

Team Update 02

General

KitBot

- The [CAD and Drawings Zip](#) package and [the Onshape model](#) posted on the [KitBot webpage](#) are updated to reflect the correct location for 2 of the “long churros.”
- The following translated materials are now available on the [KitBot webpage](#):
 - [KitBot Enhancement/Iteration Guide in Chinese](#)
 - [KitBot LabVIEW Code Guide in French](#)
 - [KitBot C++ Code Guide in French](#)
- The axis cubing examples in the [C++](#) and [Java](#) Code Guides are updated to reflect that the inputs are already squared.

Q&A

The answer to [Q9](#) has been revised as follows:

We cannot comment absolutely on hypothetical scenarios. The ultimate decision would be determined by the REFEREES at your event, with the final call made by the Head REFEREE. However the intent of CONTROL is not considered when determining violations of [G403](#) (part A or a NOTE lodged in a ROBOT) and [G409](#).

Game Manual

Section 5.2 Areas, Zones, & Markings

- SPIKE MARK: 1 of 11 **1 ft. 1 in. (33 cm)** marks used to identify placement of NOTES before the MATCH.

Section 6.3.4 GAME PIECES

NOTES on SPIKE MARKS are staged such that each NOTE covers the opposite ends of each SPIKE MARK.

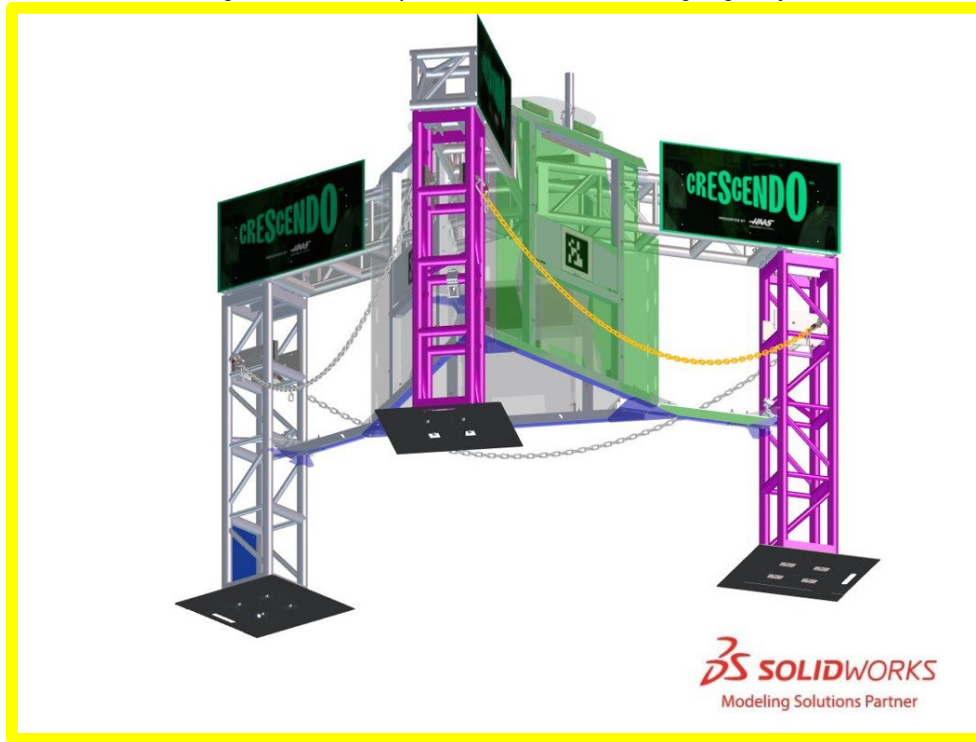
Section 6.5.2 ROBOT Scoring Criteria

To qualify for ONSTAGE points, a ROBOT may only be contacting:

- their** truss legs (pink shaded elements in Figure 6-3) via ROBOT BUMPERS,
- GAME PIECES,
- chain-facing vertical surfaces of **their** core **or the nearest flap** (with regards to the chain used by the ONSTAGE ROBOT, green shaded elements in Figure 6-3),
- carpet facing surfaces of **their** core (blue shaded elements in Figure 6-3), and
- a single STAGE chain **(on their STAGE)** (highlighted in orange in in Figure 6-3),
- another ROBOT qualified for ONSTAGE points,
- another ROBOT awarded the ENSEMBLE RP because of a [G424](#) infraction, and
- an opponent ROBOT.

Figure 6-3 is updated to reflect the edit to C above.

Figure 6-3 Contact points for ONSTAGE scoring eligibility



Section 6.5.3 AMPLIFICATION

AMPLIFICATION increases the number of MATCH points awarded for NOTES scored in a SPEAKER per Table 6-2. To AMPLIFY, an ALLIANCE must have at least 2 NOTES through their AMP. Once this criterion is met, the HUMAN PLAYER may press the AMP button which AMPLIFIES their SPEAKER for 10 seconds or until 4 NOTES are scored **in that SPEAKER**, whichever comes first. Due to NOTE transit time from the SPEAKER opening to the sensor array, there is a 3-second extension on the end of the nominal AMPLIFICATION time in account for NOTES that entered the SPEAKER within 10 seconds of the AMP button being pressed but haven't yet been processed. An ALLIANCE must collect another 2 NOTES through their AMP after AMPLIFICATION ends before they are able to AMPLIFY their SPEAKER again. While NOTES delivered through the AMP **after the 2-NOTE threshold is reached or** during AMPLIFICATION do not contribute to the next AMPLIFICATION **or Cooperation requirement**, they do earn MATCH points **(in other words, and ALLIANCE can only "bank" up to 2 NOTES at a time toward AMPLIFICATION or Cooperation)**.

Section 7.4.2 GAME PIECES

G408 ROBOTS, no HIGH NOTES. ROBOTS may not cause HIGH NOTES to leave the FIELD (including through an AMP or SPEAKER), score on a MICROPHONE, or enter a TRAP.

*Violation: TECH FOUL per HIGH NOTE. **If a ROBOT scores a HIGH NOTE on a MICROPHONE, its ALLIANCE is ineligible for the ENSEMBLE RP.***

Section 7.4.4 Opponent Interaction

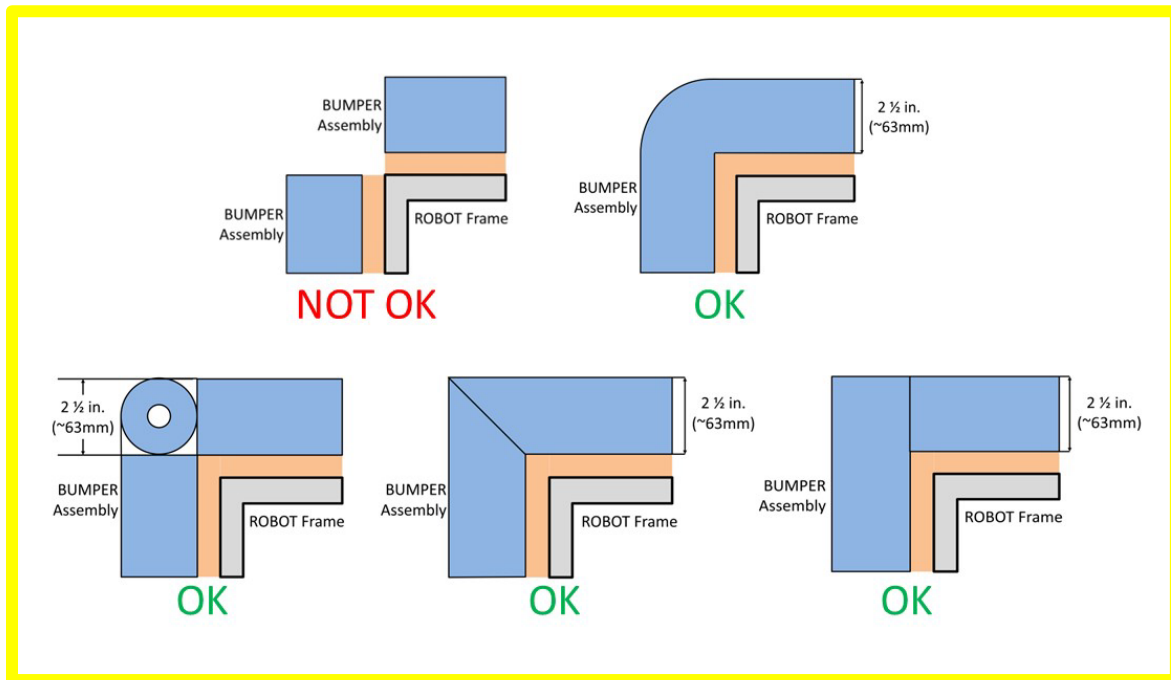
G424 STAGE protection. A ROBOT may not contact (either directly or transitively through a NOTE and regardless of who initiates contact) an opponent ROBOT if either of the following criteria are met:

- A. the opponent ROBOT has any part of its BUMPERS in its STAGE ZONE and it is not in contact with the carpet or
- B. any part of either ROBOT'S BUMPERS are in the opponent's STAGE ZONE during the last 20 seconds of the MATCH.

Section 8.4 BUMPER Rules

R409 *Fill BUMPER corners.

Figure 8-7 has been updated to improve conceptual clarity...



Section 14 Glossary

Only edited rows shown below.

Term	Definition
CHUTE	a 50° sloped tunnel that leads to the opening in the SOURCE wall
MICROPHONE	a vertical post centered above each TRAP and mounted to top of core structure