

## Team Update 10

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### General

#### **A note to the Community about G427 changes**

Rule G427 was originally written to clearly and unequivocally protect robots while they are ASCENDING (climbing), however due to the tight nature of the SUBMERSIBLE ZONE and the limited space for teams to collect SAMPLES and score SPECIMENS we have heard from many teams and volunteers (and seen ourselves) that this rule is not working as intended. Because of this, we are modifying the wording of G427 and adding an additional exception.

For the original G427, many teams who were genuinely just trying to continue to collect SAMPLES and score SPECIMENS and were not interfering with ASCENDING robots were penalized due to incidental contact, and we realized and were uncomfortable with the potential to attempt to gain benefit from forcing opponents to violate G427 which forces referees into the less comfortable, and less predictable, situation of having to rule on robot intent in regards to potential G210 violation.

The addition of exception 'B' to G427 is intended to further define a condition where we believe a robot is unlikely to be attempting to ASCEND and therefore does not need G427 protections. This exception will allow robots which wish to continue to collect SAMPLES and score SPECIMENS to continue doing those things in the last 30 seconds with lower risk of accidentally incurring G427 penalties, devalue strategies aimed at attempting to force a G427 violation, and reduce the number of subjective calls our referees are asked to make.

We know this change will not resolve all issues caused by the tight field layout, and there is no perfect fix, but we hope this change and this transparency behind the intent of the change will help teams and volunteers understand both what changed and why.

## Competition Manual

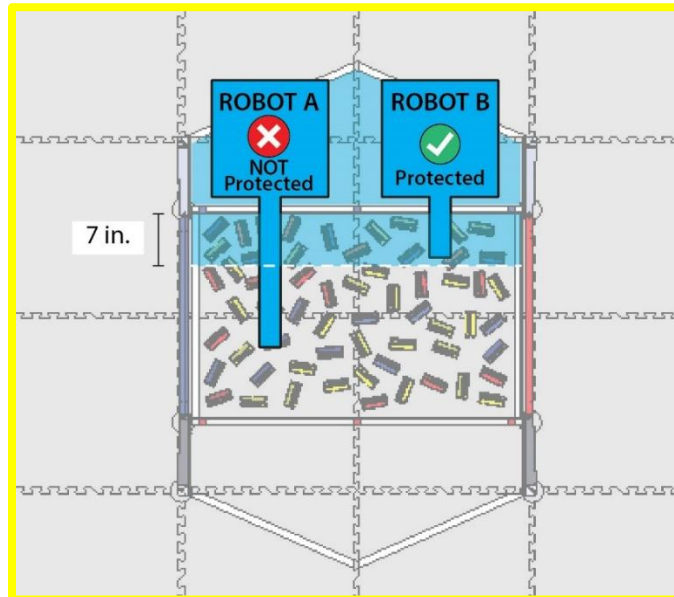
### Section 11.4.5 ROBOT Interaction

**G427 Climbing ROBOTS are protected.** In the last 30 seconds of the MATCH, a ROBOT may not contact (either directly or transitively through a SCORING ELEMENT CONTROLLED by either ROBOT and regardless of who initiates contact) an opponent ROBOT if any part of either ROBOT is in the opponent's ASCENT ZONE. Exceptions to this rule are as follows:

- A. Contact occurring while both ROBOTS have ~~achieved~~ met the scoring requirements to achieve LEVEL 2 or LEVEL 3 ASCENT.
- B. Contact occurring with an opponent ROBOT who is extending more than approximately 7 inches (i.e. roughly the length of two SAMPLES) into the SUBMERSIBLE ZONE as measured from the barrier.

Violation: MAJOR FOUL plus the affected ALLIANCE ROBOT is awarded a LEVEL 3 ASCENT.

Figure 11-1 Protected and not protected ROBOTS



The intent of exception A is that teams should be aware that the SUBMERSIBLE ZONE is a constrained space and ROBOTS swinging during their ASCENT may contact each other and teams should design their ROBOTS to be resilient to incidental contact.

The intent of exception B is to allow minor extensions into the SUBMERSIBLE ZONE while attempting to ASCEND while also allowing incidental contact between longer mechanisms.

Figure 11-2 Examples of contact resulting in no violation to either ROBOT

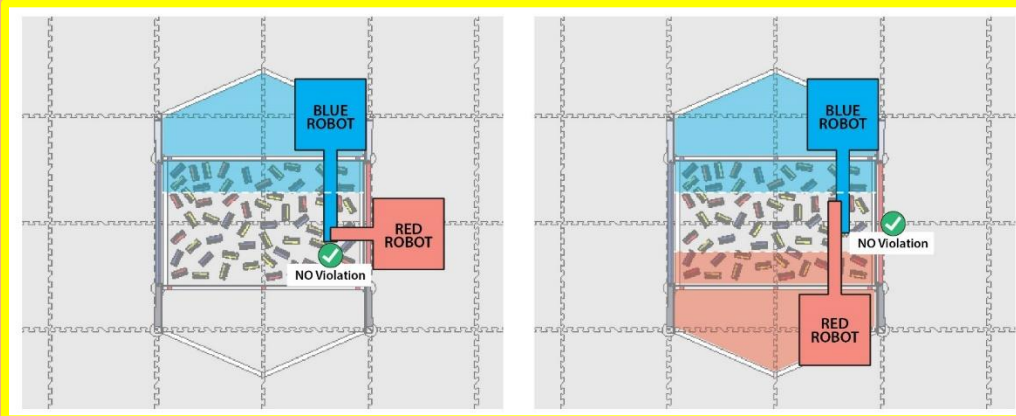
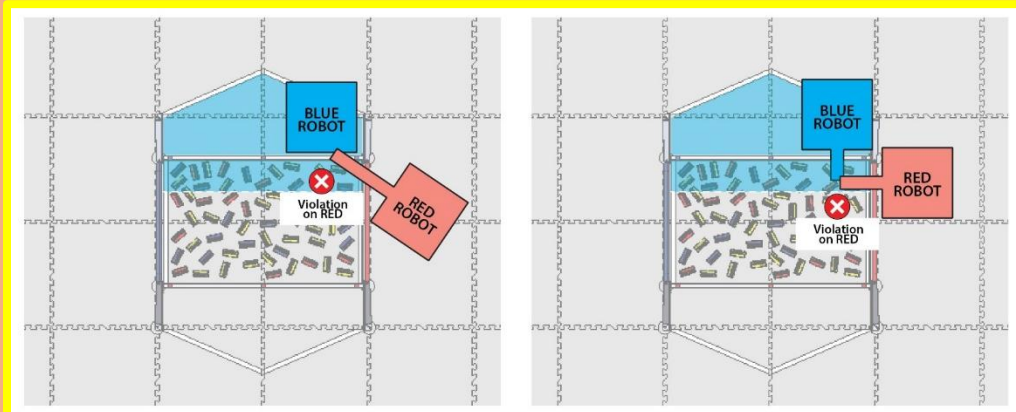


Figure 11-3 Examples of contact resulting in violations to offending ROBOT



ROBOTS that are attempting to play defense within the SUBMERSIBLE ZONE or the ASCENT ZONES during the last 30 seconds of the MATCH are likely to incur penalties.