

Section
2



Rapid Roll The Game

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Section 2 – The Game

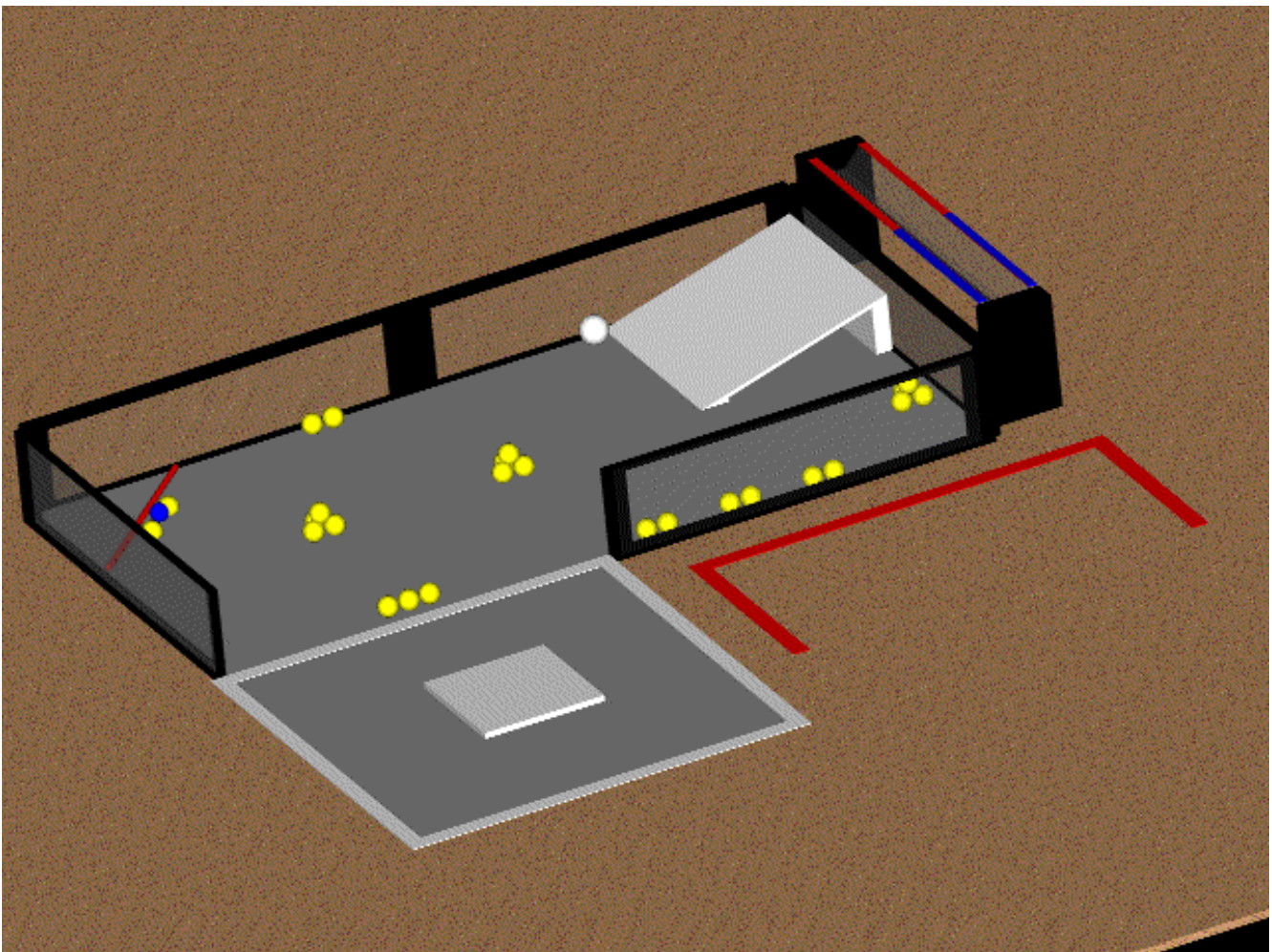
2.1 – Overview

This section describes the CREATE Junior game, called *Rapid Roll*. It also lists the game definitions and game rules.

2.2 – Game Description and Field Drawings

Matches are played on a field initially set up as illustrated in the figures below. One team competes in each *match*. The object of the game is to attain a higher score than all the other teams in the competition by pushing balls into the corner goals, placing them in the trough or by being *parked* at on the starting platform before time has expired.

There are a total of thirty (30) *balls* available as scoring objects in the game. Twenty-eight (28) are *tennis balls*, one (1) is a *racquetball* and one (1) is a *softball*. Twenty-five (25) *tennis balls* will be found on the field, while three (3) will be available to each team prior to the *match*. One (1) *racquetball* and one (1) *softball* will also be found on the field at the start of the match. The *racquetball* and *softball* are bonus balls and count triple the tennis balls.



2.3 – Game Definitions

Ball – See *tennis ball*, *racquetball* and *softball*.

Bonus Ball – A *blue racquetball* and a *yellow softball*.

Coach - A student or adult designated as the team advisor during the match.

Driver - A team member responsible for operating and controlling the *Robot*.

Driver Change – Changing from the first to the second driver in the middle of the match.

Corner Goal – One triangular shaped goal directly opposite the starting platform into which teams can score *balls*.

Goal – Either a corner goal or a trough goal.

Match - A *match* consists of a one minute and thirty second driver controlled period. A match starts when the referee says “Go”.

Parked – A robot is considered to be *parked* when it is in contact with the platform, and no part of the *robot* is in contact with the foam playing surface.

Platform – The 15”x15” 3/4” inch high square located on the horizontal playing field.

Racquetball – A standard regulation racquetball that is located on the field to start the match.

Robot – Anything (which has passed inspection) a team places on the field prior to the start of a *match*.

Scored – A *racquetball*, *softball* or *tennis ball* is *scored* in a *goal* if some part of the *ball* is within the two-dimensional space defined by the edges of the *goal*, and not touching a *robot* of the same *alliance*. *Goals* extends infinitely perpendicular to the playing field surface within the *goal* boundaries.

Softball – A standard regulation women's softball that is located on the field to start the match.

Team Station – The designated region where the *drivers* and *coach* stand during any *match*.

Tennis ball – A standard regulation tennis ball that is located on the field to start the match.

2.4 – Game Rules

2.4.1 – Scoring

- A *tennis ball* that is *scored* in a *corner goal* counts one (1) point. A *tennis ball* that is *scored* in the *trough goal* counts three (3) points.
- A *softball* that is *scored* in a *corner goal* counts two (2) points. A *softball* that is *scored* in the *trough goal* counts six (6) points.
- A *racquetball* that is *scored* in a *corner goal* counts two (2) points. A *racquetball* that is *scored* in the *trough goal* counts six (6) points.
- A *robot* that is *parked* at the end of the *match* is worth five (5) points.

2.4.2 – Safety Rules

<S1> If at any time the *robot* operation is deemed unsafe or has damaged the playing field, surface, barriers or wall, by the determination of the referees, the offending team may be disqualified. The *robot* will require re-inspection before it may take the field again.

<S2> If a *robot* goes completely out-of-bounds (outside the playing field), the match will be over and the score will be taken at that point regardless of time left in the match.

2.4.3 – General Game Rules

<G1> At the beginning of a *match*, each *robot* must not exceed a volume of 18 inches wide by 18 inches long by 18 inches tall. An offending *robot* will be removed from the match at the Head Referee's discretion.

- a. Alignment devices (templates, tape measures, lasers, etc.) that are not part of the *robot* may NOT be used to assist with the positioning of the *robot*.

<G2> Each team shall include two *drivers* and one *coach*.

<G3> During a *match*, the *drivers* and *coach* must remain in their *team station*.

<G4> *Balls* that leave the playing field are considered out of play. These *balls* will not be returned to the field for that match.

<G5> *Drivers* and *coaches* are prohibited from making intentional contact with any game or field object. The first instance of intentional contact will result in a warning, with any following instances resulting in a disqualification.

<G6> During a *match*, *robots* may be remotely operated only by the *drivers*. If a *coach* touches his/her team's controls anytime during a *match*, the *team* will be disqualified for that match.

<G7> Scores will be calculated for all *matches* immediately after the *match* when all objects on the field come to rest.

<G8> *Robots* may not intentionally detach parts during any *match*, or leave mechanisms on the field. Multiple infractions may result in disqualification for the entire competition.

<G9> *Robots* must be designed to permit easy removal of *balls* from any grasping mechanism without requiring that the *robot* have power after the *match*.

<G10> Field tolerances may vary by as much as +/-1". Teams must design their *robots* accordingly.

2.4.4 – Rapid Roll Specific Game Rules

<SG1> At the beginning of each *match*, the *robot* must be placed such that they are on the starting platform and no part of the robot is in contact with the foam tiles.

<SG2> Prior to the start of each *match*, each *team* will have three (3) *tennis balls* available to pre-load into their robots. Pre-loading is optional. If pre-loading is not used the balls are removed from the field of play and will not be used in that match.

- a. A *tennis ball* is considered to be legally preloaded if it is touching the *robot* and not touching any part of the playing field or game objects.

<SG3> A *ball* is not considered *scored* if it is being touched by the *robot* at the conclusion of the match.

<SG4> Drivers must change (*Driver change*) sometime during the 31st and 59th second of the match. Driver one may hand the remote driver two anytime between 31 and 59 seconds on the clock. If a team exchanges the remote too early or too late in a match they will be disqualified for that match and receive a zero score for that match.