# **TEAM UPDATE #9**

# **GENERAL NOTICES**

Modifications to rules are highlighted in yellow.

#### FRC Q&A Forum

It has come to our attention that many teams do not take advantage of the information provided in the FRC Q&A Forum. The FRC Q&A Forum is an opportunity for teams to not only ask questions about the contents of the FRC Manual, but also learn from the questions of others. We encourage teams to have at least one team member become familiar the contents of the FRC Q&A Forum. In addition, we ask that if you have a question for the Game Design Committee, please search the existing questions. It's likely that your question has already been asked, and answered.

## **Section 0 – Introduction**

No changes.

**Section 1 - Communication** 

No changes.

Section 2 - Team Organization

No changes.

Section 3 – At the Events

No changes.

**Section 4 – Robot Transportation** 

No changes.

**Section 5 - The Awards** 

No changes.

Section 6 – The Arena

No changes.

# Section 7 – The Game

No changes.

### **Section 8 – The Robot**

Section 8 – The Robot, Rev G, has been modified to include the following changes:

### **Change in Section Heading**

The chapter heading for Cost Determination of Additional Parts should be 8.3.3.1 instead of 8.3.5.1.

#### Section 8.3.6

We apologize for any confusion the last Team Update may have caused. The revision to Rule <R55> that we provided in Team Update #8 was incomplete. The correct revisions to <R55> are below:

<R55> All active circuit breaker / power distribution panel branch circuits shall be protected from overload with an appropriate value auto resetting Snap Action circuit breaker from the Kit Of Parts.

- The Robot Controller power feed must be protected with a 20A circuit breaker. No other electrical load can be connected to this breaker.
- If the compressor is used, the air compressor Spike relay power feed must be protected with a 20A fuse or 20A circuit breaker. No other electrical load can be connected to this breaker.
- Power feeds to custom circuits and additional electronics must be protected with a 20A circuit breaker For custom circuits and sensors connected to the +5V power pin(s) on the RC, the RC's 20A circuit breaker provides the necessary protection.
- Each speed controller must be protected by one and only one 20A, 30A, or 40A circuit breakers.
- Each relay module must be protected with one and only one 20A circuit breaker.
- No other electrical loads may be connected to a breaker that is protecting a power-regulating device (speed controller or relay module).

In addition to the required branch power circuit breakers, smaller value fuses or breakers may be incorporated into custom circuits for additional protection.

#### **Section 9 – The Tournament**

No changes.

### Section 10 – The Kit of Parts

# Freelin-Wade Tube Ratings

Freelin-Wade has generously offered a significant discount to *FIRST* teams.

It has come to our attention that the tubing provided by Freelin-Wade through this offer, although manufactured to appropriate specifications, does not have the rating, etc printed on it.

To allow teams to take advantage of this offer, we will make a special exception to Rule <R87> and allow Freelin-Wade tubing. The team is responsible for maintaining and providing sufficient documentation (i.e. receipt and specification sheet) to allow inspectors to verify that the tubing is rated for the expected pressures. Tubing that cannot be verified as rated for the required pressures will be rejected during inspection.

#### **Rockwell Automation Terminal Blocks**

We would like to make sure that teams are aware that, as long as <R57> is followed, unused red and black terminal blocks of the power distribution block may be omitted. This means that teams may also cut the yellow jumpers and the DIN rail to fit their terminal block configuration. Additionally, teams may use grey terminal blocks if additional blocks are needed.

#### **Pneumatics Component Order Form**

The Pneumatics Component Order Form is found on page 18 of the 2008 Pneumatics Manual found here <a href="http://www.usfirst.org/frc/2008/manual">http://www.usfirst.org/frc/2008/manual</a>

# FIRST Guidelines, Tips and Good Practices

No changes.