



# Team Update 06

## 01/29/2016

### GENERAL

#### Where To Get Help

- We understand your team may have questions about a variety of things at this point in the season, and we are here to help!
- Please post your *FIRST STRONGHOLD*<sup>SM</sup> Game and Admin Manual questions to the [Q&A System](#).
- Need technical (e.g., programming, electrical, or mechanical) assistance? Post to the [FIRST Forums](#).
- Direct your other (e.g., TIMS/STIMS) questions, suggestions, and feedback to [frcteams@firstinspires.org](mailto:frcteams@firstinspires.org) or call Team Support at 1-800-871-8326, ext. 0.

### ADMIN MANUAL

- No changes.

### GAME MANUAL

#### Section 2.2.3.1, “Tower”

- Each CASTLE has a TOWER between PLAYER STATIONS **one (1) and two (2)** ~~two (2) and three (3)~~. *(edit is to correct an error so this text matches the rest of the manual and FIELD drawings)*

#### Section 2.3 BOULDERS

- Each MATCH begins with eighteen (18) BOULDERS on the FIELD. BOULDERS are staged before the MATCH in the following manner:
  - A. Six (6) BOULDERS are staged evenly along the length of the Midline, 3 ft. 9-1/2 in. apart as shown in Figure 2-35. Small rings are used to keep them in place prior to the start of a MATCH. **Rings are O-rings, Dash 222, Buna N, 1.762 in. outer diameter, .13 in thick (Grainger Item#: 1KLE7). Rings will be secured to the carpet by the MIDLINE tape.**
  - B. Three (3) BOULDERS are staged in the CASTLE
  - C. Three (3) BOULDERS are staged on or in each ROBOT or in the CASTLE. See Section 3.2 – MATCH LOGISTICS for more detail.

# Section 4.8 Motors & Actuators

■ Table 4-1: Factory installed vibration and autofocus motors resident in COTS computing devices (e.g. rumble motor in a smartphone).

# Section 4.9 Power Distribution

■ R31, Blue Box

Examples of batteries which meet this criteria include:

- Enersys (P/N: NP18-12, NP18-12B, NP18-12BFR)
- MK Battery (P/N: ES17-12)
- Battery Mart (P/N: SLA-12V18)
- Sigma (P/N: SP12-18)
- Universal Battery (P/N: UB12180)
- Power Patrol (P/N: SLA1116)
- Werker Battery (P/N: WKA12-18NB)
- Power Sonic (P/N: PS-12180NB)
- Yuasa (P/N: NP18-12B)
- Panasonic (P/N: LC-RD-1217)
- Interstate Batteries (P/N: BSL1116)
- Duracell Ultra Battery (P/N: DURA12-18NB)

Teams should be aware that they may be asked to provide documentation of the specifications of any battery not listed above.

Batteries should be charged in accordance with manufacturer’s specification. The battery charger output should not exceed 6 amps and they must have the corresponding Anderson connector installed. (Please see the [FIRST Safety Manual](#) for additional information.)

# Section 4.10 Control, Command, & Signals System

■ R52 A. v.: Talon SRX Motor Controller (P/N: 217-8080, am-2854, 14-838288), equipped with firmware version 0.28 or newer if using via PWM. See R70 R59 if using via CAN.