

Section
2



Triangle Triumph The Game

Table of Contents

Section 2 – The Game.....	2
2.1 – Overview.....	2
2.2 – Game Description and Field Drawings.....	2
2.3 – Game Definitions.....	3
2.4 – Game Rules.....	4
2.4.1 – Scoring.....	4
2.4.2 – Safety Rules.....	4
2.4.3 – General Game Rules.....	5
2.4.4 – Triangle Triumph Specific Game Rules.....	5

Section 2 – The Game

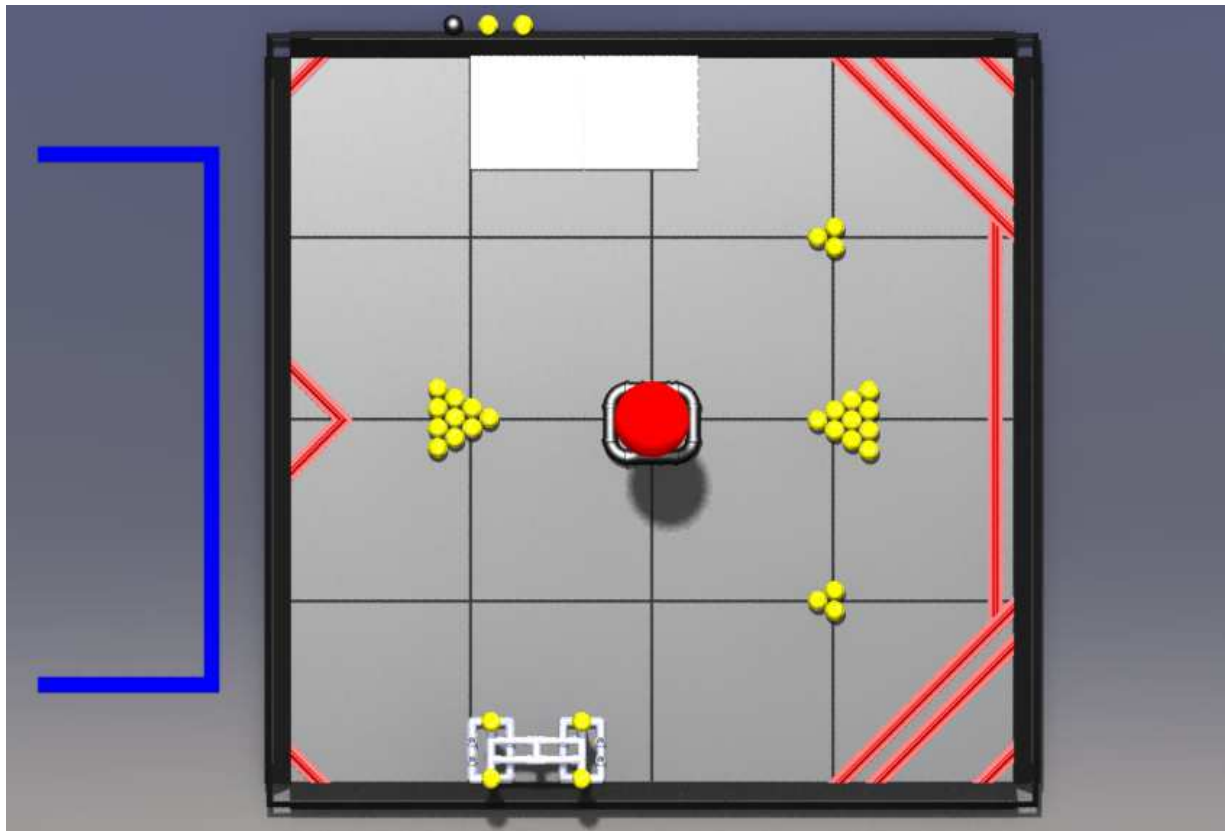
2.1 – Overview

This section describes the CREATE Junior game called *Triangle Triumph*. 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 figure below. Two teams, making up an *Alliance*, collaborate in each *match*. The object of the game is to attain the highest score possible by working together to position, push, and place *yellow tennis balls* and the *black bonus ball* into *Floor Goals*, onto the *Rack*, and within the *Central Tower*, pushing the large *red ball* either out of the field or into the *Triangular Floor Goal*, and by being *parked* on the *starting platform* before time expires.

There are a total of thirty-two (32) *yellow tennis balls*, one (1) *black bonus ball*, one (1) *large red ball*, and two (2) *starting platforms* available as scoring objects in the game. Thirty (30) *yellow tennis balls* will be found on the field, while two (2) *yellow tennis balls* and one (1) *black bonus ball* will be available to each *Alliance* prior to the *match*. These balls are the *Alliance's Pre-placement Balls*. They can be placed anywhere on the field as long as they are not considered scored and are in contact with either the foam tiles or a robot. Two (2) *starting platforms*, one (1) *Central Tower*, one (1) *red ball* and the *Rack* will also be found on the field at the start of the *match*. The *bonus ball* will act as a 2x multiplier to the score in any *Floor Goal*, the *Central Tower*, or the *Rack*. The *red ball* can be either removed from the field or scored in the *Triangular Floor Goal*.



2.3 – Game Definitions

Alliance – Two randomly paired teams that work together for a *match*.

Bonus Ball – The black-painted tennis ball. The ball acts like any tennis ball but also provides a 2x multiplier for the goal that it is scored in.

Central Tower – The PVC structure in the center of the field. It starts the match with the *red ball* on it. After the red ball is removed, it acts as a goal for *tennis balls* and *bonus balls*. A maximum of three balls per side will be scored.

Pre-placement Balls – Each alliance is provided two (2) *tennis balls* and one (1) *bonus ball*. The alliance will have a short time, based on the schedule, to place these balls within the field. Teams may place them anywhere in contact with the foam tiles or on their robot. They cannot be in any location that would be considered scored. Acceptable placement is at the discretion of the referee.

Coach - A student or adult designated as the team adviser during the *tournament*.

Driver - A team member responsible for operating and controlling the *Robot*. Only the two *drivers* from a team are allowed to be in the *Driver's Station* during a *match*.

Driver Change – Changing from the first to the second *driver* in the middle of the *match*. The change must occur between :30 and :60 seconds.

False Start – A *robot* leaving the *starting platform* before the *match* begins will be considered to have *false started*. A five (5) point penalty will be assessed for each *robot* that *false starts*. If the *false start* is severe, at the discretion of the referee, the *robot* may be disqualified.

Floor Goal – Any of the low, red-edged goals on the floor tiles, not including the *Triangular Floor Goal*.

- *Corner Goal* – The area located in each of the four corners. Only one ball will be counted as scored.
- *Short Trapezoid Goal* – The area between the parallel red borders that is located in two corners.
- *Long Trapezoid Goal* – The area between the field perimeter and the red border.

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

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

Parked – A *robot* is considered to be *parked* when it is in contact with the *starting platform* and is not in contact with the tiles or the wall of the field.

Rack – The PVC set of rails that has a red designated scoring area. A maximum of two balls will be counted as scored.

Red Ball – A red rubber ball with an approximate diameter of fifteen (15) inches that starts on the *Central Tower* and can be removed from the field or placed in the *Triangular Floor Goal*.

Removed from the field – If the ball leaves the playing field and does not come back under its own power during the course of the *match*.

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

Scored –

- A *tennis ball* is scored if it is located in a *Floor Goal*, in the scoring zone on the *Rack*, or within the *Central Tower*.

- A *bonus ball* is scored if it is located in a *Floor Goal*, in the scoring zone on the *Rack*, or within the *Central Tower*.
- The *red ball* is scored if it is removed from the playing field or is in the *Triangular Floor Goal*.

Driver's Station – The designated region where the *drivers* stand during any *match*.

Team Member – Any of the participants that make up the team. Team members may assist the drivers with the Pre-placement balls and robot placement. Only the drivers are allowed in the *Driver's Station* for the *match*.

Tennis Ball – Any of the 32, 2.6" diameter yellow tennis balls.

Triangular Floor Goal – The red triangular goal along the edge of the field. This goal is one way to score the red ball.

2.4 – Game Rules

2.4.1 – Scoring

- A *tennis ball* that is scored is in contact with the floor tiles and...
 - in a *Corner Goal* counts as three (3) points (one ball max)
 - in a *Short Trapezoid Goal* counts as two (2) points
 - in the *Long Trapezoid Goal* counts as one (1) point
 - within the *Central Tower* counts as three (3) points (three ball max per side)
- A tennis ball is scored if it is in the *Rack* scoring area counts as ten (10) points (two ball max)
- A *bonus ball* that is scored...
 - follows the same guidelines as the *tennis ball* above
 - will double the *tennis ball* score for that goal.
- The *Red Ball* that is
 - *removed from the field* counts five (5) points.
 - scored in the *Triangular Floor Goal* counts ten (10) points.
- The first *robot* that is *parked* at the end of the *match* is worth five (5) points.
- The second *robot* that is *parked* at the end of the *match* is worth ten (10) points.
- If a *robot false starts*, a five (5) point penalty will be assessed. The *match* continues and is NOT restarted. If the *false start* is severe, by the judgment of the referee, a *robot* may be disqualified.

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* gets hung up on the wall or drives out of the field, teams MAY place the controller on the ground. A referee will then count down from ten (10). Once zero has been reached, the referee will place the *robot* back onto the field to the closest allowable space. The team may pickup the controller AFTER being given the signal from the referee. This is optional. If the team would prefer that the referee not touch their *robot* then they need not set down their remote. However if any un-intentional damage should occur by the act of the referee placing the *robot* in the field of play it will simply be considered part of game play and no additional help will be given throughout the remainder of the *match*.

<S3> If a *robot* goes completely out-of-bounds (outside the playing field) and continues to move, clear intent of returning to the field MUST be demonstrated. If a *robot* is being driven with any other intent, the *match* may be ended at the discretion of the referee.

2.4.3 – General Game Rules

- <G1> At the beginning of a *match*, each *robot* must not exceed a volume of 13 inches wide by 13 inches long by 13 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* are the only people allowed in the *Driver's Station*.
- <G4> Any STUDENT team member may assist in placing the Pre-placement balls and/or the robot.
- <G5> Scoring objects that leave the playing field are considered out of play. They will not be returned to the field for that *match*.
- <G6> *Drivers* 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 disqualification.
- <G7> During a *match*, *robots* may be remotely operated only by the *drivers*.
- <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 scoring objects 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 – Triangle Triumph 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 or the wall of the field.
- <SG2> Prior to the start of each *match*, each *alliance* will have two (2) *tennis balls* and one (1) *bonus ball* available as *Pre-placement Balls*. The use of these balls is optional. If they are not used, the balls are removed from the field of play and will not be used in that *match*.
- a. A *Pre-placement Ball* is considered to be legally placed if it cannot be considered scored in the chosen location and is in contact with either the foam tiles or a robot.
- <SG3> *Drivers* must change (*Driver change*) sometime between the 30th and 60th second of the *match*. *Driver* one may hand the remote to *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 assessed a five (5) point penalty at the discretion of the referee. If the infraction is considered 'major' by the referee, the team will be disqualified for that *match* and the *alliance* will receive a zero score for that *match*.