

# IRI Team Update 14-JULY-2015

## Intro:

The IRI Committee has the benefit of seeing RecycleRUSH in action and seeing the level of play that can be achieved by teams. With this benefit, we are incorporating the rule changes, modification and additions as outlined below.

The intent of the IRI Committee is to minimize the changes to the game and avoid negatively impacting a team / robot / strategy that was implemented to play the game as originally designed, while also increasing the game challenge and level of play for the IRI. Our goals for these changes include: 1) Allow for high scores by minimizing the chance of running out of game pieces; 2) Minimize the number of match outcomes determined in the first second of the match; 3) Don't invalidate an existing good design or strategy; 4) Keep the event safe; and 5) Don't start a can-war arms race that encourages teams to invest significant time and resources into an ever-faster device to capture Recycle Containers from the step.

The committee believes the rule changes below meet these goals.

## 2.0 The Arena

### 2.3 Game Elements

#### 2.3.1 TOTES

Each MATCH begins with ~~128~~ ~~142~~ **152** Gray TOTES and six (6) Yellow TOTES. The TOTES are staged before the MATCH in the following manner:

- A. Twelve (12) Gray TOTES are placed on the STEP.
- B. Twenty-eight (28) Gray TOTES are placed in each LANDFILL ZONE.
- C. **Forty-two (42)** ~~Thirty (30)~~ Gray TOTES are placed in each ALLIANCE STATION.
- D. One (1) Yellow TOTE is placed in each of the six (6) Taped Boxes described in Section 2.1.5: Zone Markings.

#### 2.3.2 RECYCLING CONTAINERS

There are **up to ten (10)** ~~fourteen (14)~~ RECYCLING CONTAINERS on the FIELD at the start of the MATCH. There are four (4) on the STEP and one (1) in each STAGING ZONE. The RECYCLING CONTAINERS located on the STEP are distributed between TOTES as demonstrated in the Figure 2-19 below. **Additionally, each ALLIANCE will be given two (2) RECYCLING CONTAINERS to place anywhere on their side of the FIELD, with the exception of the AUTO ZONE. The ALLIANCE may also choose to leave these additional two (2) RECYCLING CONTAINERS off the FIELD for the entire MATCH. The RECYCLING CONTAINERS may be contacting and supported by a ROBOT or ROBOTS.**

## 3.0 The Game

### 3.1 Overview

#### 3.1.2 Scoring

##### 3.1.2.3 TELEOP

#### TOTES

A Gray TOTE is scored if it is fully supported by a SCORING PLATFORM and no portion of the TOTE extends above the top of the BACKSTOP. In the PLAYOFFS, a Yellow TOTE is scored if it is fully supported by a SCORING PLATFORM and no portion of the TOTE extends above the top of the BACKSTOP.

#### 3.1.4 MATCH Logistics

During the FIELD reset period, FIELD staff will return all TOTES, RECYCLING CONTAINERS and LITTER to their designated starting positions, where they must remain (with the exception of Yellow TOTES optionally being relocated to the designated area in the ALLIANCE STATION) until the start of the MATCH. DRIVE TEAMS may adjust the starting position of TOTES and RECYCLING CONTAINERS in the STAGING ZONES, as long as the TOTES and RECYCLING CONTAINERS remain in legal starting positions per Section 2.3: Game Elements.

### 3.2 Game Rules

#### 3.2.2 Pre-MATCH and Post

#### 3.2.4 AUTO Rules

~~G21-1 During AUTO, the ROBOTS may only contact the two (2) RECYCLING CONTAINERS on the right side of the STEP, when viewed from their ALLIANCE STATION.~~

G21-1 A ROBOT and/or Game Element that has been or is being contacted by a ROBOT may not obstruct in any way the ability of a ROBOT from the opposite ALLIANCE to obtain either of the two (2) RECYCLING CONTAINERS on the left side of the STEP, when viewed from the ALLIANCE STATION.

The purpose of this rule is to allow each ALLIANCE unabated access to two RECYCLING CONTAINERS during AUTO. After AUTO, RECYCLING CONTAINERS that remain on the STEP are available to both ALLIANCES. This rule will be enforced regardless of the ability or inability of the opposing alliance to capture the RECYCLING CONTAINERS. If necessary, more restrictive limitations will be imposed.

*Violation: RED CARD*

#### 3.2.5 ROBOT Actions

G24 ROBOTS may not cause Gray TOTES, RECYCLING CONTAINERS, and/or LITTER to completely transfer from their side of the FIELD, or from the STEP, onto the opposite side of the FIELD. After either the COOPERTITION SET or COOPERTITION STACK have been scored, ROBOTS may not cause Yellow TOTES to completely transfer from their side of the FIELD, or from the STEP, onto the opposite side of

the FIELD. ROBOTS may not intentionally cause Yellow TOTES to completely transfer from their side of the FIELD, or from the STEP, onto the opposite side of the FIELD at any point during the MATCH.

G27 ROBOTS and anything they control (except for LITTER in the LITTER CHUTE and TOTES in the TOTE CHUTE), may not contact anything outside the FIELD.

## 4.0 The ROBOT

### 4.2 General ROBOT Design

R4 The ROBOT weight may not exceed ~~120~~ 125 lbs.

## 5.0 The Tournament

### 5.5 Tournament Rules

#### 5.5.1 Safety and Security Rules

T6 ~~While transferring the ROBOT throughout the event (e.g. between the Team's Pit, Practice Field, ARENA, Inspection Station, etc.), the ROBOT must not exceed a volume that is 28 in. wide x 42 in. long x 78 in. tall (the TRANSPORT CONFIGURATION.~~ If asked, the Team must be able to show that the ROBOT fits into the TRANSPORT CONFIGURATION. However, there is no requirement that the Team put the ROBOT into the TRANSPORT CONFIGURATION when moving the ROBOT throughout the event. Teams are encouraged to transport their ROBOT in the safest way they can.

#### 5.5.2 Eligibility and Inspection

There will be no formal Inspection at the 2015 IRI. Teams may be asked to make modifications to their ROBOT if the FTA or Head Referee determine that the ROBOT poses a safety risk.

### 5.6 ~~Championship~~ IRI Additions and Exceptions

#### 5.6.1 Four ROBOT Alliances

Before ~~each Subdivision~~ the IRI Playoff Tournament, ALLIANCES will be selected per the process as described in Section 5.5.3: ALLIANCE Selection Process, however the process will be modified as follows:

**Round 2:** The same method is used for each ALLIANCE CAPTAIN'S second choice, with ALLIANCE One picking first and ALLIANCE Eight picking last.

**Round 3:** The same method is used for each ALLIANCE CAPTAIN'S third choice except the selection order is reversed ~~again~~, with ALLIANCE ~~One~~ Eight picking first and ALLIANCE One ~~Eight~~ picking last. This process results in eight (8) ALLIANCES of four (4) Teams each. (Draft Order 1-8, 1-8, 8-1)

ALLIANCES may start with any three (3) of the four (4) ROBOTS on their ALLIANCE during Subdivision Playoff MATCHES and during the Championship Playoffs. The list of Teams participating in the MATCH and their selected PLAYER STATIONS is called the LINEUP. One representative from the Team not on the LINEUP is allowed in the ALLIANCE STATION as a thirteenth ALLIANCE member, and may serve as a COACH or HUMAN PLAYER.