Team Update 22

General

Last One

Team Update 22 is the final Team Update of the 2026 REBUILT™ presented by Haas season.

Q&A Closing

The Q&A System closes April 22nd at noon (Eastern). Teams attending the *FIRST* Championship are invited to submit questions for the Drivers' Meeting to Pit Administration by Wednesday April 29th at 3:30pm (Central). Question forms will be provided in team packets and available at Pit Admin.

G211/G403 Changes

We have seen gameplay over the past few weeks that included ROBOTS crossing the CENTER LINE during AUTO that were intentionally interfering with opponent ROBOT paths. We have also seen instances of ROBOTS intentionally collecting FUEL with varying levels of avoidance towards opponent ROBOTS, and ROBOTS who unintentionally crossed due to programming issues or "surfing" on top of FUEL.

Our original intent with G403 was to allow the opportunity for teams to try AUTOS in the NEUTRAL ZONE, but in ways that did not impact the opposing team's ROBOT. It is challenging to create a ruleset that covers all situations without overly penalizing teams who have made errors. Additionally, it is difficult for REFEREES to infer intent and strategy of teams which can lead to inconsistent calls. With the increase in level of gameplay at *FIRST* Championship, we have decided to change the rules to disallow completely crossing the CENTER LINE to further discourage intentionally interfering with an opponent's AUTO and additionally reduce the amount of incidental interference. We recognize that these changes may result in teams having to change strategies and/or adjust their AUTOS to fit the new rule requirements. We will additionally take lessons learned into development of future season's games and rules.

Game Manual

5.2 FIELD

All FIELDS (divisions, practice and Einstein) at the *FIRST* Championship will be the Welded FIELD type.

6.3 Setup

6.3.4 SCORING ELEMENTS

Note: The quantity of FUEL staged in a MATCH will not be changed for the FIRST Championship.

6.5 Scoring

Table 6-5: REBUILT BONUS RP thresholds

BONUS RP Type	Regional/ District Events	District Championships	*FIRST* Championship
ENERGIZED RP	100	240	360
SUPERCHARGED RP	360	360	500
TRAVERSAL RP	50	50	50

7.2 Conduct

G211 ***Egregious or exceptional violations.** Egregious behavior beyond what is listed in the rules or subsequent violations of any rule or procedure during the event is prohibited.

In addition to rule violations explicitly listed in this manual and witnessed by a REFEREE, the Head REFEREE may assign a YELLOW or RED CARD for egregious ROBOT actions or team member behavior at any time during the event.

Intentionally violating a rule that only results in a YELLOW CARD in an ALLIANCE'S potential last match (such as a team's last qualification MATCH, a lower bracket MATCH, or Finals 2 or 3) will be under increased scrutiny and will likely result in a RED CARD.

Please see section 6.6.1 YELLOW and RED CARDS for additional detail.

> The intent of this rule is to provide the Head REFEREES the flexibility necessary to keep the event running smoothly, as well as keep the safety of all the participants as the highest priority. Behaviors that put the FIRST community or integrity of the game at risk are not allowed and are violations of this rule. Those behaviors include, but are not limited to the list below:
> …
> H. intentionally crossing the CENTER LINE in AUTO and contacting and/or blocking an opponent ROBOT ~~in order to interfere with an opponent ROBOT'S AUTO,~~
> …
> The Head REFEREE may assign a YELLOW or RED CARD for a single instance of a rule violation such as the examples given in items above, or for multiple instances of any single rule violation. Teams should be aware that any rule in this manual could escalate to a YELLOW or RED CARD. The Head REFEREE has final authority on all rules and violations at an event.

7.4 In-MATCH

7.4.1 AUTO

G403 **Limited AUTO opponent interaction.** In AUTO, a ROBOT ~~whose BUMPERS are completely across~~ may not completely cross the CENTER LINE (i.e. to the opposite side of the CENTER LINE from its ROBOT STARTING LINE) ~~may not contact an opponent ROBOT~~.

Violation: MAJOR FOUL. Additional MAJOR FOUL per instance of contact with an opponent ROBOT.

> A ROBOT is considered completely across when their BUMPERS are completely across the CENTER LINE.

11.5 *FIRST* Championship Eligibility

Editorial: There was an error in transcribing the number of slots for Ontario. The original blog listed the correct number. We apologize for any confusion!

Table 11-8 District FIRST Championship and awards allocations

District	Allocated *FIRST* Championship Slots	*FIRST* Impact Award Winners	*FIRST* Leadership Award Finalists	Engineering Inspiration Award Winners	Rookie All-Star Award Winners	Woodie Flowers Award Finalists
Ontario	~~21~~ 19	2	3	1	1	2

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N/A

Game Manual

N/A

Team Update 20

General

N/A

Game Manual

N/A

Team Update 19

General

G415 and G416 Adjustments

G415 and G416 are intended to enforce the notion that BUMPERS are designed to protect the ROBOT, and ROBOTS should generally not have to design for contact within the ROBOT PERIMETER. The size of this year's SCORING ELEMENTS, the height of the BUMPER ZONE, and the nature of this year's game have combined to result in many teams frequently interacting inside the ROBOT PERIMETER of opposing ROBOTS. The frequency of these calls puts intense scrutiny on REFEREES to observe every interaction to perceive even the smallest illegal contact.

The edits to G415 and G416 in this Team Update (as well as the previous edits for those rules in AUTO) seek to retain some level of protection for ROBOTS within their own ROBOT PERIMETER while reducing the number of FOULS occurring for contact that doesn't affect the outcome of the MATCH and increasing the ability for teams to play the game in their own ALLIANCE ZONE without as much risk of serious penalty. As we work on future season's games, we will strive to do a better job of not putting teams and REFEREES in this same difficult position.

Q&A

Questions 9, 177, 182, 186, and 197 have been corrected to align with this Team Update.

Game Manual

6.3 Setup

6.3.4 SCORING ELEMENTS

Note: The quantity of FUEL staged in a MATCH will not be changed for District Championships.

6.5 Scoring

6.5.3 Point Values

Table 6-5: REBUILT BONUS RP thresholds

BONUS RP Type	Regional/ District Events	District Championships	*FIRST* Championship
ENERGIZED RP	100	240	TBA
SUPERCHARGED RP	360	360	TBA
TRAVERSAL RP	50	50	TBA

7.4 In-MATCH

7.4.4 Opponent Interaction

The original G415 & G416 have been replaced with the following. Track changes are explicitly not shown below due to the extensive nature of the changes.

G415 ***Stay out of other ROBOTS.** A ROBOT with BUMPERS completely outside of their ALLIANCE ZONE may not damage or functionally impair an opponent ROBOT by initiating contact, either directly or transitively via a SCORING ELEMENT CONTROLLED by the ROBOT:

A. inside the vertical projection of an opponent's ROBOT PERIMETER, or
B. with the opponent's BUMPER backing or mounting.

Exceptions to this rule:

C. Contact between the ROBOT'S BUMPERS or COMPONENTS inside the ROBOT PERIMETER and COMPONENTS inside an opening of an opponent's BUMPERS or in the space above the BUMPER opening
D. Damage or functional impairment because of contact with a tipped-over opponent ROBOT
E. A ROBOT that is not in violation of G403 making contact with an opponent ROBOT during AUTO
F. Damage that appears to the REFEREE as cosmetic only

Violation: MAJOR FOUL and YELLOW CARD, or if opponent ROBOT is unable to drive, then MAJOR FOUL and RED CARD.

FIRST Robotics Competition can be a full-contact competition and may include rigorous game play. While this rule aims to limit severe damage to ROBOTS, teams should design their ROBOTS to be robust.

Examples for this rule include, but are not limited to:

A. A ROBOT leaves an arm extended and hits an opponent ROBOT inside their ROBOT PERIMETER in the NEUTRAL ZONE. No damage is seen so no violation is assigned.
B. A RED ROBOT in their ALLIANCE ZONE hits a BLUE ROBOT inside their ROBOT PERIMETER. As this occurred inside the RED ALLIANCE ZONE, no violation is assigned.
C. A ROBOT leaves an arm extended, spins around to change course, and unintentionally hits and damages a COMPONENT inside the ROBOT PERIMETER of a nearby opponent ROBOT in the NEUTRAL ZONE. This would result in a MAJOR FOUL + YELLOW CARD.
D. A ROBOT, in the process of trying to quickly reverse direction, tips up on a single pair of wheels, lands atop an opponent ROBOT in the NEUTRAL ZONE, and damages a COMPONENT inside that opponent's ROBOT PERIMETER. This would result in a MAJOR FOUL + YELLOW CARD.
E. Accidentally opening an opponent's relief valve in the NEUTRAL ZONE such that the opponent's air pressure drops and they can no longer use their intake. This is seen as functionally impairing the ROBOT so would result in a MAJOR FOUL + YELLOW CARD.

F. Accidentally powering off an opponent ROBOT in the NEUTRAL ZONE. This is seen as functionally impairing the ROBOT and results in a MAJOR FOUL + RED CARD as the ROBOT is no longer able to drive.

At the conclusion of the MATCH, the Head REFEREE may elect to visually inspect a ROBOT to confirm violations of this rule made during a MATCH and remove the violation if the damage cannot be verified.

For the purposes of this rule, “initiating contact” is a judgement call as to which ROBOT(s) in any interaction were responsible for the contact occurring based on direction of travel and relative speeds of both ROBOTS. Generally, for a ROBOT to have initiated contact, at minimum they have to be both moving towards the opponent ROBOT and have reasonable possibility to have avoided the contact.

In a collision, it’s possible for both ROBOTS to initiate contact.

"Unable to drive" means that because of the incident, for approximately ~20+ seconds, the DRIVER can no longer drive to a desired location in a reasonable time (generally). For example, if a ROBOT can only move in circles, or can only move extremely slowly, the ROBOT is considered unable to drive.

The exception in G415-C effectively means that ROBOTS with BUMPER gaps are at their own risk regarding damaging contact in these areas.

G416 ***This isn’t combat robotics.** A ROBOT may not intentionally and/or recklessly damage or functionally impair an opponent ROBOT.

Violation: MAJOR FOUL and YELLOW CARD, or if opponent ROBOT is unable to drive, then MAJOR FOUL and RED CARD.

The intent of this rule is to cover situations where a ROBOT intentionally and/or recklessly, as perceived by the REFEREE, damages another ROBOT anywhere on the FIELD.

Situations where a REFEREE is likely to infer are intentional and would be a violation if they caused damage include, but are not limited to:

A. A ROBOT REPEATEDLY smashing into an opponent ROBOT intake.
B. A ROBOT REPEATEDLY hitting another ROBOT with their extension.

Examples that would be reckless and would be a violation if they cause damage, include, but are not limited to:

C. A ROBOT driving at high speed, across the FIELD, rams into an opponent ROBOT with their extension.
D. A ROBOT rams into an opponent with their extension REPEATEDLY.
E. A ROBOT violently driving into an opponent that is already firmly against a FIELD element.

Examples that are not reckless include, but are not limited to:

F. A ROBOT making REPEATED BUMPER to BUMPER contact with an opponent.

G. A ROBOT driving at high speed makes BUMPER to BUMPER contact with an opponent.
H. A red ROBOT is driving around and picking up FUEL in the NEUTRAL ZONE with an extension out. Blue ROBOT is playing defense and moves into their path at the last second resulting in a collision. The red ROBOT is not considered reckless and there is no call because the red ROBOT did not have an opportunity to avoid the contact.
I. A red ROBOT is travelling slowly and picking up FUEL in the NEUTRAL ZONE with an extension out. A blue ROBOT races towards the red ROBOT such that the red ROBOT's extension contacts the blue ROBOT causing damage. The red ROBOT is not considered reckless and there is no call because the blue ROBOT initiated the contact because the blue ROBOT was travelling much faster.

At the conclusion of the MATCH, the Head REFEREE may elect to visually inspect a ROBOT to confirm violations of this rule made during a MATCH and remove the violation if the damage cannot be verified.

"Unable to drive" means that because of the incident, for approximately ~20+ seconds, the DRIVER can no longer drive to a desired location in a reasonable time (generally). For example, if a ROBOT can only move in circles, or can only move extremely slowly, the ROBOT is considered unable to drive.

Due to the prevalence of FUEL around the FIELD during gameplay, it is highly unlikely that a REFEREE could determine if an interaction causing an opponent ROBOT to be "beached" on FUEL is intentional versus regular defensive play.

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General

Playing Field Webpage

The Field Manual has been updated to V6.

Game Manual

6.6 Violations

6.6.1 YELLOW and RED CARDS

…

All YELLOW CARDS and G301 VERBAL WARNINGS are cleared ~~in FMS~~ at the conclusion of Practice, Qualification, and division Playoff MATCHES. Other VERBAL WARNINGS issued by the head REFEREE are cleared after Practice MATCHES and persist from Qualification MATCHES through subsequent tournament phases.

7.4 In-MATCH

7.4.3 ROBOT

G409 ***ROBOTS must be safe.** A ROBOT may not pose an undue hazard to a human, an ARENA element, or another ROBOT in the following ways:

A. the ROBOT or anything it CONTROLS, e.g. FUEL, contacts anything outside the FIELD or CORRAL except for MOMENTARY contact inside the CHUTE ~~and/or the CORRAL~~,

B. …

Team Update 17

General

Playing Field Webpage

The Field Manual has been updated to V5.

Game Manual

7.4 In-MATCH

G415 ***Stay out of other ROBOTS.** A ROBOT may not use a COMPONENT outside its ROBOT PERIMETER (except its BUMPERS) to initiate contact with:

A. an opponent ROBOT inside the vertical projection of the opponent's ROBOT PERIMETER, or
B. with the opponent's BUMPER backing or mounting.

Contact with an opponent in an opening of their BUMPERS or in the space above the BUMPER opening are exceptions to this rule.

A ROBOT that is not in violation of G403 making contact with an opponent ROBOT during AUTO is an exception to this rule.

G416 ***This isn't combat robotics.** A ROBOT may not damage or functionally impair an opponent ROBOT in either of the following ways:

A. deliberately.
B. regardless of intent, by initiating contact, either directly or transitively via a SCORING ELEMENT CONTROLLED by the ROBOT:
    a. inside the vertical projection of an opponent's ROBOT PERIMETER, or
    b. with the opponent's BUMPER backing or mounting.

Contact between the ROBOT'S BUMPERS or COMPONENTS inside the ROBOT PERIMETER and COMPONENTS inside an opening of an opponent's BUMPERS or in the space above the BUMPER opening are exceptions to this rule.

A ROBOT that is not in violation of G403 making contact with an opponent ROBOT during AUTO is an exception to this rule.

Damage or functional impairment because of contact with a tipped-over opponent ROBOT, which is not perceived by a REFEREE to be deliberate, is not a violation of this rule.

G417 ***Don't tip or entangle.** A ROBOT may not deliberately, attach to, tip over, or entangle with an opponent ROBOT.

Team Update 16

General

Playing Field Webpage

The Field Acceptance Checklist for the AndyMark Perimeter has been updated to correct the tolerance on the Trench width.

Game Manual

7.4 In-MATCH

7.4.4 Opponent Interaction

G415 *Stay out of other ROBOTS.

> For the purposes of this rule, “initiate contact” ~~requires movement towards an opponent ROBOT~~ is a judgement call as to which ROBOT(s) in any interaction were responsible for the contact occurring based on direction of travel and relative speeds of both ROBOTS. Generally, for a ROBOT to have initiated contact, at minimum they have to be both moving towards the opponent ROBOT and have reasonable possibility to have avoided the contact.
>
> In a collision, it’s possible for both ROBOTS to initiate contact.

G416 *This isn’t combat robotics.

> …
>
> For the purposes of this rule, “initiate contact” ~~requires movement towards an opponent ROBOT~~ is a judgement call as to which ROBOT(s) in any interaction were responsible for the contact occurring based on direction of travel and relative speeds of both ROBOTS. Generally, for a ROBOT to have initiated contact, at minimum they have to be both moving towards the opponent ROBOT and have reasonable possibility to have avoided the contact.
>
> In a collision, it’s possible for both ROBOTS to initiate contact.
>
> …

Section 15 Glossary

The definition of CHUTE has been corrected to include all definition text.

Team Update 15

General

Team Update Schedule

Team Updates will continue on Tuesdays only through April 21, 2026.

Fuel Counter Update

Please see Fuel Counter Update blog for information about Fuel Counter Assessment and Testing as well as information on a change to remove the deflectors from the Hub.

Known Driver Station Error

As an increasing number of teams update radio firmware to prepare for their events, we wanted to call attention to a known issue with the 2026 Driver Station. The 2026 Driver Station displays "ERROR -44021 Radio Version" when used with VH-109 firmware 2.0.0 or 2.0.1.
This is a bug due to the version checking not being updated for the 2026 season and does not affect robot connectivity. VH-109 version 2.0.1 is the latest version and all teams should update before attending their first event.

Playing Field Webpage

The Field Manual has been updated to V4.

Q&A

The answers to Q18, Q41, Q42, and Q76 have been updated to reflect changes in Team Update 14.

Game Manual

6.5 Scoring

6.5.2 ROBOT Scoring Criteria

Additionally, a ROBOT must be contacting at least one RUNG and/or UPRIGHT on their TOWER and may additionally only contact the following elements:

A. the TOWER WALL,
B. support structure,
C. FUEL, and/or.
D. another ROBOT.

6.6 Violations

Table 6-6 Rule violations

Penalty	Description
VERBAL WARNING	a warning issued to a team by event staff or the Head REFEREE.

7.4 In-MATCH

7.4.5 Human

G425 ***SCORING ELEMENT delivery.** FUEL may only be introduced to the FIELD by a HUMAN PLAYER or DRIVER in the following ways:

A. through the CHUTE,
B. through the bottom opening in the OUTPOST, or
C. thrown over the top of the ALLIANCE WALL from the OUTPOST AREA.

Team Update 14

General

ROBOT PERIMETER interactions and expansion limits

In Team Update 13, we highlighted the application of R106 and G413 to ROBOT components holding FUEL. While we have been aware since Kickoff of the likelihood that many teams would instead include these components as part of their BUMPER, we had not fully thought through all of the implications on enforcement of G413, G415, and G416.

This update relaxes the application of G413 to flexing ROBOT components and makes modifications to G415 and G416 to allow consistent REFEREE enforcement regardless of whether these components are part of the BUMPER or not. While we understand this may be frustrating for teams who have put substantial effort into complying with the rules as they have been since Kickoff, we felt that this direction was the best choice for consistent enforcement and to avoid teams feeling forced to move components onto their BUMPERS.

Playing Field Webpage

The Field Dimension Drawings have been updated to add details on gate locations and dimensions when opened.

The Field Acceptance Checklists have been posted to the Playing Field Webpage.

The Field Manual has been updated to V3.

Q&A

The response to Q77 has been updated to reflect changes made in Team Update 13.

Game Manual

5.1 Dimensions and Accuracy

The specification for the REBUILT FIELD can be retrieved from a few locations:

- The FIELD Acceptance Checklists ~~(coming soon)~~ for the welded FIELD and for the AndyMark FIELD include~~s~~ the controlled dimensions (with relevant tolerances) which will be checked by event staff a few times throughout the event. The FIELD is expected to change during MATCH play. Teams can ask the FTA to re-check specific measurements if they believe something is out of spec prior to a MATCH beginning.

5.4 HUB

Table 5-3: HUB Lighting

Color	Pre-MATCH	MATCH	Post-Match
ALLIANCE color at 100% brightness	N/A	HUB active	N/A
ALLIANCE color pulsing		HUB deactivation warning. Starts 3 seconds before and continues until deactivation or end of MATCH.	
ALLIANCE color with white chase		During the TRANSITION SHIFT, Indicates the ALLIANCE HUB that will be inactive in ALLIANCE SHIFT 1. HUB is active.	
Purple		N/A	FIELD is safe for FIELD STAFF.
Green			FIELD is safe for all.
White			Post MATCH 3 Second Scoring Assessment Period
Off	MATCH ready to start.	HUB is not active.	N/A

5.7 DEPOT

A DEPOT is a 42.0in (1.07m) wide, 27.0in (68.6cm) deep structure located along the ALLIANCE WALL. There is 1 DEPOT per ALLIANCE. DEPOTS are made up of 3.0in (7.62cm) wide, 1.0in (2.54cm) tall steel barriers. The DEPOT is secured to the carpet using hook fastener which increases the height to approximately 1.125in (2.86cm).

7.3 Pre-MATCH

G303 ***Start your ROBOTS.** A ROBOT must meet all following MATCH-start requirements:

ROBOTS may be asked to move if at least 1 of the FIELD gates for each ALLIANCE are not able to open/close when the ROBOT is in its starting location. Teams are encouraged to have multiple AUTO starting locations.

Locations for FIELD gates can be found in the Field Dimension Drawings.

G408 **Don't catch FUEL.**

Violation: MINOR FOUL. If strategic, MAJOR FOUL and VERBAL WARNING. If subsequent strategic violations during the event, MAJOR FOUL and YELLOW CARD.

> …
>
> Examples of interaction which would be considered strategic include, but are not limited to:
>
> C. intentionally sitting under the HUB to collect a large quantity of FUEL,
> D. intentionally sitting under the HUB in order to redirect FUEL into your ALLIANCE ZONE.
>
> Violations of this rule are per instance and not per FUEL CONTROLLED. Generally, an instance is considered for each time a ROBOT is catching or redirecting a quantity of FUEL from the HUB. Any time flow of FUEL into the robot has stopped would be considered a separate instance. Generally, any action which attempts to exploit the definition of an instance of any rule in order to gain benefit will likely be a violation of G211 and would quickly escalate to a RED CARD.

7.4 In-MATCH

7.4.3 ROBOT

G413 **Expansion limits.** A ROBOT may not extend beyond any of the horizontal or vertical expansion limits described in R105, R106, and R107.

Exceptions to this rule:

A. If the over-expansion that violates R105 or R107 is due to visible damage and not used for strategic benefit, no penalty is imposed.
B. If an expansion that contributes to a violation of R106 is due to visible damage the team may extend a different component in a different direction, and no penalty is imposed.
C. If the over-expansion is MOMENTARY and is not used for strategic benefit, no penalty is imposed.
D. If an expansion that contributes to a violation of R106 is due to flex of ROBOT components and is within 1.5in of the ROBOT PERIMETER, the team may extend in a different direction, and no penalty is imposed.

> Examples related to exception C include the following:
>
> ~~G. A ROBOT has a hopper that when filled with FUEL extends out multiple sides of the ROBOT. This action is used for strategic benefit so a violation of MAJOR FOUL is issued.~~
>
> For ~~both~~ examples F ~~and G~~, the ROBOT will likely need to take corrective action before being allowed to compete in subsequent MATCHES.

7.4.4 Opponent Interaction

G415 ***Stay out of other ROBOTS.** A ROBOT may not use a COMPONENT outside its ROBOT PERIMETER (except its BUMPERS) to initiate contact with:

A. an opponent ROBOT inside the vertical projection of the opponent's ROBOT PERIMETER, or
B. with the opponent's BUMPER backing or mounting.

Contact with an opponent in an opening of their BUMPERS or in the space above the BUMPER opening are exceptions to this rule.

G416 ***This isn't combat robotics.** A ROBOT may not damage or functionally impair an opponent ROBOT in either of the following ways:

A. deliberately.
B. regardless of intent, by initiating contact, either directly or transitively via a SCORING ELEMENT CONTROLLED by the ROBOT:
   a. inside the vertical projection of an opponent's ROBOT PERIMETER, or
   b. with the opponent's BUMPER backing or mounting.

Contact between the ROBOT'S BUMPERS or COMPONENTS inside the ROBOT PERIMETER and COMPONENTS inside an opening of an opponent's BUMPERS or in the space above the BUMPER opening are exceptions to this rule.

7.4.5 Human

G427 **The OUTPOST has a storage limit.** Off-FIELD FUEL may only be stored in the CHUTE and the CORRAL. Excess FUEL, defined as the CHUTE & CORRAL being full, must immediately be entered onto the FIELD.

HUMAN PLAYERS holding up to 2 FUEL or making a good-faith effort to immediately move or enter additional FUEL is an exception to this rule.

Violation: MINOR FOUL, and if CONTINUOUS, a MAJOR FOUL is assessed.

Team Update 13

General

Week Zero Observations

As noted in this blog, teams should be careful to ensure that their ROBOT complies with G413 expansion limits and robot expansion rules even when filled with FUEL and should also be mindful to keep FUEL inside the FIELD.

Game Manual

7.3 In-MATCH

7.4.3 ROBOT

G413 **Expansion limits.** A ROBOT may not extend beyond any of the horizontal or vertical expansion limits described in R105, R106, and R107.

Exceptions to this rule:

A. If the over-expansion that violates R105 or R107 is due to visible damage and not used for strategic benefit, no penalty is imposed.
B. If an expansion that contributes to a violation of R106 is due to visible damage the team may extend a different component in a different direction, and no penalty is imposed.
C. If the over-expansion is MOMENTARY and is not used for strategic benefit, no penalty is imposed.

Violation: ~~MINOR FOUL, or~~ MAJOR FOUL ~~if the over-expansion is used for strategic benefit, including if it impedes or enables a scoring action~~. Corrective action (such as removing the offending MECHANISM, and/or re-inspection) may be required before the ROBOT will be allowed to compete in subsequent MATCHES.

> The intent of the G413-A and G413-B exceptions to this rule ~~is~~ are to prevent piling on a punitive response to a ROBOT that's already experienced hardship and not leveraging that hardship for gain.
>
> Exceptions are only given for visible damage, as perceived by a REFEREE. Teams should not assume that REFEREES will give an exception for unobservable damage even if ROBOT function is affected.
>
> Teams exploiting the exception to part B by designing in something to "break" will not be given an exception and will likely also be given a violation of G211.
>
> Examples ~~for this rule~~ related to exceptions A and B include the following:
> A. a physical device on a team's ROBOT, whose purpose is to restrain their TOWER mechanism from extending beyond the 30in (76.2cm) height limit imposed by R107, breaks after a collision with another ROBOT. Provided the

ROBOT does not use the now-too-long extension to climb the TOWER, no violation is assigned.

B. a vertical structural member of a ROBOT breaks at the bottom and rotates out such that it exceeds the 12in (30.48cm) limit imposed by R105. The ROBOT then parks such that its extension blocks opponent ROBOTS from reaching the OUTPOST. A MAJOR FOUL is issued.
C. a part of a ROBOT is damaged causing a panel to extend out less than 12in (30.48cm) on one side of the ROBOT. The ROBOT then extends out in another direction to intake FUEL. As visible damage has caused an expansion that contributes to the violation of R106, no penalty is imposed.
D. a mechanism that controls a ROBOT'S intake is damaged in a way that's not visible to a REFEREE and the team can no longer bring their intake back in. The team then extends out in another direction to climb the TOWER. The intake is not visibly damaged, so a violation of a MAJOR FOUL is issued.

The intent of the G413-C extension is to prevent violations for inadvertent mechanism flexing and movement for short periods of time during the MATCH not to provide a pathway to intentionally design less-than-MOMENTARY over-extensions.

Examples related to exception C include the following:

E. A ROBOT has a mechanism deployed out over one side of the ROBOT PERIMETER which, due to ROBOT movement or a collision, flexes MOMENTARILY beyond the projection of that side of the ROBOT PERIMETER. As the action is less than MOMENTARY and not used for strategic benefit, no penalty is imposed.
F. A ROBOT has a mechanism designed to rotate from side A to side B of their ROBOT and MOMENTARILY extends out both side A and B during rotation. This action is used for strategic benefit so a violation of a MAJOR FOUL is issued.
G. A ROBOT has a hopper that when filled with FUEL extends out multiple sides of the ROBOT. This action is used for strategic benefit so a violation of MAJOR FOUL is issued.

For both examples F and G, the ROBOT will likely need to take corrective action before being allowed to compete in subsequent MATCHES.
Note that G211 may apply if a team is intentionally exceeding the expansion limits for strategic benefit.

At the conclusion of the MATCH, the Head REFEREE may elect to visually inspect a ROBOT and remove the violation if the damage is verified.

7.4.5 Human

G425 ***SCORING ELEMENT delivery.** FUEL may only be introduced to the FIELD by a HUMAN PLAYER or DRIVER in the following ways:

A. through the CHUTE,
B. through the bottom opening in the OUTPOST, or
C. thrown over the ALLIANCE WALL from the OUTPOST AREA.

8.1 General ROBOT Design

R106 **Horizontal extension – one direction at a time.** ROBOTS may not extend beyond their ROBOT PERIMETER in more than one direction (i.e. over more than 1 side of the ROBOT) at a time. The extension may not reach outside the projection of that side of the ROBOT PERIMETER.
For the purposes of this rule, a round or circular section of ROBOT PERIMETER is considered to have an infinite number of sides. Exceptions include:

A. BUMPERS
B. Minor protrusions excluded from the ROBOT PERIMETER per R101
~~C. MOMENTARY and inconsequential extensions in multiple directions~~

Teams are responsible for maintaining compliance with expansion limits and subject to violations listed in G413 for any violations during the MATCH. ~~Examples of MOMENTARY and inconsequential~~ G413 includes an exception for MOMENTARY actions that are not used for strategic benefit such as ~~include~~ a wire or cable tie swinging out of the ROBOT PERIMETER, including while an extension is deployed out a different side.

Examples of compliance and non-compliance of this rule are shown in Figure 8 3.

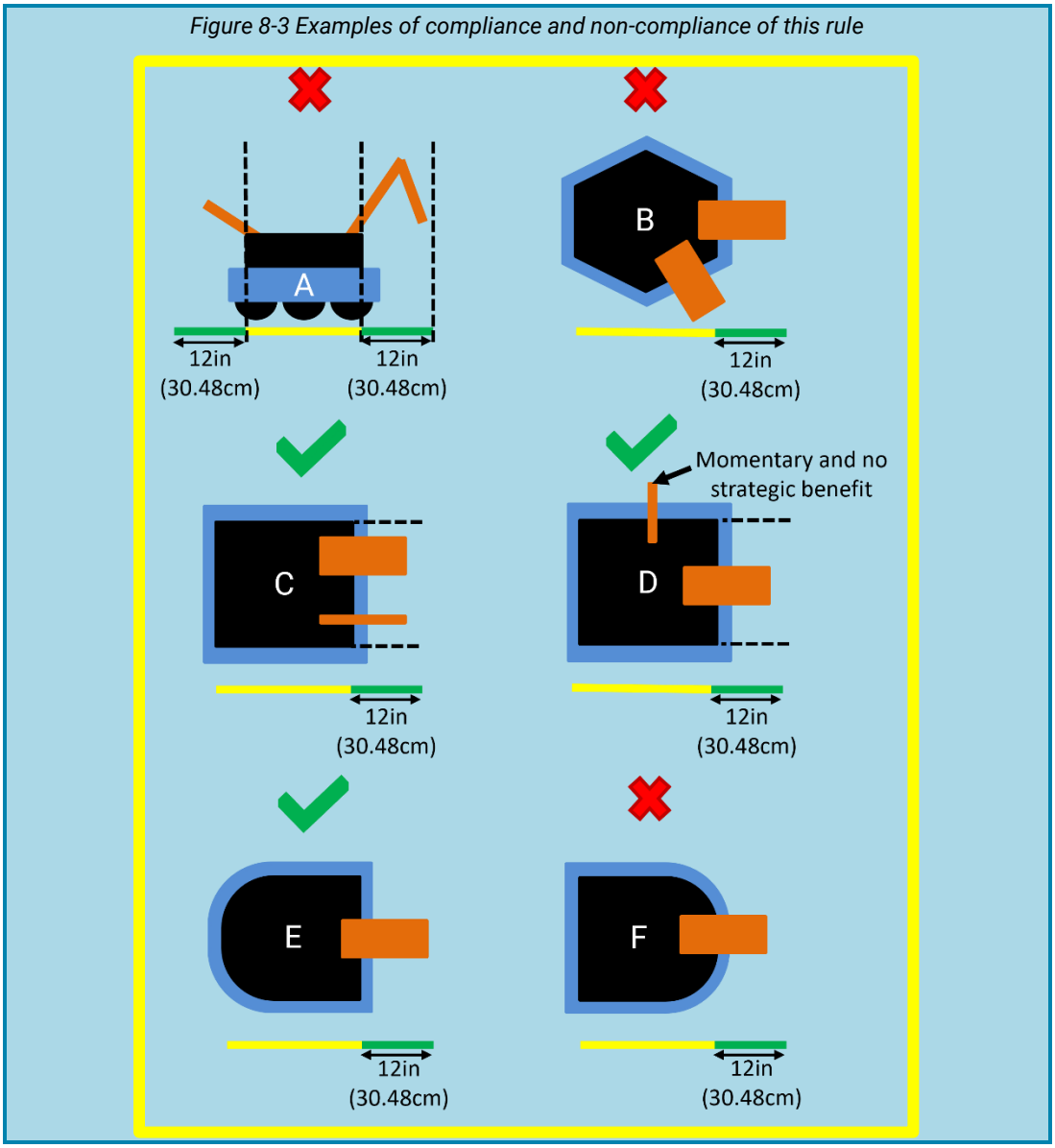
Yellow bars represent the limits of the ROBOT PERIMETER and are drawn in the same orientation of the ROBOT'S PERIMETER.

Green bars represent a measured extension from the ROBOT PERIMETER that does not exceed the limit defined in R105.

- ROBOT A violates this rule for extending in more than one direction
- ROBOT B violates this rule for extending in more than one direction
- ROBOT C does not violate this rule
- ROBOT D does not violate this rule as the additional extension is ~~momentary and inconsequential~~ MOMENTARY and is not used for strategic benefit
- ROBOT E does not violate this rule
- ROBOT F violates this rule for extending in more than one direction by extending over a round segment of ROBOT PERIMETER.

Figure 8-3 has adjusted image for ROBOT D.

Figure 8-3 Examples of compliance and non-compliance of this rule



Team Update 12

General

Awards Webpages

Effective at *FIRST* events beginning February 18, the Dean's List Award will be known as the *FIRST*® Leadership Award for the 2025–2026 season.

The award's purpose, criteria, and significance remain unchanged. It continues to recognize exceptional student leaders who demonstrate technical expertise, advance the mission of *FIRST*, and exemplify our core values. Historical records of recipients from previous seasons will not be updated at this time.

The Awards & Submitted Awards webpages have been updated to make changes to this award name and all files linked on these pages have also been updated to align.

Game Manual

6.5 Scoring

6.5.2 ROBOT Scoring Criteria

To qualify for TOWER points for a given LEVEL, a ROBOT must meet the following conditions:

- For LEVEL 1 – a ROBOT must no longer be touching the ~~CARPET~~ carpet or the TOWER BASE, or
- For LEVEL 2 – a ROBOT must be positioned such that its BUMPER covers are completely above the LOW RUNG, or
- For LEVEL 3 – a ROBOT must be positioned such that its BUMPER covers are completely above the MID RUNG.

7.2 Conduct

G210 *Don't expect to gain by doing others harm.

> …
> This rule requires an intentional act with limited or no opportunity for the team being acted on to avoid the penalty such as:
> C. …
> D. a blue ALLIANCE ROBOT, pushing a red ALLIANCE ROBOT far from (i.e. more than 48.0in (1.22m)) the TOWER into another ~~red~~ blue ALLIANCE ROBOT which is in contact with the blue TOWER and the REFEREE ~~perceiving~~ perceives that the blue ROBOT is deliberately making the red ROBOT violate G420.

10.6 Playoff MATCHES

10.6.2 Playoff MATCH Bracket

Table 10-2 Typical Playoff MATCH schedule

Round	MATCH	Upper/ Lower	Gap (min)				Next MATCH (MATCH # (ALLIANCE color))	
			Blue	Red	Blue	Red	Winner	Loser
…								
Finals	15		W13	W11	0:18	0:18	M16*	M16*
15-minute awards break: Rookie All Star, ~~Dean's List,~~ *FIRST* Leadership Award, Engineering Inspiration**								
Finals	16*		W13	W11	0:18	0:18		
Awards: Remaining awards, Finalists, Winners, and *FIRST* Impact Award								

** if required*

*** Program Delivery Partners may choose to hold these awards until after all MATCHES are complete.*

11.1 District Events

11.1.4 Team Judged Awards

Teams only receive points for team awards judged at the event. If an award is not judged, is not for a team (e.g. the ~~Dean's List~~ *FIRST* Leadership Award) or is not judged at the event (e.g. Safety Animation Award, sponsored by UL), no points are earned.

11.5 *FIRST* Championship Eligibility

Each District determines the number of ~~Dean's List~~ *FIRST* Leadership Award Finalists, *FIRST* Impact Awards, Rookie All Star Awards, and Engineering Inspiration Awards to present at their District Championship, within a range established by *FIRST*. The team counts are based on the team representation of the respective District at the Championship. For the awards, ranges are developed by using ratios agreed upon by *FIRST* and District Leadership. These ranges allow each District to represent their own community as they see fit.

- For the *FIRST* Impact Award, the ratios range from one *FIRST* Impact Award team for every 18 Championship District teams to one FIRST Impact Award team for every nine Championship District teams.
- For the ~~Dean's List~~ *FIRST* Leadership Award Finalist ~~Award~~, the ratios range from one ~~Dean's List~~ *FIRST* Leadership Award Finalist for every nine Championship District teams to one ~~Dean's List~~ *FIRST* Leadership Award Finalist for every six Championship District teams.
- All Districts, regardless of *FIRST* Championship Slot allocation, may award one or two Engineering Inspiration and Rookie All-Star Awards.

Table 11-8 District FIRST Championship and awards allocations

District	Allocated *FIRST* Championship Slots	*FIRST* Impact Award Winners	~~Dean's List~~ *FIRST* Leadership Award Finalists	Engineering Inspiration Award Winners	Rookie All-Star Award Winners	Woodie Flowers Award Finalists
...	...	...	...	...	...	...

15 Glossary

Term	Definition
BONUS RP	ENERGIZED RP, SUPERCHARGED RP, and TRAVERSAL RP.

Team Update 11

General

VH-109 Firmware Released

Vivid Hosting has released VH-109 firmware version 2.0.1. This version is what will be required by the programming kiosk at events and all teams are encouraged to update their radios prior to their event to speed up programming at the event. You can find a full list of changes in version 2.0.0 (2026 Kickoff release) and 2.0.1 on Vivid's Changelog page.

Playoff Communication Document

The Playoff Communication Document and Championship Playoff Communication Document have been posted to the Season Materials Page.

Game Manual

8.4 BUMPER Rules

R402 ***BUMPER construction.** BUMPERS must consist of the following elements. With the exception of padding and cover extending into corners and cover wrapping around the end of segments, any vertical cross section of the BUMPER must include parts A, B, and C:

A. **Padding** - …
B. **Backing** - …
C. **Cover** - …
D. **Fastening System** - …

8.6 Power Distribution

R601 ***Battery limit – everyone has the same power.**

A. …
…
G. Battery vents must not be obstructed during charging.

> While teams should generally attempt to leave the battery vent (the inset rectangle on the top face of the battery) as unobstructed as possible during charging, as long as the short edges of the rectangle are not sealed or directly covered the vent will be considered not obstructed.

Team Update 10

General

Field Manual

Version 2 of the Field Manual has been posted to the Playing Field Webpage.

Game Manual

N/A

Team Update 09

General

Awards

The *FIRST* Impact Award section on the Submitted Awards webpage has been updated to correct a discrepancy in the interview section and clarify that the documentation form must be submitted online this season.

Game Manual

7.4 In-MATCH

G419 ***Don't collude with your partners to shut down major parts of game play.** 2 or more ROBOTS that appear to a REFEREE to be working together may not isolate or close off any major element of MATCH play.

Violation: MAJOR FOUL, and for every 3 seconds in which the situation is not corrected, a MAJOR FOUL is assessed.

Examples of violations of this rule include, but are not limited to:
A. shutting down access to all SCORING ELEMENTS,
B. quarantining all opponents to a small area of the FIELD,
C. preventing access to the opponent's TOWER,
D. preventing ~~access to a~~ traversal between field zones by blocking both TRENCHES, and
E. preventing ~~access to a~~ traversal between field zones by blocking both BUMPS.

Examples of standard gameplay that are not violations, include, but are not limited to:
F. A single ROBOT blocking access to a particular area of the FIELD, and
G. 2 ROBOTS independently collecting SCORING ELEMENTS in front of a BUMP or TRENCH at the same time.

8.9 OPERATOR CONSOLE

R904 ***OPERATOR CONSOLE physical requirements.** The OPERATOR CONSOLE must not

A. be longer than 60.0in (1.524m),
B. be deeper than 16.0in (40.64cm) (excluding any items that are held or worn by the DRIVERS during the MATCH),
C. extend more than 78.0in (1.981m) above the floor, or
D. attach to the ~~FIELD~~ ARENA, except via the loop tape as described in section 5.9.1 DRIVER STATIONS or clamping to the DRIVER STATION support shelf (as long as the shelf is not damaged).

Team Update 08

General

N/A

Game Manual

5.4 HUB

Table 5-3: HUB Lighting

Color	Pre-MATCH	MATCH	Post-Match
ALLIANCE color at 100% brightness	N/A	HUB active	N/A
ALLIANCE color pulsing		HUB deactivation warning. Starts 3 seconds before and continues until deactivation.	
ALLIANCE color with white chase		During the TRANSITION SHIFT, Indicates the ALLIANCE HUB that will be inactive in ALLIANCE SHIFT 1. HUB is active.	
Purple		N/A	FIELD is safe for FIELD STAFF.
Green			FIELD is safe for all.
Off	MATCH ready to start.	HUB is not active.	N/A

6.4 MATCH Periods

6.4.1 HUB Status

FMS Game Data relays the ALLIANCE who scored more FUEL during AUTO, or the ALLIANCE selected by FMS, to all OPERATOR CONSOLES simultaneously at the start of TELEOP. Lights on the HUB will also indicate the ALLIANCE HUB that will be inactive in ALLIANCE SHIFT 1 as noted in Table 5-3.
Specific details on the format of the data can be found on the 2026 FRC Control System website.

6.6 Violations

6.6.1 YELLOW and RED CARDS

YELLOW CARDS are additive, meaning that a second YELLOW CARD is automatically converted to a RED CARD. A team is issued a RED CARD for any subsequent incident in which they receive an additional YELLOW CARD, including earning a second YELLOW CARD during a single MATCH. A second YELLOW CARD is indicated with a RED CARD on the audience display next to the team who received the CARDS.~~by the Head REFEREE holding a YELLOW CARD and RED CARD in the air simultaneously after the completion of the MATCH~~. A team that has received either a YELLOW CARD or a RED CARD carries a YELLOW CARD into subsequent MATCHES, except as noted below.

10.2 MATCH Replays

An ARENA FAULT is an error in ARENA operation that includes, but is not limited to:

A. broken FIELD elements due to
   a. normal, expected game play or
   b. ROBOT abuse of FIELD elements that affects the outcome of the MATCH for their opponents.

> A broken FIELD element caused by ROBOT abuse that affects the outcome of the MATCH for their ALLIANCE is not an ARENA FAULT.

B. power failure to a portion of the FIELD (tripping the circuit breaker in the DRIVER STATION is not considered a power failure),
C. improper activation by the FMS,

> It is not an ARENA FAULT if FMS Game Data is not sent, not received, or if delayed. Incorrect Game Data being sent would be considered an ARENA FAULT.

D. errors by FIELD STAFF (except those listed in section 6.8 Other Logistics), and
E. a ROBOT radio disconnect that impairs operation of other ROBOTS on the FIELD for more than 8 seconds.

Team Update 07

General

KitBot Software Guide

The KitBot Software Guide has been updated.

Inspection Checklist

The Inspection Checklist is now available on the Season Materials Page.

Game Manual

7.2 Conduct

G211 ***Egregious or exceptional violations.**

> The intent of this rule is to provide the Head REFEREES the flexibility necessary to keep the event running smoothly, as well as keep the safety of all the participants as the highest priority. Behaviors that put the *FIRST* community or integrity of the game at risk are not allowed and are violations of this rule. Those behaviors include, but are not limited to the list below:
>
> …
>
> H. intentionally crossing the CENTER LINE in AUTO and contacting an opponent ROBOT in order to interfere with an opponent ROBOT'S AUTO.
>
> …

8.6 Power Distribution

R615 ***Power roboRIO as specified.** The roboRIO power input must be connected directly to a non-switched pair of protected output terminals of a PD with a 10A fuse or circuit breaker installed. No other electrical load can be connected to the breaker or fuse supplying this circuit.

R617 ***Power radio as specified** – Part 2. The device supplying power to the wireless bridge per R616 must be connected directly to a non-switched pair of protected output terminals of a PD with a 10A fuse or circuit breaker installed with the exception of the PDP 1.0 shared VRM/PCM pairs which may be protected with a 20A fuse or circuit breaker. No other electrical load can be connected to the breaker or fuse supplying this circuit with the exception of a single PCM if using the shared VRM/PCM ports of a PDP 1.0.

Team Update 06

General

Field Manual

The Field Manual has been posted to the Playing Field webpage and the link has been added to section 5.1 of the Game Manual. This document is intended for use at official events by a *FIRST* Technical Advisor (FTA) or Field Supervisor but, new this season, it is available for teams to use as a supplemental reference. This document will be updated as needed throughout the season.

Q&A

The answer to Q31 has been updated with a corrected response.

Kit of Parts

The Formlabs voucher information has been updated. See the Kit of Parts webpage for full details.

Game Manual

7.4.3 ROBOT

G413 **Expansion limits.** A ROBOT may not extend beyond any of the horizontal or vertical expansion limits described in R105, R106, and R107.

Exceptions to this rule:

A. If the over-expansion that violates R105 or R107 is due to visible damage and not used for strategic benefit, ~~it is an exception to this rule, and~~ no penalty is imposed.
B. If an expansion that contributes to a violation of R106 is due to visible damage the team may extend a different component in a different direction, and no penalty is imposed.

Violation: MINOR FOUL, or MAJOR FOUL if the over-expansion is used for strategic benefit, including if it impedes or enables a scoring action. Corrective action (such as removing the offending MECHANISM, and/or re-inspection) may be required before the ROBOT will be allowed to compete in subsequent MATCHES.

The intent of the exception to this rule is to prevent piling on a punitive response to a ROBOT that's already experienced hardship and not leveraging that hardship for gain.
Exceptions are only given for visible damage, as perceived by a REFEREE. Teams should not assume that REFEREES will give an exception for unobservable damage even if ROBOT function is affected.
Teams exploiting the exception to part B by designing in something to "break" will not be given an exception and will likely also be given a violation of G211.
Examples for this rule include the following:
A. a physical device on a team's ROBOT, whose purpose is to restrain their TOWER mechanism from extending beyond the 30in (76.2cm) height limit imposed by R107, breaks after a collision with another ROBOT. Provided the

ROBOT does not use the now-too-long extension to climb the TOWER, no violation is assigned.

B. a vertical structural member of a ROBOT breaks at the bottom and rotates out such that it exceeds the 12in (30.48cm) limit imposed by R105. The ROBOT then parks such that its extension blocks opponent ROBOTS from reaching the OUTPOST. A MAJOR FOUL is issued.

C. a part of a ROBOT is damaged causing a panel to extend out less than 12in (30.48cm) on one side of the ROBOT. The ROBOT then extends out in another direction to intake FUEL. As visible damage has caused an expansion that contributes to the violation of R106, no penalty is imposed.

D. a mechanism that controls a ROBOT'S intake is damaged in a way that's not visible to a REFEREE and the team can no longer bring their intake back in. The team then extends out in another direction to climb the TOWER. The intake is not visibly damaged, so a violation of a MAJOR FOUL is issued.

Note that G211 may apply if a team is intentionally exceeding the expansion limits for strategic benefit.

At the conclusion of the MATCH, the Head REFEREE may elect to visually inspect a ROBOT and remove the violation if the damage is verified.

14.4 Load In

E401 ***Load in during Load-In.** Teams must load in the ROBOT and all ROBOT elements into the event by the end of the last designated Load-In period on the Public Schedule. ROBOT and all ROBOT elements that are loaded in, may not be brought back out until Load-Out. Exceptions are as follows:

A. raw stock
B. OPERATOR CONSOLES, BUMPERS, battery assemblies
C. COTS items with minor modifications (attachment of connectors, assembly of COTS items per manufacturer instructions, labeling or decoration, etc.)
D. 3D printed parts
E. gearboxes attached to associated motor(s)
F. exceptional circumstances that result in a team not being able to make the Load-In time and has made arrangements with Event Management.

Public Schedules can be found in the additional info section via the Team & Event Search.

There are no rules that explicitly restrict items that may be brought into the venue during the designated Load-In period. During Load-In, teams are not limited to a single trip, and are encouraged to be as efficient and safe as possible.

Violation: Item will not be permitted into venue.

Team Update 05

General

Q&A

The answer to Q83 has been updated with a corrected response.

Game Manual

7.3 Pre-MATCH

G302 ***Limit what you use during a MATCH**. Items used during a match must fit on your team's DRIVER STATION shelf, be worn or held by members from your DRIVE TEAM, or be an item used as an accommodation (e.g. stools, crutches, etc.). Regardless of if the equipment fits the criteria above, it may not:

A. be employed in a way that introduces a safety hazard,
B. extend more than 78.0in (1.981m) above the floor,
C. communicate with anything or anyone outside of the ARENA with the exception of medically required equipment,
D. block visibility for FIELD STAFF or audience members, or
E. jam or interfere with the remote sensing capabilities of another team or the FIELD.

Exceptions to part B are granted for momentary extensions above 78.0in (1.91m) and for individuals above 78.0in (1.91m) wearing PPE or reasonable decorative apparel such as hats, headbands, etc.

Violation: MATCH will not start until the situation is remedied. If discovered or used inappropriately during a MATCH, YELLOW CARD.

> Examples of equipment that may be considered a safety hazard in the confined space of the ALLIANCE AREA include, but are not limited to, a folding step stool, ladder, or a large signaling device.
>
> Using an item that has wireless communications disabled complies with C above.
>
> Examples of jamming or interfering with remote sensing capabilities include, but are not limited to, mimicking the FIELD AprilTags and shining bright lighting or laser pointers onto the FIELD.

11.2 District Championship Eligibility

Table 11-5 2026 District Championship Capacities

District Championship	Capacity	Divisions
***FIRST* Mid-Atlantic District Championship**	~~60~~ 66	1

14.4 Load In

E403 ***Load-In Restrictions.** The only team permitted activities during load in periods prior to pits opening are:

A. bringing materials into their pit area,.
B. ROBOT and BUMPER weighing (if available at your event), including any necessary BUMPER installation or removal, ~~and~~
C. Early Pit Setup (if available at your event)~~.~~, and
D. District Championships and *FIRST* Championship may allow inspection during load-in which will be announced in the public schedule.

Violation: Teams will be asked to leave the pit area.

Team Update 04

General

N/A

Game Manual

11.2 District Championship Eligibility

Table 11-5 2026 District Championship Capacities

District Championship	Capacity	Divisions
***FIRST* Israel District Championship**	~~45~~ 42	1

Team Update 03

General

FUEL Compression Variances

Teams have reported seeing a variance in the compression of FUEL from the Kit of Parts and from AndyMark sales to teams. The manufacturing process used for this year's scoring element will produce FUEL that will have variation in compression. FUEL from every manufactured batch has been tested to be within engineering specifications and this compression variance is within these specifications. FUEL within this range of variation has been tested to have similar performance in robots intaking, indexing, and launching.

Teams should expect to encounter FUEL at events that fall within these same engineering specifications that result in varying compression rates and design accordingly.

Game Manual

5.12 The FIELD Management System

Table 5-4: Audio Cues

Event	Timer Value(s)	Audio Cue
MATCH start	0:20 (for AUTO)	"Cavalry Charge"
AUTO ends	0:00 (for AUTO)	"Buzzer"
TELEOP & TRANSITION begins	2:20	"3 Bells"
ALLIANCE SHIFT starts	2:10 1:45 1:20 0:55	~~None~~ "POWER UP - Linear Popping"
END GAME begins	0:30	"~~TBD~~" "Steam Whistle"
MATCH end	0:00	"Buzzer"
MATCH stopped	n/a	"Foghorn"

6.5 Scoring

6.5.2 ROBOT Scoring Criteria

To qualify for TOWER points for a given LEVEL, a ROBOT must meet the following conditions:

- For LEVEL 1 – a ROBOT must no longer be touching the CARPET or the TOWER BASE, or
- For LEVEL 2 – a ROBOT must be positioned such that its BUMPER~~S~~ covers are completely above the LOW RUNG, or
- For LEVEL 3 – a ROBOT must be positioned such that its BUMPER~~S~~ covers are completely above the MID RUNG.

7.4 In-MATCH

7.4.4 Opponent Interaction

G415 ***Stay out of other ROBOTS.** A ROBOT may not use a COMPONENT outside its ROBOT PERIMETER (except its BUMPERS) to initiate contact with an opponent ROBOT inside the vertical projection of the opponent's ROBOT PERIMETER. Contact with an opponent in an opening of their BUMPERS or in the space above the BUMPER opening are exceptions to this rule.

G416 ***This isn't combat robotics**. A ROBOT may not damage or functionally impair an opponent ROBOT in either of the following ways:

A. deliberately.
B. regardless of intent, by initiating contact, either directly or transitively via a SCORING ELEMENT CONTROLLED by the ROBOT, inside the vertical projection of an opponent's ROBOT PERIMETER. Contact between the ROBOT'S BUMPERS or COMPONENTS inside the ROBOT PERIMETER and COMPONENTS inside an opening of an opponent's BUMPERS or in the space above the BUMPER opening are exceptions to this rule.

> The exception in G416-B effectively means that ROBOTS with BUMPER gaps are at their own risk regarding damaging contact in these areas.

8.1 General ROBOT Design

R106 **Horizontal extension – one direction at a time.** ROBOTS may not extend beyond their ROBOT PERIMETER in more than one direction (i.e. over more than 1 side of the ROBOT) at a time. The extension may not reach outside the projection of that side of the ROBOT PERIMETER.
For the purposes of this rule, a round or circular section of ROBOT PERIMETER is considered to have an infinite number of sides. ~~MOMENTARY and inconsequential extensions in multiple directions are an exception to this rule.~~ Exceptions include:

A. BUMPERS
B. Minor protrusions excluded from the ROBOT PERIMETER per R101
C. MOMENTARY and inconsequential extensions in multiple directions

Team Update 02

General

WPILib 2026.2.1 Released

WPILib 2026.2.1 has been released. This optional update contains the game specific elements (field images and AprilTag maps) as well as fixes for a few minor bugs discovered since the Kickoff release. Downloads and a complete change log can be found on GitHub.

Awards

The *FIRST* Impact Award Definitions have been updated to remove confusion caused by the parentheticals. This change helps reflect the original intent to allow teams to use the definitions for all STEM activities.

The *FIRST* Impact Award Judging Guidelines has been updated to provide clarification to judges.

Game Manual

5.3 Areas, Zones, & Markings

- **ROBOT STARTING LINE:** an ALLIANCE colored line that spans the width of the FIELD at the edge of an ALLIANCE~~'S BASE~~ ZONE in front of two ~~BARRIERS~~ BUMPS and an ALLIANCE HUB.

6.5 Scoring

6.5.2 ROBOT Scoring Criteria

Additionally, a ROBOT must be contacting ~~the~~ at least one RUNG~~S~~ and/or at least one UPRIGHT~~S~~ and may additionally only contact the following elements:

A. the TOWER WALL,
B. support structure,
C. FUEL, and/or.
D. another ROBOT.

8.1 General ROBOT Design

R106 Horizontal extension – one direction at a time.
Term "FRAME PERIMETER" corrected to "ROBOT PERIMETER".

8.4 BUMPER Rules

R404 *BUMPERS must be soft.

Term "ROBOT FRAME PERIMETER" corrected to "ROBOT PERIMETER".

R409 ***BUMPERS should be passive**. BUMPERS must be fixed relative to the ROBOT PERIMETER. BUMPERS may not contain any ~~moving~~ elements which move during the MATCH ~~(beyond compression and flex of BUMPER materials)~~ or electrical elements.

> Compression and flex of BUMPER covers and/or padding materials, and incidental, inconsequential compression and flex in backing and/or fastening systems are not considered violations of this rule.

Team Update 01

General

KitBot Documentation Updates

AM14U6 printed instructions included with the KOP drive base have an error on page 8:

- Under the “Square“ configuration compatible with the 2026 KitBot, the instructions state to cut 6 inches off each end of the side plates. The correct instructions is to cut 3 inches off the end of each side plate. The online instructions have been updated.

KitBot Build Instructions have been updated with corrected link to drawings.

Playing Field Resource Updates

The following Playing Field Resources have been updated:

- Coordinate for AprilTag ID9 has been corrected in the Field Dimension Drawings.
- Team Test Hub AprilTag positions have been corrected in CAD model and Build Instructions.

Game Manual

6.5.1 Scoring

6.5.2 ROBOT Scoring Criteria

- For LEVEL 1 – a ROBOT must no longer be touching the CARPET or the TOWER BASE, or

…

A ROBOT may only earn TOWER points for LEVEL 1 during AUTO. A ROBOT may only earn TOWER points for a single LEVEL during TELEOP. A ROBOT that earns TOWER points in AUTO is eligible to earn additional TOWER points during TELEOP.

6.5.3 Point Values

Table 6-4 REBUILT point values

	MATCH points	Ranking Points
***ENERGIZED RP –** The amount of FUEL scored in ~~the~~ an active HUB is at or above threshold.		1
***SUPERCHARGED RP –** The amount of FUEL scored in ~~the~~ an active HUB is at or above threshold.		1

6.8 Other Logistics

SCORING ELEMENTS that leave the FIELD (other than through the opening at the base of the OUTPOST) are placed back into the FIELD approximately at the point of exit by FIELD STAFF (REFEREES, FTAs, or other staff working around the FIELD) at the earliest safe opportunity.

7.4 In-MATCH

G405 ***Keep SCORING ELEMENTS in bounds.** A ROBOT may not intentionally eject SCORING ELEMENTS from the FIELD (either directly or by bouncing off a FIELD element or other ROBOT) with an exception of through the opening at the base of the OUTPOST.

Violation: MINOR FOUL. If REPEATED, MAJOR FOUL.

8.5 Motors & Actuators

R501 ***Allowable motors.**

Table 8-1 Motor allowances

Motor Name	Part Numbers Available	
REV Robotics NEO Brushless	REV-21-1650 (v1.0 or v1.1) REV-21-1653	am-4258

R502 ***Only 4 propulsion motors.** A ROBOT may not have more than 4 propulsion motors. A propulsion motor is a motor that enables the ROBOT to move around the FIELD surface (i.e., carpet). Motors that generate small amounts of thrust as a secondary or incidental feature are not considered propulsion motors.

Examples that are not considered propulsion motors include:

A. motors that primarily alter the alignment of a wheel in contact with the FIELD surface (such as a swerve steering motor),
B. motors that run MECHANISM wheels (e.g. for SCORING ELEMENT manipulation) that occasionally happen to contact the carpet, but without enough force to generate significant thrust, ~~and~~
C. motors that change the speed of the drive wheels using a shifting MECHANISM without significantly contributing to propulsion, and
D. motors that enable the ROBOT to move via contact with non-carpeted surfaces of FIELD elements.

8.6 Power Distribution

R621 ***Protect circuits with appropriate circuit breakers.** Each branch circuit must be protected by 1 and only 1 circuit breaker or fuse on the PD per Table 8 3. No other electrical load can be connected to the breaker or fuse supplying this circuit with the exception of devices downstream of a permitted motor power adapter board placed between the PD and a motor controller (WCP-1380, WCP-1903, WCP-1904, RF-4003, RF-4004, RF-4005).

11.5 *FIRST* Championship Eligibility

Table 11-8 District FIRST Championship and awards allocations

District	Allocated *FIRST* Championship Slots	*FIRST* Impact Award Winners	Dean's List Award Finalists	Engineering Inspiration Award Winners	Rookie All-Star Award Winners	Woodie Flowers Award Finalists
FIRST Mid-Atlantic	23	2	4	2	1	~~1~~ 2

14.6 TEST AREAS and PRACTICE AREAS

FIRST Robotics Competition events have TEST AREAS. TEST AREAS are areas at events where teams can test their ROBOT with representative FIELD elements. ~~Teams may also be able to test their starting AUTO modes but they are not designed for multiple SCORING ELEMENT AUTO modes or full FIELD play.~~ Teams may also be able to test their starting AUTO modes but TEST AREAS are not designed for full FIELD play such as AUTO modes that traverse larger areas of the FIELD or interact with multiple FIELD elements. TEST AREAS are tether-only. FUEL is not provided and if a team wishes to practice with FUEL, they must bring their own.

Team Update 00

General

Team Update 00 is provided as a quick reference of evergreen rule changes. The approach taken in this Team Update is to describe changes to content only. Editorial changes to verbiage, rule and section references, game specific examples that relate to evergreen content, and formatting changes are not described.

As always, it's important to read the whole manual at least once and become an expert on sections of the manual that directly relate to your role and responsibilities on your team. Teams are welcome to ask (thoughtful, informed) questions through the official Q&A system, opening at noon (Eastern time) on January 14th, 2025.

Game Manual

General Updates

- All dimensioning in the manual has been updated to a new format using rounded decimal values for most dimensions as described in Section 1.6.
- New this season, Field Dimensional Drawings package has critical dimensions for each field element in addition to the Full Drawing Package.
- The term "Coach" has been updated to "Drive Coach" throughout the manual.
- Changes to evergreen content (i.e. rules with green headlines) are described below. Sections are presented according to the 2026 manual presentation, and rule references present the 2025 rule number first followed by the 2026 rule number as a reference.

Section 6 Game Details

- Section 6.7.1 has been updated to allow up to 2 members to talk with the Head REFEREE as noted in this blog.

Section 7 Game Rules

- **G101 → G101**, **Humans, remain outside the FIELD.**
  - Rule language has been updated to focus on prohibiting reaching into the FIELD.
- **G102 → G102**, **Never step over the guardrail.**
  - Rule language has been updated to include only entering the FIELD when lighting is green.
- **G208 → G208**, **Show up to your Qualification MATCHES.**
  - Rule language has been updated to specify this rule applies to Qualification MATCHES.
  - The violation text is updated from "~~DISQUALIFIED~~" to "DISQUALIFIED from the current MATCH".
- **G302 → G302**, **Limit what you use during a MATCH.**
  - Rule language has been changed to simplify intent of the rule and focus on which items can be used during a MATCH.
- **G414 → G410**, **Keep your BUMPERS low.**
  - Rule language has been updated to clarify intent of the rule.
- **G416 → G411**, **Don't Damage the FIELD.**
  G417 → G412, **Watch your FIELD interaction.**

- Both rules have been made evergreen for this season.

Section 8 ROBOT Construction Rules

- **R203 → R203, General safety.**
  - Blue box has been modified to increase clarity on permitted lasers, prohibit lead even if encapsulated, and prohibit bright flashing lights.
- **R205 → R205, Don't contaminate the FIELD.**
  - Rule language adjusted to include additional contaminates.
- **R304 → N/A, During an event, only work during pit hours.**
  - This rule has been removed. Work outside the event venue during an event is still restricted by E401.
- **R401 → R401, BUMPERS almost all around.**
  - This rule has been adjusted to allow for a BUMPER gap for the REBUILT season.
- **R402 → R402, BUMPER Construction.**
  - Hollow pool noodles no longer allowed, crosslinked polyethylene foam is explicitly allowed.
- **R406 → R406, Fill BUMPER corners.**
  - This rule has been adjusted to allow for BUMPERS to be constructed with padding wrapped around a corner.
- **R409 → R409, BUMPERS should be passive.**
  - This rule has been adjusted to clarify BUMPERS must be fixed relative to the ROBOT PERIMETER and not contain any moving elements.
- **R412 → R412, Team number on BUMPERS.**
  - This rule has been adjusted to require BUMPER numbers on 3 locations.
- **R501 → R501, Allowable motors.**
  R504 → R504, Power (most) actuators off of approved devices.
  R505 → R505, Don't overload controllers
  - These 3 rules have been adjusted to reflect added and removed devices.
  - Removed:
    - Nidec Dynamo BLDC
    - DMC60 motor controllers
    - Jaguar motor controllers
    - SD540 motor controllers
    - Victor 884 and Victor 888 motor controllers
  - Added:
    - The Thrifty Bot Pulsar 775
- **R601 → R601, Battery limit – everyone has the same power.**
  - This rule has been updated to add that battery vents must not be obstructed.
- **R609 → R609, Connect main power safely.**
  - Added AndyMark Power Distribution.
- **R615 → R615, Power roboRIO as specified.**
  R616 → R616, Power radio as specified – Part 1.
  R617 → R617, Power radio as specified – Part 2.

  - These 3 rules have been rewritten to accommodate a wider range of PD options.
- **R616 → R616**, **Power radio as specified – Part 1.**
  - Updated to remove VRM and RPM as legal ways of powering the VH-109 radio.
- **R619 → R619 Only use specified circuit breakers in a PD.**
  - Added CTR Electronics circuit breakers.
- **R701 → R701 Control the ROBOT with a roboRIO.**
  - Updated to the 2026 RoboRIO image version, 2026_v1.2
- **R703 → R703 Use specific Ethernet port for roboRIO**.
  - Updated for VH-109 v1.5 radio and removal of VRM and RPM as legal VH-109 power options.
- **R901 → R901**, **Use the specified Driver Station Software**
  - Updated to the 2026 Driver Station version, 26.0
- **R904 → R904**, **OPERATOR CONSOLE physical requirements.**
  - Part D was updated to allow teams to clamp to the DRIVER STATION shelf (as long as shelf is not damaged).

Section 9 Inspection & Eligibility

- The introduction text in this section has been updated to require all teams to be re-weighed prior to Playoff MATCHES to help identify any modifications that should be re-inspected per I104.

Section 10 Tournaments

- **Section 10.2** Added “Once a MATCH replay is granted, a team may not withdraw the request for the replay.”

Section 12 Regional Tournaments

- This section has been updated to reflect the 2026 process for teams qualifying for *FIRST* Championship.

Section 14 Events

- **E117** is a new rule to clarify that nobody should record interactions with others without their permission while at *FIRST* events.
- **Section 14.4 Load In** – Section updated to help clarify which rules apply to Districts & Regionals.
- **E401 → E401**, **Load in during Load-In**
  - 3D printed parts was added as an exception.
- **E402 → E402**, **Load-In person limit is 6.**
  - Rule updated to increase limit from 5 to 6.
- **E510** is a new rule to clarify that running any automated tools overnight is not allowed in the pits.
- **E511** is a new rule to remind teams that pit power is often shared between multiple teams, and that teams who are causing breakers to trip may be asked to reduce the amount of power being used.
- **Section 14.6** has been updated to change wording from Practice Fields to TEST AREAS and PRACTICE AREAS throughout.