



FRC Q&A

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Game - Introduction

Not Available

What is the FIRST Robotics Competition (aka FRC)?

Not Available

Gracious Professionalism, A FIRST Credo

Not Available

Prominent FRC Awards

Not Available

The Chairman's Award

Not Available

The Woodie Flowers Award

Not Available

Safety: A FIRST Culture

Not Available

Robot Design and Build Schedule

Not Available

ULTIMATE ASCENT Summary

Not Available

Game - The Arena

Not Available

Overview

Not Available

The ARENA

Not Available

The FIELD

Not Available

FIELD Markings

Not Available

The GOALS

Not Available

The VISION TARGETS

Q.The kickoff announcement stated that a sample of the reflective tape would be in the kit of parts. It is not on the list and not included. Should we have received some?

A.Please see [Q46].

Q.I called FIRST HQ; they didn't know and said to ask this question here. At least two videos on the FRC Teams youtube channel mention 4 inch retro-reflective tape as being in the KOP. But it's not in the KOP checklist nor in the kit nor on AndyMark. Is there an official source for this? Tkx

A.The Kit of Parts is the system used by *FIRST* to get items to teams. It consists of three elements: The Kickoff Kit, the Virtual Kit, and *FIRST* Choice. The retro-reflective material is available in *FIRST* Choice.

The PYRAMIDS

Q.What are the actual dimensions for the U-bolts. There appears to be conflicting information regarding them as I flip through the pages of the document.

A.The U-Bolts specified in TE-13001 are U-Bolts made for 1-1/4" pipe. The internal clearance of the bolt is 1.75". The length of a standard U-Bolt this size is 3". The thread size is 1/4-20.

Q.What are the limits to the support tube above Level 3, and below the pyramid scoring goal? Can it be touched by the robot in order to place discs in the goal?

A.Please see [Q66] and [G14].

Q.There seems to be discrepancy between the Autodesk CAD model and drawings of the pyramid (pulled from the game arena file). Specifically, the drawings show that the rungs (1,2,3) are all 30" apart in the vertical, and at a consistent 68 degrees from horizontal. The CAD model shows that the first two rungs (1,2) are also 30" apart in the vertical, and 68 degrees from horizontal, but the inconsistency is in the third rung. The third rung is depicted higher than 30" - not at the joint of the 68 degree angled bar and the vertical section of the pyramid - but several inches above on the vertical bar. This changes the angle and climbing plans. Has anyone else seen this, or does anyone have a concrete source that we can trust to design around? Thanks -

A.Per *Section 2.1*, the FIELD drawings published by FIRST are the official source for all dimensions.

Q.Is the height of the rungs on the pyramid measured from the top of the rung or the center of the rung?

A.Please refer to Figure 2-7 and tolerances in Section 2.1 and FIELD assembly drawings.

The ALLIANCE STATIONS

Not Available

The FEEDER STATIONS

Not Available

The PLAYER STATIONS

Not Available

The Netting

Not Available

The DISCS

Not Available

Game - The Game

Q.Could a robot setting on the ground, attach to the top of the second horizontal bar, and then lift into zone 2, with out touching the pyramid at any other point? Or would this be a invalid climb? My team is getting confused with all the clarifications.

A.Please see [Q6].

Q.2) Is the part of the pyramid marked in red Zone 1? If so, what would the height of the red mark be?
<http://i49.tinypic.com/2e3wdgk.png>

A.Level 1 extends from the floor (Level 0) to the top of the first rung on the PYRAMID.

Q.1) Does touching the top of the horizontal pole in level one count as level one or level two? 2) What is the space between the knuckle and the zone above on the horizontal pole?

A.1) This is contacting the PYRAMID in Level 1. 2) Please clarify your question.

MATCH Setup

Not Available

MATCH Timing

Q.At what time may the robot begin climbing the pyramid? The manual doesn't seem to specify.

A.There are no Rules dictating when a ROBOT may begin to CLIMB the PYRAMID.

MATCH Logistics

Q.How often can a team load a robot from the loading area? And how quickly do more Frisbees become available to the team.

A.There are no Rules regulating how often a TEAM or ROBOT may use the FEEDER STATION. The DISCS present at the start of the MATCH as described in *Section 3.1.1* are the only DISCS used for the MATCH, no additional DISCS will be made available during the MATCH.

Penalty Assignment

Q.If you're attached to the bar on level one and tethered to the bar on level two, when you release from bar one the robot will swing on arc below level two, is it a violation if we touch the floor as we swing tethered to bar two?

A.If a ROBOT contacts the PYRAMID in Level 2 while simultaneously contacting the floor (Level 0), the CLIMB would be considered invalid.

Scoring

Not Available

DISC Points

Q.Can a team receive points for scoring the opposite colored discs in their own alliance goals?

A.Please see [Q17].

Q.Scoring of discs is governed by 3.1.5.1. which has 3 statements. One of the statements is that the disc "is in the GOAL at the end of the MATCH". Does this mean that none of the frisbees coming into the alliance station goals will be reused during the match? If discs fall out, are the points lost?

A.Correct. Correct.

Q.Can a team pick up opposite alliance's colored discs off the arena floor and place them into THEIR OWN goals in order to prevent the opposing alliance from picking them up again and scoring them on their pyramid?

A.There are no Rules prohibiting that.

Q.Our question is in relation to rule section 3.1.5.1 and G24. Do the discs have to be individually fired/thrown into the goals? We have found the answer in the broadcast, but not in the game manual. Can you please clarify? Thank you.

A.There is no requirement that DISCS are put into a GOAL individually.

Q. Do the red or blue disc score as normal (white) disc if put in the goal openings? During AUTO & TELEOP?

A. Yes, Red, White, and Blue DISCS have the same value if SCORED in the LOW, MIDDLE, or HIGH GOALS.

CLIMB Points

Q. Will this CLIMB be considered valid according to Section 3.1.5.2 A and B: The ROBOT is touching the first rung. Afterwards the ROBOT grabs the third rung, while breaking contact with the first rung. During the ROBOT's climb to the third level, it touches the second rung, and reaches the third level.

A. No. The ROBOT contacts PYRAMID Levels in a non-sequential order (Level 1 then Level 3).

Q. If my ROBOT touches the PYRAMID only in Level 1, but he is tall enough so the ROBOT'S presence is in the physical space of Levels 2-3. Does it consider a CLIMB?

A. Please see [Q13].

Q. Suppose a robot has executed a legal CLIMB into Level 2. From this position, the robot (1) makes contact with Level 1 *without* breaking contact with Level 2, then (2) breaks contact with Level 1 and returns to a height within Level 2. Does the contact made with Level 1 invalidate the CLIMB?

A. No. In the above example, at no time does the robot touch more than two (2) Levels or non-sequential Levels.

Q. Ok, Could a robot setting on the ground, attach to the top of the second horizontal bar, and then as climbing touch in zone 1 (no longer touching floor) before entering zone 2, would it then be legal climb?

A. No.

Q. Is contacting the leg of the pyramid considered being in that zone?

A. Please see [Q49].

Q. Would it be a legal climb if the robot is on the floor (Level 0), contacts Level 1, remains on the floor, breaks contact with Level 1 and makes contact with Level 2, pulls itself off the floor, makes contact with Level 3, and then pulls itself completely into the Pyramid's Level 3 zone?

A. No.

Q. If an arm reaches up onto the first bar on the pyramids and hooks it, while the robot is still on the floor. Will the climb be disqualified because the robot would be touching level 0, in level 1, and grabbing over the bar under level 2?

A. Please see answers [Q13] and [Q28].

Q. Is the pyramid base (drawing number GE-13024) considered the floor (level 0) or part of level 1 of the pyramid? For example, if a robot has a wheel on the floor and a wheel on the pyramid base, is that considered contacting level 0 and 1?

A. Per Section 2.2.5 the bases will be covered with carpet and thus would be part of the floor.

Q. Per the updated version of 3.1.5.2, can your robot touch the floor and two levels of pyramid simultaneously? (i.e. the robot on the floor grabs the pyramid on the first and second level)

A. There are no Rules that prohibit this action; however, it would invalidate a CLIMB attempt as the ROBOT would be contacting the PYRAMID structure in Levels 1 and 2, as well as contacting the floor (Level 0) simultaneously.

Q. Is the climb score counted by lowest point relative to a horizontal plane at the top of each rung, or by the lowest point of the robot physically touching the tower. I.E. If an robot is hanging down into zone 2, but is touching only the steel in zone 3, is his score 20 or 30?

A. Per Section 3.1.5.2, the Level to which a ROBOT has CLIMBED is determined by the lowest point of the ROBOT (not the lowest point of the ROBOT contacting the PYRAMID).

Q.Is the section of the pyramid above the Zone 3 border as shown in Team update 1 considered a separate zone for climb legality purposes? For example, would touching the pyramid above the Zone 3 line while still in contact with the zone 2 bar be considered a violation of the Sequential zone rule or the 2 zone rule?

A.There is no upper bound to Level 3.

Q.a) Is the extreme top surface of the lowest horizontal bar considered Zone 1 or Zone 2? b) If Zone 1, then is the robot allowed to violate air space of zone 2 and not be considered in contact with zone 2?

A.The horizontal rungs are located at the top of each Level. Each Level extends to the top of the rung. Being in the "air space" of a Level does not necessarily mean the ROBOT is contacting the PYRAMID in that Level.

Q.In order to be a valid climb in sequential order, a robot must be fully supported by zone 1 (off the ground), prior to contacting zone 2. In other words, a robot cannot be touching Zone 0 and touching zone 2 at the same time. Is this a correct statement?

A.The first statement in this submission is incorrect. The requirements in *Section 3.1.5.2 A and B* pertain to the ROBOT'S contact with the PYRAMID structure and/or floor within each Level, not the ROBOT'S presence in the physical space of the Level.

Q.Does a robot have to be in zone 1, 2, or 3 at the END of the match to score climbing points? In other words, can a robot climb up to zone 3, get 30 points, then climb back down for the rest the match without forfeiting that 30 points or getting any penalties?

A.Yes. No.

Q.Figure 3-4 on page 28/90 shows Level 2 just above the horizontal bar. Since the rule states no more than two zones why is it (or is it) permissible to hook the pipe while still on the floor and if so how far into level 2 can you go? Does that include the side pipes?

A.The requirements in Section 3.1.5.2 A and B pertain to the ROBOT'S **contact** with the PYRAMID and/or floor within each Level, not the ROBOT'S presence in the physical space of the Level.

Q.If you have a tall robot are you in more than 2 zones simultaneously?

A.Yes, depending on the height of your ROBOT, it is possible for a ROBOT to occupy more than one Level at a time.

Q.If a legal climb constitutes being in between only 2 levels at a time would putting a hook on the next level be considered illegal?

A.Per Section 3.1.5.2, for a CLIMB to be legal, a ROBOT may contact no more than two (2) Levels of the PYRAMID and/or the floor (Level 0) simultaneously.

Q.Can the robot go from the floor to level 2 while climbing the pyramid or does it have to climb to level 1 first and then level 2? I need clarification

A.Per Section 3.1.5.2, a ROBOT has CLIMBED its PYRAMID if it contacts the PYRAMID and/or the floor (Level 0) in sequential order (Level 0, 1, 2, 3) during ascent. Skipping a level (i.e. going from the floor directly to Level 2) would not meet the "sequential order" requirement.

Q.When hanging does the lowest point of the robot include the bumpers?

A.Yes.

Safety

Not Available

G01

Not Available

G02

Not Available

G03

Q. Does a robot mechanism explicitly designed to perform an action with the explicit intent of proceeding with the action after the robot has been disabled or the power has been cut (beyond the forces of inertia) violate Rule G03?

A. We cannot comment on the legality of specific (or non-specific) design ideas. However, actuation beyond the control of safety measures in the control system may be considered violations of [G03].

G04

Q. We were just wondering what penalties would a team incur if their robot were to be able to climb to the third level of the pyramid for this year's game, but would have to be powered back on to be able to be removed? Would this get the team a foul? Technical foul? Yellow card, red card? Thanks!

A. Please see [G04].

Q. Would G04 or any other rule prohibit the robot from climbing to top of pyramid, then returning to floor and gathering additional discs?

A. There are no Rules that prohibit this, but per *Section 3.1.5.2*, CLIMB points are not assessed until the MATCH ends per *Section 3.1.5*.

Pre-MATCH

Not Available

G05

Q. Are you considered contacting the pyramid at the 30 inch bar at any location?

A. Yes, any time the ROBOT is contacting the PYRAMID, the ROBOT will be considered contacting the PYRAMID.

Q. Can we start inside the pyramid as long as we are in contact with the pyramid?

A. There are no Rules that prohibit this.

G06

Q. Can a preloaded disc be in contact with the carpet or does it need to be wholly supported by the robot?

A. There is no requirement that a preloaded DISC not touch the carpet.

G07

Not Available

G08

Not Available

G09

Not Available

General Rules

Not Available

G10

Q. Are there any time limits on a robot being in any position on the floor, assuming that it is not pinning another robot?

A. The Rule referenced with your Question is [G10], which applies to the TEAM Members who may report to the ARENA during a MATCH. If you have a specific Question about a specific Rule, please reference that Rule when you ask the Question.

Q.Is there a maximum time limit that robots can be in the loading area?

A.The rule referenced and the terminology used in this inquiry are not sufficient to be able to understand, and thus answer the question accurately.

G11

Not Available

G12

Q.If I put something into the low goal to drop Frisbee's into the goal is it considered leaving the field?

A.There are no Rules that prohibit breaking the plane of the LOW GOAL, however per Rule [G12], ROBOTS may not contact anything outside the FIELD.

G13

Not Available

G14

Q.Would rule "G14 E- Damaging" include gripping the tower and indentions being left behind on the steel pipe or scaping the pipe oif the robot rubs against as it is pulled over a pipe. These marks would be similar to the teeth marks left from a pipe wrench or scratches.

A.Inadvertent scratching of FIELD elements is expected and considered normal wear and tear. However, if a specific ROBOT design requires FIELD elements to be scratched/dented it will be subject to [G14].

Q.Is the center post in the PYRAMID GOAL considered part of the PYRAMID, and therefore exempt from Actions A-D of G14?

A.Yes, however if a ROBOT is perceived as damaging any component of the FIELD, the Referee will likely DISABLE the ROBOT. Teams will also be required to remove/alter the damaging MECHANISM before competing in subsequent MATCHES.

Q.Is it permissible to touch the top tray while climbing or depositing Discs?

A.There are no Rules explicitly prohibiting this, but ROBOT interaction with the FIELD is detailed in [G14].

G15

Not Available

G16

Not Available

G17

Not Available

G18

Not Available

AUTO Rules

Not Available

G19

Q.This is just a comment that the hyperlink to G19 in your answer to Q26 refers back to the game LogoMotion

A.Thank you for pointing this out. We have fixed the issue.

Q.If part of our robot is in contact with the carpet on our side, but has part of the robot in contact with the opponents carpet, and comes in contact with another opponent robot in autonomous, would a technical foul be assessed? If so, would the foul be assessed to both teams who make the contact?

A.If the ROBOT has not violated [G19], no penalty will be assessed.

G20

Not Available

G21

Not Available

ROBOT Actions

Q.if we are using the corners and contact the vertical pipe when grabbing the first rung as we climb are we then in 3 zones?

A.Contact with the PYRAMID'S vertical poles contained in a Level count as contacting the PYRAMID in that Level.

Q.If we our robot is on the floor and grabs the first rung to climb up, are then in contact with 3 zones as we would be on the floor and touching the the top of the first rung?

A.See the answer to [Q28].

G22

Not Available

G23

Q.How long does a tipped robot have to right itself before it is assessed a TECHNICAL FOUL under G23? Is there anything a tipped robot can do to avoid a TECHNICAL FOUL? Is the TECHNICAL FOUL still assessed if a robot is tipped by the actions of an opposing team?

A.A tipped ROBOT will not be considered "continuously" breaking [G23]. Please see *Team UPDATE 2013-01-11* in reference to your final question.

Q.Are the bumpers included in the 54" cylinder limitation?

A.Please see the answer to [Q44].

Q.Rule G22 places height restrictions "in relation to the ROBOT." Does this apply to G23 (horizontal restrictions)? When climbing the pyramid, extending an appendage "out" from the robot but "up" in space might extend past the cylinder if it is taken relative to the robot, as opposed to the ground.

A.The height requirement in [G22] is relative to the ROBOT. The horizontal volume requirement of [G23] is relative to the FIELD (see answer to [Q15]).

Q.Is the 54" vertical cylinder perpendicular to the to floor or to the horizontal axis of the robot? In other words if you tilt your bot 90 degrees does the vertical cylinder tilt with it?

A.Please see the answer to [Q15].

Q.This rule states that the 54" dia cylinder is horizontal. Is this perpendicular to the floor or the bottom plane of the robot. For example, if a robot is 60" tall and tips over, is a foul assessed as it is outside the 54" cylinder?

A.Please see the answer to [Q15].

Q.Is the 54 inch envelope diameter (figure 3-5) orientation sensitive ie is its axis always vertical regardless of the robots axis ie such as when the robot climbs?

A.The vertical cylinder specified in [G23] is not coupled with the ROBOT'S orientation and is always vertical.

G24

Q.If a Red Robot dumps DISCS on a Blue Robot and causes the Blue Robot to control more than 4 DISCS, is the Blue Robot assessed FOULS per G24?

A.Please see *Team UPDATE 2013-01-11* for an update on this situation.

G25

Not Available

G26

Not Available

G27

Not Available

ROBOT-ROBOT Interaction

Not Available

G28

Not Available

G29

Not Available

G30

Not Available

G31

Not Available

G32

Not Available

G33

Q.Section 3.2.4.2 Climb Points: In the picture, each zone is shown to start immediately above the horizontal bar. Does this preclude hanging on the bar with a hook, or is there an allowance for a gripping device that goes over the top of the bar? If a device can go on top, is there a max size?

A.Please see answers to [Q28] and [Q13].

Q.G33: If one robot is supported by another robot, what are the rules determining which zones it is in? Is it by position, or does the zone of the first robot determine the zone for the second robot, or does the second robot need to be touching the pyramid?

A.Please see [Q61].

Q.G33: What the rules for scoring and zones when one robot is supporting another robot? For instance, can you carry the other robot entirely, either on top of the first robot, or by grabbing it with an arm? If you do carry another robot, does each robot get points according to the zone it ends up in?

A.The position and CLIMB validity of each ROBOT will be assessed independently per the criteria in Section 3.1.5.2.

Human Actions

Not Available

G34

Not Available

G35

Q.Our question is in relation to rule section 3.2.7 and G35. Last season, Feeders weren't allowed to pass their hands through the slots to reload the bot. Does that rule still apply this year or are our hands allowed to pass through? Clarification is much appreciated. Thank you.

A.Per [G37], TEAMS may not extend any body part into the FIELD or contact any ROBOT at any time during the MATCH.

G36

Not Available

G37

Not Available

G38

Not Available

Game - The Robot

Q.Can I make a fanbot?

A.We cannot comment on the legality of specific (or non-specific) design ideas.

Q.Are there any restrictions on the type of camera we are allowed to use on the robot for robot vision? It must cost less than 400\$, be an IP camera, are we allowed to use a IP conversion module (ex. standard camera converted to IP)?

A.There are many Rules in *Section 4 - The ROBOT* that restrict the type of camera allowed on the ROBOT.

General ROBOT Design

Q.We have another question, can we use any kind of infrared light on the robot?

A.There are no Rules explicitly prohibiting infrared light, assuming all other ROBOT Rules are followed.

Q.The team 4673 has a question, our robot can throw the discs upside down?

A.There are no Rules prohibiting this.

Q.Wouldn't using a COTS vacuum intact conflict with the rules governing what motors/actuators can be used on the robot? Does it not count as an 'actuator'? Or are you implying the vacuum's motor would have to be 'swapped' with one allowed by R32? -Thanks

A.Correct. Only motors listed in [R32] are legal for use on the ROBOT.

Q.CAN I USE A 12 VOLT VACUUM CLEANER IN MY ROBOT

A.There are no Rules explicitly prohibiting this, but the vacuum must comply with all ROBOT Rules (specifically motor Rules).

R01

Q.Do we need a drive-train?

A.There are no Rules that require a drive base.

R02

Not Available

R03

Q.Does the height limit apply to temporarily extended parts? For example, if the robot will be under the limit for the majority of the game but at one point a part extends above the limit for a matter of seconds, is it breaking the rules?

A.Yes. Yes.

R04

Not Available

R05

Q.Does the 54" diameter cylinder include the bumpers or not. R05 ambiguous.

A.Yes, BUMPERS are considered part of the ROBOT for [G23]. This will be addressed in *Team UPDATE - 2013-01-11*.

R06

Not Available

R07

Not Available

Safety & Damage Prevention

Not Available

R08

Not Available

R09

Not Available

R10

Not Available

Budget Constraints

Not Available

R11

Not Available

R12

Not Available

R13

Not Available

R14

Not Available

R15

Not Available

Fabrication Schedule

Not Available

R16

Not Available

R17

Not Available

R18

Not Available

Material Utilization

Not Available

R19

Q.Can we use TETRIX by PITSCO parts for our robot?

A.These parts are not inherently illegal, but must comply with all ROBOT Rules.

R20

Not Available

R21

Not Available

BUMPER Rules

Q.If a robot is shaped like an "L" according to R22 do the inside edges of the "L" need to have bumpers?

A.Per R22, all outside corners of the FRAME PERIMETER are required to be protected by BUMPERS. See the definition of FRAME PERIMETER for information on how to determine the FRAME PERIMETER for your ROBOT.

R22

Q.Do bumpers have to be parallel to the ground?

A.There is no explicit requirement that BUMPERS be perfectly parallel to the floor, however the requirement that BUMPERS be constructed per Figure 4-4, the vertical cross-section, does implicitly mean that a BUMPER should not overtly deviate from this orientation.

Q.Do bumpers have to be at the same height around corners? For instance, the bumper on one side starts 2 inches off the ground and the bumper on the adjacent side starts 5 inches off the ground.

A.No, provided they are all located entirely within the BUMPER ZONE per [R25].

Q.Using a Tri-Lambda like drive platform (<http://www.andymark.com/product-p/am-0666.htm>) What would be the requirements for the bumpers?

A.The Rules regarding BUMPERS, Section 4.1.6, are the same regardless of the shape of the ROBOT.

R23

Not Available

R24

Q.For the purposes of lightening the robot, would balsa wood reinforced with a cured carbon fiber tape outer layer be considered "solid, robust wood" for use as a bumper backer?

A.Carbon fiber is not wood.

R25

Not Available

R26

Not Available

R27

Not Available

R28

Not Available

R29

Not Available

R30

Not Available

R31

Not Available

Motors & Actuators

Q.Is there a limit to the total number of motors allowed on the robot? For example, can we have 6 CIM and 4 Banebots and 4 AndyMark?

A.[R32] specifies the maximum allowable quantity per type of motor. There is no specific limit on the total quantity of motors used, provided all other Robot Rules are followed.

R32

Q.I have several andymark and banebot motors that I purchased last year with similar p/ns but R32 p/ns are partials. Are the andymark pn 00968-9015, banebot RS550VC-7527, Andy mark PG71 gearmotor/am-0914, and denso throttle motor 6 from last year legal this year?

A.Only the motor part numbers in [R32] are legal for use on the ROBOT.

Q.Can we use these: Andymark PG-188 Gearmotor am-2193(first-choice Andymark PG-27 Gearmotor am-0915(,,) Festo Pneumatic rotary actuator DCM-16-270-P We're the first native Dutch team from the Netherlands. So we don't know if we can use the Festo one. (Hence the question.) We have it here at our school

A.Legal motors are listed in [R32]. Pneumatic components must comply with all ROBOT Rules, especially those in *Section 4.1.10* to be legal. If you need to request permission to use an alternate part to a required part because of availability in your country, please send a detailed message (include the legal part number that's not available to you, why it's not available, and the requested alternate) to frcparts@usfirst.org.

R33

Not Available

Power Distribution

Not Available

R34

Not Available

R35

Not Available

R36

Not Available

R37

Not Available

R38

Not Available

R39

Not Available

R40

Not Available

R41

Not Available

R42

Not Available

R43

Not Available

R44

Not Available

R45

Not Available

R46

Not Available

R47

Not Available

R48

Not Available

R49

Not Available

R50

Not Available

R51

Q.Is it legal to use either model of Victor speed controller or the new Talon speed controller without an attached fan, provided that adequate airflow is provided in some other way?

A.The only legal modifications to motor controllers are listed in [R65].

R52

Not Available

R53

Not Available

R54

Not Available

Control, Command, & Signals System

Not Available

R55

Not Available

R56

Not Available

R57

Not Available

R58

Not Available

R59

Not Available

R60

Not Available

R61

Not Available

R62

Not Available

R63

Not Available

R64

Not Available

R65

Not Available

R66

Not Available

R67

Not Available

R68

Not Available

R69

Not Available

R70

Not Available

R71

Not Available

R72

Not Available

R73

Not Available

R74

Not Available

Pneumatics System

Not Available

R75

Not Available

R76

Not Available

R77

Not Available

R78

Q.What is the value of ? in bullet point C?

A.We're so sorry about that! The correct value is "1/8 in." and will be corrected in *Team UPDATE - 2013-01-11*.

R79

Not Available

R80

Not Available

R81

Not Available

R82

Not Available

R83

Not Available

R84

Not Available

R85

Not Available

R86

Not Available

R87

Not Available

R88

Not Available

R89

Not Available

OPERATOR CONSOLE

Not Available

R90

Not Available

R91

Not Available

R92

Not Available

R93

Not Available

R94

Not Available

Game - The Tournament

Not Available

Overview

Not Available

Practice Matches

Not Available

Schedule

Not Available

Filler Line

Not Available

Qualification Matches

Not Available

Schedule

Not Available

MATCH Assignment

Not Available

Qualification Score (QS)

Not Available

Qualification Seeding

Not Available

Elimination Matches

Not Available

ALLIANCE Selection Process

Not Available

BACKUP TEAMS

Not Available

Elimination MATCH Bracket

Not Available

Elimination Scoring

Not Available

Tournament Rules

Not Available

T01

Not Available

T02

Not Available

T03

Not Available

T04

Not Available

T05

Not Available

T06

Not Available

T07

Not Available

T08

Not Available

T09

Not Available

T10

Not Available

T11

Not Available

T12

Not Available

T13

Not Available

YELLOW and RED CARDS

Not Available

T14

Not Available

T15

Not Available

T16

Not Available

T17

Not Available

T18

Not Available

T19

Not Available

T20

Not Available

T21

Not Available

T22

Q.Are teams allowed to bring step ladders or any other equipment to the field to assist in removing the robot on the pyramid? I.E. One person goes onto step ladder to vent the pneumatics system.

A.No. Please refer to Team Update 2013-01-11.

Championship Additions

Not Available

Championship Pit Crews

Not Available

Championship BACKUP ROBOT

Not Available

FRC Championship MATCH Bracket

Not Available

Administrative - Introduction

Not Available

What is the FIRST Robotics Competition (aka FRC)?

Not Available

Gracious Professionalism, A FIRST Credo

Not Available

Prominent FRC Awards

Not Available

The Chairman's Award

Not Available

The Woodie Flowers Award

Not Available

The Dean's List Award

Not Available

Safety: A FIRST Culture

Not Available

Administrative - Communication

Not Available

Overview

Not Available

FIRST Headquarters - Contact Information

Not Available

Team Support

Not Available

Emails and Subject Lines

Not Available

Please Do Not Duplicate Efforts

Not Available

Technical Resources

Q.Why does the link to the NI imaging software link not work under the getting started C++?

A.Greetings Team: Thank you for your message. The link to the NI imaging software has been corrected, and is available here: <http://www.usfirst.org/roboticsprograms/frc/2013-Technical-Resources>. Thank you, FRC Team Support

Additional Software Contact Information

Not Available

FIRST Robotics Competition Website

Not Available

Getting Answers to Your Competition Questions

Not Available

FRC Q&A Forum

Not Available

Email Blasts

Not Available

Bill's Blog

Not Available

TIMS - Supplying Information to FIRST

Not Available

Judges' Information

Not Available

Event Specific Information

Not Available

Regional Events and Championship Hotel Information

Not Available

FIRST Logos

Not Available

Logo Use

Not Available

Administrative - Team Organization

Not Available

Getting Started: Guides, Handbooks, and Other Helpful Resources

Not Available

Suggested Leadership Roles

Not Available

Main Contact Responsibilities

Not Available

Alternate Contact Responsibilities

Not Available

Shipping Contact Responsibilities

Not Available

Recommended Additional Contacts

Not Available

Corporate / University Contact Responsibilities

Not Available

Public Relations Contact Responsibilities

Not Available

Scholarship Contact Responsibilities

Not Available

School Contact Responsibilities

Not Available

Technical Contact Responsibilities

Not Available

Travel Contact Responsibilities

Not Available

Other Important Team Positions

Not Available

Game Rules Monitor Responsibilities

Not Available

Safety Captain Responsibilities

Not Available

Administrative - At the Events

Not Available

Overview

Not Available

FIRST Safety

Not Available

Safety Recommendations

Not Available

Robot Carts

Not Available

Safety Recognition Program

Not Available

Courtesies and Rules

Not Available

Root Wireless Control

Not Available

Staff / Volunteer Badges

Not Available

Competition Overview

Not Available

Practice Matches

Not Available

Competition Matches

Not Available

Competition Agendas

Not Available

Load In Procedures

Not Available

Bag and Tag

Not Available

At Championship

Not Available

Event Check In

Not Available

Consent and Release Form

Not Available

Event Check In Envelope

Not Available

The Pit

Not Available

Pit Admin Station

Not Available

Team Pits

Not Available

Spare Parts Station

Not Available

Inspection

Not Available

Machine Shop

Not Available

Team Provided Machine Shops

Not Available

Machine Tools at Events

Not Available

Suggested Equipment

Not Available

First Aid Station

Not Available

Traffic Flow

Not Available

Announcements

Not Available

Queuing Your Team

Not Available

Property Security

Not Available

Lost and Found

Not Available

Ceremonies

Not Available

All Teams Should Attend

Not Available

Pit Manners / Rules During the Ceremonies

Not Available

Pit Closing Etiquette

Not Available

Team Socials

Not Available

Championship FIRST Finale

Not Available

Team Spirit and Team "Look"

Not Available

Team Giveaways

Not Available

Mascots and Team Costumes

Not Available

Competition Spirit

Not Available

Banners and Flags

Not Available

Bleacher Rules

Not Available

Site Restrictions

Not Available

Considerations

Not Available

Administrative - Robot Transportation

Not Available

Overview

Not Available

Stop Build Day

Not Available

Bag and Tag

Not Available

Requesting an Exemption

Not Available

Instructions for Bag and Tag

Not Available

Robot Lock and Unlock Instructions

Not Available

Completing the Robot Lock-Up Form

Not Available

When the Robot Lock-Up Form is Used

Not Available

"Robot Access Period" - For Teams Attending 2-Day Events

Not Available

"Robot Access Period" - Permitted Actions

Not Available

"Robot Access Period" - Schedule

Not Available

Robot Shipping - For Teams Granted an Exemption or Attending Championship

Not Available

In You Have Been Granted an Exemption to Ship to a Bag and Tag Event

Not Available

If You Are Attending Championship

Not Available

Important Shipping Contacts

Not Available

FIRST is Your First Contact

Not Available

FedEx

Not Available

Administrative - Awards

Not Available

FIRST Robotics Competition Awards

Not Available

Complete Awards List

Not Available

Awards Submission Process

Not Available

Chairman's Award

Not Available

Overview

Not Available

First-Year (Rookie) and NASA Grant Teams

Not Available

Submission Information

Not Available

The Chairman's Award Championship Award Process

Not Available

The Allaire Medal - Leadership Exemplified

Not Available

FIRST Future Innovator Award (FFIA) Sponsored by the Abbott Fund

Not Available

Award Overview

Not Available

Award Criteria

Not Available

Award Judging

Not Available

Additional Documentation and Video

Not Available

FIRST Dean's List

Not Available

Overview

Not Available

Submissions

Not Available

Criteria

Not Available

Judging

Not Available

The Founder's Award (Championship Only)

Not Available

Digital Media Award (Replaces Website Award)

Not Available

Award Criteria

Not Available

Judging Criteria

Not Available

Submission Process

Not Available

Woodie Flowers Award

Not Available

Eligibility

Not Available

Spirit of the Award

Not Available

Award Eligibility Requirements

Not Available

Judging Criteria

Not Available

Entry Requirements

Not Available

Submission Deadline

Not Available

Entry Process

Not Available

Prior Year Regional WFFA Recipient Re-Submission

Not Available

Entrepreneurship Award Sponsored by Kleiner, Perkins, Caufield & Byers

Not Available

Business Plan Submission

Not Available

Guidelines

Not Available

Eligibility

Not Available

FIRST SAFETY ANIMATION AWARD

Not Available

Award Overview

Not Available

Theme

Not Available

Criteria

Not Available

Submission

Not Available

Judging

Not Available

Deadline

Not Available