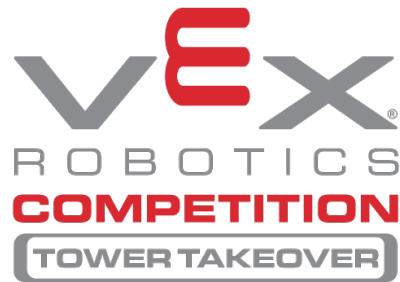


Q&A

VRC 2019-2020: Tower Takeover

Tagged: SG7



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

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

- 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.

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Cubes rolling into Inner Protected Zone

SG3 SG7

Hello,

Here are some relevant quotes from the game manual for my question.

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

Case E - Contact an opposing Alliance's Inner Protected Zone. Case E Violation - Any violation of points E, F, or G will result in a Disqualification, whether the interaction was Match Affecting or not.

SG7 - Use Cubes to play the game. Cubes may not be used to accomplish actions that would be otherwise illegal if they were attempted by Robot mechanisms. Examples include (but are not limited to):

- Encroaching upon an opponent's Protected Zone per <SG3>
- Interfering with an opponent's Autonomous Period per <SG2>

If a team were to intentionally or accidentally, directly or indirectly, Match Affecting or not cause a cube to enter the opponents Inner Protected Zone (by intaking and it ejecting out of the robot, falling out of a tray/claw, etc.) this would be a violation of SG3-E via SG7 and result in a Disqualification. Is this a correct interpretation?

Thank you for your time.

Answered by Game Design Committee

If a team were to intentionally or accidentally, directly or indirectly, Match Affecting or not cause a cube to enter the opponents Inner Protected Zone (by intaking and it ejecting out of the robot, falling out of a tray/claw, etc.) this would be a violation of SG3-E via SG7 and result in a Disqualification. Is this a correct interpretation?

Thank you for quoting the relevant rules in your question. Yes, this is a correct interpretation.

Thank you for your time.

You're welcome.

<SG2> Indirectly contacting opponent tiles, cubes via cube

SG2 SG7

<SG2> Stay on your side in Autonomous. During the Autonomous Period, Robots may not contact the foam tiles, Towers, or Cubes which are on the opposing Alliance's side of the Autonomous Line.

Violations of this rule will result in the Autonomous Bonus being awarded to the opposing Alliance. Intentional, strategic, or egregious violations, such as intentional contact with an opposing Robot while completely across the Autonomous Line, will result in a Disqualification.

Note: Towers and Cubes which begin the Match in contact with the Autonomous Line are not considered to be on either side, and may be utilized by either Alliance during the Autonomous Period. If attempting to utilize these Towers or Cubes, Teams should be cognizant of the possibility that opponent Robots may attempt to do the same. <SG7>, <G10>, <G11>, and <G12> will be taken into account when these types of

Robot interactions occur.

<SG7> Use Cubes to play the game. Cubes may not be used to accomplish actions that would be otherwise illegal if they were attempted by Robot mechanisms. Examples include (but are not limited to):

- Encroaching upon an opponent's Protected Zone per <SG3>.
- Interfering with an opponent's Autonomous Period per <SG2>.

a. According to QA 405, www.robotevents.com/VEXU/2019-2020/QA/405 "violations could range **from** the Autonomous Bonus being awarded to the opposing Alliance, **to** a Disqualification, depending on the context of the interaction." Does this mean that if a cube has cross the autonomous line from red into the blue side, either unintentional or intentional, then that red alliance automatically lost autonomous bonus, since the word **from** is used?

b. If the robot is intaking a neutral cube(started contacting the autonomous line), then the second the robot touched the cube, the robot now has indirectly contacted the foam tile in opposing alliance. According to SG2 Note, cubes "may be utilized by either Alliance during the Autonomous Period." In this case, does this note take precedence over SG2 via SG7?

Answered by Game Design Committee

a. According to QA 405, www.robotevents.com/VEXU/2019-2020/QA/405 "violations could range **from** the Autonomous Bonus being awarded to the opposing Alliance, **to** a Disqualification, depending on the context of the interaction." Does this mean that if a cube has cross the autonomous line from red into the blue side, either unintentional or intentional, then that red alliance automatically lost autonomous bonus, since the word **from** is used?

As noted in the Q&A that you linked, causing Cubes to interact with foam tiles, Towers, or Cubes on the opposing Alliance's side of the Autonomous Line would be considered a violation of SG2 via SG7. Interaction with foam tiles, regardless of whether it affects a Robot's autonomous routine or not, is always considered a violation of SG2. As you quoted, all violations of SG2 result in the Autonomous Bonus being awarded to the opposing Alliance. Intentional, strategic, or egregious violations, such as intentional contact with an opposing Robot while completely across the Autonomous Line, will result in a Disqualification.

b. If the robot is intaking a neutral cube(started contacting the autonomous line), then the second the robot touched the cube, the robot now has indirectly contacted the foam tile in opposing alliance. According to SG2 Note, cubes "may be utilized by either Alliance during the Autonomous Period." In this case, does this note take precedence over SG2 via SG7?

Yes.

When evaluating a possible violation of either of these cases, we would advise Teams and Head Referees to bear in mind rule G3 - "please remember that common sense always applies in the VEX Robotics Competition."

Indirect Cube movement while Autonomous

G11 SG2 SG7

During the Autonomous period, if a red robot causes a cube from the vertical stack of four to fall while trying to get cubes from that stack and one or more of the cubes in that stack crosses the autonomous line and causes the other vertical blue alliance stack of four to fall is that a violation of any rule?

Additionally, if the other team is not running autonomous, is the answer the same?

The robot is not directly touching the cube that crosses the line-e.g. trying to get the bottom 2 cubes of the stack.

Answered by Game Design Committee

It is impossible to issue a blanket ruling based on a snapshot description of a hypothetical Match. In general, SG7 and SG2 would be the primary rules that a Head Referee would have to look at in this case:

<SG2> Stay on your side in Autonomous. During the Autonomous Period, Robots may not contact the foam tiles, Towers, or Cubes which are on the opposing Alliance's side of the Autonomous Line.

Violations of this rule will result in the Autonomous Bonus being awarded to the opposing Alliance. Intentional, strategic, or egregious violations, such as intentional contact with an opposing Robot while completely across the Autonomous Line, will result in a Disqualification.

Note: Towers and Cubes which begin the Match in contact with the Autonomous Line are not considered to be on either side, and may be utilized by either Alliance during the Autonomous Period. If attempting to utilize these Towers or Cubes, Teams should be cognizant of the possibility that opponent Robots may attempt to do the same. <SG7>, <G10>, <G11>, and <G12> will be taken into account when these types of Robot interactions occur.

<SG7> Use Cubes to play the game. Cubes may not be used to accomplish actions that would be otherwise illegal if they were attempted by Robot mechanisms. Examples include (but are not limited to):

- Encroaching upon an opponent's Protected Zone per <SG3>.
- Interfering with an opponent's Autonomous Period per <SG2>.

Causing Cubes to interact with foam tiles, Towers, or Cubes on the opposing Alliance's side of the Autonomous Line would be considered a violation of SG2 via SG7. Per SG2, violations could range from the Autonomous Bonus being awarded to the opposing Alliance, to a Disqualification, depending on the context of the interaction.

SG3/SG7 Clarification- Can Game Objects Cross the Autonomous Line During Autonomous?

SG3 SG7

Hello,

Would it be legal for Game objects to cross the autonomous line during autonomous without penalty? Specifically game objects that are not contacting the robot while doing so.

The rulebook currently implies this may be illegal because of SG7:

"Scoring Objects cannot be used to accomplish actions that would be otherwise illegal if they were attempted by Robot mechanisms."

An interpretation of this may be that game objects cannot cross the autonomous line as a robot mechanism cannot as in SG3:

"Robots may not do any of the following:

1. Contact the foam tiles on the opposing Alliance's side of the Autonomous Line."

Additionally if this is ruled illegal would accidental or unintentional violations cause the alliance to lose the autonomous bonus or be disqualified, for example a ball rolls over the line after a robot flips a cap or a ball rebounds off the net and crosses the line?

Thank You in Advance

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Answered by Game Design Committee

There are no rules prohibiting Game Objects from crossing the Autonomous Line during the Autonomous Period. For example, if a launched Ball deflects off of a Flag and crosses the line on its rebound, this is both legal and expected.

SG7 would come into play if game objects were used as an extension of your Robot to intentionally impact an opponent's autonomous mode. For example, driving across the Autonomous Line and blocking an opponent with your robot is clearly illegal. By SG7, intentionally placing a Cap on the other side of the Autonomous Line to block an opponent would also be illegal.

cube in possession of a robot is an extension of the robot (G12)

G12 SG7

Could the update, G12 which states "game elements in possession of a robot are an extension of the robot" be clarified? It has been defined in defensive moves such as holding a cube to knock down stacks, etc. What about in an offensive situation like scoring of stacks at the end of a match? A referee questioned this at a tournament this weekend. Red had 1 stack of 6 scored. Their robot was in possession (not just touching) of a cube and that cube was touching the base cube of that stack. He felt that the way the rule is written, the stack should not be considered scored since the robot (through that cube in its possession) was touching the base of the stack. If the possession of a cube is an extension of the robot, referee felt the robot was touching the base cube of the stack since it possessed the cube that was touching it. We were referred to Figure 13 in the game manual where a robot is "touching" (not possessing a cube) and said cube was touching a stacked cube. All of the cubes of that second stack that that cube was touching were still considered scored. There is no other reference to a cube being an extension of the robot in the rules for offensive situations so either G12 only applies in defensive situations if the cubes are considered scored or it applies at all times, which mean some of the stacked cubes would not be considered scored. Hope I made his point clear. Please clarify. Thank you.

Answered by Game Design Committee

G12d states the following:

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

SG7, a similar rule that utilizes the same principle, states the following:

<SG7> Use Cubes to play the game. Cubes may not be used to accomplish actions that would be otherwise illegal if they were attempted by Robot mechanisms. Examples include (but are not limited to):

- Encroaching upon an opponent's Protected Zone per <SG3>.
- Interfering with an opponent's Autonomous Period per <SG2>.

Although both of these rules reference defensive interactions as their examples, they are intended to be applications of an overall principle that Robots and any Cubes they are possessing should be considered as one entity.

Their robot was in possession (not just touching) of a cube and that cube was touching the base cube of that stack. He felt that the way the rule is written, the stack should not be considered scored since the robot (through that cube in its possession) was touching the base of the stack. If the possession of a cube is an extension of the robot, referee felt the robot was touching the base cube of the stack since it possessed the cube that was touching it.

This is a correct interpretation (assuming that the Robot possessing the Cube was a Red robot). The Cube being contacted would not be considered a Base Cube, and the Scored status of all other Cubes in the Goal Zone would be affected accordingly.

Indirect Possession?

SG4 SG7

Possession "...carrying, holding or encompassing" At a recent event a team was penalized for flipping a cap that had two ball resting on with another in their intake. They were said to be in violation of SG4 "Possess a maximum of one Cap and two balls at a time". Is flipping a cap with two balls on it considered possession of those two ball if there was no direct control of those balls?

Answered by Game Design Committee

It is always difficult to issue a blanket ruling on a snapshot description of an action during Match. With that in mind, in addition to the definition of Possession, SG7 should also be considered.

Possession - A Game Object status. A Robot has Possession of a Game Object if it is carrying, holding, or encompassing it.

<SG7> Game Objects cannot be used to accomplish actions that would be otherwise illegal if they were attempted by Robot mechanisms.

A Robot which is using a Game Object to carry, hold, or encompass other Game Objects would be considered Possessing them.

Momentarily flipping a Cap, such that the two Balls on top of it fall off, would not be considered Possession. Lifting that Cap, such that the two Balls were lifted with it, would be considered Possession.

The relevant [Referee Training video](#) also uses the following guideline: if the Game Object turns with the Robot as the Robot turns, then it is probably being Possessed. This rule of thumb applies to the two examples given in the above paragraph.