



Team Update 1

01/12/2016

GENERAL

- The following resources have been posted:
 - » Unencrypted versions of the [Game Manual](#)
 - » Unencrypted versions of the [Field Drawings](#)
 - » Unencrypted versions of the [Kickoff Kit Checklists](#)
 - » Versions of the Admin Manual and the Game Manual will be posted in the *FIRST* app shortly. Additionally, the pdf versions can be viewed and searched using the Adobe Acrobat app.
 - » [Google Cardboard images](#) of the *FIRST STRONGHOLD* field from Kickoff
 - » [2016 Motor Spec sheet](#)
 - » [2016 Pneumatics Manual](#)
- The official Q&A opens tomorrow at noon (Eastern). Information is [here](#).
- General formatting and typo corrections were made (and probably will be made) throughout the Admin and Game Manuals. Such inconsequential edits will not be noted in Team Updates.

ADMIN MANUAL

Section 3.4.5 Technical Contact Responsibilities

- Use the Inspection Checklist that will be **posted** ~~listed in the *FIRST* Robotics Competition Game Manual – Section 4~~ after Kickoff.

Section 6.4.8 Interview Process and Video Requirement

- **Returning this Year:** Written feedback forms. Teams desiring written feedback from Judges will be able to receive it upon request. ~~More details to follow soon.~~ To receive feedback, teams submitting for Chairman's Award must fill out their Team Number and Team name on the Chairman's Award [feedback form](#) and provide it to the Judges at the beginning of their Chairman's Award interview. Completed forms will be available at the end of the event. We are requiring teams to request feedback before they receive it to help ensure Judging resources are not invested in teams not interested in receiving feedback.

Section 6.4.7 Submission Process

- Important Note: Chairman's Award Judges also review the information entered in the Judges Information Page as part of the Chairman's Award submission. This information is entered as part of the Team Information Management System (TIMS) at <https://my.firstinspires.org/frc/tims/site.lasso>. ~~Refer to Section 1 Communications for more details about the Judges Information Page.~~

Section 7 Team Advancement

- Published

GAME MANUAL

Section 2.2.2.1 DEFENSES

- The Cheval de Frise is a series of four (4) independently tilting, weighted polycarbonate HDPE platforms.
- The Moat is a 2-1/2 in. high, 4 ft. 2 in. wide, and ~~2 ft.~~ 1 ft. 8 in. deep u-shaped channel, formed by vertical rectangular steel tubes.
- The Rough Terrain is constructed from thirty-one (31) pieces of square or rectangular steel tubing.

Section 2.2.2.2 SECRET PASSAGE

- BERMS consist of a the steel barrier, 1 in. tall and 3 in. wide that defines the border of the SECRET PASSAGE.

Section 3.1.3 DEFENSES and the OUTER WORKS

- Once a ROBOT CROSSES a DEFENSE in AUTO, any additional DEFENSES that ROBOT REACHES or CROSSES by that ROBOT during the AUTO period will not decrease DEFENSE STRENGTH nor contribute points to the ALLIANCE.

Section 3.4.3 General Rules

- **G11** Blue Box added:

G11 does not apply for strategies consistent with standard gameplay, e.g. a TEAM obtaining a BOULDER from their SECRET PASSAGE, CROSSING an opponent DEFENSE, etc. G11 requires an intentional act with limited or no opportunity for the TEAM being acted on to avoid the penalty. Examples include:

- A. A Blue ROBOT, with twenty (20) seconds left in the MATCH, is parked in front of the middle face of the Blue TOWER. A Red ROBOT, attempting to SCALE that face, runs into the blocking Blue ROBOT. This results in a violation of G28 by the Blue ROBOT. Because the Red ROBOT was not solely making an attempt to cause that Blue ROBOT to violate G28, but rather to complete a Game Action (a SCALE), they are not in violation of G11.
- B. A Red ROBOT is parked in the NEUTRAL ZONE near the Blue SECRET PASSAGE. A Blue ROBOT pushes the Red ROBOT into the Blue SECRET PASSAGE, then drives away. There is no violation of G21 by the Red ROBOT, as the Red ROBOT was forced by the Blue ROBOT into the SECRET PASSAGE. The Blue ROBOT has violated G11 by forcing the Red ROBOT into the SECRET PASSAGE for the sole purpose of causing them to violate G21.
- C. A Red ROBOT is parked completely within the Blue SECRET PASSAGE. A Blue ROBOT, attempting to reach the Blue BRATTICE, makes contact with the Red ROBOT. The Red ROBOT receives a G21 penalty. There are no violations of G11 because the Blue ROBOT was trying to access their BRATTICE and not solely trying to cause the Red ROBOT to violate G21.

- **G12-1** ROBOTS may not use FIELD elements, e.g. BOULDERS, to interfere with the operation of other FIELD elements, e.g. DEFENSES

Violation: FOUL. For every five (5) seconds in which the situation is not corrected, FOUL

Section 3.4.5 ROBOT Rules

- **G19-1** ROBOTS must be in compliance with [Section 4.7: BUMPER Rules](#) throughout the MATCH.

Violation: DISABLED

Section 3.4.6 ROBOT to ROBOT Interaction

- **G21** A ROBOT contacting carpet in the opponent's SECRET PASSAGE may not contact opposing ROBOTS, regardless of who initiates the contact.

Violation: TECH FOUL

TEAMS should take note that they are putting themselves at great risk for TECH FOULS if they choose to enter their opponent's SECRET PASSAGE

Section 3.5.10 DEFENSE Rules

- **G43** ROBOTS on the same half of the FIELD as their ALLIANCE TOWER may not interfere with opponent ROBOTS attempting to traverse OUTER WORKS (regardless of direction). A ROBOT is considered traversing the opponent's OUTER WORKS if any part of its BUMPERS are within the opponent's OUTER WORKS.

Violation: FOUL. For every five (5) seconds in which the situation is not corrected, FOUL

This rule protects a ROBOT so long as their BUMPERS are within the OUTER WORKS whether a traversal ~~CROSSING~~ attempt is successful or not.

Section 4.7 BUMPER Rules

- R22 Blue Box added:

This measurement is intended to be made as if the ROBOT is resting on a flat floor (without changing the ROBOT configuration), not relative to the height of the ROBOT from the FIELD carpet.

Examples include:

- A. A ROBOT that is at an angle while traversing a DEFENSE has its BUMPERS outside the BUMPER ZONE. If this ROBOT were virtually transposed onto a flat floor, and its BUMPERS are in the BUMPER ZONE, it meets the requirements of R22.
- B. A ROBOT deploys a MECHANISM which lifts the BUMPERS outside the BUMPER ZONE (when virtually transposed onto a flat floor). This violates R22.

Section 4.8 Motors and Actuators

- R29, Table 4-1:

Table 4-1: Legal Motors

Motor Name	Part Numbers Available	Max Qty Allowed
BaneBots	M7-RS775-18 / RS775WC-8514 M5-RS550-12 / RS550VC-7527 / RS550	Unlimited

Section 4.9 Power Distribution

- **R52, Item A. ii:** SD540 Motor Controller (P/N: SD540x1, SD540x2, SD540x4, SD540Bx1, SD540Bx2, SD540Bx4)

■ R53, Table 4-4:

Table 4-4: Legal Power Regulating Device Use

Electrical Load	Motor Controller	Relay Module	Pneumatics Controller
CIM	Yes	No	No
AndyMark 9015			
WCP RS775 Pro			
VEX BAG/MiniCIM			
BaneBots motors			

Section 5.3.3 Ranking Score (RS)

■ Exceptions to A-DE are as follows...

Section 6 Glossary

- BACKUP TEAM - a Team used to replace an inoperable ROBOT on an ALLIANCE during Playoff Elimination MATCHES per [5.5.6 TIMEOUT and BACKUP TEAM Rules](#)
- SCALE: an act performed by a ROBOT, such that at the conclusion of the MATCH, it is ~~fully supported by the TOWER,~~ is in contact with ~~at least one~~ a unique RUNG, and has all of its BUMPERS fully above the height of the low GOALS. (~~update in manual and fix "at least one RUNG"~~)