



Legal Considerations for KUDos Robots in Competition

A Robot balanced on 2 Rings, not contacting the floor, and touching the Ladder is considered a Level 1 Climb

<https://www.robotevents.com/de/V5RC/2024-2025/QA/2093>

Clarification on SC7/G17 and Elevation with Assistance from Rings (V5RC Q&A 2093)

Since the 24" Robot is fully lifting on top of 2 Rings & is no longer contacting plane 0, and all other criteria of SC7 are met, the 24" Robot is considered to have climbed to Level 1, as it is no longer touching plane 0. Since the 24" Robot is no longer contacting plane 0, it can now break plane 1-2 & plane 2-3 and is in compliance with <SG3> & V5RC Q&A 2093.

V5RC Q&A 2093 states that contact with a Ring does not affect whether a Robot is considered to have Climbed to a Level as described in <SC7>, and that there are no rules preventing teams from employing strategies to achieve Level 1 Elevations by sitting on rings. It also states that teams can break the plane 2-3 as a result of sitting on a ring, as the team is no longer contacting plane 0.

A Robot Possessing 2 Rings while Carrying another Robot Possessing 2 Rings does not exceed possession limits

<https://www.robotevents.com/de/V5RC/2024-2025/QA/2026>

Indirect Possession (V5RC Q&A 2026)

The 24" Robot has 2 Rings intaked inside of the Ring Fence. The 15" Robot has 2 Rings stored in its Claw. When the 24" Robot is holding onto the 15" Robot, the 24" Robot is only possessing 2 Rings according to V5RC Q&A 2026.

V5RC Q&A 2093 states that a robot that is lifting, raising, or otherwise interacting with another Robot that is in Possession of one or more Scoring Objects is not considered to be in possession of that Robot's Scoring Objects.

A Robot balanced on 2 Rings, and not contacting the floor, is above plane 0

Vertical Expansion is limited (SG3)

<SG3a> states that for a Robot that is on the floor (i.e., not Climbing), the effective height limit is 32", which is the distance between the floor and plane 2-3 of the Ladder. Whenever the 24" Robot contacts the floor, the Double Reverse 4 Bar is software-limited to reach a maximum height of 27-7/8" from the floor, which is 4-1/8" under the effective height limit of 32".

When the 24" Robot is climbed on 2 Rings and is no longer touching plane 0, the effective height limit is now 46", which is the distance between the floor and plane 3-4 of the Ladder. Whenever the 24" Robot is climbed on 2 Rings, the Double Reverse 4 Bar is software-limited to reach a maximum height of 42-3/16", which is 3-13/16" under the effective height limit of 46".

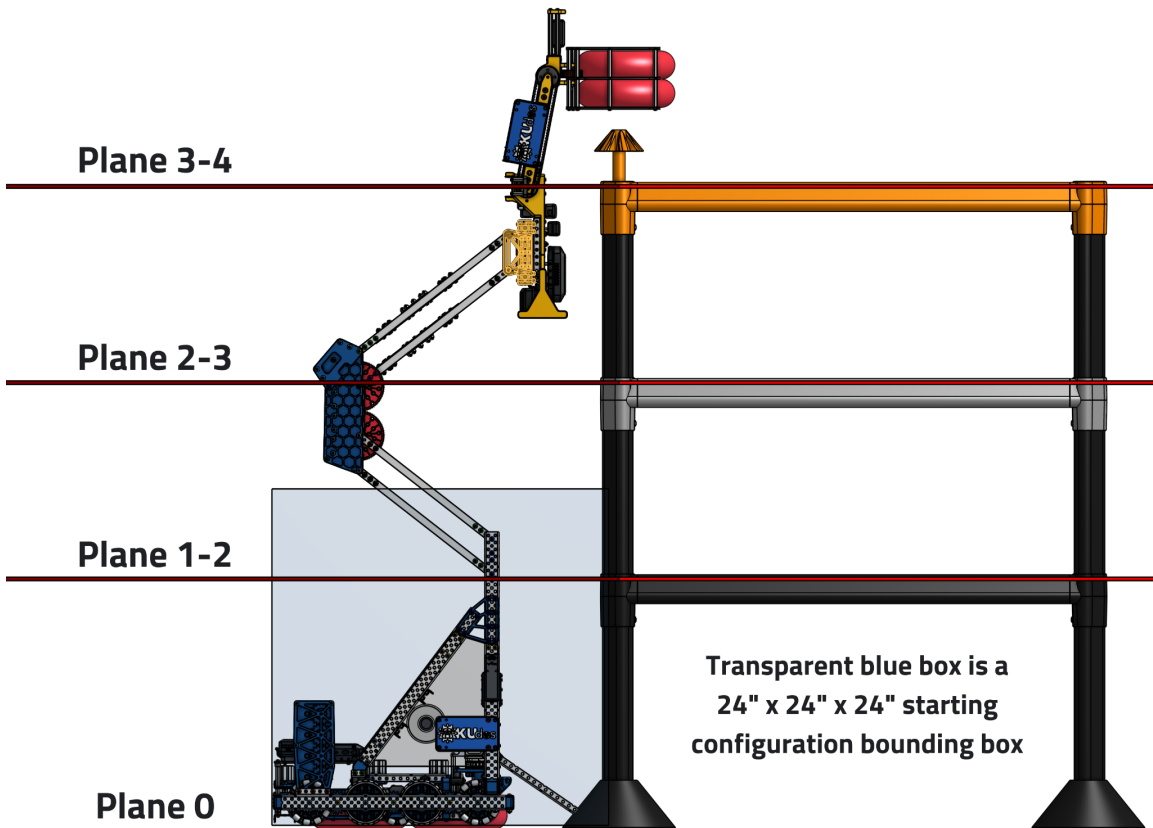
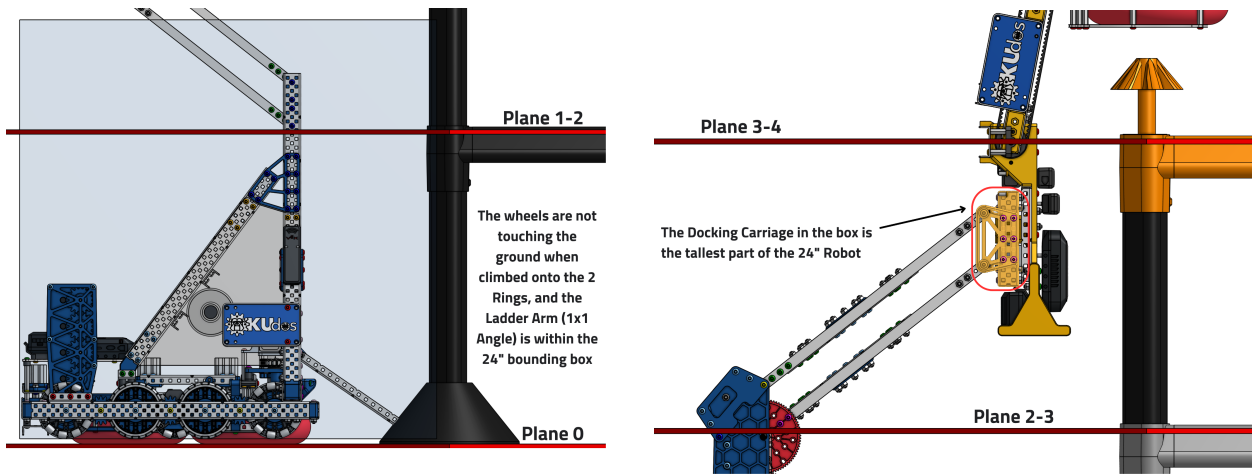
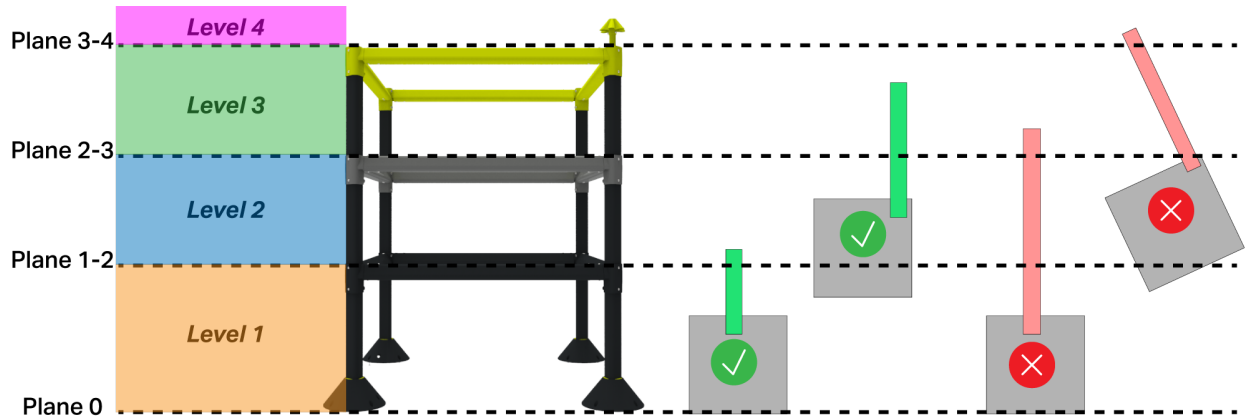
A Robot is protected when meeting either Climbing or Climbed to a Level definitions

<https://www.robotevents.com/VURC/2024-2025/QA/2348>

VUG2/SG9 Match Affecting Calculations (V5RC Q&A 2348)

<VUG2c> states that ‘a Robot which is in the process of Climbing without contacting the Ladder should be considered more “offensive” or “safe”’. When the 24” Robot is lifted off the Floor, it is in the process of Climbing without touching the Ladder. Therefore, it should be protected.

<VUG2d> states that a Robot that contacts a Robot from that team that meets the definition of Climbing should also receive protection. VEX U Q&A 2348 states that the protection granted by <VUG2d> still applies if the other robot meets either the definition of Climbing or the criteria of <SC7>, meaning it is contacting the Ladder and off the Floor. By this Q&A and the rules, the 15” Robot and the 24” Robot should receive full protection when either Climbing or Climbed to a Level, meaning whenever the 24” Robot is no longer touching the Floor and is touching the Ladder, it is explicitly protected.



2026: Indirect Possession

TTIME

5-Jun-2024

Would it be a violation of SG6 if Robot1 possessing **one Mobile Goal** pushes Robot2 also possessing **one Mobile Goal**?
Does this change at all if Robot2 is only plowing the 2nd Mobile Goal/ the 2nd Mobile Goal only gets moved because of the pushing?

If Robot1 and Robot2 happen to become entangled during the match, does this change as now the Robots moreso could be seen as possessing the other elements, would this mean they could no longer attempt to move other elements etc?

This question is similar to the following from last season:
<https://www.robotevents.com/V5RC/2023-2024/QA/1543>

SG6

✓ Answered by committee

13-Jun-2024

Thank you for your questions. No, a Robot that is lifting, raising, or otherwise interacting with another Robot that is in Possession of one or more Scoring Objects is not considered to be in Possession of that Robot's Scoring Objects.

2093: Clarification on SC7/G17 and Elevation with Assistance from Rings

Spencer Vaughan (Event Partner)

7-Aug-2024

<SC7> <G17>

Hello!

At our season opener we encountered a situation where a team managed to become high-centered on a ring whilst contacting the ladder, being off the ground and thus meeting all criteria of SC7: > a) The Robot is contacting the ladder > b) The Robot is not contacting any other Field elements, including the gray foam tiles. > c) The Robot is not contacting any Mobile Goals. > d) The Robot's lowest point is past that Level's minimum height from the gray foam tiles.

As the definition of a Field Element does not include game elements such as Rings, would this mean this robot if meeting all other points of SC7 is considered elevated? Additionally, G17 stipulates that

Scoring Objects may not be used to accomplish actions that would otherwise be illegal if they were attempted by Robot mechanisms

Would a robot becoming high-centered on a ring and achieving a Level 1 Elevation be considered in violation of G17 as the ring is acting as a "glove" to prevent them from touching the ground?

If the above is legal, are teams allowed to employ strategies to achieve Level 1 Elevations by sitting on rings?

Furthermore, as the team is now no longer contacting the level 0-1 plane, are the team now able to break the level 2-3 plane as a result of sitting on a ring?

Cheers

SC7 G17

✓ Answered by committee

20-Aug-2024

Contact with a Ring does not affect whether a Robot is considered to have Climbed to a Level as described in <SC7>.

If the above is legal, are teams allowed to employ strategies to achieve Level 1 Elevations by sitting on rings?

There are no rules preventing this, therefore it is legal.

Furthermore, as the team is now no longer contacting the level 0-1 plane, are the team now able to break the level 2-3 plane as a result of sitting on a ring?

Yes.

2348: VUG2/SG9 Match Affecting Calculations

1337X

5-Dec-2024

<VUG2> <SG9>

The answer to V5RC Q&A 2252 states:

Because it may not be possible to determine which Tier the Climbing Robot "could have" reached if the <SG9> Violation hadn't occurred, Head Referees should apply the following logic to decide whether or not the Violation was Match Affecting. If an egregious Violation results in opponent Robot damage or otherwise severely impedes an opponent's Climb, then it should be assumed that the Violation was Match Affecting if awarding the opposing Alliance the 12 points for a Tier 3 Climb (in place of any Climb points they actually earned in the Match, and regardless of the Robot's capabilities) would result in either them winning or tying the Match.

If two robots are attempting to buddy climb (one meeting the definition of Climbing) and an opponent robot contacts one of the robots in an attempt to stop them from climbing, how should this guidance be applied? Should match affecting calculations be performed with a 12 point climb per robot contacted? A 12 point climb for both robots (24 total)? 36 points total (assuming a level 3 buddy climb)?

✓ Answered by committee

11-Dec-2024

VURC/2024-2025/QA/2348

2348: VUG2/SG9 Match Affecting Calculations : Robot Events

Rule <SG9> specifically states that "There are no rules explicitly prohibiting incidental contact between Climbing Robots." Its protection only applies in cases where intentional or egregious strategies are used in an attempt to remove an opponent from the Ladder. Mere contact with a Climbing Robot may not be a Violation.

If an egregious <SG9> Violation results in opponent Robot damage or otherwise severely impedes an opponent's "buddy" Climb (described in <VUG2>), then it should be assumed that the Violation was Match Affecting if awarding the opposing Alliance **24 points for two Tier 3 Climbs** (in place of any Climb points they actually earned in the Match, and regardless of the Robots' capabilities) would result in either them winning or tying the Match.

Additionally, clause D of rule <VUG2> will be revised in the next game manual update to extend the protections of <SG9> and <VUG2> to the "buddy" when its partner Robot meets either the definition of Climbing or the criteria of <SC7>. This change is effective immediately.