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# 5 The Tournament



## 5.1 Overview

Each 2014 *FIRST* Robotics Competition (FRC) event is played in a tournament format. Each tournament consists of three sets of MATCHES called “Practice MATCHES,” “Qualification MATCHES,” and “Elimination MATCHES.”

The purpose of the Practice MATCHES is to provide each Team with an opportunity to operate its ROBOT on the FIELD prior to the start of the Qualification MATCHES.

The purpose of the Qualification MATCHES is to allow each Team to earn a seeding position that may qualify them for participation in the Elimination MATCHES.

The purpose of the Elimination MATCHES is to determine the event Champions.

Each MATCH is conducted with approximately two (2)-minutes for set up, two minutes and thirty seconds (2:30) of game play, and one (1)-minute to clear the FIELD. After each MATCH, the ARENA must be cleared of ROBOTS and OPERATOR CONSOLES from the MATCH that just ended. The ROBOTS and OPERATOR CONSOLES for the following MATCH must be placed in position and ready to operate before the start of the next MATCH. Event staff will reset the ARENA elements during this time.

In the event where order placement of ROBOTS matters to either or both ALLIANCES, the ALLIANCE must notify the Head Referee during setup for that MATCH. Upon notification, the Head Referee will require ALLIANCES to place their ROBOTS per the following protocol:

### Qualification MATCHES

1. Blue GOALIE (if in use)
2. Red GOALIE (if in use)
3. Blue ROBOTS in the White ZONE
4. Red ROBOTS in the White ZONE

### Elimination MATCHES

1. Lower seed GOALIE (if in use)
2. Higher seed GOALIE (if in use)
3. Lower seed ROBOTS in the White ZONE
4. Higher seed ROBOTS in the White ZONE

### 5.1.1 MATCH Schedules

A MATCH schedule is used to coordinate MATCHES at an Event. [Figure 5-1](#) details information shown on each Schedule.

Match Schedule														
Event Name														
Time	Description	Match	Blue 1	S	Blue 2	S	Blue 3	S	Red 1	S	Red 2	S	Red 3	S
11:00	Qualification	20	180	F	25	T	16	T	207	F	233	T	987	T

MATCH Start Time  
 ALLIANCE Blue or Red  
 PLAYER STATION Number 1, 2, or 3  
 MATCH Type  
 MATCH Number  
 SURROGATE Status  
 T = True (Yes)  
 F = False (No)

Figure 5-1: Sample MATCH Schedule

## 5.2 Practice MATCHES

### 5.2.1 Schedule

Practice MATCHES are played on the first day of each event. The Practice MATCH schedule is available as soon as possible, but no later than the start of Practice MATCHES. Practice MATCHES are randomly assigned and each Team is assigned an equal number of Practice MATCHES unless the number of Teams multiplied by number of Practice MATCHES is not divisible by six. In this case, the FMS randomly selects some Teams to play an extra Practice MATCH.

### 5.2.2 Filler Line

Although Teams may not switch practice times, there is a designated Filler Line at each event. Teams wanting additional Practice MATCHES may join the Filler Line if the criteria listed below are met. Teams from the Filler Line are used on a first come, first served basis to fill empty spots in Practice MATCHES left by other Teams that do not report to Queueing. The number of TEAMS in the Filler Line is dependent upon space at venues. The criteria for joining the Filler Line are as follows:

- A. ROBOTS in the Filler Line must have passed Inspection;
- B. Teams must join the Filler Line with their ROBOT;
- C. Teams may not work on their ROBOT while in the Filler Line;
- D. Teams may not occupy more than one spot in the Filler Line; and
- E. If a Team is queued up for their Practice MATCH, they may not also join the Filler Line.

## 5.3 Qualification MATCHES

### 5.3.1 Schedule

The Qualification MATCH schedule is made available as soon as possible, but no later than one (1) hour before Qualification MATCHES are scheduled to begin.

### 5.3.2 MATCH Assignment

The Field Management System (FMS) assigns each Team two (2) ALLIANCE partners for each Qualification MATCH using a predefined algorithm. The algorithm employs the following criteria, listed in order of priority:

1. Maximize time between each MATCH played for all Teams
2. Minimize the number of times a Team plays opposite any Team
3. Minimize the number of times a Team is allied with any Team
4. Minimize the use of SURROGATES
5. Provide even distribution of MATCHES played on Blue and Red ALLIANCE

All Teams are assigned the same number of Qualification MATCHES, unless the number of Teams multiplied by number of MATCHES is not divisible by six. In this case, the FMS randomly selects some Teams to play an extra MATCH. For the purpose of seeding calculations, those Teams are designated as SURROGATES for the extra MATCH. If a Team plays a MATCH as a SURROGATE, it is indicated on the MATCH schedule, it is always their third Qualification MATCH, and the outcome of the MATCH has no affect on the Team's ranking criteria.

### 5.3.3 Qualification Score (QS)

Qualification Points are awarded to each eligible Team at the completion of each Qualification MATCH and are dependent on the final score:

- A. Each Team on the winning ALLIANCE receives two (2) Qualification Points.
- B. Each Team on the losing ALLIANCE receives zero (0) Qualification Points.
- C. In the event of a tied score, all Teams receive one (1) Qualification Point.

Exceptions to these scenarios are as follows:

- D. A SURROGATE receives zero (0) Qualification Points.
- E. A DISQUALIFIED Team (including via a RED CARD) receives zero (0) Qualification Points. During the Qualification MATCHES, Teams may be individually DISQUALIFIED in a MATCH.
- F. A "no-show" Team is DISQUALIFIED from that MATCH and receives zero (0) Qualification Points. A Team is declared a no-show if no member of the TEAM is in the ALLIANCE STATION at the start of the MATCH.

The total number of Qualification Points earned by a Team throughout their Qualification MATCHES is their Qualification Score (QS).

### 5.3.4 Qualification Seeding

All Teams participating in the Tournament are seeded during the Qualification MATCHES. If the number of Teams in attendance is 'n', they are seeded '1' through 'n', with '1' being the highest seeded Team and 'n' being the lowest seeded Team.

The FMS ranks all Teams in decreasing order, using the following sorting criteria:

Table 5-1: Qualification MATCH Ranking Criteria

1st order sort	Qualification Score
2nd order sort	Cumulative Sum of ASSIST Points
3rd order sort	Cumulative Sum of AUTO points
4th order sort	Cumulative sum of TRUSS and CATCH points
5th order sort	Cumulative sum of TELEOP GOAL points and FOUL points
6th order sort	Random sorting by the FMS

## 5.4 Elimination MATCHES

At the end of the Qualification MATCHES, the top eight (8) seeded Teams become the ALLIANCE Leads. The top seeded ALLIANCES are designated, in order, ALLIANCE One, ALLIANCE Two, etc., down to ALLIANCE Eight. Using the ALLIANCE selection process described below, each ALLIANCE Lead chooses two (2) other Teams to join their ALLIANCE.

### 5.4.1 ALLIANCE Selection Process

Each Team chooses a student Team Representative who will proceed to the ARENA at the designated time (typically before the lunch break on the final day of the event) to represent their Team. The Team Representative from each ALLIANCE Lead is called the ALLIANCE CAPTAIN.

The ALLIANCE selection process consists of two rounds during which each ALLIANCE CAPTAIN invites a Team seeded below them in the standings to join their ALLIANCE. The invited Team must not already have declined an invitation.

Round 1: In descending order (ALLIANCE One to ALLIANCE Eight), each ALLIANCE CAPTAIN invites a single Team. The invited Team Representative steps forward and either accepts or declines the invitation.

If the Team accepts, it becomes a member of that ALLIANCE. If an invitation from a top eight ALLIANCE to another ALLIANCE Lead is accepted, all lower ALLIANCE Leads are promoted one spot. The next highest-seeded, unselected Team moves up to become ALLIANCE Eight.

If the Team declines, that Team is not eligible to be picked again and the ALLIANCE CAPTAIN extends another invitation to a different Team. If an invitation from a top eight ALLIANCE to another ALLIANCE Lead is declined, the declining Team may still invite Teams to join their ALLIANCE; however, it cannot accept invitations from other ALLIANCES.

The process continues until ALLIANCE Eight makes a successful invitation.

Round 2: The same method is used for each ALLIANCE CAPTAIN'S second choice except the selection order is reversed, with ALLIANCE Eight picking first and ALLIANCE One picking last. This process results in eight (8) ALLIANCES of three (3) Teams each.

### 5.4.2 BACKUP TEAMS

Of the remaining eligible Teams, the highest seeded Teams (up to eight (8)) should remain on standby and be ready to play as a BACKUP TEAM. If a ROBOT from any ALLIANCE in an Elimination MATCH becomes inoperable, the ALLIANCE CAPTAIN may have the highest seeded TEAM still available join the ALLIANCE. The resulting ALLIANCE is then composed of four (4) Teams. The replaced Team remains part of the ALLIANCE for awards but cannot return to play, even if their ROBOT is repaired.

Each ALLIANCE has only one opportunity to draw from the pool of remaining TEAMS. If a second ROBOT from the ALLIANCE becomes inoperable, then the ALLIANCE must play the following MATCHES with only two (2) (or even one (1)) ROBOTS.

Example: Three (3) Teams, A, B and C, form an ALLIANCE going into the Elimination MATCHES. The highest seeded Team not on one of the eight (8) ALLIANCES is Team D. During one of the Elimination MATCHES, Team C's ROBOT becomes inoperable. The ALLIANCE CAPTAIN decides to bring in Team D to replace Team C. Team C and their ROBOT may not play in any subsequent Elimination MATCHES.

In the case where a BACKUP TEAM is part of the Champion or Finalist ALLIANCE, there will be a four (4)-TEAM Champion or Finalist ALLIANCE.

### 5.4.3 Elimination MATCH Bracket

The Elimination MATCHES take place following the completion of the Qualification MATCHES and the ALLIANCE selection process. Elimination MATCHES are played in a bracket format as follows:

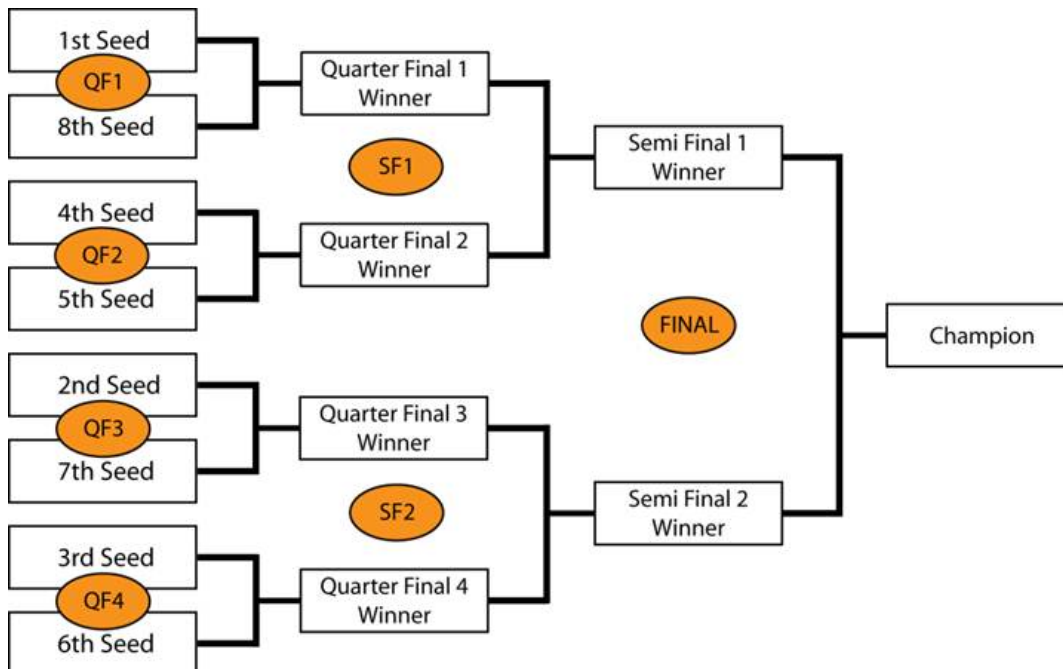


Figure 5-2: Elimination MATCH Bracket

In order to allow time between MATCHES for all ALLIANCES, the order of play is as follows:

QF1-1, QF2-1, QF3-1, QF4-1,

QF1-2, QF2-2, QF3-2, QF4-2,

QF1-3\*, QF2-3\*, QF3-3\*, QF4-3\*

Any additional Quarter-Final MATCHES due to ties\*

SF1-1, SF2-1, SF1-2, SF2-2, SF1-3\*, SF2-3\*

Any additional Semi-Final MATCHES due to ties\*

F-1, F-2, F-3\*

Any additional Final MATCHES due to ties\*

(\* - if required)

## 5.4.4 Elimination Scoring

In the Elimination MATCHES, Teams do not earn Qualification Points; they earn a Win, Loss or Tie. Within each series of the Elimination MATCH bracket, the first ALLIANCE to win two (2) MATCHES will advance.

In the case where the MATCH score of each ALLIANCE is equal, the tie is broken by awarding an extra point to the ALLIANCE with (in the following order):

1. highest number of FOUL points awarded (i.e. the ALLIANCE that played the cleaner MATCH)
2. if FOUL points are equal, highest number of ASSIST points
3. if ASSIST points are equal, highest number of AUTO points
4. if AUTO points are equal, highest sum of TRUSS and CATCH points

If the criteria above are equal, the MATCH is a Tie. Additional matches will be played if needed.

## 5.4.5 Pit Crews

During the Elimination MATCHES, extra Team members may be needed to maintain the ROBOT between MATCHES because of the distance between the FIELD and the pit area. For this reason, each Team is permitted to have three (3) additional "pit crew" members who can also help with needed ROBOT repairs/maintenance.

## 5.5 Tournament Rules

Safety is paramount at all times during the Tournament. Event staff have the final decision authority for all safety-related issues within the venue.

### 5.5.1 Safety and Security Rules



### 5.5.1.1 T1

All event attendees must wear safety glasses and closed-toed shoes while in the ARENA.

### 5.5.1.2 T2

Wireless ROBOT control is only permitted on the FIELD or Practice Field. ROBOTS must be operated by tether when outside the FIELD or Practice Field.

### 5.5.1.3 T3

If operating wirelessly on the Practice Field, ROBOTS must use the provided Practice Field radio for communication.

### 5.5.1.4 T4

Teams may not set up their own 802.11a/b/g/n/ac (2.4GHz or 5GHz) wireless communication (e.g. access points or ad-hoc networks) in the venue.

A wireless hot spot created by a cellular device is considered an access point.

### 5.5.1.5 T5

No Team or Team member shall interfere or attempt to interfere with any other Team's or *FIRST's* wireless communication. Except as expressly allowed for purposes of communicating with the Team's own ROBOT on the FIELD or a Practice Field, no Team or Team member shall connect or attempt to connect to any other Team's or *FIRST's* wireless network.

*Violation: Up to and including removal of the Team from the event. Legal action may also be pursued based on applicable law.*

Teams are encouraged to report suspected wireless security vulnerabilities to the FTA (if at the event) or to *FIRST* via the [Wireless Security Feedback Form](#)

## 5.5.2 Eligibility and Inspection Rules

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 to ensure compliance with the rules.

ROBOTS are permitted to participate in scheduled Practice MATCHES prior to passing Inspection. However, the FTA, LRI or Head Referee may determine at any time that the ROBOT is unsafe, per [Section 3.2.1: Safety](#), and may prohibit further participation in Practice MATCHES until the condition is corrected and the ROBOT passes Inspection.

ROBOTS without BUMPERS will be considered unsafe.

If a ROBOT cannot report for a MATCH, the Lead Queuer should be informed and at least one (1) member of the TEAM should report to the ARENA for the MATCH to avoid receiving a RED CARD, with the exception of a Team that has not passed Inspection, per Rule [T6](#).

#### 5.5.2.1 T6

A Team is only permitted to participate in a Qualification or Elimination MATCH and receive Qualification Points if their ROBOT has passed Inspection. If it is discovered after the start of the MATCH that a ROBOT did not pass Inspection and the Team participated in the MATCH, the entire ALLIANCE receives a RED CARD for that MATCH.

Please take note of this rule. It is important that FRC Teams ensure their ALLIANCE partners have passed Inspection. Allowing a partner that has not passed Inspection to play puts the ALLIANCE at risk of DISQUALIFICATION. Teams should check with their ALLIANCE partners early, and help them pass Inspection before competing.

Sending TEAM members to the ARENA without the ROBOT is considered participating in a MATCH.

#### 5.5.2.2 T7

Any ROBOT construction technique or element that is not in compliance with the ROBOT Rules must be rectified before a ROBOT will be allowed to compete or continue competing.

#### 5.5.2.3 T8

At the time of Inspection, the ROBOT must be presented with all MECHANISMS (including all COMPONENTS of each MECHANISM), configurations, and decorations that will be used on the ROBOT during the entire competition event. It is acceptable, however, for a ROBOT to play MATCHES with a subset of the MECHANISMS that were present during Inspection. Only MECHANISMS that were present during the Inspection may be added, removed or reconfigured between MATCHES. If MECHANISMS are changed between MATCHES, the reconfigured ROBOT must still meet all Inspection criteria.

#### 5.5.2.4 T9

The ROBOT Bill of Materials (BOM), listing all items on the ROBOT and their relevant costs per [Section 4.3: Budget Constraints](#), including KOP items, must be presented at the time of Inspection.

Teams are encouraged to use the BOM Template posted on the *FIRST* website. Please note that while BOMs must be shown to Inspectors, Teams are not required to submit their BOMs to the Inspectors.

#### 5.5.2.5 T10

If a ROBOT is modified after it has passed Inspection, other than modifications described in [T8](#), that ROBOT must be re-Inspected.

If an observation is made that another Team's ROBOT may be in violation of the ROBOT rules, please approach *FIRST* officials to review the matter in question. This is an area where Gracious Professionalism™ is very important.

#### 5.5.2.6 T11

At events, Teams may only produce FABRICATED ITEMS in the pit areas or provided machine shops, as defined in the [Administrative Manual, Section 4.8: The Pit](#).

#### 5.5.2.7 T12

For the safety of all those involved, Inspections must take place with the ROBOT powered off, pneumatics unpressurized, and springs or other stored energy devices in their lowest potential energy states (i.e. battery removed).

Power and air pressure should only be enabled on the ROBOT during those portions of the Inspection process where it is absolutely required to validate certain system functionality and compliance with specific rules (firmware check, confirmation of safe release of stored energy up to and including actuation of the mechanism, etc.). Inspectors may allow the ROBOT to be powered up 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 volume requirements, and
- B. The Team has included safety interlocks that mitigate unexpected release of such stored energy.

### 5.5.3 Referee Interaction

The Head Referee has the ultimate authority in the ARENA during the event, but may receive input from additional sources, e.g. Game Designers, *FIRST* personnel, and technical staff. The Head Referee rulings are final. The Head Referee will not review recorded replays under any circumstances.

#### 5.5.3.1 T13

If a TEAM needs clarification on a ruling or score, one (1) pre-college student from that TEAM should address the Head Referee after the ARENA reset signal (i.e. PLAYER STATION LED strings turn green). A TEAM member signals their desire to speak with the Head Referee by standing in a Red or Blue Question Box, which are located on the floor near each end of the scoring table. Depending on timing, the Head Referee may postpone any requested discussion until the end of the subsequent MATCH.

## 5.5.4 YELLOW and RED CARDS

The Head Referee may assign a YELLOW or RED CARD as a result of egregious ROBOT or Team member behavior at the ARENA. A RED CARD results in DISQUALIFICATION.

A YELLOW or RED CARD is indicated by the Head Referee standing in front of the Team's PLAYER STATION and holding a YELLOW and/or RED CARD in the air after the completion of the MATCH.

The Team carries their YELLOW CARD into subsequent MATCHES. A Team is issued a RED CARD in any subsequent MATCH in which they receive an additional YELLOW CARD. A second YELLOW CARD is indicated by the Head Referee standing in front of the Team's PLAYER STATION and holding a YELLOW CARD and RED CARD in the air simultaneously after the completion of the MATCH.

Once a Team receives a YELLOW or RED CARD, its Team number will be presented with a yellow background on the audience screen at the beginning of all subsequent MATCHES as a reminder to the Team, the Referees, and the audience that they carry a YELLOW CARD.

Examples of egregious behavior include, but are not limited to, severe and/or repeated violations of a rule and/or inappropriate behavior.

YELLOW CARDS do not carry forward from Qualification MATCHES to Elimination MATCHES (i.e. all Teams move into the Elimination MATCHES with a clean slate).

If a Team receives a RED CARD during the Elimination MATCHES, the entire ALLIANCE receives a RED CARD for that MATCH which results in a loss of that MATCH for the DISQUALIFIED ALLIANCE.

## 5.5.5 ARENA Reset Rules

### 5.5.5.1 T14

At the conclusion of a MATCH, TEAMS must remain in their ALLIANCE STATION and HUMAN PLAYER AREAS until the ARENA reset signal is issued, as indicated by the PLAYER STATION LED strings illuminating green (as described in [Section 2.2.8: The PLAYER STATIONS](#)).

### 5.5.5.2 T15

ROBOTS will not be re-enabled after the conclusion of the MATCH, nor will Teams be permitted to tether to the ROBOT.

### 5.5.5.3 T16

If, in the judgment of the Head Referee, an “ARENA fault” occurs that affects the outcome of the MATCH, the MATCH will be replayed.

ARENA faults include broken FIELD elements, power failure to a portion of the FIELD (tripping the circuit breaker in the PLAYER STATION is not considered a power failure), improper activation of the FMS, errors by FIELD personnel, etc.

## 5.5.6 TIMEOUT and BACKUP TEAM Rules

There are no TIMEOUTS in the Practice or Qualification MATCHES.

In the Elimination MATCHES, each ALLIANCE will be allotted one (1) TIMEOUT.

During a TIMEOUT, the ARENA Timer will display the time remaining in the TIMEOUT. Both ALLIANCES will enjoy the complete 6-minute window. If an ALLIANCE completes their repairs before the ARENA Timer expires, the ALLIANCE CAPTAIN is encouraged to inform the Head Referee that they are ready to play. If both ALLIANCES are ready to play before the TIMEOUT expires, the next MATCH will start.

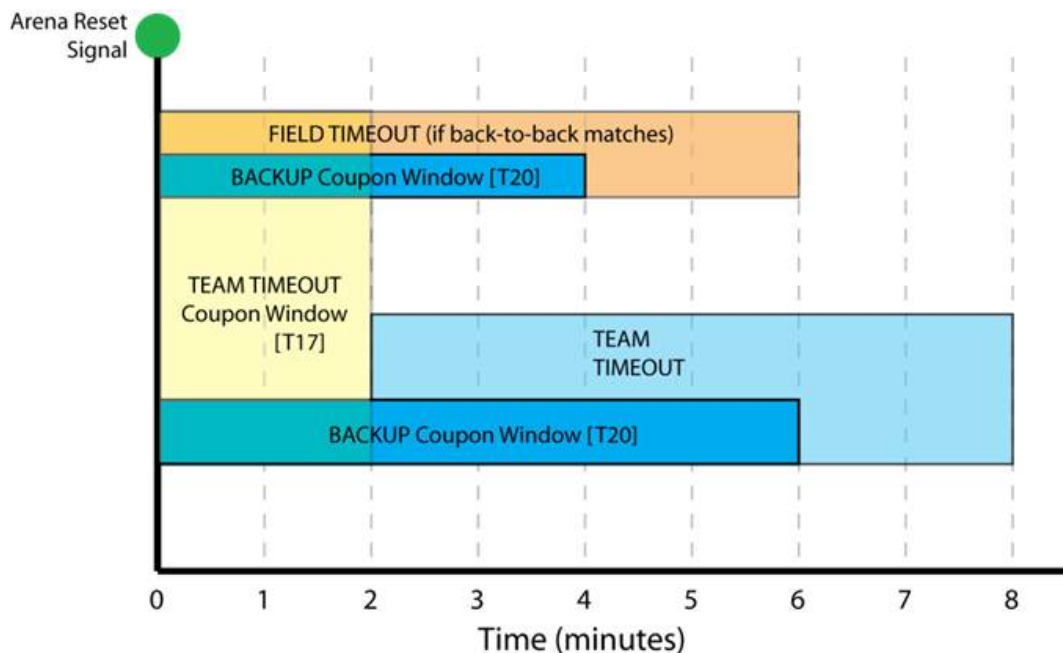


Figure 5-3: TIMEOUT Timeline

During the Elimination MATCHES, if circumstances require an ALLIANCE to play in back-to-back MATCHES, the Head Referee will issue a FIELD TIMEOUT to allow Teams to prepare for the next MATCH.

### 5.5.6.1 T17

If an ALLIANCE wishes to call a TIMEOUT, they must submit their TIMEOUT coupon to the Head Referee within two (2) minutes of the ARENA reset signal preceding their MATCH.

Once a TIMEOUT coupon is submitted and accepted by the Head Referee, the TIMEOUT coupon may not be withdrawn by the ALLIANCE.

### 5.5.6.2 T18

There are no cascading TIMEOUTS. If an ALLIANCE calls a TIMEOUT during a FIELD TIMEOUT, the FIELD TIMEOUT will immediately expire and the ALLIANCE'S TIMEOUT will begin.

If an ALLIANCE wishes to call a TIMEOUT during a FIELD TIMEOUT, it must still do so within two (2) minutes of the ARENA reset signal preceding their MATCH, per Rule T17.

### 5.5.6.3 T19

TIMEOUTS are not transferrable between ALLIANCES.

### 5.5.6.4 T20

If during a TIMEOUT an ALLIANCE CAPTAIN determines that they need to call up a BACKUP TEAM, they must submit their BACKUP TEAM coupon to the Head Referee while there are still at least two (2) minutes remaining on the ARENA Timer. After that point, they will not be allowed to utilize the BACKUP TEAM.

Alternatively, an ALLIANCE CAPTAIN may choose to call up a BACKUP without using their TIMEOUT by informing the Head Referee, through the use of the BACKUP coupon, directly within two (2) minutes of the Head Referee issuing the ARENA reset signal preceding their MATCH.

The ALLIANCE CAPTAIN must indicate on the BACKUP coupon which TEAM'S ROBOT will no longer be participating in MATCHES and initial the BACKUP coupon before it will be accepted by the Head Referee.

In the case where the ALLIANCE CAPTAIN'S ROBOT is replaced by a BACKUP TEAM, the ALLIANCE CAPTAIN is allowed in the ALLIANCE STATION as a thirteenth ALLIANCE member so they can serve in an advisory role to their ALLIANCE.

Once a BACKUP coupon is submitted and accepted by the Head Referee, the BACKUP coupon may not be withdrawn by the ALLIANCE.

### 5.5.6.5 T21

An ALLIANCE may request neither a TIMEOUT nor a BACKUP TEAM after an Elimination MATCH is stopped by the Head Referee (e.g. due to an ARENA fault or a safety issue). The sole exception is if the replay is due to an ARENA fault that rendered a ROBOT inoperable.

If an Elimination MATCH is replayed per T21 the Head Referee has the option of calling a FIELD TIMEOUT.

## 5.5.7 Measurement

The ARENA will be open for at least one (1) hour prior to the start of Practice MATCHES, during which Teams may survey and/or measure the FIELD. The specific time that the FIELD is open will be communicated to Teams at the event. Teams may bring specific questions or comments to the FTA.

## 5.5.8 Special Equipment Rules

### 5.5.8.1 T22

The only equipment, provided it does not jam or interfere with the remote sensing capabilities of another Team, including vision systems, acoustic range finders, sonars, infrared proximity detectors, etc. (e.g. including imagery that, to a reasonably astute observer, mimics the VISION TARGET), that may be brought in to the ALLIANCE STATION are as follows:

- A. the OPERATOR CONSOLE,
- B. non-powered signaling devices,
- C. reasonable decorative items,
- D. special clothing and/or equipment required due to a disability
- E. devices used solely for the purpose of planning or tracking strategy provided they meet all of the following conditions:
  - i. do not connect or attach to the OPERATOR CONSOLE
  - ii. do not connect or attach to the FIELD or ARENA
  - iii. do not connect or attach to another ALLIANCE member
  - iv. do not communicate with anything or anyone outside of the ARENA.
  - v. do not include any form of enabled wireless electronic communication (e.g. radios, walkie-talkies, cell phones, Bluetooth communications, Wi-Fi, etc.)
  - vi. do not in any way affect the outcome of a MATCH, other than by allowing PLAYERS to plan or track strategy for the purposes of communication of that strategy to other ALLIANCE members.

## 5.6 Championship Additions and Exceptions

At the 2014 *FIRST* Championship, Teams are split into four (4) Divisions: Archimedes, Curie, Galileo, and Newton. Each Division plays a standard Tournament as described in [Section 5.3: Qualification MATCHES](#), [Section 5.4: Elimination MATCHES](#), and [5.5: Tournament Rules](#), with the exception of [Section 5.4.1: ALLIANCE Selection Process](#) and [Section 5.4.2: BACKUP TEAMS](#), to produce the Division Champions. Those four (4) Division

Champions proceed to the Championship Playoffs, on the Einstein FIELD, to determine the 2014 FRC Champions.

There is no provision for BACKUP TEAMS at the Championship.

There is no provision for TEAM TIMEOUTS during the Einstein Tournament; however there will be an automatic FIELD TIMEOUT between each Einstein MATCH (i.e. Einstein MATCHES will be scheduled to accommodate a six (6) minute gap between MATCHES).

## 5.6.1 Four ROBOT ALLIANCES

Before each Division Elimination Tournament, ALLIANCES will be selected per the process as described in [Section 5.4.1: ALLIANCE Selection Process](#), however the process will continue with a 3<sup>rd</sup> round of selection as follows.

Round 3: The same method is used for each ALLIANCE CAPTAIN'S third choice except the selection order is reversed again, with ALLIANCE One picking first and ALLIANCE Eight picking last. This process results in eight (8) ALLIANCES of four (4) Teams each.

ALLIANCES may start with any three (3) of the four (4) ROBOTS on their ALLIANCE during Elimination MATCHES and on the Einstein FIELD. The list of TEAMS participating in the MATCH is called the LINEUP. One representative from the TEAM not on the LINEUP is allowed in the ALLIANCE STATION as a thirteenth ALLIANCE member.

The ALLIANCE CAPTAIN must report the LINEUP to the Head Referee, or their designee, in writing prior to end of the preceding MATCH (e.g. the LINEUPS for MATCH QF2-1 must be submitted before the end of MATCH QF1-1). If there is no preceding MATCH, the LINEUP is due no later than two (2) minutes before the scheduled MATCH time. The LINEUP will be kept confidential until the FIELD is set for the MATCH, at which point each ALLIANCE'S LINEUP will appear on the Team Signs. Once the LINEUP has been declared, it cannot be changed unless there is a TIMEOUT. If there is a TIMEOUT, the ALLIANCE CAPTAIN may submit a different LINEUP, but must do so while there are still more than two (2) minutes remaining in the TIMEOUT.

Example: Four (4) Teams, A, B, C and D, form an ALLIANCE going into the Elimination MATCHES on their Division FIELD. During one of the Elimination MATCHES, Team C's ROBOT becomes inoperable. The ALLIANCE decides to bring in Team D to replace Team C. Team C repairs their ROBOT and may play in any subsequent Elimination MATCHES replacing Teams A, B, or D. All four (4) ALLIANCE members are also eligible to play MATCHES on the Einstein FIELD should the ALLIANCE win the Division Tournament.

If an ALLIANCE fails to submit a LINEUP per the process above, the LINEUP will be the same as the ALLIANCE'S previous MATCH. If an ALLIANCE fails to submit a LINEUP per the process above and the MATCH is their first of the Elimination Tournament or the Einstein Tournament, the LINEUP will be the ALLIANCE Lead, first ALLIANCE selection, and second ALLIANCE selection. If any of these three (3) ROBOTS are unable to play, the ALLIANCE must play the MATCH with only two (2) (or even one (1)) ROBOTS.

If a MATCH must be replayed due to an ARENA fault, the LINEUP for the replayed MATCH is the same as the original MATCH. The sole exception is if the ARENA fault rendered a ROBOT inoperable, the LINEUP can be changed.

## 5.6.2 Championship Pit Crews



Only Team members wearing proper badges are allowed on the ARENA floor. *FIRST* will distribute these badges to the ALLIANCE CAPTAINS during the ALLIANCE CAPTAIN meeting, which takes place on the Division FIELDS. These badges will provide the necessary access to the ARENA for pit crew members.

Teams should assume they may be chosen for an ALLIANCE and think about the logistics of badge distribution and set a plan prior to the ALLIANCE selection process. It is each ALLIANCE CAPTAIN'S responsibility to get the Team's badges to the pit crew members.

### 5.6.3 FRC Championship MATCH Bracket

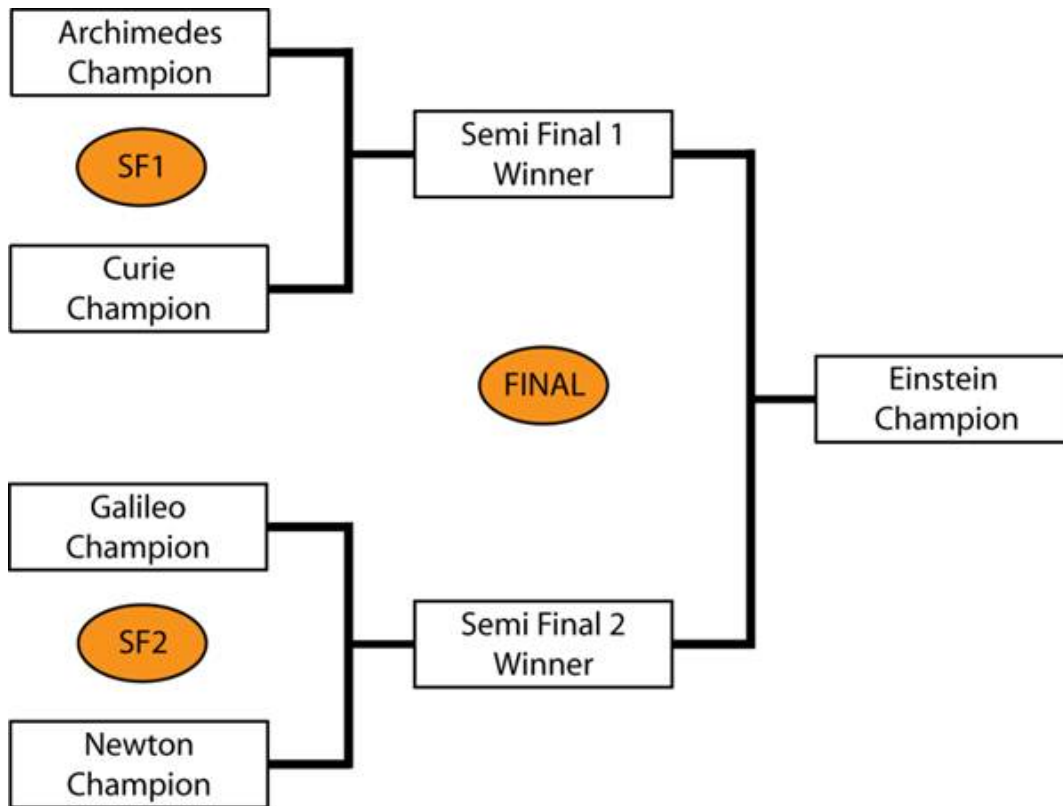


Figure 5-4: Championship Playoff MATCH Bracket

In order to allow time between MATCHES for all ALLIANCES, the order of play is as follows:

SF1-1, SF2-1, SF1-2, SF2-2, SF1-3\*, SF2-3\*

Any additional Semi-Final MATCHES due to ties\*

F-1, F-2, F-3\*

Any additional Final MATCHES due to ties\*

(\* - if required)

### 5.7 Revision History

Date	Section	Change

1/14/2014	5.5.2	Added blue box
1/14/2014	T12	Added requirement for check of safe release of stored energy as part of Inspection
1/17/2014	5.1	Added detail on order in which ROBOTS are placed on the FIELD
3/25/2014	5.6	Added note about 6-minute gaps between Einstein Matches but no TIMEOUTS.
4/08/2014	T17	Added note stating that a TIMEOUT coupon is irreversible.
4/08/2014	T20	Added step to BACKUP process and added note stating that a BACKUP coupon is irreversible.