

# Game Manual - Team UPDATE - 1357942082

## Section:G04

After the MATCH, ROBOTS may only be removed from a PYRAMID under the following conditions:

- A. by the TEAM while standing on the floor without special equipment,
- B. unpowered,
- C. and under the supervision of a FIRST Technical Advisor (FTA), FTA Assistant, Referee, or Field Supervisor.

Additionally, if any part of the ROBOT is in Level 3, TEAMS are required to attach a FIRST supplied belay line, detailed in [Section 2.2.5](#), to their ROBOT to spot a ROBOT while the TEAM removes it from the PYRAMID.

*Violation: YELLOW CARD*

## Section:G18-1

Strategies aimed solely at forcing the opposing ALLIANCE to violate a rule are not in the spirit of FRC and are not allowed. Rule violations forced in this manner will not result in assessment of a penalty on the target ALLIANCE .

*Violation: TECHNICAL FOUL*

## Section:R05

The ROBOT weight may not exceed 120 lbs. When determining weight, the basic ROBOT structure and all elements of all additional MECHANISMS that might be used in different configurations of the ROBOT shall be weighed together.

For the purposes of determining compliance with the weight and volume limitations, the items listed below are not included in the weight assessment:

- A. the ROBOT battery and its associated half of the Anderson cable quick connect/disconnect pair (including no more than 12 in. of cable per leg, the associated cable lugs, connecting bolts, and insulation) and

B. BUMPERS (including BUMPER covers, if appropriate).

## Section:R78

The only pneumatic system items permitted on 2013 FRC ROBOTS include the items listed below.

- A. Items available in the 2013 KOP,
- B. Pneumatic pressure vent plug valves functionally equivalent to those provided in the KOP,

Parker valves PV609-2 or MV709-2 are recommended.

- C. Solenoid valves with a maximum  $\frac{1}{8}$  in. NPT port diameter, and a maximum Cv of 0.32,
- D. Solenoid valves that are rated for a maximum working pressure that is less than 125 psi rating mandated above are permitted, however if employed, an additional pressure relief valve must be added to the low pressure side of the main regulator. The additional relief valve must be set to a lower pressure than the maximum pressure rating for the solenoid valve,
- E. Additional pneumatic tubing, with a maximum 0.160 in. inside diameter, functionally equivalent to that provided in the KOP,
- F. Pressure transducers, pressure gauges, and connecting fittings,
- G. Pressure regulators with a maximum bypass pressure of no more than 60 psi,
- H. Pneumatic cylinders,
- I. Pneumatic storage tanks, and
- J. Compressors compliant with [R80](#).

The following devices are not considered pneumatic devices and are not subject to pneumatic rules (though they must satisfy all other rules):

- A. a device that creates a vacuum
- B. closed-loop COTS pneumatic (gas) shocks
- C. air-filled (pneumatic) wheels

## Section:Game Manual

### General Updates

### Classmate Image Downloads

The Intel site hosting the Classmate Images is once again live. Teams can find it at: <http://www.intel.com/content/www/us/en/intel-learning-series/first-frc-image-system-overview.html>

## **Optional FRC Utilities Update**

An optional FRC Utilities Update (v2) has been released which removes the menu bar and run controls from the cRIO Imaging Tool to allow it to fit on the Classmate screen. Teams may still need to hide the Taskbar to see the Imaging Tool buttons by: right-clicking on the Taskbar, selecting Properties, checking the box to “Auto-hide the taskbar”, then clicking OK to exit the dialog. No other changes have been made in this update. This update may be found via the [2013 Technical Resources](#) page.