



Team Update 01

Team updates notify the *FIRST* Robotics Competition community of content changes to any official season documentation (e.g. the game and season manual, award deadlines, drawing changes, etc.) or important season news. Team Updates will not highlight typo fixes.

General Notes

- **Q&A:** Questions about the game and season rules can be asked, starting Wednesday, January 11, at noon Eastern time using the official Q&A system (see [blog](#) and [2017 Game and Season Manual's Section 1.8](#) for more information).
- **Drawing Omissions:** This year, certain field equipment drawings are excluded because we don't believe they are relevant to a robot's interaction with the field, and they may provide a solution to an element of the game challenge.
- **Manchester, NH Kickoff Field Images:** Images of the Kickoff field, courtesy of Brad Miller at WPI, are posted in a "[2017 FIRST STEAMWORKS Field Pictures](#)" album on the *FIRST* Robotics Competition Facebook page. Please note, some Boiler elements (netting supports, boiler internals) shown in these images aren't exactly the same as the competition versions, and we don't believe they're relevant for robot design.
- **Field Tour Video Corrections:**
 - "[Alliance Station](#)" Field Tour Video: The arrow pointing to the depth of the ALLIANCE STATION incorrectly stops at the STARTING LINE. It should go all the way to the ALLIANCE WALL. A note has been added to the video's description.
 - Assorted Field Tour Videos, particularly "[The Lifts](#)": The BASE LINE is shown as being directly next to the AIRSHIP when it's actually out at the edge of the Barriers. A note has been added to applicable videos' descriptions.
- **Radio Configuration Tool:** The [Radio Configuration Utility](#) has been updated to version 17.2 to fix issues with configuring radios without using a robot name and with a fallback potentially used in firmware loading (NPF error, even with just one adapter enabled).
- **Driver Station Image:** The Driver Station Image originally posted for the Acer ES1 PC (2016 Rookie computer) was corrupt. The image has been updated with a working copy and is posted on the [FRC Driver Station Images - 2017 Season site](#).
- **Bumpers Included:** Seriously, R3 says bumpers are included in overall robot size this season. For real.

Section 3.1 Zones & Markings

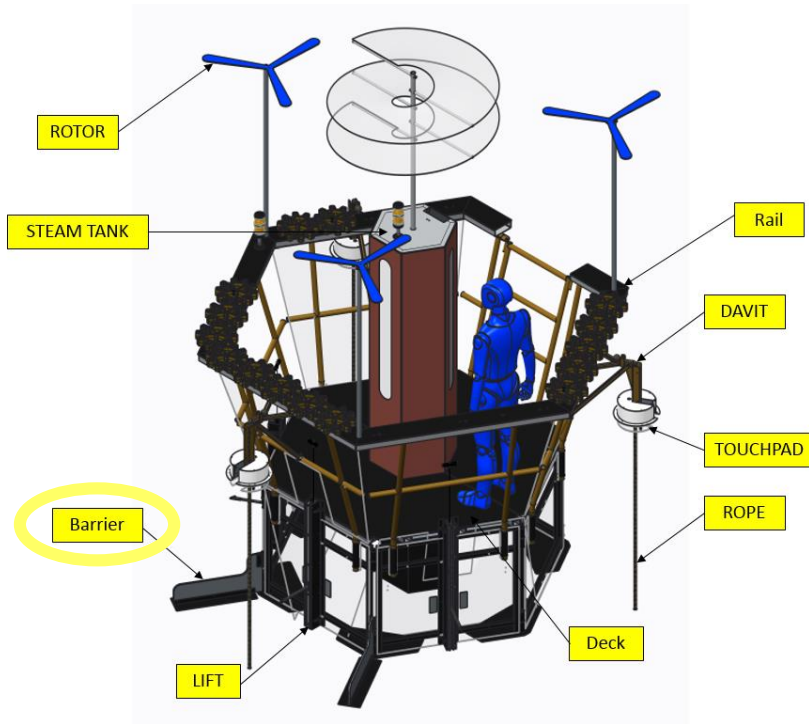
- **BASE LINE:** a green line that spans the width of the FIELD and is 9 ft. 4 in. (~284 cm) 7 ft. 9¼ in. (~237 cm) from the ALLIANCE WALL diamond plate.



Section 3.4 AIRSHIP

Figure 3-7: “Divider” label has been changed to “Barrier” to match text in Section 3.5 LIFTS.

Figure 3-7: AIRSHIP elements



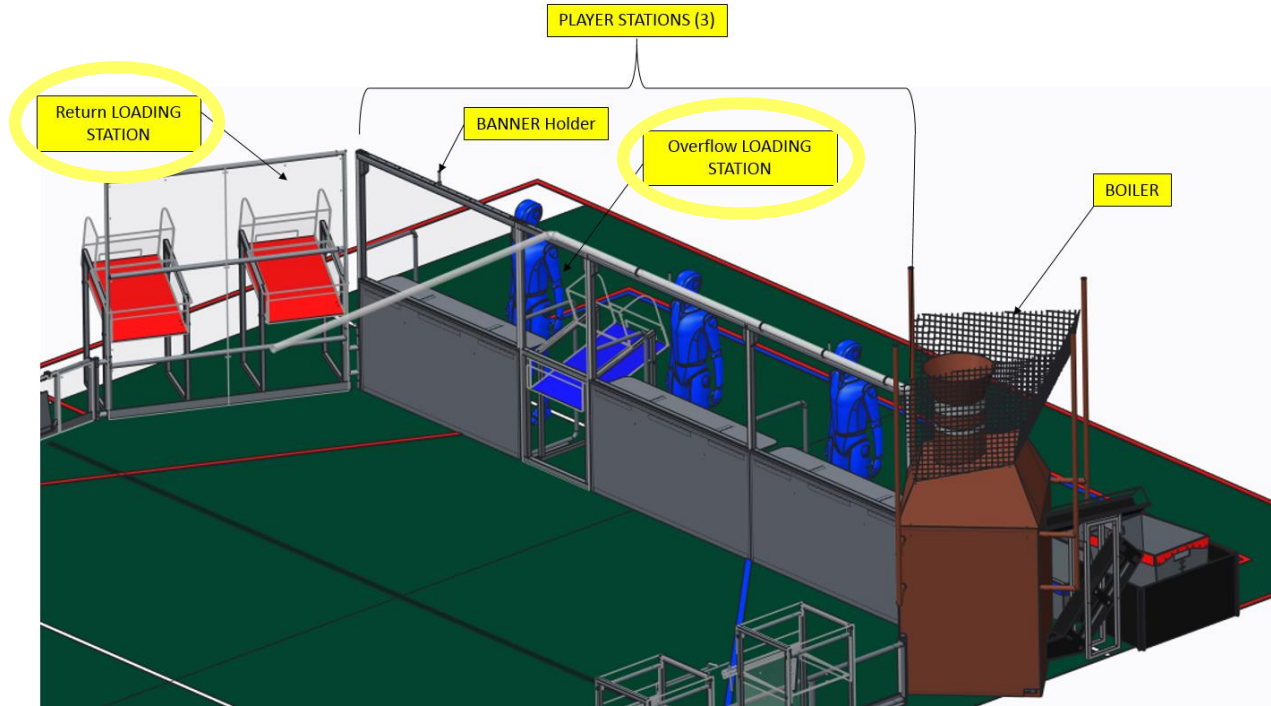
Section 3.4.2 GEAR Sets

When a GEAR set for ROTORS 2, 3, or 4 is complete, a CRANK, a handle located with the first GEAR in the set, can be turned which engages the corresponding ROTOR. It takes three (3) full rotations to engage the ROTOR.

Section 3.11 ALLIANCE WALL

Figure 3-24: The labels for the OVERFLOW and RETURN LOADING STATIONS have been corrected.

Figure 3-24: ALLIANCE WALL COMPONENTS



Section 3.11.4 BOILER

- **Note regarding Low GOAL geometry:** Some attendees of the Kickoff in Manchester, NH have noted that there may be a possibility that FUEL entered into the Low Efficiency GOAL opening could become stuck between the outside of the FUEL processor and the inside wall of the BOILER and as a result, not processed during the MATCH. We would like to reassure teams that that the processor design seen at the Manchester Kickoff wasn't final and that, while the BOILER drawings are omitted drawings (described above in the "Drawing Omissions" bullet above), teams can expect that any FUEL that passes through the GOAL openings will be processed inside the BOILER (MATCH time permitting).
- The capacity of the Low Efficiency GOAL is seventy (70) FUEL. The capacity of the High Efficiency GOAL is one-hundred and fifty (150) FUEL. FUEL that exceeds GOAL capacities will fall back on to the FIELD.



Section 4.3 Scoring

Table 4-1: FIRST STEAMWORKS rewards

Action	Criteria	MATCH Points		Ranking Points
		AUTO	TELEOP	
	For each ROTOR turning by period's T=0, that's not previously been scored	60	40	-
ROTOR engagement	If all four (4) ROTORS turning by T=0		100 (Playoffs only)	1 (Quals only)

Section 7.7 Human

H15. A pre-populated GEAR may not be removed from its AXLE.

Violation: RED CARD.

Section 8.4 Budget Constraints & Fabrication

R21.

Example 1: A team creates 10 lbs (~4 kg.) of FABRICATED ITEMS after Stop Build Day. During their first ROBOT Access Period before their first event, they install these items on the ROBOT and bag them with the ROBOT. The team may bring up to 20 lbs. (~4 9 kg.) of FABRICATED ITEMS (which may be items removed from the ROBOT before bagging at the end of the ROBOT Access Period) with them to the event.

Section II Glossary

Term	Definition
STEAMACRIT	one who complains about non-working gears being used while coating a Nerf gun with paint and calling it a raygun. (courtesy "TimeTinker" on The Steampunk Forum at Brass Goggles)