Team Update 09

General

Field Mitigation Guide

The Field Mitigation Guide has been updated to version 26-27.2.

Competition Manual

11.4 In-MATCH

11.4.3 SCORING ELEMENT

G411 ***Do not hoard SCORING ELEMENTS.** An ALLIANCE may not ~~STRATEGICALLY~~ prevent the opposing ALLIANCE from accessing more than 8 SCORING ELEMENTS.

Violation: ~~MAJOR FOUL and YELLOW CARD per MATCH.~~ VERBAL WARNING. MAJOR FOUL and YELLOW CARD per MATCH, if STRATEGIC.

An ALLIANCE using their own NECTAR and/or POLLEN for scoring is not a violation of this rule.

Corralling more than 8 relevant SCORING ELEMENTS into a limited portion of the FIELD and~~/or actively positioning a ROBOT to~~ preventing opposing ALLIANCE access is likely a STRATEGIC violation of this rule. ~~A GARDEN is not a protected zone.~~

Team Update 08

General

N/A

Competition Manual

11.4 In-MATCH

11.4.3 SCORING ELEMENT

G405 ***Keep SCORING ELEMENTS In bounds.** A ROBOT may not deliberately eject a SCORING ELEMENT from the FIELD (either directly or by bouncing it off a FIELD element or another ROBOT).

Violation: MAJOR FOUL per SCORING ELEMENT.

> SCORING ELEMENTS that leave the FIELD during scoring attempts, as the result of a ROBOT blocking another ROBOT's scoring attempt, or as the result of ROBOT-to-ROBOT interactions, are not considered deliberate ejections and are not violations of this rule.

12.6 Power Distribution

R612 ***Do not modify critical power paths.** CUSTOM CIRCUITS must not directly alter the power or control pathways between:

A. the ROBOT battery and main power switch,
B. the main power switch and a power regulating device (per R603),
C. any two power regulating devices (per R607), or
D. power regulating devices and actuators.

Dynamic electrical interfaces (including linear sliding contacts) or continuous-rotation electrical interfaces (including slip rings) placed along any of these pathways must be unmodified COTS items; custom or fabricated electrical interfaces of this type are prohibited.

13.4 General Tournament Rules

T402 ***Only REFEREES can declare a ROBOT DISABLED.** A ROBOT is only considered DISABLED once a REFEREE has declared the ROBOT DISABLED during a MATCH. A ROBOT may only be DISABLED as a consequence of a rule violation ~~or due to a ROBOT failure~~. If a REFEREE DISABLES a ROBOT ~~as a consequence for a rule violation~~, the REFEREE may instruct the team to drive the ROBOT to a specific neutral position on the FIELD before DISABLING.

Team Update 07

General

N/A

Competition Manual

11.3 Pre-MATCH

G304 ***ROBOTS must be set up correctly on the FIELD.** A ROBOT must be positioned on the FIELD such that it meets all of the following requirements:

A. fully contained on its own ALLIANCE's side of the FIELD (FIELD columns A, B, C for red, or FIELD columns D, E, F for blue) (Figure 9 4),
B. not attached to, entangled with, or suspended from any FIELD element,
C. touching the FIELD perimeter wall,
D. not contacting or in the scoring volume of a FLOWER,
E. not in the LOADING ZONE,
F. confined to its STARTING CONFIGURATION (see R102 and R103),
G. in contact with exactly 4 POLLEN pre-loads as described in Section 10.3.1 SCORING ELEMENTS fully contained on its own ALLIANCE side of the FIELD, and
H. fully motionless following completion of OpMode initialization,

> G304.A requires the ROBOT to be fully contained within the FIELD perimeter and not overhang the FIELD perimeter wall.
>
> Each ROBOT must start contacting 4 pre-load POLLEN either located in or on the ROBOT, or on the TILES contacting the ROBOT. These pre-load POLLEN are specifically allocated as 4 for each team as described in Section 10.3.1 SCORING ELEMENTS. ROBOTS may contact other POLLEN setup on the FIELD, but these do not count towards their pre-load requirement. ROBOTS that are no-shows for their MATCH will have their POLLEN placed in the LOADING ZONE against the perimeter wall.
>
> …

11.4 In-MATCH

11.4.4 ROBOT

G412 ***ROBOTS must be under control.** …

Violation: DISABLED and VERBAL WARNING. DISABLED and YELLOW CARD per MATCH, if subsequent violations occur during the event.

11.4.5 Opponent Interaction

G419 ***Do not damage an opponent ROBOT.**

…

Examples of functionally impairing another ROBOT include, but are not limited to:

E. disconnecting wires inside the ROBOT CHASSIS required for operation of a COMPONENT,
F. disconnecting the opponent ROBOT'S battery (~~this example also clearly results in a RED CARD because the ROBOT is~~ this is also an example of a ROBOT no longer able to drive), or
G. powering off an opponent's ROBOT by contacting their reasonably well-protected power switch. (~~This example also clearly results in a RED CARD because the ROBOT is~~ This is also an example of a ROBOT no longer able to drive.)

…

Team Update 06

General

Digital Animation Award Blog and Information

2026-2027 season information about the Digital Animation Award sponsored by Worcester Polytechnic Institute (WPI) has been published. For more details, see additions to the Competition Manual section 6.6 Project-Based Awards as shown below and read the recently posted blog.

Inspection Checklist

Version 26-27.2 of the Inspection Checklist has been posted.

Competition Manual

6.6 Project-Based Global Awards

6.6.1 Digital Animation Award Sponsored by Worcester Polytechnic Institute (WPI)

This award, sponsored by WPI, celebrates STEAM (Science, Technology, Engineering, Art, and Mathematics) and emphasizes the ability to tell a story through animation that integrates technological, social, and humanistic concepts.

The 2027 Digital Animation Award is offered to help encourage students to cultivate skills in design and creation of animation while telling a story about the impact of technology on society. This award is open to all *FIRST* Robotics Competition teams and *FIRST* Tech Challenge teams and **is optional**. More information can be found on the Digital Animation Award webpage.

9.1 Dimensions and Accuracy

Links to the Field Acceptance Checklist and the Field Mitigation Guide have been updated.

11.4 In-MATCH

G401 ***Don't interact with a ROBOT during AUTO.** As soon as the countdown to start the MATCH begins and until the end of AUTO, DRIVE TEAM members may not directly or indirectly interact with a ROBOT or an OPERATOR CONSOLE, with the following exceptions:

A. to press the (▶) start button within a MOMENTARY margin of the start of the MATCH,
B. to press the (■) stop button ~~either~~ at the team's discretion ~~or instruction of the Head REFEREE per T402~~, or
C. for personal safety or OPERATOR CONSOLE safety.

G402 **No AUTO opponent interference.** During AUTO, a team may not disrupt AUTO for the opposing ALLIANCE.

Violation: MAJOR FOUL per MATCH. MAJOR FOUL and YELLOW CARD per MATCH, if STRATEGIC.

During AUTO, FIELD columns A, B, C constitute the red side of the FIELD, and columns D, E, F (Figure 9 5) constitute the blue side of the FIELD. Each ALLIANCE has priority over those FIELD and SCORING ELEMENTS on their side of the FIELD.

Navigating into the opposing ALLIANCE'S side of the FIELD during AUTO is a risky gameplay strategy that may be seen as STRATEGIC.

Examples of actions that are considered disruption of AUTO include but are not limited to:

A. CONTROLLING SCORING ELEMENTS located on the opposing ALLIANCE'S side of the field, and
B. contact an opposing ROBOT on their side of the FIELD.

SCORING ELEMENTS that happen to enter the other side of the FIELD after being deflected by another object in the FIELD (e.g., FIELD element, ROBOT) will likely not be penalized.

Team Update 05

General

N/A

Competition Manual

10.8 Other Logistics

10.8.4 FIELD Reset

Once the MATCH is over and the Head REFEREE or their designee determines that the FIELD and FIELD STAFF are ready, they will give a signal ~~for DRIVE TEAMS to stop their ROBOTS~~, which initiates FIELD reset and prompts DRIVE TEAMS to retrieve their ROBOTS.

11.4 In-MATCH

G407 **No more than 4 at a time.** A ROBOT may not simultaneously CONTROL more than 4 SCORING ELEMENTS.

> …
>
> Teams are encouraged to design their ROBOTS to prevent inadvertent or deliberate CONTROL of more than 4 SCORING ELEMENTS. This could involve guards to prevent SCORING ELEMENTS from accidentally becoming stuck on top of the ROBOT and systems to prevent active pickup/intaking of more than 4 SCORING ELEMENTS.
>
> REPEATED instances of a ROBOT CONTROLLING 5 or more SCORING ELEMENTS are likely to be perceived as STRATEGIC, even if the ROBOT has a “keep 4 and discard the rest” sorting mechanism.
>
> …

G408 **Don’t CONTROL opponent NECTAR.** A ROBOT may not CONTROL the opponent’s NECTAR.

> REPEATED instances of a ROBOT CONTROLLING an opponent’s NECTAR are likely to be perceived as STRATEGIC, even if the ROBOT has a sorting mechanism that automatically discards opponent NECTAR by returning it to approximately its original state.

12.4 ROBOT SIGN Rules

R403 ***Team number on ROBOT SIGNS**

Small decorative elements and gaps in numbers are okay as long as the team number remains legible from 12 feet (3.65 meters) away and is discernable from a quick glance.

Examples of prohibited team numbers on ROBOT SIGNS include, but not limited to:

- team numbers only visible by edge lit engraved plastic
- LED Display numbers

Team Update 04

General

Links to Judging Resources

Links to the Judging Feedback Form and Judge Interview Question Bank have been added to Section 6: Awards.

Escalation Guidelines

The Escalation Guidelines document has now been posted and updated in the Competition Manual. This document outlines escalation processes for *FIRST* Tech Challenge Volunteers and Staff and reference links have been updated in the Competition Manual.

Competition Manual

9.11 Event Management System

Table 9-1 Audio cues

Event	Timer Value	Audio Cue
FLOWER Ownership Unlocked	1:00	~~[TBD]~~ "Chime"

Team Update 03

General

Outreach Terms and Definitions

The *FIRST* Tech Challenge Outreach Terms and Definitions have been updated for this season.

Competition Manual

Section 6 Awards (A)

Links to the Judge Manual and the Judge Advisor Manual have been updated.

10.3 Setup

10.3.4 ROBOTS

ROBOTS must start the MATCH contacting 4 pre-loaded POLLEN. POLLEN may be held in or on a ROBOT or placed on the TILES fully contained on its own ALLIANCE side of the FIELD contacting the ROBOT in its starting location.

11.3 Pre-MATCH

G304 ***ROBOTS must be set up correctly on the FIELD.** A ROBOT must be positioned on the FIELD such that it meets all of the following requirements:

A. …
B. …
C. …
D. …
E. …
F. …
G. in contact with exactly 4 POLLEN pre-loads as described in Section 10.3.1 SCORING ELEMENTS fully contained on its own ALLIANCE side of the FIELD, and
H. …

Team Update 02

General

N/A

Competition Manual

10.6 Violations

10.6.4 Violation Details

Table 10-6: Violation examples

Example Violation	Expanded Interpretation
MINOR FOUL	Upon instance of violation, a MINOR FOUL is assessed against the violating ALLIANCE.
~~**MAJOR FOUL and YELLOW CARD per instance.**~~	~~Upon violation, a MAJOR FOUL is assessed against the violating ALLIANCE. After the MATCH, the team is issued a YELLOW CARD.~~
MINOR FOUL per SCORING ELEMENT.	Upon instance of violation, a MINOR FOUL is assessed against the violating ALLIANCE equal to the number of SCORING ELEMENTS used in violation of the rule.
MAJOR FOUL per instance. MAJOR FOUL per instance and YELLOW CARD per MATCH if REPEATED.	Upon initial violation in a MATCH, a MAJOR FOUL is assessed against the violating ALLIANCE per instance of a violation occurring. If the condition of REPEATED in the second statement is met – i.e., the ROBOT repeats the infraction an additional time in the MATCH, then an additional MAJOR FOUL is assessed against the violating ALLIANCE for the subsequent instance of violation and after the MATCH, the violating team is issued a YELLOW CARD for the subsequent instance of violation. Assuming no additional infractions of that rule by that ROBOT in that MATCH, the ROBOT is assessed two MAJOR FOULS and a YELLOW CARD for their team in that MATCH ~~ALLIANCE~~. Additional violations of this rule during the MATCH would increase the number of MAJOR FOULS assessed during the MATCH but not the number of YELLOW CARDS issued for the MATCH.

Example Violation	Expanded Interpretation
MAJOR FOUL and an additional MAJOR FOUL for every 3 seconds in which the situation is not corrected	Upon violation, a MAJOR FOUL is assessed against the violating ALLIANCE and the REFEREE begins to count. Their count continues until the criteria to discontinue the count are met, and for each 3 seconds within that time, an additional MAJOR FOUL is assessed against the violating ALLIANCE. A ROBOT in violation of this type of rule for 15 seconds is assessed a total of 6 MAJOR FOULS (assuming no other rules were being simultaneously violated).
VERBAL WARNING. MAJOR FOUL and YELLOW CARD per MATCH, if STRATEGIC.	Upon a general instance of violation of the rule, a VERBAL WARNING is issued to the violating team. However, if the violation is perceived to be STRATEGIC by the REFEREES, then a MAJOR FOUL per MATCH is assessed against the violating ~~ALLIANCE~~ team and after the MATCH, the violating team is issued a YELLOW CARD for the MATCH.
~~**MAJOR FOUL per instance of violation. MAJOR FOUL and YELLOW CARD if REPEATED.**~~	~~Upon the first violation, a MAJOR FOUL is assessed against the violating team. If the condition "if REPEATED" (e.g., a subsequent violation by the same team in the same MATCH) is met, then the violating team is issued another MAJOR FOUL. If these are the only violations during the MATCH: after the MATCH, the violating team is assessed a YELLOW CARD for the second violation of this rule. In total, 2 MAJOR FOULS and a YELLOW CARD were assessed during the MATCH.~~
MAJOR FOUL per MATCH. MAJOR FOUL and YELLOW CARD per MATCH, if STRATEGIC.	If one or more violations occurs by a team during MATCH, a MAJOR FOUL is assessed against the violating ALLIANCE per MATCH. However, if the violation is perceived to be STRATEGIC by the REFEREES, a MAJOR FOUL is assessed per team per MATCH against the violating ALLIANCE. After the MATCH, the team is issued a YELLOW CARD per MATCH. Only 1 MAJOR FOUL and up to 1 YELLOW CARD can be earned by a team in a single MATCH.
VERBAL WARNING. YELLOW CARD if subsequent violations occur during the event.	Upon the first instance of violation, a VERBAL WARNING is issued to the violating team. If an additional instance of violation of the same rule occurs later in the event, that is: a MATCH during the same event phase or a later event phase, then following any subsequent violation: after the MATCH, the violating team is issued a YELLOW CARD per instance.

Example Violation	Expanded Interpretation
VERBAL WARNING. MAJOR FOUL and YELLOW CARD per instance, if STRATEGIC. MAJOR FOUL and RED CARD per instance, if STRATEGIC and either CONTINUOUS opponent ROBOT is unable to drive.	Upon a general instance of violation of this rule, a VERBAL WARNING is issued to the violating team. However, if the violation is perceived to be STRATEGIC by the REFEREES, then a MAJOR FOUL is assessed per instance against the violating ALLIANCE and after the MATCH, the team is issued a YELLOW CARD per instance. However, if the violation is perceived to be STRATEGIC by the REFEREES and the opponent ROBOT is unable to drive or the entanglement persists for 10 seconds or more, then upon violation, a MAJOR FOUL is assessed per instance against the violating ALLIANCE. After the MATCH, the team is issued a RED CARD per instance. Only 1 MAJOR FOUL and 1 YELLOW or RED CARD can be earned for a single violation instance; however, multiple MAJOR FOULS and YELLOW or RED CARDS may be earned in a single MATCH if multiple instances of the violation occurred during the MATCH.

11.4 In-MATCH

11.4.5 Opponent Interaction

G420 ***Do not tip or entangle.**

The attachment to, or entanglement with, exposed or unprotected COMPONENTS or MECHANISMS in the course of normal gameplay is not likely to be considered a violation of this rule. This includes, but is not limited to:

A. exposed or unprotected wiring, or
B. a delicately constructed MECHANISM (such as an intake).

Examples of actions that are likely to be perceived as STRATEGIC include, but are not limited to:

C. using a wedge-like MECHANISM to tip over an opponent ROBOT,
D. making frame-to-frame contact with an opponent ROBOT that is attempting to right itself after previously falling over and causing them to fall over, or
E. causing an opponent ROBOT to tip over by contacting the ROBOT after it starts to tip if, as determined by the REFEREE, that contact could have been avoided.

…

11.4.6 Human

G423 ***DRIVE COACHES and other teams: hands off the controls.**

> The penalty is applied to the team to which the DRIVE TEAM member that violates the rule belongs.
>
> …

G425 ***DRIVE TEAMS, watch your reach.**

> …
>
> For G425.A and G425.B, the penalty is applied to the team to which the DRIVE TEAM member belongs regardless of whether the DRIVE TEAM member or ROBOT initiates contact.
>
> …

G426 **Humans may not enter NECTAR onto the FIELD early.** DRIVE TEAM members may not enter NECTAR onto the FIELD except:

A. for each time the HIVE of their corresponding ALLIANCE color is TIPPED, one additional NECTAR may be entered for that ALLIANCE, or
B. when 60 seconds or less remain in the MATCH, all remaining NECTAR can be entered

whichever comes first.

Violation: MINOR FOUL per NECTAR.

> The primary FIELD timer is the cue to indicate when there is 60 seconds left in the MATCH.
>
> NECTAR that leaves the FIELD may be re-entered at any time as described in G427.
>
> DRIVE TEAMS are encouraged to ensure the remaining NECTAR in their ALLIANCE AREA is visible and make it obvious and unambiguous to REFEREES that they are not entering NECTAR too early.
>
> NECTAR does not have to be entered into the FIELD immediately when a HIVE TIP occurs.

Team Update 01

General

N/A

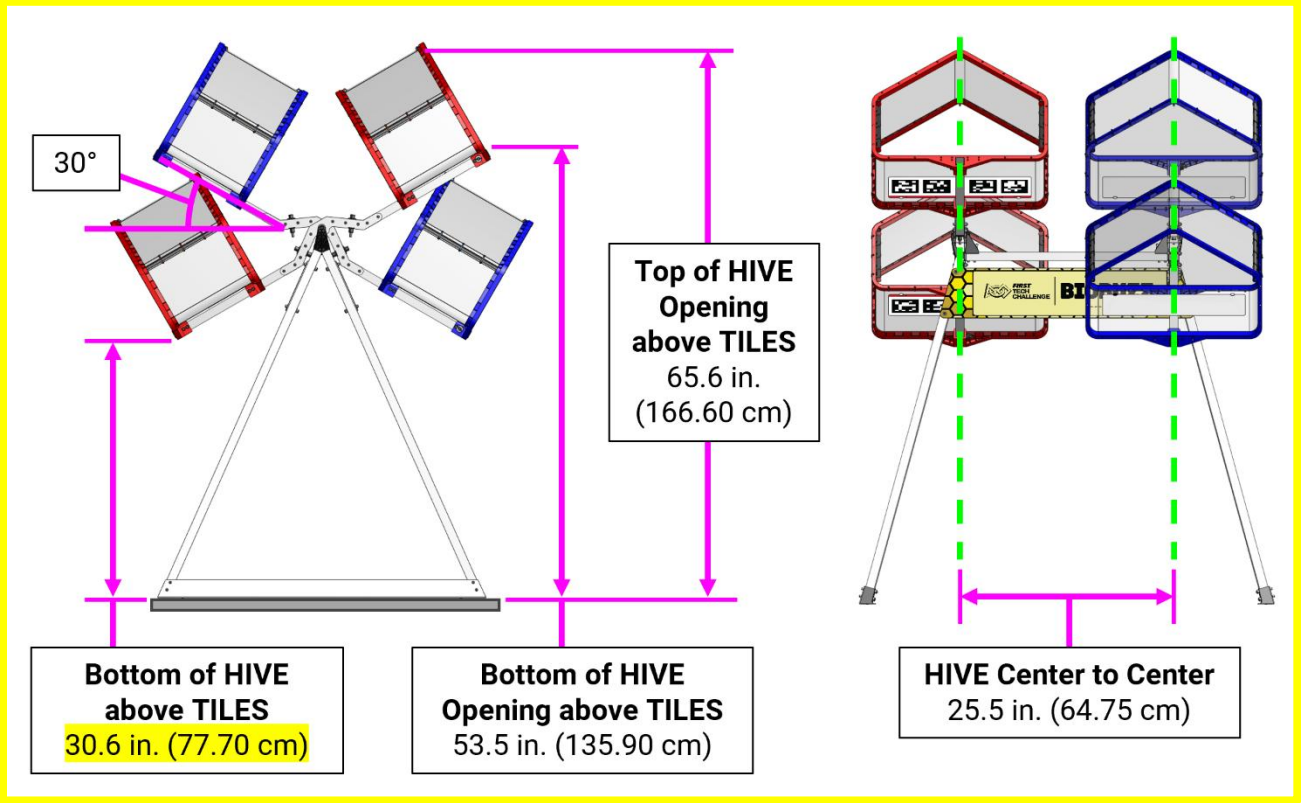
Competition Manual

9.6 HIVE

9.6.2 HIVE and CELL

Dimension in Figure 9-10: "Bottom of HIVE above TILES" has been corrected to 30.6 in. (77.70 cm).

Figure 9-10 HIVE and CELL Key Details



10.6 Violations

10.6.1 YELLOW and RED CARDS

Removed duplicated text.

11.2 Conduct

G204 ***Do not expect to gain by doing others harm.**

A. …
B. a red ALLIANCE ROBOT drives through the blue LOADING ZONE while a blue DRIVE TEAM member is introducing NECTAR to the FIELD, deflecting the blue NECTAR before it contacts the TILE in the LOADING ZONE, in violation of ~~G426~~ G427.

13.3 Clarifications on MATCH Play Results ("Question Box")

Technical questions regarding FIELD or ROBOT operation are addressed by the FTA, and additional team members are invited to participate in these conversations if necessary. If a DRIVE TEAM needs clarification on a ruling or MATCH results, per T301, up to two ~~STUDENTS~~ representatives should address the Head REFEREE after the MATCH results have been shown.

Team Update 00

General

Overview

Team Update 00 is provided as a quick reference of rule changes from last season, and updates from the V0 Preview Release. 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 BIOBUZZ™ Presented by RTX Competition 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 view existing questions and answers and to ask thoughtful and informed questions through the official Q&A system opening September 28, 2026, 12:00p.m. ET.

Notable Changes from Last Season

New Competition Manual Format

Rules in the BIOBUZZ Competition Manual are written to emphasize intended gameplay and make it simpler for participants and volunteers to understand the spirit and intent of the rule. Important changes include:

- Introduction of the Competition Integrity Contract (CIC) which includes a Sporting Ethics Code and Behavior Guidelines in Section 1 Introduction.
- Adding STRATEGIC as a defined term described in Section 10.6 Violations and utilizing it in many rules and violations.
    - STRATEGIC describes actions done with the aim of getting a competitive advantage.
    - Some rules prohibit specific actions if they are perceived to be STRATEGIC or provide an increased violation for actions perceived to be STRATEGIC (e.g., impeding or enabling scoring actions).
    - This includes actions that are deliberate or reckless with foreseeable consequences.
    - Accidental/unforeseeable occurrences cannot be STRATEGIC.

The BIOBUZZ manual is written to allow event volunteers to make good-faith judgement calls at events instead of writing rules that are highly detailed and overly complex that try to cover every scenario a volunteer may encounter. This philosophy is reflected throughout the Competition Manual.

Section 3 Competition Eligibility and Inspection

Changes were made to the Inspection and Re-Inspection portions of this section to move content from rules to process descriptions. Additionally:

- **I302** ***Enter only 1 ROBOT** was moved to Section 5 Event Rules.

Section 5 Event Rules

- Pit and Cart Rules have been adjusted and condensed
- **E510** ***Don't heat or cool ROBOT components to gain an advantage** has been added

Section 6 Awards

The Structured Interview is now the **Initial Interview** and the team judging experience may be different in certain events and regions. The Initial Interviews may either be: scheduled in-person, unscheduled in-person, or remote. Many portions of Section 6 have been adjusted to reflect this change.

Section 11 Game Rules

Rules in this section have been changed to reflect and point to the Competition Integrity Contract (CIC).

Many violations have been adjusted to include increased violations for specific actions if they are perceived to be STRATEGIC or provide an increased violation for actions perceived to be STRATEGIC.

Many violations utilize a **VERBAL WARNING** for non-STRATEGIC violations.

- **G202** ***Follow the Competition Integrity Contract (CIC)** has been added.
    - Teams are required to not cheat, play by the rules, and behave with integrity as outlined in the Competition Integrity Contract (CIC).
    - Multiple rules in the G2XX section have been condensed and are covered as part of G202.
- **G406** ***Do not damage or make a mess in the ARENA** combines previous rules G407 (Do not damage SCORING ELEMENTS) and G412 (Don't damage the FIELD).

Section 12 ROBOT Construction Rules

Many of the ROBOT Construction rules have been reorganized to match the new additions in Section 1. At the event, Inspectors are not expected to check every rule, but as part of the Competition Integrity Contract (CIC) teams are still expected to follow every rule.

Several rules which included recommendations for robot construction and best practices were removed and moved to other resources that can be found on the FTC-Resources and FTC-docs pages.

- Removed the rule restricting allowed gamepads (previously R903)
- **R101** ***It is your team's ROBOT** has been added to the ROBOT Construction Rules.
- **R105** ***A ROBOT must stay as one assembly, and there are limits to how much it can expand.**
    - Expansion Limits have been adjusted for BIOBUZZ with updated wording and examples.
    - Now includes deliberately detaching COMPONENTS.

  - Expansion is regulated during gameplay with **G416** ***ROBOTS have construction limits.**
- **R201** ***ROBOTS should be designed so they don't damage anything or make a mess in the ARENA** has been added and replaces content from previous rules.
- **R501** ***Only specific motors are allowed.** WATTOS Stingray has been added to the allowed motors list.
- **R503** ***ROBOTS are limited to a total of 8 motors and 8 servos**. The maximum number of allowed servos is reduced to 8.
- **R801** ***No Pneumatics is now No Pneumatic Actuators, High-Speed Blowers, or Vacuums** now includes combined content from other previous rules.

Section 13 Tournament

Section 13 Tournament has been reorganized to re-order content – rule numbers have changed.

Recommended Award break timing has been adjusted to 15 minutes.

- **T301** ***Head REFEREE Interactions** allows for up to 2 team members to talk with the Head REFEREE.
- **T701** ***Send one or two STUDENT representatives** allows for up to two STUDENT team members to participate in ALLIANCE selection.