

Section  
**2**



# Baseball Bash The Game

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# Section 2 – The Game

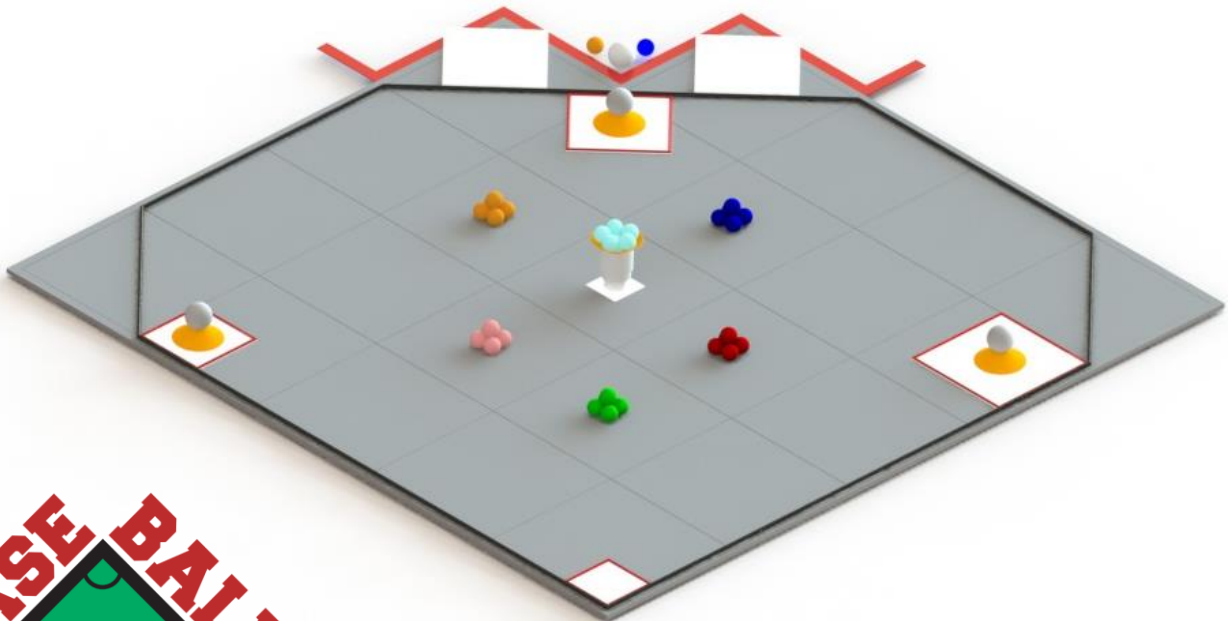
## 2.1 – Overview

This section describes the CREATE Junior game called *Baseball Bash*. 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 the plastic baseballs at home plate, the medium sized balls and bonus golf ball on the bases, collaborating as an alliance, removing the tower from the field, and returning to the parking platform at the end of time.

There are a total of thirty-three (33) multi-colored medium sized balls (~2.5" OD), four (4) white plastic baseballs, and one orange golf ball available for scoring on the field. The Alliance will have one (1) baseball and two (2) medium balls for placement prior to the match. Three (3) bases and one (1) home plate are available as stationary goals, the tower is a mobile goal that may be pushed out, and the pitcher's mound and two (2) starting platforms, the bullpens, are available as stationary scoring opportunities. Medium balls score points on the bases (1-3) and baseballs score at home plate. The pitcher's mound is used for the double play. If both robots are touching the mound for three consecutive seconds during the match, points are awarded. Additionally, points are awarded for a ball placed inside an upright tower. If the tower is removed from the field, points are also awarded. The golf ball is a 2x doubler for any base (including home) that it is scored. It begins the match in the base of the tower.



## 2.3 – Game Definitions

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

Base – The three largest red-rimmed squares. They serve as goals for the medium balls. .

Bonus Ball – The orange golf ball that will double the score for any base or home plate. This ball does not contribute to the score of a goal.

Bullpen– See Starting Platform.

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.

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

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.

Home Plate – The smallest red-rimmed square. It serves as the goal for the baseballs.

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

Medium ball – Any of the 33 multicolored balls on the field that has an approximate diameter of 2.5".

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, the rope perimeter of the field, or the floor of the arena.

Pre-placement Balls – Each alliance is provided two (2) medium balls and one (1) baseball. 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.

Removed from the field – If the tower 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 medium ball, baseball, or Bonus Ball is scored on a base/home plate if it is overlapping the border of a goal and is not touching the foam tiles, or a robot.
- A medium ball or baseball is scored in the tower if the tower is upright within the rope perimeter and the ball is within the tower. The tower may be flipped over during a match, but is only valid if it is sitting on a circular end. The ball cannot be touching an orange cone or robot to be considered scored
- The tower is scored if it is *removed from the field*.

Starting Platform – The 15"x15" 1/8" inch high square located adjacent to the playing field.

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.

Tower – The PVC structure on the field. It starts the match on the pitcher's mound with an inverted cone holding six medium balls on top and the bonus ball in the base.

## 2.4 – Game Rules

### 2.4.1 – Scoring

- A medium ball is scored if it is either within the borders of a base and not in contact with a robot or the foam tiles or is inside the Tower that is upright. The point values are...
  - First Base - one (1) point
  - Second Base - two (2) points
  - Third Base - three (3) points
  - In the Tower – fifteen (15) points (Maximum of one (1))
- A baseball is scored if it is either within the borders of a base and not in contact with a robot or the foam tiles or is inside the Tower that is upright. The point values are...
  - Home Plate – four (4) points
  - In the Tower – twenty-five (25) points (Maximum of one (1))
- A *Bonus Ball* is scored if it is within the borders of a base or home plate and not in contact with a robot or the foam tiles.
  - The ball doubles the points scored by that goal.
  - The ball does not add any additional points to the goals total.
- If the *Tower* is removed from the field, it 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 fifteen (15) 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. The **driver** may slowly walk around the field to the stranded robot to place it back into the field. The robot should be placed just inside the point that it got stuck and should follow the guidelines below. The driver may then walk back to the driver's station and pick up the controller to continue as before. If teams are not performing this action safely, the Alliance may be disqualified at the discretion of the ref.

- a. The robot should be placed in the field as near to where it became caught on the rope as possible.
- b. The robot cannot be touching any robot or any game elements that were not already captured by the robot at the time of getting stuck. An object is captured if the robot can be lifted straight up and the object stays with the robot.
  - a. Game elements include goals, balls, parking platforms, and the tower,

<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 robot/Alliance may be disqualified or stopped and the match 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> For each match, teams shall include two *drivers*. The *drivers* may change from match to match.

<G3> During a *match*, the *drivers* are the only people allowed in the drivers station.

<G4> **Any** 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 – Baseball Bash 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 *alliance* will have two (2) *medium balls* and one (1) *baseball* 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 30<sup>th</sup> and 60<sup>th</sup> 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* the robot may be disqualified for that *match* at the discretion of the ref. If the remote is exchanged significantly outside of the designated time, the ref may disqualify the *alliance*, which will receive a zero score for that *match*.