

Valid until  
9.30.2022



## RoboCurling Challenge Rules

### Goal

To push your curling objects into the scoring ring for more points than your opponent

### Who Can Play

- 1) Teams in this challenge compete in **one division**, 2 to 3 players on each team.
  - a) Elementary School (ES), Grades 1-3 ONLY

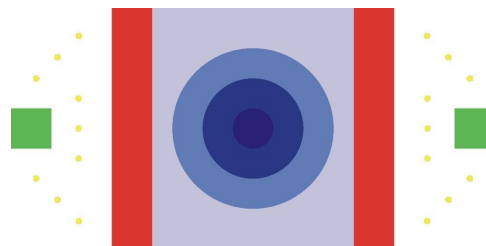
### Requirements

Robot

ITEM	Scoring / Tournament
Platform	Any type
Robot	Remote control robot
MAX Volume	<ul style="list-style-type: none"> <li>• Not exceed 65030 cubic centimeters</li> <li>• Robot can be expanded after leaving start position</li> </ul>
Controller	1 Controller allowed (Not including the controller used as a remote control)
Sensor type	Any type
Sensor #	Not limited
Motor type	Not limited
Motor and servo number	Less than or equal to 4

### General Rules

- 1) It is forbidden to use structures to damage an opponent's robot or the track.
- 2) For safety reasons:
  - a) The velocity of the curling shall be limited.
  - b) Challenges will be stopped if the judge considers that the robot will hurt people or themselves in the area.
  - c) The team cannot get any score until they finish their adjustment.



- 3) Track
  - a) The PVC vinyl track dimensions are 240 cm x 120 cm.
  - b) Track shown below is an example and the design might be changed on the first day of the event:
- 4) Robot starts on the green zone on each side, put close to the edge if the robot is bigger than the green zone.
- 5) Robot can collect and push the curlings in the white zone

- 6) Curlings will be placed on the yellow dots. The position of the yellow dot might be changed on the first day of the event.
- 7) The blue zone in the middle is the scoring zone; from dark to the light is 100 / 50 / 15 / 1 point zones. Diameter of the zone is 20cm / 50cm / 80cm, and the length of the square zone (1 point zone) is 80cm.
- 8) The red zone is a 20 cm x 120 cm trap zone. Trap zone does not belong to any side.

### Scoring

- 1) You will get 8 official scored runs during the challenge scoring period, the total of your 5 highest official scores are used to determine tournament selection.
- 2) The robot has 2 minutes to complete the tasks.
  - a) Robot starts on the green zone on each side, put close to the edge if the robot is bigger than the green zone.
  - b) Robots could use any safety way they prefer to push or guide the curling to the scoring zone.
  - c) Robot will be stopped until the challenge finishes if the vertical projection of the robot breaks in the red zone area.
  - d) Robot will be stopped until the challenge finishes if the driving wheel touches the area outside the track.
  - e) SCORE =  
  
 Curling # \* curling point **in blue zone** – ((Curling # in **white zone** in your side \* 20) + (Curling # in **red zone** \* 40))
  - f) Curlings will be counted only on your own side. Curling pushed to the opponent's side will not be scored.
  - g) The winner will get a double score. A draw will not double in score. If both sides end in a negative score, the winner's score will be divided by 2.
  - h) You can collect the curlings thrown from the opponent in your white zone, and put them in red zone for minus points.
  - i) Curling outside the track will not be scored.
  - j) Curling will be counted as the higher score if touching multiple score zone. Minus point will be made if part of the curling enters the red zone.