

Q&A

VRC 2023-2024: Over Under

Tagged: G9

Welcome to the official VEX Robotics Competition Question & Answer system, where all registered teams have the opportunity to ask for official rules interpretations and clarifications. This Q&A system is the only source for official VRC Over Under rules clarifications, and the clarifications made here from the Game Design Committee (GDC) are considered as official and binding as the written [Game Manual](#) itself.

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

- For event, registration, or other competition support questions, please contact your [REC Foundation 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

[Tipping Point Tall Goal goes out of the field](#)

[How to Referee the unintentional shifting of cubes while strategically placing cube with RSC5 rule](#)

[Using Flags from Turning Point](#)

[G9 Note clarification in regards to Q&A 2541](#)

[\[G9\]\[SC2\] Hands and Scenarios Involving Autonomous Losses](#)

[\[G9\] Pairing Controller at Field](#)

[Can a loader use a tool \(a 1x20 beam for example\) influence the ball to exit the loading station in a particular direction?](#)

[Intentional versus nonintentional contact with a field element](#)

[<T5> Robots arriving late to a match](#)

[Can robot pass outside the field perimeter](#)

[Legality of Crossing Into the Field](#)

[2 hands one triball](#)

[Matchloading and Q&A 1777 Clarification](#)

[Transitive Triball contact while match loading](#)

[SG1, G9 - Teams Positioning the matchload bar](#)

[<G9> Pushing a Robot Before Drive Team Can Touch](#)

[<G9> Legally Touching Robot Out of Reach from Driver Station](#)

[Robot crashes or disconnects](#)

832: Tipping Point Tall Goal goes out of the field

27-Jul-2021

G9



During our first practice the tall goal ends up tipping over in front of a team member. The team member touches the goal with his hands (from natural instinct) to stop it from hitting him...what should happen?
Does the team get warned or worse? Since the goal is touching the field wall it counts as zero at the end of the match?

Thanks for your input.

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 G9 reads as follows, with some portions bolded for emphasis:

<G9> Hands out of the field. Drive Team Members may only touch the Team's controls and Robot at specified times during a Match as per <G9a>. **Drive Team Members are prohibited from making intentional contact with any Scoring Objects, Field Elements, or Robots during a Match**, apart from the contact specified in <G9a>.

a. During the Driver Controlled Period, Drive Team Members may only touch their own Robot if the Robot has not moved at all during the Match. Touching the Robot in this case is permitted only for the following reasons:

i. Turning the Robot on or off.

ii. Plugging in a battery.

iii. Plugging in a V5 Robot Radio.

iv. Touching the V5 Robot Brain screen, such as to start a program.

b. Drive Team Members are not permitted to break the plane of the field perimeter at any time during the Match, apart from the actions described in <G9a>, and when introducing Match Load Rings, per <SG8>.

c. Transitive contact, such as contact with the field perimeter that causes the field perimeter to contact Field Elements or Scoring Objects inside of the field, would be considered a violation of this rule.

Minor violations of these rules 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 scenario described by this question would require a Head Referee judgment call as to whether the contact was intentional and/or Match Affecting. We would advise Drive Team Members to be mindful of this risk when attempting to Elevate Mobile Goals.

Does the team get warned or worse?

If the contact is determined to be accidental and non-Match-Affecting, then this would be considered a minor violation, and the Team would receive a warning.

Since the goal is touching the field wall it counts as zero at the end of the match?

Please see this similar Q&A post, which explains the rules for scoring Mobile Goals which are contacting the field perimeter:

<https://events.vex.com/VRC/2021-2022/QA/831>

537: How to Referee the unintentional shifting of cubes while strategically placing cube with RSC5 rule

5-Feb-2020

G9 G17 RSC5

With RSC5 allowing teams to move cubes to a 'strategic' position in Programming Skills, the most common place to move the cube is along the wall, inside a Blue/Red cube.

<RSC5> A Team may handle their Robot as many times as desired during a Programming Skills Match. b. Any Game Objects 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.

As a Skills Referee, how do we handle the situation when a team uses RSC5 to move a cube in between the wall and a Blue/Red cube, but unintentionally bumps/moves/shifts the position of the cube that was already there.

1. Would this fall under G9 where "Drivers are prohibited from making intentional contact with any Field Element, Game Object, or Robot during a Match, except for the allowances..". It is match effecting, it determines whether a team can get 10 more points, moving them up/down in the rank. If so, how do we decide to warn or DQ in this situation.
2. If no warning or DQ, then what do we do about the cube that was shifted? Leave it? Move it back?
3. Or do we do nothing. Just ignore that the students unintentionally shifted game elements while they strategically place a cube?
4. Or do you have other insight in how to handle this?

Can you help me give a skills referee direction in how to handle this specific situation for an upcoming State Championship?

Answered by committee

We believe this question is answered in [this similar Q&A](#), specifically the following portion:

It is impossible to issue a blanket ruling that would encompass all hypothetical states of the field / Cubes. That said, any interaction between a Driver and a Game Element (that is not being reset per G17) would be considered a violation of G9.

Regarding your questions 2, 3, and 4, it should be handled as any other G9 violation would be handled.

Violations of this rule will result in a warning for minor offenses that do not affect the Match. Score affecting offenses will result in a Disqualification. Teams who receive multiple warnings may also receive a Disqualification at the Head Referee's discretion.

Note: Accidental contact may result in a warning, Disqualification, or Disablement at the Head Referee's discretion.

360: Using Flags from Turning Point

20-Sep-2019

G9

In an earlier question it was confirmed that parts from the IQ game Bankshot would be deemed legal to use as Lexan. I wanted to verify that the Flags and the platform fit under the same ruling.

Answered by committee

In an earlier question it was confirmed that parts from the IQ game Bankshot would be deemed legal to use as Lexan. I wanted to verify that the Flags and the platform fit under the same ruling.

This is the Q&A that you are referring to:

<https://events.vex.com/VRC/2019-2020/QA/325>

The response references R9, quoted here and bolded for emphasis:

<R9> A limited amount of custom plastic is allowed. Robots may use non-shattering plastic from the following list; polycarbonate (Lexan), acetel monopolymer (Delrin), acetal copolymer (Acetron GP), POM (acetal), ABS, PEEK, PET, HDPE, LDPE, Nylon (all grades), Polypropylene, FEP; **as cut from a single 12" x 24" sheet up to 0.070" thick.**

The Turning Point Flags are made of polycarbonate, and have a thickness of 1.6mm (0.063"). Therefore, they meet the constraints listed in this rule, and would be legal.

The Turning Point Platforms are made of polycarbonate, but are 2.4mm (0.094") thick. Therefore, they do not meet the constraints listed in this rule, and would not be legal.

2558: G9 Note clarification in regards to Q&A 2541

20-Feb-2025

G9

The recent Q&A 2541 <https://events.vex.com/V5RC/2024-2025/QA/2541> explicitly allows teams to run a routine prior to a match starting for setup purposes whilst abiding by T6.

As per the G9 Note:

Note: Any concerns regarding Field Element or Scoring Object starting positions should be raised with the Head Referee prior to the Match. Team members may never adjust Scoring Objects or Field Elements themselves.

Teams are not allowed to shift the position of Scoring Objects or Field Elements without the referee involvement. Can the GDC rule on whether this also applies if a robot touches/moves a Scoring Object in a setup autonomous routine or with a drive team member purposefully using the robot to move a Scoring Object without contacting it themselves?

Thank you for your work!

Answered by committee

Yes, the note following <G9> also applies to Robots touching/moving Scoring Objects, excluding Preloads, prior to the Match.

2538: [G9][SC2] Hands and Scenarios Involving Autonomous Losses

15-Feb-2025

G9 SC2

Per rule <G9> it states that

b. Drive Team Members are not permitted to break the plane of the Field Perimeter at any time during the Match, apart from the actions described above. c. Transitive contact, such as contact with the Field Perimeter that causes the Field Perimeter to contact Field Elements or Scoring Objects inside of the Field, could be considered a Violation of this rule.

and per rule <SC2c> it states that

c. Any rule Violations, Major or Minor, during the Autonomous Period will result in the Autonomous Bonus being awarded to the other Alliance. If both Alliances violate rules during the Autonomous Period, no Autonomous Bonus will be awarded.

Examples:

- **Red1's Drive Team** breaks the plane of the field while pointing to strategize with **Red2's Drive Team** near the end of the Autonomous Period.
- **Blue1's Drive Team** is against the field wall and bumps the field perimeter very minorly which shifts a ring slightly on the field.
- **Red2's Drive Team** is against the field wall and bumps the field perimeter which causes the ring on the Alliance Stake to become more firmly Scored on the Alliance Stake.
- **Blue2's Drive Team** is against the field wall and bumps the field perimeter which causes the ring on the Alliance Stake to become Descored from the Alliance Stake.
- **Red1's Drive Team** breaks the plane of the field while pointing to strategize with **Red2's Drive Team** after the end of the Autonomous Period while the Autonomous Bonus is being calculated.

Should any of these actions happen during or after the Autonomous Period from an Alliance, would this be considered a Violation that should affect [<SC2c>](#)?

Answered by committee

We're going to ignore your specific examples in favor of advising Head Referee's to apply rule [<G3>](#), and to state that the intent of rule [<G9>](#) is to prevent Drive Team Members from having direct, tangible effects on the Match.

Pointing into or over the Field is not likely to affect the Match, though Drive Team Members should still be warned against doing so. Bumping the Field wall in a way that changes the location of a Scoring Object *has* affected the Match. If the Team breaks [<G9>](#) in a way that affects the outcome of the Autonomous Period, they should be ineligible to receive any portion of the Autonomous Bonus or an AWP for that Match.

2537: [G9] Pairing Controller at Field

15-Feb-2025

G9

At tournaments this year and large events in the past, teams have been allowed by head referees to pair their controller to their robot given that their Robot has not moved at all during the Match.

Per [<G9>](#) this is not a listed action available to them.

a. During the Driver Controlled Period, Drive Team Members may only touch their own Robot if the Robot has not moved at all during the Match. Touching the Robot in this case is permitted only for the following reasons: i. Turning the Robot on or off ii. Plugging in a battery iii. Plugging in a V5 Robot Radio iv. Touching the V5 Robot Brain screen, such as to start a program

Is pairing a controller to the robot a legal action a team can make if their Robot has not moved at all during a Match?

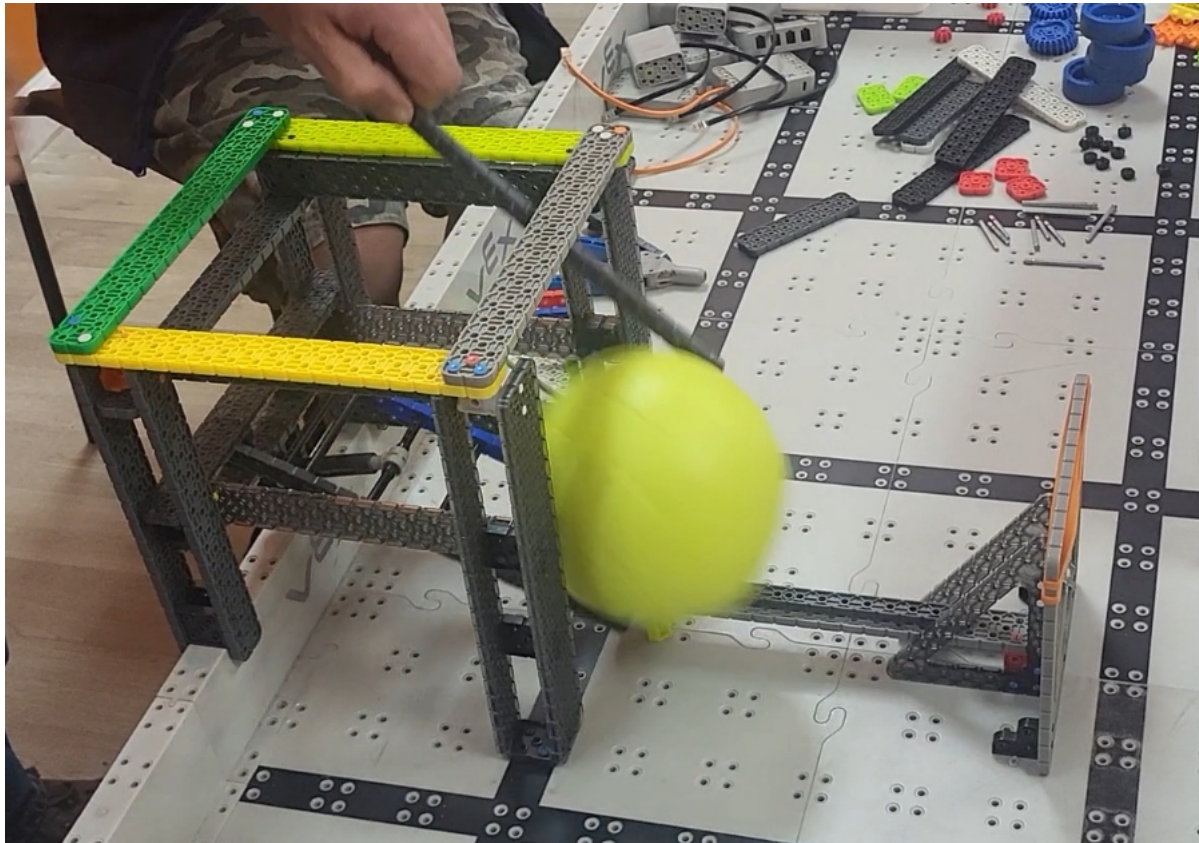
Answered by committee

No.

2519: Can a loader use a tool (a 1x20 beam for example) influence the ball to exit the loading station in a particular direction?

9-Feb-2025

Is the loader allowed to use a something like a beam to influence which way the ball exits the loading station. Example in image:



According to this QA: <https://events.vex.com/VIQRC/2024-2025/QA/2428>

"Provided the human Loader meets all requirements of rule <SG4>, there is no rule against Loaders attempting to influence the Ball to exit the Loading Station in a particular direction."

And SG4 b. states: "The Loader must be the last human to contact the Ball before it is released."

Is this covered by G9?: "During a Match, Drive Team Members are prohibited from making intentional contact with any Field Element, Robot, or Ball that has been introduced to the Field, except for the allowances in <G10>, <RSC8>, <SG4> and/or <SG6>."

Answered by committee

Is the loader allowed to use a something like a beam to influence which way the ball exits the loading station?

No. This is a direct Violation of both <G8> clause C, which disallows materials that simplify the game challenge, and <G9>, which says that a Drive Team Member cannot contact a Ball after it has been introduced to the Field.

2438: Intentional versus nonintentional contact with a field element

14-Jan-2025

Hello, I am wishing to have a clarification of what it means to determine the difference between intentional versus unintentional contact with a field element. The VEX IQ manual describes a field element as "the Field Perimeter, Floor, PVC pipes, and VEX IQ elements that are attached to the field." In trying to fairly referee competitions, we already have rules stating that students cannot walk on the field during a competition, as well as they cannot touch the floor during matches or skills runs. Rule G9 states that "during a Match, Drive Team Members are prohibited from making intentional contact with any Field Element, Robot, or Ball that has been introduced to the Field, except for the allowances in G10, RSC8, SG4, and/or SG6." Would it be fair to state that rule G9 could be rewritten by simply removing the word "intentional?" I am trying to understand the difference about what the exact differences are between intentional and unintentional contact with a field element are? I have witnessed students grabbing the field elements in the Target out of frustration or excitement, as well as students touching the Field Perimeter and Floor unintentionally, but it is still contact. I wish to seek clarification as to what exactly is intentional versus unintentional contact and wonder if this word is truly necessary in the definition. I feel that if teams know that they have to avoid contacting the field or field elements for any reason in order to make it doesn't happen. Otherwise, the definition of what is intentional versus unintentional is completely subjective. I guess I am not sure what types of contact would be considered legal. Two other follow up questions are when exactly does the potential contact with the field become a concern. Obviously during a match there is concern, but if a student touches the field by accident while setting their robot on the field before a competition begins, do we need to be critical of this or would accidentally touching the field while setting up a robot not be a concern? Finally, if students bump their feet against the outside of the field perimeter during a match is this a concern or is this not considered to be a problem or score-affecting? I appreciate the exact clarifications. Thank you. [<G9>](#)

Answered by committee

We'll start by asking you to review the [Q&A Usage Guidelines](#) before posting future questions, specifically note 1, "The Q&A system is for rules clarifications only." Put more pointedly - the Q&A platform is intended to be a communication channel for questions such as "is this interpretation of a rule legal", not a discussion forum for questions such as "I disagree with this rule, can it be changed?" For suggestions or concerns outside of specific and official rules questions, please use the official [VEX Forum](#) or email GDC@vex.com. Much of your post is not in line with these guidelines.

We'll address some of your other questions below.

Hello, I am wishing to have a clarification of what it means to determine the difference between intentional versus unintentional contact with a field element.

Head Referees must use their judgment to determine whether a specific action is intentional or unintentional on a case-by-case basis, and we cannot provide a blanket answer beyond what is written in the game manual. However, in most cases accidental or incidental contact that does not affect the Match should not be considered a Violation. The overall intent of this rule is that the game should be played by Robots, not humans.

When exactly does the potential contact with the field become a concern? If a student touches the field by accident while setting their robot on the field before a competition begins, do we need to be critical of this or would accidentally touching the field while setting up a robot not be a concern?

Rule [<G9>](#) only prohibits contact with Field Elements, Balls, and Robots during a Match (except as specifically allowed by other specific rules), and there is no rule against contacting the Field while placing a Robot before a Match.

Finally, if students bump their feet against the outside of the field perimeter during a match is this a concern or is this not considered to be a problem or score-affecting?

If this affects the Match or its score, it could reasonably be considered an indirect Violation of [<G9>](#) at the Head Referee's discretion.

2312: <T5> Robots arriving late to a match

18-Nov-2024

G9 T5 T6

In the following scenarios a qualification match is scheduled to start and the head referee is ready. Both blue teams have robots on the field and are ready to go. Red 1 is ready and Red 2 arrives in the driver station:

1. While the 3 2 1 countdown before the match is going on
2. During autonomous
3. After autonomous ends but before driver control starts
4. After driver control starts but before the end of the match

In which of the following scenarios will Red 2:

- a) Be considered a no show per [<T5>](#)?
- b) Be allowed to place their robot on the field and participate in the match, considering [<T6>](#) and [<G9>](#)?

Does the answer change if a drive team member is in the drive station before the countdown starts, but the robot arrives at a later point?

Thanks Matthew and Zach :)

Answered by committee

The Red 2 Robot cannot be placed onto the Field in any of these scenarios. Red 2 is too late, and they have missed their opportunity to drive in the Match.

The intent of rule [<T5>](#) is to provide coverage for situations where a Team knows that their Robot won't be functional before their scheduled Match, or shows up to the Match with an issue that cannot be rectified before the scheduled start time.

[<T5>](#) is not intended to be an allowance for a team showing up late to their scheduled match, and Red 2 should receive a no-show in all of these scenarios unless a Drive Team Member was present in their Alliance Station before the 3-2-1 Match countdown begins.

2214: Can robot pass outside the field perimeter

22-Oct-2024

G9

I know hands cannot enter field, but can any parts of my robot pass outside the field perimeter (wall) as the match is running as I turn and maneuver

Answered by committee

Other than the requirement that a Robot cannot overhang the wall in its starting position, or when reset during [<G10>](#) or [<RSC8>](#) interactions ([see this related Q&A](#)), there is no rule against portions of a Robot extending over or beyond the Field Perimeter.

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.

1938: 2 hands one triball

7-Feb-2024

G9 SG3 SG6

<SG6><G9><SG3> and 1777

Would a drive team member using two hands to hold a single triball to match load be considered a violation of any of the rules listed, or be part of "the bad" from QA 1777? So long as only 1 triball is ever breaking the plane, it seems that there should not be a violation. Question <https://events.vex.com/VRC/2023-2024/QA/1849> makes the statement that G9 never says how many hands and I'd like the committee to speak to this. This is a big item for head referees at Middle school events where students have small hands and really need to be using two to hold a triball.

This seems to fall in the Good category of "Calm, consistent, clearly planned and practiced Drive Team Member in-match procedures".

Please make an official statement about this before State Championships, Invitationals, and Words start up in full swing.

Answered by committee

As long as the Head Referee feels that the Drive Team Member is utilizing "Calm, consistent, clearly planned and practiced Drive Team Member in-match procedures" and ensures that only a single Match Load Triball is breaking the plane of the field at any one time, it is legal for that Drive Team Member to use two hands to introduce Match Load Triballs.

1849: Matchloading and Q&A 1777 Clarification

30-Dec-2023

S1 G9 SG6

Hey, Could I please get some clarification on Q&A 1777 and matchloading?

In the "The Bad" part of Q&A [1777](#) it provides a list of actions that would likely draw a warning from the Head Referee on the grounds of [<S1>](#), [<R5>](#) [<SG6>](#) [<G9>](#), or [<G1>](#). The 2 quoted bullets below confuse me a little:

- Two Drive Team Members loading in rapid succession, such that two incoming Triballs (or hands) are past the field perimeter at the same time, or such that an error made by one person could cause the other to be hit by a Triball / mechanism (illegal example)
- A Robot design which requires repeatedly reaching further than one field tile away from the Match Load Zone

Question 1: Is violating the first quoted bullet above an S1, Sg6 or G9 violation? I've seen it written as all 3 and wanted to make sure I'm writing it down correctly.

It kind of feels like that bullet point is 2 different violations. Where the first part sounds like a G9 for having multiple hands in the field. Although G9 doesn't really say how many hands you can have in the field at a time.

Two Drive Team Members loading in rapid succession, such that two incoming Triballs (or hands) are past the field perimeter at the same time,

And the second part sounds like an S1 because SG6 says "Excessive, unnecessary, or unsafe actions while introducing a Match Load may be considered a Violation of S1 and/or G1 at the Head Referee's discretion for being an unsafe action"

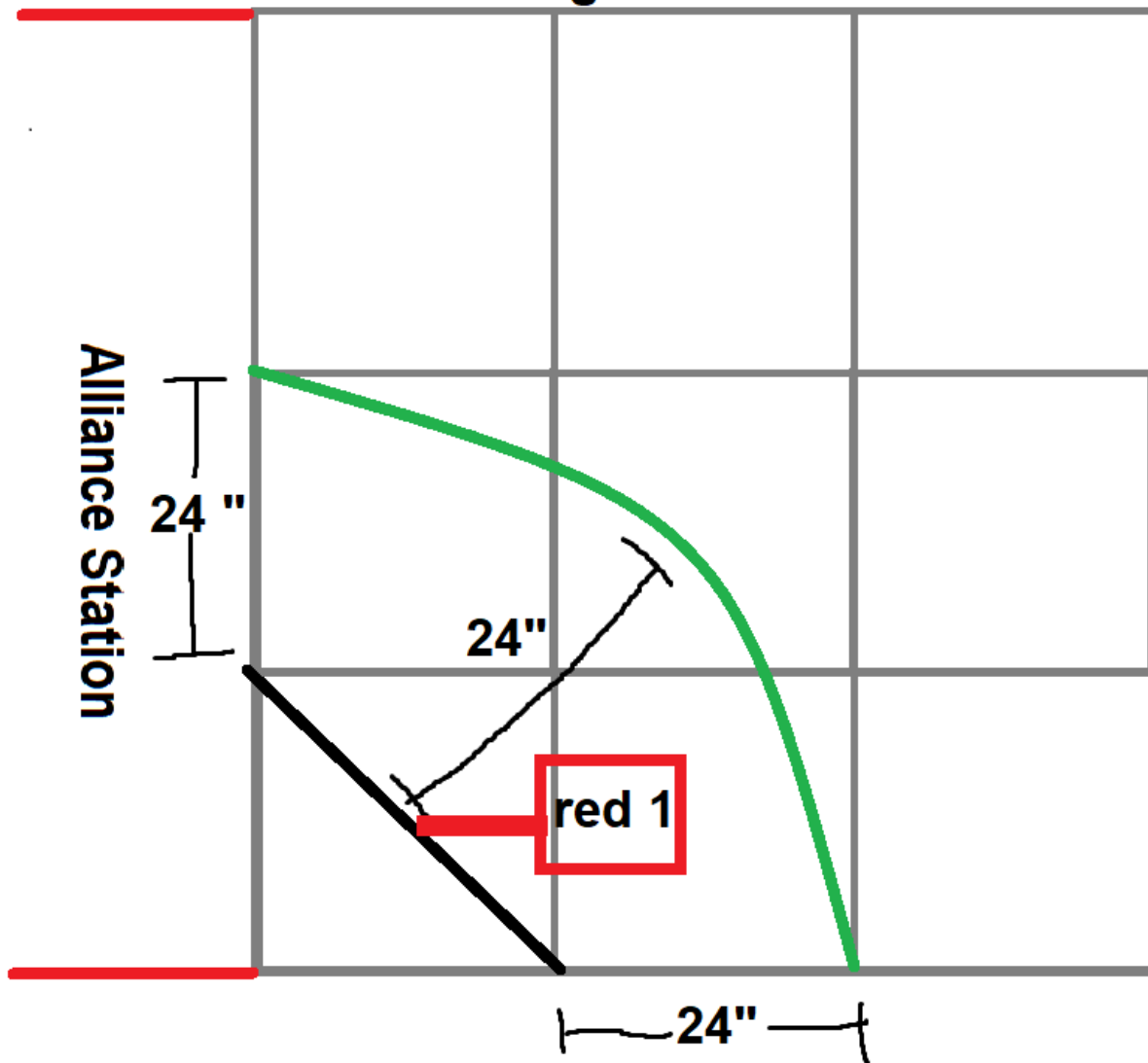
or such that an error made by one person could cause the other to be hit by a Triball / mechanism

I could also see both of those being S1 because G9 doesn't say anything about number of hands in the field, but it does say that you can break the plane to participate in SG6 actions and SG6 says unsafe actions can be an S1 at the refs discretion.

Question 2: The 2nd quoted bullet above says that reaching more than 1 field tile away from the Match Load Zone is possible to be a violation. To me that interprets as meaning if a robot is making contact with the elevation bar, then a triball can be introduced legally on the robot within the green bound in Diagram A attached. Is that a correct interpretation? The gif that accompanied Q&A 1777 for this bullet point ([link](#)) made me question this interpretation because the robot looked like it fell within the green bound.

Also the idea that a student could be reaching roughly 4ft into the field from their alliance station to load a triball on their robot felt a little unsafe.

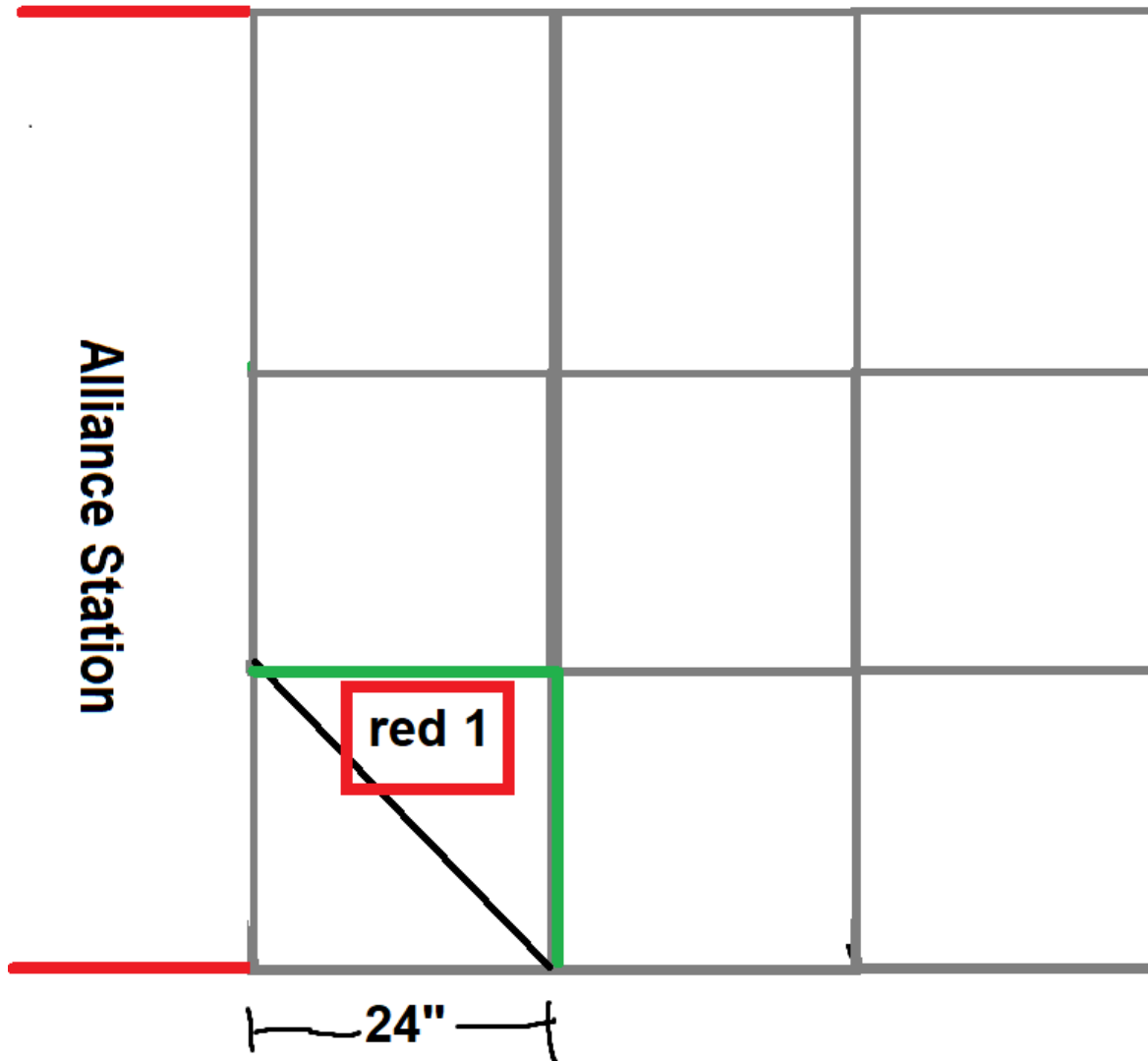
Diagram A



If diagram A and interpretation above is not the correct interpretation could you please provide some guidance on how we should be interpreting that bullet?

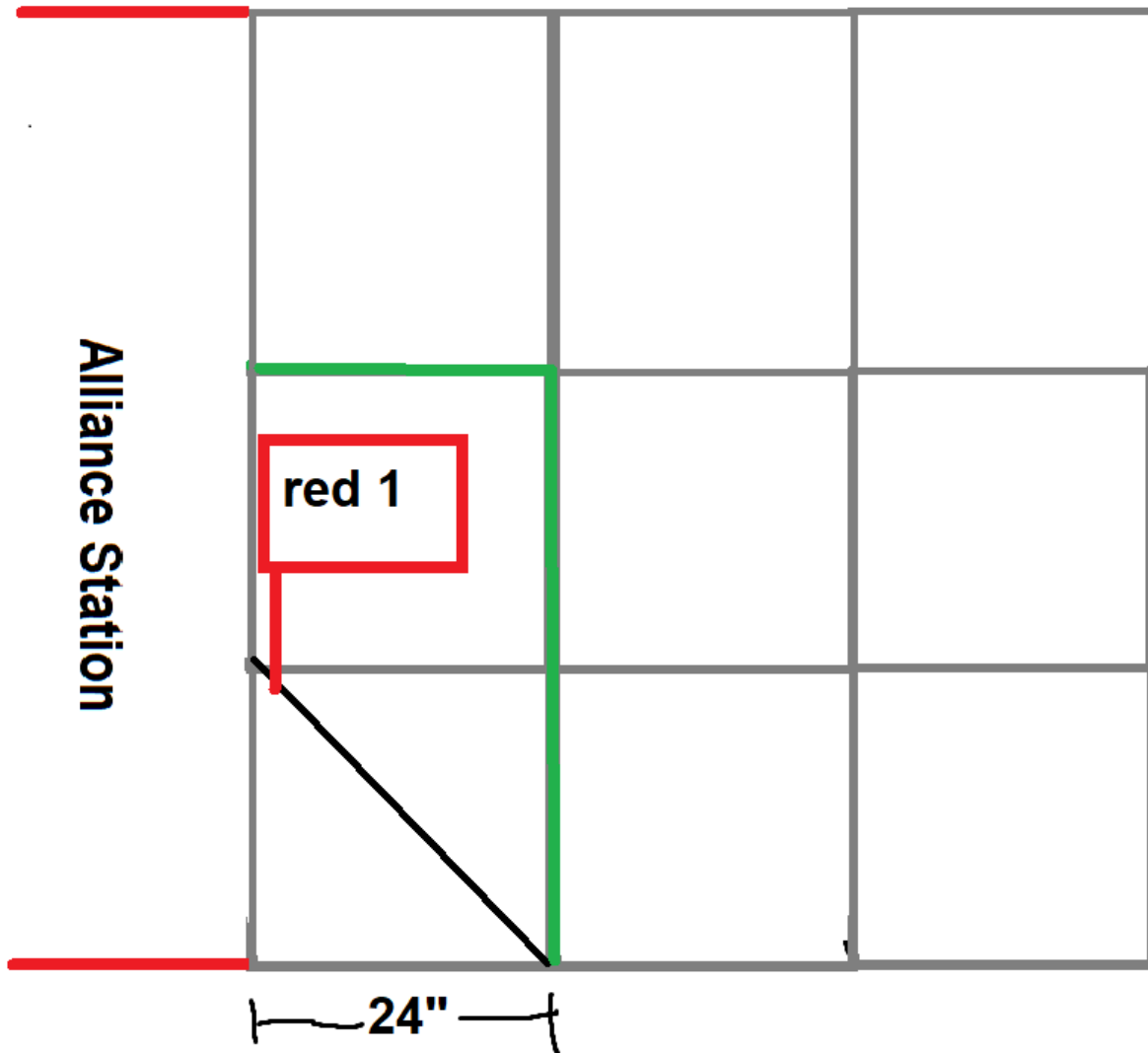
Like if the 1 tile away is supposed to be measured from the inner corner of the matchload zone (i.e only being allowed to load on the tile that is in the corner of the field) like Diagram B below shows:

Diagram B



Or if the 1 tile is supposed to be measured from the alliance station (i.e being able to matchload as long as your arm doesn't go more than 24" inches into the field) like the Diagram C below shows:

Diagram C



Answered by committee

It kind of feels like that bullet point is 2 different violations. Where the first part sounds like a G9 for having multiple hands in the field.

Sort of. Because SG6 is explicitly referenced as an exception to G9, these types of violations should still technically be recorded as SG6. Our intent was to reduce any confusion about how extreme this exception can be stretched.

And the second part sounds like an S1 because SG6 says "Excessive, unnecessary, or unsafe actions while introducing a Match Load may be considered a Violation of S1 and/or G1 at the Head Referee's discretion for being an unsafe action"

I could also see both of those being S1 because G9 doesn't say anything about number of hands in the field, but it does say that you can break the plane to participate in SG6 actions and SG6 says unsafe actions can be an S1 at the refs discretion.

Yes, this interpretation is correct. Rules such as S1 and G1 can be paired with other rules, as an avenue to immediately penalize extreme situations (i.e. via Disablement or non-Match-Affecting Disqualification). For example, there are versions of [<G6>](#), [<SG3>](#) or [<SG8>](#) that should escalate to S1 violations regardless of context.

Question 2: The 2nd quoted bullet above says that reaching more than 1 field tile away from the Match Load Zone is possible to be a violation.

Not exactly. The relevant quote from Q&A 1777 is as follows, with a portion bolded for emphasis:

A Robot design which requires repeatedly reaching further than one field tile away from the Match Load Zone

Generally speaking, Diagram C is the closest to our intent behind this comment. To be more blunt, this is intended to prohibit Robots who are designed to expand and place their Match Load mechanism 36" away from the Match Load Bar.

Diagram A would likely be the "questionable zone" for a verbal warning or one-off occurrences. As with all things Match Loading, this is not intended to be an explicit "never break this plane" rule, and a diagram was intentionally not included. The relevant quote from [Q&A 1777](#) is as follows:

The following examples, although not explicitly Major Violations on their own, toe the line of acceptable "risk tolerance". They likely indicate a sub-par level of caution on the Team's part, especially if repeated or if multiple items are combined, and will likely draw a warning from the Head Referee on the grounds of <S1>, <R5>, <SG6>, <G9>, or <G1>.

1821: Transitive Triball contact while match loading

11-Dec-2023

S1 G9 G17 SG6

While match loading, a team contacts a triball in the possession of their robot (let's call this triball P) with a triball that they are holding and attempting to match load (let's call this triball H). Considering [<SG6>](#), [<S1>](#), [<G9>](#), and/or [<G17>](#), which violations (if any) should the referee rule in the following situations:

1. Triball P is currently being launched out of the robot by a mechanism and hits triball H. Triball H:
 - a) stays in the students hands
 - b) lands in the opposing alliances offensive zone
 - c) lands in the teams offensive zone
 - d) lands in the teams match load zone
 - e) leaves the students hand and goes out of the field
2. Triball P is currently being launched out of the robot by a mechanism and hits triball H. Triball H falls into the field and the student instinctively or on purpose picks up the ball and uses it as the next matchload:
 - a) from the teams matchload zone
 - b) from the opposing alliances offensive zone
3. Triball P is only briefly touched by triball H. Triball P remains possessed by the robot and:
 - a) does not move at all/significantly
 - b) moves within the robot i.e from the catapult to the intake
4. Triball P is knocked off the robot with triball H so that it is no longer possessed

Also, should any of the triballs in the above scenarios be considered 'out of the field' and placed into the match load zone by the head referee?

Matthew and Kieran UK refs

Answered by committee

Please review [Q&A 1778](#), specifically regarding the introduction of Match Loads one at a time.

If we are understanding correctly, these scenarios all imply that a Drive Team Member was introducing a second Match Load before the Robot had launched its first one. These are good examples of what could happen if the "one Triball at a time" rule is not followed. So, at a minimum, all scenarios would warrant a warning / Minor Violation of [<SG6>](#) Note 2.

Since these are now considered "improper Match Loads", [this similar Q&A](#) applies. If an event has the resources to do so, one application of this Q&A is to count the number of illegal Match Loads, and determine if this quantity could have a Match Affecting result.

With that being said, due to the safety implications of this particular form of illegal Match Loading (i.e., a Drive Team Member has literally been hit by a Match Load), a more rapid escalation may be appropriate at the Head Referee's discretion.

1787: SG1, G9 - Teams Positioning the matchload bar

27-Nov-2023

G9 SG1

[<SG1>](#) [<SG1>](#)Starting a Match. Prior to the start of each Match, the Robot must be placed such that it is: c. Not contacting any other gray foam field tiles, including the Match Load Zones. d. Not contacting any Triballs other than a maximum of one (1) Preload. See rule [<SG4>](#). i. Contact with the field perimeter and/or Match Load Bars is permitted, but not required. Note: The Triballs which start in each Match Load Zone must be contacting the Match Load Zone at the start of the Match. However, they may be repositioned during pre-Match setup by the Team whose Robot is using the Starting Tiles adjacent to that Match Load Zone.

[<G9>](#) Note: Any concerns regarding Field Element or Triball starting positions should be raised with the Head Referee prior to the Match. Team members may never adjust the Triballs or Field Elements themselves, except for Match Load Zone Triballs as described in [<SG1>](#)

The matchload bar has a significant amount of play on the brackets within the field. Addressing this based off G9 a team may not reposition the match load bar itself, however the movement of the match load bar is somewhat influential for autons, with various angles and positionings across the 2 dimensional plane of the field (see image below). Further more SG1 allows contact with the match load bar - a strategy involves a robot placed ontop of this bar which may shift the bar in the act of placing a robot on/against this barrier. These alignments are influential for auton and pre match shifting of the triball in the zone all present a case for shifting the match load bar. The angle and placement potentially risks exceeding 1" of tolerance. This also adjusts how triballs can be placed in the zone and placement of said triball may affect the positioning of the match load bar itself.

How should referees approach the bars positioning?

Can teams adjust the positioning of the bar through robot positioning when placing their matchload?



Answered by committee

The angle and placement potentially risks exceeding 1" of tolerance.

The Match Load Bars are dynamic field elements and are extremely loosely attached to the field. For Match Load Bars, the 1" tolerance provided by rule [<T10>](#) refers to potential bending of the brackets, manufacturing tolerances, different amounts of field wear, and similar situations. In general, if the Match Load Bar remains correctly attached to the field perimeter, its position will likely always be considered as falling within the allowable tolerance.

How should referees approach the bars positioning?

They shouldn't. See the previous answer.

Can teams adjust the positioning of the bar through robot positioning when placing their matchload?

Because clause F1 of rule [<SG1>](#) allows a Robot to begin the Match in contact with a Match Load Bar, it is expected that the Robot's position may affect the exact position of the Match Load Bar. There is no rule against this.

1544: <G9> Pushing a Robot Before Drive Team Can Touch

15-Jun-2023

G9

<G9> Hands out of the field. Drive Team Members are prohibited from making intentional contact with any Triballs, Field Elements, or Robots during a Match, apart from the contact specified in <G9a>.

a. During the Driver Controlled Period, Drive Team Members may only touch their own Robot if the Robot has not moved at all during the Match. Touching the Robot in this case is permitted only for the following reasons:

- i. Turning the Robot on or off.
- ii. Plugging in a battery.

iii. Plugging in a V5 Robot Radio.

iv. Touching the V5 Robot Brain screen, such as to start a program.

b. Drive Team Members are not permitted to break the plane of the field perimeter at any time during the Match, apart from the actions described in <G9a>, <SG3>, and <SG6>.

c. Transitive contact, such as contact with the field perimeter that causes the field perimeter to contact Field Elements or Triballs inside of the field, could be considered a Violation of this rule.

QA 1524:

Yes, if a Drive Team Member needs to interact with a Robot that has not moved during the Match (as described in Clause A of rule <G9>), one person may notify the Head Referee and leave the Alliance Station during the Driver Controlled Period.

<G1> Treat everyone with respect. All Teams are expected to conduct themselves in a respectful and professional manner while competing in VEX Robotics Competition events. If a Team or any of its members (Students or any Adults associated with the Team) are disrespectful or uncivil to event staff, volunteers, or fellow competitors, they may be Disqualified from a current or upcoming Match.

<S1> Be safe out there. If at any time the Robot operation or Team actions are deemed unsafe or have damaged a Field Element or Triball, the offending Team may receive a Disablement and/or Disqualification at the discretion of the Head Referee. The Robot will require re-inspection as described in rule <R3> before it may take the field again.

Scenario:

The Autonomous Period of a Match just ended. The Drive Team Members associated with a Red Robot forgets to turn it on. Since the Drive Team cannot reach it from their Driver Station, they notify the Head Referee that they will leave the Alliance Station at the start of the Driver Controlled Period. The Blue Drive Team notices this, and plans on driving straight into the Red Robot the moment the Driver Controlled Period starts.

1. Does Blue Team's plan automatically break <S1> and/or <G1>?
2. If the answer to #1 is no, is an <S1> Violation handed to whomever loses the race to the Robot?

Answered by committee

It is impossible to issue a blanket answer beyond what is written in the Game Manual that encompasses all possible hypothetical scenarios. In cases where the actions of a Drive Team Member or Robot may be unsafe or disrespectful, the Head Referee should issue a violation of [<S1>](#) and/or [<G1>](#) at their discretion.

1520: <G9> Legally Touching Robot Out of Reach from Driver Station

6-Jun-2023

G9

<G9> Hands out of the field. Drive Team Members are prohibited from making intentional contact with any Triballs, Field Elements, or Robots during a Match, apart from the contact specified in <G9a>.

a. During the Driver Controlled Period, Drive Team Members may only touch their own Robot if the Robot has not moved at all during the Match. Touching the Robot in this case is permitted only for the following reasons:

- i. Turning the Robot on or off.
- ii. Plugging in a battery.
- iii. Plugging in a V5 Robot Radio.
- iv. Touching the V5 Robot Brain screen, such as to start a program.

1. Is a Drive Team Member allowed to exit the Driver Station to touch their own Robot, assuming they abide by <G9a>?
2. If the answer to #1 is yes, are they allowed to move outside of the Driver Station between the Autonomous Period and the Driver Controlled Period, or do they have to wait for the Driver Controlled Period to start?

Answered by committee

Thank you for your question! Yes, if a Drive Team Member needs to interact with a Robot that has not moved during the Match (as described in Clause A of rule [<G9>](#)), one person may notify the Head Referee and leave the Alliance Station **during the Driver Controlled Period**. To avoid any confusion, and to prevent unintended violations of rule [<G9>](#), we would advise notifying the Head Referee before leaving the Alliance Station or taking any action.

1183: Robot crashes or disconnects

24-Aug-2022

G9

During the practice, there have been cases where the robot crashed and disconnected from the field control, but it will return to normal after restarting. How to deal with this situation? According to the < G9 >, can we immediately respond to the referee if the robot shuts down, crashes or fails to connect? Can we immediately restart the machine after the response, or is it the behavior described in this rule?

Answered by committee

According to the < G9 >, can we immediately respond to the referee if the robot shuts down, crashes or fails to connect?

This would be governed by rule G9-a, quoted here for reference:

<G9> Hands out of the field. Drive Team Members are prohibited from making intentional contact with any Discs, Field Elements, or Robots during a Match, apart from the contact specified in <G9a>.

a. During the Driver Controlled Period, Drive Team Members may only touch their own Robot **if the Robot has not moved at all during the Match**. Touching the Robot in this case is permitted only for the following reasons:

- i. Turning the Robot on or off
- ii. Plugging in a battery
- iii. Plugging in a V5 Robot Radio
- iv. Touching the V5 Robot Brain screen, such as to start a program

Therefore, this type of reset would only be permitted if the Robot has not moved at all during the Match.