the next game manual update to read (bold added here for emphasis), "This rule is an explicit exception to **rule <G9> and the Violation Note for <G10>**, and may be used as part of a Team's strategy for Autonomous Coding Skills Matches. Driving Skills Matches are still governed by [<G9>](#) & **the Violation Note for <G10>**, especially for strategic violations." This change is effective immediately.

Yes, as described in clause Bi of rule [<G10>](#), "... if the Ball moves with the Robot either vertically or while turning, then the Robot is "controlling" the Ball."

If a Ball is supported between the Robot and the Goal Wall at the beginning of a robot reset under either [<G10>](#) or [<RSC8>](#), if the Ball falls through the Goal Wall or remains 'stuck' in a Target after the Robot is removed, that Ball should not be considered as controlled by the Robot. If the Ball falls into the field or otherwise moves with the Robot, it should be considered as controlled by the Robot. Teams should be very careful in these scenarios to avoid intentionally moving a Ball through a Target during a Robot reset to ensure that it is clear to the Head Referee that the Team is not using the reset as a strategy to score the Ball.

2121: Legality of Crossing Into the Field

6-Sep-2024

G10 SG6 G9

<SG6> states:

[The Loader] may not reach into the Field until the Ball contacts the Floor [of the Pickup Zone]

Furthermore, the subsequent Note provides advice on keeping hands in a staging area.

1. This implies that "into the Field" means crossing the imaginary plane along the outer edge of the field perimeter. The definition of "Field" in the manual does not state that a Field is an infinitely high 3D volume. Is this the correct interpretation of "into the Field"?
2. Does <SG6.a> apply to all Loaders in the Match, including ones not near the Pickup Zone? For example, a second Loader is waiting to catch a ball at the Loading Station. May that Loader's body cross the plane "into the Field" while waiting, or must all Loaders wait until a Ball touches the Pickup Zone floor before reaching "into the Field"?
3. Related, <G10> states "Students cannot step *into the Field* at any time". The term "step" implies a foot is involved. So is it OK for driver hands to pass the plane "into the Field", or must they also take care to never cross the plane?
4. Moreover <G9> has the heading "Hands out of the Field" but otherwise says nothing about hands merely crossing into the field volume, only about contacting things. Does "Hands out of the Field" also mean that Drivers must never cross the plane?

Thank you for any clarification.

Answered by committee

Loaders should not reach past the Field Perimeter until the Ball contacts the Floor. This limitation only applies to a Loader who is waiting for that Ball at the Pickup Zone.

There is not a rule in the game manual that prohibits hands or other body parts from passing over the Field, although an Event Partner may add additional restrictions under rule <T4> if they don't affect how the game is played. For example, an Event Partner may request that Students avoid reaching over the Field while not interacting with Robots or Balls, to avoid blocking an overhead camera view.

1951: Clarification of <S1> as it pertains to <RSC5> (autonomous) and <G10> (general) - robot motion while repositioning/repairing

12-Feb-2024

S1 G10 RSC5

<G10><S1><https://events.vex.com/VIQRC/2023-2024/QA/1820>

Has there been a clarification or rule change since QA 1820 (linked above) has been issued? Specifically: 1 - If an intake is in motion can the robot be reset during autonomous periods without stopping the program first? 2 - If the robot's drive train is still running can the robot be reset while the wheels are in motion (waiting for the running program to stop before placing it on the field)? 3 - If <S1> has been clarified to mean all motion must stop before the robot can be positioned is it allowable to use a touch LED to perform this control instead of stopping the running program (e.g. to preserve gyro calibration)? 4 - Are the above questions applicable to driver skills and teamwork challenges as well (via <G10>)?

We were informed that this was an official rule change or clarification "from just four days ago" but I can't find it in the Q&A and there isn't a game manual update that I can find that addresses it.

Answered by committee

Please see our response to this similar Q&A post, which we believe will answer your question. If it does not, please feel free to rephrase and re-submit.

<https://events.vex.com/VIQRC/2023-2024/QA/1948>

1870: Clarification of a "damaged" robot for the Violation Note of <G10>

12-Jan-2024

G10

[<G10>](#) Rule <G10> allows a driver to handle their robot mid-match . <G10> Handling the Robot mid-match is allowed under certain circumstances. If a Robot goes completely outside the playing Field, gets stuck, tips over, or otherwise requires assistance, the Team's Drivers may retrieve & reset the Robot.

The Violation Note with <G10> states "This rule is intended to allow Teams to fix damaged Robots or help get their Robots out of trouble".

Should the robot be considered "damaged" in each of these situations and the drivers be allowed to fix it:

1. A robot that has a part become misaligned (like a wheel, tread, rubberband or axle) without contacting anything on the field. (Design or build issue)
2. Another robot contacts it and a part like a rubberband or wheel gets misaligned. (External force to the robot)
3. The robot runs into a wall and a part becomes misaligned. (The robot itself is the cause of the contact)

Answered by committee

Rule [<G10>](#) provides Drivers with a way to repair damage to a Robot, regardless of whether it was caused by their own actions or outside forces.

Regarding whether or not a Team could legally repair their Robot in the specific situations you describe, It is impossible to provide a blanket answer that would encompass all possible hypothetical mechanisms and scenarios. In situations like these, the Head Referee must make a judgment call about whether the Robot requires assistance or the Team is attempting to strategically exploit rule [<G10>](#).

1742: Accidentally Knocking Off Red Block

2-Nov-2023

G10 T8

According to the rules, a red block is considered scored if it is removed from the starting peg at the end of the match.

Removed – A red Block status. A red Block is considered Removed if it is no longer fully supported by a Starting Peg at the end of the Match.

What should be the result of a red block being accidentally knocked off the starting peg, either by a student interacting with their robot as allowed by [<G10>](#) or by bumping the edge of the field?

This should obviously be a DQ for the team that caused the red block to be removed. But based on [<QA1697>](#) it seems like the non-offending team should still get the points for the red block being removed. Is that the correct resolution?

Answered by committee

You are correct. If a Driver accidentally knocks a red Block off of its starting peg while interacting with the Robot or the Field, it should be handled as a Score Affecting Violation of rule [<G9>](#) and the Team should receive a Major Violation and Disqualification for the Match.

If the Disqualification occurs in a Qualifying Match, their Alliance Partner should receive the points for the red Block being removed. If the Disqualification occurs in a Finals Match, both Teams in the Alliance will be Disqualified as described in rule [<T8>](#).

1739: Driving the Robot while one team member ("non-active driver") is outside of the Driver Station

1-Nov-2023

G8 G10 SG3

[<G10>](#)[<G8>](#)[<G10>](#) Allows for driver interaction with ("rescuing") the robot under certain circumstances. To do so, they must signal the Referee by placing their Vex IQ Controller on the ground. If the non-active driver is the one who leaves the Driver Station to "rescue" the robot, once the robot has been "rescued" and prior to the non-active driver returning to the Driver Station is the active driver allowed to pick up the Controller and start driving the robot? If not, when Blocks leave the field [<SG3>](#), if the non-driver leaves the Driver Station to place a block that has left the field into the Supply Zone, is the active driver allowed to continue to drive the robot?

Answered by committee

Thank you for your questions! Based on the requirements in rule [<G10>](#) the active Driver can resume driving once their Robot has been returned to a legal starting position, providing the Driver switch is correctly made as described in rule [<G11>](#).

The active Driver may continue operating the Robot while the non-active Driver returns a Block to the field. Rule [<G8>](#) will be revised in an upcoming game manual update to correctly reflect that Drivers may leave the Driver Station to return a Block to the Supply Zone as per rule [<SG3>](#).

165: Hanging robots

30-Nov-2018

Hanging G10

Some teams at one of my leagues are arguing that the Game Manual does not explicitly say that **Low Hanging** and **High Hanging** are scored **at the end of the match** the way **Low Scored** and **High Scored** do. They are claiming that they should get credit for hanging if they hang at the beginning of the match and then score hubs until the end of the match. The Referee Training Video Chapter 6 clearly states that referees score parking and hanging at the end of the match, but that video is not usually viewed by teams. My argument that referees can only check whether a robot is parked, low hanging or high hanging at the end of the match did not satisfy them. They are also not convinced that Rule G10 excludes their loophole. I ultimately relied on G10 in combination with the **object of the game** statement on page 3 to justify that referees only score robots hanging at the end of the match. It would help us put this issue to rest if you could provide a clarification that robots only score as **Low Hanging** and **High Hanging at the end of the match**.

Answered by committee

Let's look at the referenced portion of G10:

[<G10>](#) When it's over, it's over. Scores will be calculated for all Matches immediately after the Match is complete and once all Robots and Game Objects on the Field come to rest.

Then, a portion of the definition of Low Hanging (although this point will also apply to High Hanging, Parking, and all other forms of scoring):

Low Hanging – A Robot is Low Hanging if it is contacting the Hanging Bar, not contacting the Floor, and not Supported by any Hubs.

So - scores are calculated at the end of the Match, and Low Hanging has a very specific definition.

Thus, in order for a Robot to receive the points for Low Hanging, it must meet the definition of Low Hanging at the end of the Match.

Your interpretation was correct. Referees are not expected to remember if points have or have not accumulated during a Match, as points are not officially assigned until the Match is complete.

1462: <G10> and the Vision Sensor

17-Feb-2023

G10

<G10> states: "During the Autonomous Period, Drive Team Members are not permitted to interact with the Robots in any way, directly or indirectly. This could include, but is not limited to: • Activating any controls on their V5 Controller(s) • Unplugging or otherwise manually interfering with the field connection in any way • Triggering sensors (including the Vision Sensor) in any way, even without touching them"

At our last competition during the autonomous period of a qualification match, someone on the drive team of the opposing alliance deliberately revealed a red shirt which triggered our vision sensor and caused our turret to aim at them and shoot them with a disc.

I have talked to some other people about this problem, and they think that <G10> only applies to a Drive Team that interacts with/triggers the sensors of their **own** robot. To me, the fact that "Drive Team Members" and "Robots" are plural means that it doesn't matter who is interacting with what robot. Am I interpreting this rule correctly in that no Drive Team Member is allowed to trigger our vision sensor during the autonomous period, whether it's our own Drive Team or another Drive Team?

I hope I have explained this well. Thanks!

Answered by committee

As you quoted in your question, rule [<G10>](#) prohibits Drive Team Members from interacting with **the Robots** (emphasis added here), including triggering sensors. This rule refers to all Robots on the Field for a Match, regardless of their Team affiliation or Alliance.

Deliberately triggering a Vision Sensor during the Autonomous Period of a Match is a violation of rule [<G10>](#) and potentially [<G11>](#). If the Head Referee determines that triggering the Vision Sensor affected the outcome of the Autonomous Bonus, the Autonomous Bonus should be awarded to their opponent as described in [<G11>](#). If the Head Referee determines that the violation was Match Affecting, the Team should receive a Major Violation and a Disqualification for the Match.