



## 3 Competition Eligibility and Inspection (I)

## 3.1 Team Eligibility Rules

- **1101 \*Teams must be registered with** *FIRST*. Teams must be "competition ready" in order to compete in *FIRST* Tech Challenge official events and earn MATCH points or be eligible for judged awards.
  - A. North America competition ready requirements:
    - i. complete annual registration process through the FIRST dashboard
    - ii. pay annual registration fee
    - iii. two adults must be assigned in the Lead Coach/Mentor 1/Lead Coach/Mentor 2 roles and have passed <u>Youth Protection Program (YPP) screening</u>
    - iv. register all youth team members on the FIRST dashboard
  - B. Outside North America competition ready requirements:
    - i. complete annual registration process through the FIRST dashboard
    - ii. complete any additional requirements by the local *FIRST* Program Delivery Partner with regards to program fees, registrations and youth protection screening.

The local Program Delivery Partner may make exceptions for delayed payment on a case-by-case basis. Teams who have not paid annual registration fees will not earn any official season record and will not be allowed to advance.

**1102 \*Check-in at the event on time.** Teams must check-in by the check-in deadline listed on the public event schedule or as instructed by the Event Director. Check-in must be completed by a team adult and at least one STUDENT must be present at the venue before check-in can be completed.

Additional check-in requirements will vary by region but may require one or more of the following items:

- A. team roster from the team's *FIRST* dashboard (North America only)
- B. local Program Delivery Partner team member registration or consent forms (varies by region)
- C. A ROBOT built to play the current season's game if they intend to participate in MATCHES
- D. printed judging support materials (optional, see section 6 Awards (A))

All teams, regardless of how "ready" they think they are, are encouraged to participate in ROBOT gameplay and judging. Teams are encouraged to reach out to their Program Delivery Partner and other teams to request help getting their ROBOT ready to compete before attending an event.

Teams who do not wish to or do not feel ready to participate in judging or ROBOT gameplay should notify their Program Delivery Partner before the event if at all possible, for scheduling purposes.

**I103** \*A responsible adult must be present for the whole event. At least one, preferably two, adult(s) responsible for the STUDENT team members must be present at all times during the event. Adults attending *FIRST* Tech Challenge events are expected to follow the same rules as youth participants.





## **3.2 Awards Eligibility Rules**

Complete details and rules about *FIRST* Tech Challenge judged awards can be found in section <u>6 Awards (A)</u>.

Notable changes from last season:

A. Control Award does not have a separate submission form and should be included in the PORTFOLIO.

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- B. Promote Award has been retired.
- C. not submitting a PORTFOLIO no longer eliminates a team from all Judged Award considerations.
- D. recording audio or video is not permitted during interviews.

## 3.3 MATCH Eligibility Rules

This section describes the rules governing MATCH participation. A team has participated in a MATCH if any member of their DRIVE TEAM is in the ALLIANCE AREA, with or without the ROBOT on the FIELD, at the start of the MATCH.

This section describes the rules and requirements for team participation in MATCH play. ROBOTS are required to pass ROBOT inspections before being allowed to compete. These inspections are to help ensure that all section <u>12 ROBOT Construction Rules (R)</u> are satisfied.

At each event, the lead ROBOT INSPECTOR (LRI) has final authority on the legality of any COMPONENT, MECHANISM, or ROBOT. INSPECTORS may re-inspect ROBOTS at any time to ensure compliance with the rules. Teams are expected to consult with INSPECTORS or the LRI if they have any questions regarding the legality of a ROBOT or about how to make a ROBOT legal.

The inspection process may progress in blocks, i.e., it may pause for a team to make a correction. The process may employ various INSPECTORS throughout the process based on availability. At the team's discretion, they may request a different INSPECTOR or invite the lead ROBOT INSPECTOR to participate in their ROBOT'S inspection.

Events may assign specific inspection time slots for teams to better facilitate a quick and orderly inspection process. Teams should plan to report to their assigned inspection times fully ready to complete inspection.

Prior to the start of a MATCH, any ROBOT which is unable or ineligible to participate in that MATCH, as determined by the team, *FIRST* Technical Advisor (FTA), LRI, or Head REFEREE, is DISABLED and can be removed from the FIELD with permission of the Head REFEREE or FTA. A team whose ROBOT is DISABLED or not present is eligible to receive qualification MATCH Points or playoff MATCH points provided that its ROBOT has passed inspection, per 1302, and as long as at least one STUDENT DRIVE TEAM member is present in the ALLIANCE AREA.

An <u>Inspection Checklist</u> is available to help teams self-inspect their ROBOT before their event. Teams are strongly encouraged to self-inspect prior to their event.

**I301** \*It is your team's ROBOT. The ROBOT and its MAJOR MECHANISMS must be built by the *FIRST* Tech Challenge team that has registered for the event and intends to use the ROBOT to participate in MATCHES or as part of judged awards.





A MAJOR MECHANISM is a group of COMPONENTS and/or MECHANISMS assembled together to address at least 1 game challenge: ROBOT movement, SCORING ELEMENT manipulation, FIELD element manipulation, or performance of a scorable task without the assistance of another ROBOT.

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This rule requires that the ROBOT and its MAJOR MECHANISMS were built by its team but is not intended to prohibit or discourage assistance from other teams (e.g., fabricating elements, supporting construction, writing software, developing game strategy, contributing COMPONENTS and/or MECHANISMS).

Examples that would generally not be considered MAJOR MECHANISMS, and thus are not subject to this rule include, but are not limited to, the following:

- A. a gearbox assembly,
- B. a COMPONENT or MECHANISM that is part of a MAJOR MECHANISM, or
- C. COTS items.
- **1302 \*Get inspected before playing a qualification/playoff MATCH.** A team is only permitted to participate in a qualification or playoff MATCH and receive RANKING POINTS if their ROBOT has passed an initial, complete inspection. INSPECTORS are available to help, but teams are expected to ensure their ROBOT and other supporting equipment are within the rules at all times when competing.

Violation: If prior to the start of the MATCH, the team is DISQUALIFIED and not eligible to participate in the MATCH. If after the start of the MATCH, the team receives a RED CARD for that MATCH.

- **1303 \*Bring the complete ROBOT and supporting equipment to inspection.** At the time of inspection, the OPERATOR CONSOLE and the ROBOT with battery must be presented with all MECHANISMS (including all COMPONENTS of each MECHANISM), configurations, and decorations that will be used on the ROBOT in MATCHES without re-inspection per <u>1304</u>.
  - A. ROBOTS are allowed to play MATCHES with a subset of the MECHANISMS that were present during inspection. Only MECHANISMS that were present during inspection may be added, removed, or reconfigured between MATCHES. The ROBOT should be assembled in a typical configuration used for MATCH play when reporting for inspection. ROBOT and all MECHANISMS must be inspected in every STARTING CONFIGURATION.
  - B. If MECHANISMS are swapped out between MATCHES, the reconfigured ROBOT must still meet all rules.
  - C. The total of all electronics (motors, servos, Android Devices, etc.) used to build all MECHANISMS and base ROBOT, whether they are used on the ROBOT at the same time or not, may not exceed the constraints specified in section <u>12 ROBOT Construction Rules (R)</u>.
- **1304 \*Unless the change is listed below, any change to a ROBOT must get re-inspected.** A ROBOT may play MATCHES with a subset of the MECHANISMS that were present during inspection provided the reconfigured ROBOT still complies with all ROBOT construction rules. Only MECHANISMS that were present during the inspection may be added, removed, or reconfigured between MATCHES without re-inspection per this rule. If a ROBOT is modified after its most recently passed inspection, it must be re-inspected before the ROBOT is eligible to participate in a MATCH.

Exceptions are listed below (unless they result in a significant change to the ROBOT'S size, legality, or safety).

- A. addition, relocation, or removal of fasteners (e.g., cable ties, tape, and rivets),
- B. addition, relocation, or removal of labeling or marking,
- C. addition, relocation, or replacement of the team SIGN,



- D. revision of ROBOT code,
- E. replacement of a COTS COMPONENT with an identical COTS COMPONENT,

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- F. replacement of a MECHANISM with an identical MECHANISM (size, weight, material), and
- G. additions, removals, or reconfiguration of ROBOT with a subset of MECHANISMS already inspected per 1303

Violation: ROBOT must be inspected before participating in a MATCH or the team will receive a RED CARD.

- **1305 \*Do not exploit re-inspection.** Teams may not use the re-inspection process in <u>1304</u> to circumvent any other rules.
- **1306 \*ROBOTS can be powered on for inspection only for specific verification steps.** For the safety of all those involved, ROBOTS must be presented for inspection with the ROBOT powered off and springs or other non-electrical stored energy devices in their lowest potential energy states (e.g., springs relaxed).

Power should only be enabled on the ROBOT during those portions of the inspection process where it is required to validate certain system functionality and compliance with specific rules (software check, etc.). INSPECTORS may allow the ROBOT to be powered beyond the parameters above if both criteria below are met:

- A. the ROBOT design requires power or a charged stored energy device in order to confirm that the ROBOT meets STARTING CONFIGURATION requirements and
- B. the team has included safety interlocks that mitigate unexpected release of such stored energy.

Batteries can remain installed in the ROBOT for inspection, but all other stored energy from springs or other material deformation should be in the most relaxed low energy state possible.

The team may be asked to demonstrate these interlocks during the inspection process.

**I307 \*STUDENTS must be present during the inspection process.** At least 1 STUDENT team member must accompany the ROBOT for any inspection efforts.

Exceptions may be made for major conflicts, e.g., religious holidays, major testing, transportation issues, etc.

Violation: Inspection will not continue until a STUDENT is present.

