



Task Oriented

Rules and Technical Instructions

2009

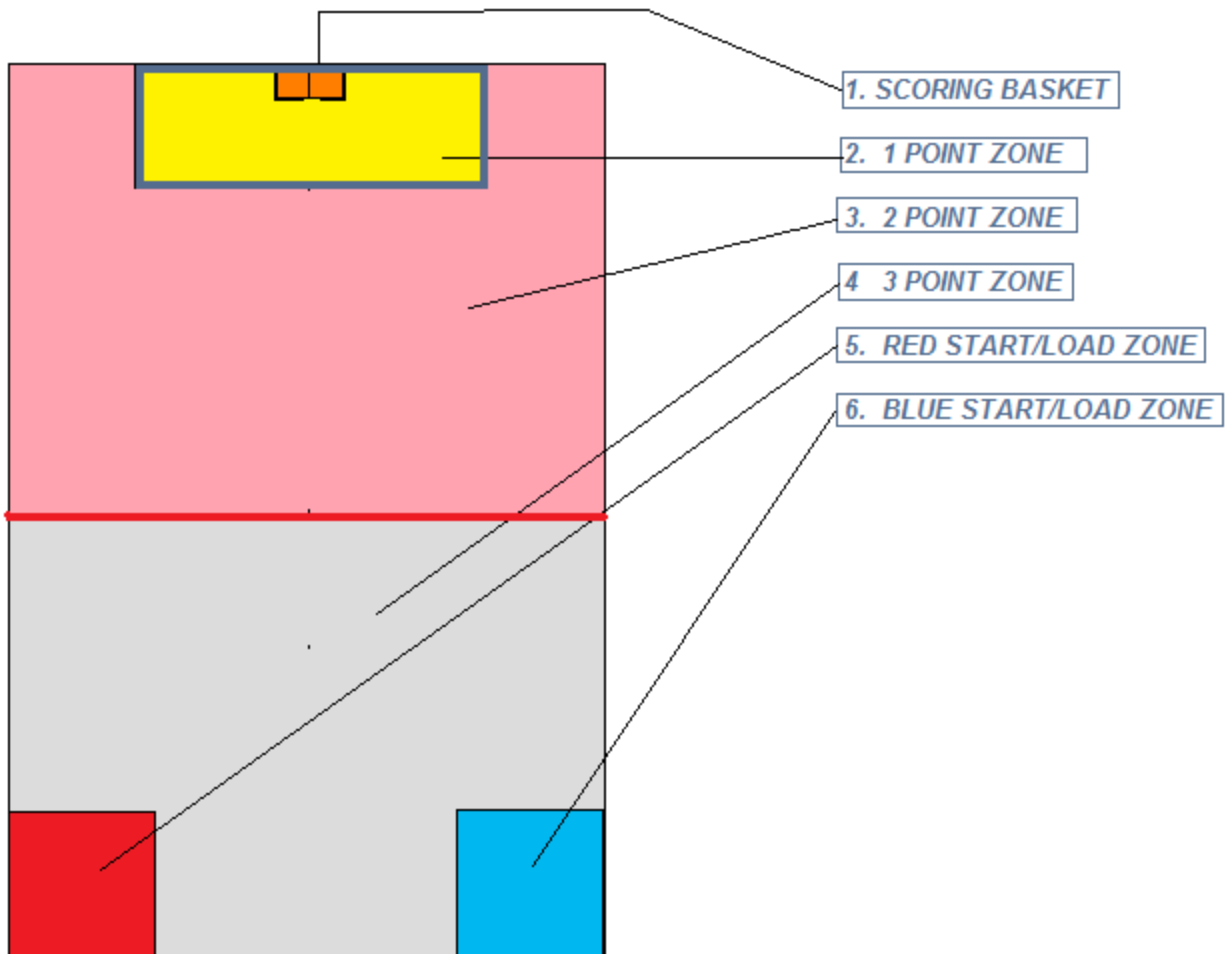
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AutoBot Ball©

Object of the Game: Win each match by scoring the most points. Most matches won, wins the competition.

Playing Field: The playing field will have a 6 inch to 8 inch wall surrounding the perimeter to contain the robots. The Goal end of the field will also have a 4 foot by 8 foot wall behind the Goal.

Playing field is an 8 x 12' rectangle. With (2) 2' x 2' squares marked on the corners of one end of the field. One square marked RED and one marked BLUE. There is a horizontal center dividing line in the middle of the field.



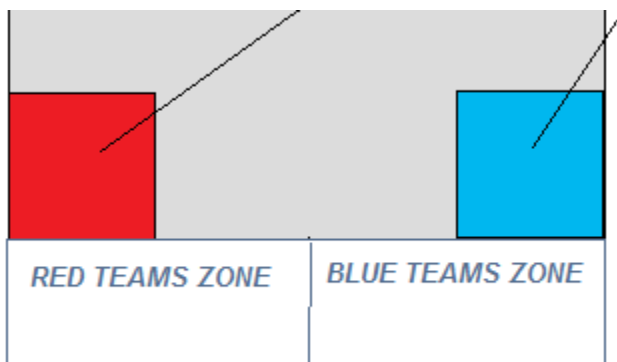
Game Set-up: There will be 10 Red balls and 10 Blue balls placed alternately (red, blue, red , blue etc...) along the centerline of the playing field. Each team will be given 5 balls of their respective color at the beginning of the game. There will be a total of 15 balls of each color at the beginning of each match.

Scoring Zones: The 1 point zone is 2 feet away from the basket in any direction. The 2 point zone is the area between the one point zone and the field centerline. The 3 point zone is the area closest to the robot starting/loading zone. Any part of the robot crossing the plane of any zone scores the lower points. Example: If a Robot is in the 3 point zone, but is able to reach all the way to the basket with an extendable arm, part of the robot has broken the plane of the both the 2 point line and the 1 point line, so the point scored will be 1 point.

Playing the game: Each match will last for a total of 3 minutes. The number of matches played and the order of the matches will be determined at the competition. It will depend on the number of robots signed up and ready to compete in the time allotted for the competition.

Autonomous time: 30 seconds at the beginning of each match will begin with the robots operating autonomously. During the Auto mode each ball the robot picks up is worth 1 point. Each ball scored into the goal autonomously counts for 5 points for the teams color (if a red ball is scored in the basket by the blue team in the autonomous mode the 5 points go to the red team). After the 30 second auto mode the match will be paused and the balls on the robots and in the goal will be scored. Any balls scored in the goal will be returned back to the center of the playing field.

The R/C game begins: Each team will consist of 3 students, a driver, a human player and a coach. **ALL TEAM MEMBERS MUST BE WEARING SAFETY GLASSES.** The team must stay in their marked area. There can be no more than 3 students in the driving area. The driver is responsible for driving and maneuvering the robot into position for scoring. The human player will have 5 scoring balls in his or her possession at the beginning of the game, and is the only person on the team that can drop the balls onto the robot. Human player is limited to having 5 balls in his possession of any color at one time. The only time a human player can pick a ball from the floor of the starting/loading zone is when the robot is NOT in the starting/loading zone. When any part of the robot is in the starting/loading zone, the human player can load and unload balls only from the robot and not from the floor. Only during the last 10 seconds of the match can the human player score points by throwing their own team's colored balls into the goal for 1 point.



If a robot breaks down during the match and/or needs adjustment during a match, the referee will pause the match and give the team the robot to perform needed repairs or adjustments. The referee will start the match continuing with only one robot. When the other robot is ready to reenter the playing field, the referee will place the robot in the starting/loading zone and will give the team a 15 second penalty before the robot can starting moving. Each team can only do this once during each match.

THERE WILL BE NO POSTPONEMENT FOR ANY MATCH.

Robot Requirements: Maximum footprint is 18" x18" and the maximum height is 24 inches and maximum weight is 24 pounds. At the beginning of each match, the robot must be able to meet the above maximum requirements. For all pneumatic, electrical, mechanical and safety requirements, refer to the BotsIQ 15 pound robot technical regulations. (WWW.BotsIQ.org) **ALL ROBOTS MUST PASS SAFETY INSPECTION.**

Scoring with the robot: A 3 point shot is made from behind the black centerline, no part of the robot can break the center plane to score. If the center plane is broken then it becomes a 2 point shot. The 2 point zone is from the center line to the marked line 2 feet away from the goal. If the robot passes the plane of the 2 point line the ball is scored as a 1 point shot. The area within 2 feet of the goal is the 1 point zone. Balls that are scored into the goal will be returned to the playing field as soon as possible. At the end of the match, any ball remaining in the starting/loading zone or on the robot will count against the team's score as a minus 1 point for each ball. Any balls leaving the playing field will be returned to the center of the field as soon as possible.

Tie breakers: In the result of a tie at the end of a match the team scoring the most points during the auto mode wins the match. If there is still a tie then the team having the least negative points will win the match.

Final tie breaker: The playing field will be reset, the game will be played without the 10 second restriction on the human player and the first to score a point wins.

Goal Tending: There will be NO intentional covering or blocking the opening of the goal for more than 10 seconds.

Pinning: NO robot to robot contact for more than 10 seconds.

Special Safety Issue: The opponent's robot is not permitted to be in your starting/loading zone. The red team robot cannot enter the blue team's starting/loading zone and the blue team's robot cannot enter the red team's starting/loading zone.

Balls: The balls will be plastic practice golf balls readily found at any sporting goods store.

Basket: The basket will be an office type garbage can that can be found at an office supply store with the following dimensions:



Rubbermaid® Multipurpose Wastebasket, Black, 3.2 Gallons

- 3.2 gallons
- Black
- 12"H x 8"W x 11"D
- Item: 540500
- Model: 29551/16001

(AVAILABLE FROM STAPLES)

Any questions regarding these rules please send to info@botsiq.org