

# Team Update 13

## GENERAL

- **Inspection Checklist:** Version 2.0 of the [2019 Inspection Checklist](#) has been posted. It has been updated to include a HATCH PANEL launch check.
- **Drawings:** The [Field Drawings – season specific](#) drawing package includes updated GE-19131, GE-19133, GE-19137, GE-19138, GE-19156, GE-19157, & GE-19158 and adds GE-19251, GE-19252, & GE-19253 (changes propagate through affected parent assemblies and the [FIRST Official CAD Models](#)). Changes are noted on the drawings and were done to fix an issue seen at Week 0 where HATCH PANELS were binding between panels.

## MANUAL

### SECTION 4.3

A ROCKET is a 10 ft. 4 in. (~315 cm) tall assembly placed such that its centerline is 8 ft. (~244 cm) from the CENTER LINE, and its “front” face is parallel to the guardrail, faces its CARGO SHIP, and 2 ft. 3½ in. (~70 cm) from the guardrail. The distance from the front of the “front” face to the back of the “back” face is 1 ft. 7⅝ in. (~50 cm). The angle of its sides is 61¼ degrees. **Each ROCKET sits on top of a base; the base is not part of the ROCKET.**

### SECTION 4.5

- The lowest deck, and the ramps, and the strips of ALLIANCE colored tape that trace the intersections of the ramps and the carpet form Level 1. The Level 1 deck is 3 in. (~8 cm) high by 10 ft. 8 in. (~325 cm) long by 3 ft. (~91 cm) deep. The ramps are 11½ in. (~29 cm) long with a 15-degree angle.

### SECTION 5.1.1

Twenty-four (24) of each GAME PIECE are staged on each side of the ARENA for each MATCH as follows:

- one (1) HATCH PANEL is loaded in each of the two (2) LOADING STATIONS,
- six (6) CARGO are staged in each of the two (2) DEPOTS,
- each of the three (3) teams may preload one (1) HATCH PANEL or one (1) CARGO in their ROBOT such that it is fully supported by that ROBOT, and
- remaining HATCH PANELS (quantity 19-22, depending on decisions made in C) and CARGO (quantity 9-12, depending on decisions made in C) are staged in the corresponding ALLIANCE STATIONS, split evenly (or off by one if an odd remainder) between the GAME PIECE Holders.

Additional GAME PIECES are staged as follows:

- One (1) CARGO is staged in each of the two (2) ALLIANCE WALL-facing CARGO SHIP BAYS
- Each team must prepopulate one (1) CARGO or one (1) Null HATCH PANEL (a HATCH PANEL marked with white tape and hardware installed to secure Null HATCH PANEL to the CARGO SHIP, see drawing GE-19244) in each of their two (2) designated CARGO SHIP BAYS (designated per the MATCH schedule and per Figure 5-2). Nonstaged Null HATCH PANELS and CARGO are excluded from MATCH play. If no team decision, the BAY will be populated with one (1) CARGO. **If order placement of GAME PIECES 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 alternate placement of all GAME PIECES. In a Qualification MATCH, GAME PIECES will be placed in the following order: Blue Station 1, Red Station 1, Blue Station 2, Red Station 2, Blue Station 3, Red Station 3. In a PLAYOFF MATCH, the same pattern is applied, but instead of Red ALLIANCE placing last, the higher seeded ALLIANCE (regardless of color) places last.**



## SECTION 5.3

Table 5-1 DESTINATION: DEEP SPACE scoring opportunities

Award	Awarded for...	Value
<b>HATCH PANEL</b>	each HATCH PANEL (excluding Null HATCH PANELS) attached to a ROCKET or CARGO SHIP such that it is fully supported by that ROCKET or CARGO SHIP and via the hook/loop tape (contact by an opponent ROBOT does not count as "support" and does not negate a scored HATCH PANEL). No more than one HATCH PANEL per HATCH will be counted.	2
<b>CARGO</b>	each CARGO (regardless of inflation state) in a BAY with a Null HATCH PANEL or scored HATCH PANEL and not in contact with a ROBOT from that ROCKET/CARGO SHIP'S ALLIANCE. No more than one CARGO per BAY will be counted.	3
<b>HAB Climb Bonus: Level 1</b>	each ROBOT which has climbed their HAB PLATFORM (value corresponds to the Level to which the ROBOT has climbed). A ROBOT that hasn't whose BUMPERS haven't fully crossed their HAB LINE to leave their HAB ZONE at any point during the MATCH isn't eligible.	3
<b>HAB Climb Bonus: Level 2</b>		6
<b>HAB Climb Bonus: Level 3</b>		12

## SECTION 9.2.1

- H9. Between the (STARTING) LINES.** During the SANDSTORM PERIOD, COACHES, DRIVERS, and HUMAN PLAYERS, and any part of the OPERATOR CONSOLE may not break the vertical planes defined by the STARTING LINES, unless for safety purposes.

Exceptions are granted in cases concerning safety and for actions that are inadvertent, momentary, and inconsequential.

*Violation: TECH FOUL.*

