STAMP COLLECTING

Stamp Collector Category Rules

Task Definition

1. In this category, robots must sort the tokens by their colors and transport them to the designated drop-off areas. During the competition, one robot from each team starts simultaneously and competes against each other. The team with the highest score at the end of the match wins.

Robot Specifications

2. The robot's width, length, and height must not exceed 30 cm.

3. After the competition starts, the robot may expand but cannot break into pieces.

4. The robot may not use any system that could damage the track. Robots that damage the track will be disqualified.

5. The robot can weigh up to 5 kg.

6. The robot must be autonomous and cannot be controlled externally.

Track Specifications

7. The section where the robots will compete has a width and length of 250 cm. The outer walls of the track are 10 cm high.

8. Each drop-off area has a width and length of 50 cm, with no height. There are a total of 4 drop-off areas: 1 red, 1 blue, and 2 green. These areas are placed at each corner of the track.

9. The tokens are 40 mm in diameter and 20 mm in height. They differ only in color and are identical in size.

10. You can access the technical drawings of the tokens from this link.

11. There are a total of 21 tokens on the track: 8 red, 8 blue, and 5 green.

12. The color codes of the tokens and the drop-off areas on the track are as follows:
    - Red: RAL 3001
    - Blue: RAL 5010
    - Green: RAL 6029

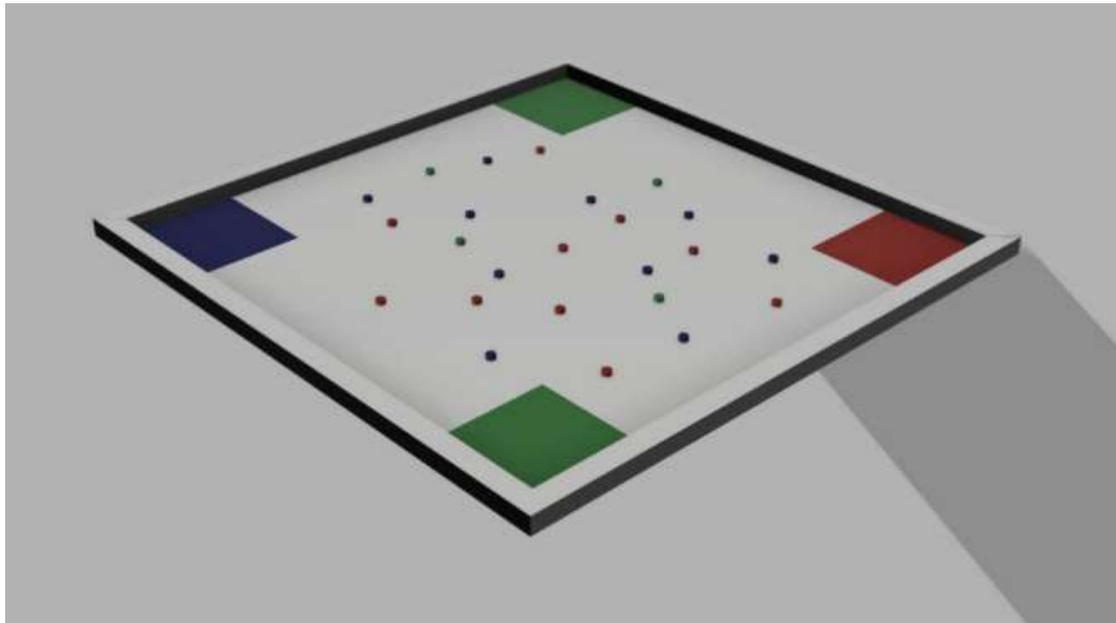13. Figure 1 shows a sample track illustration for this category.

Figure 1: A sample track illustration for the Token Collection category.

Competition

14. In each match, the robots of both teams compete simultaneously.

15. The duration of the match cannot exceed 5 minutes.

16. The time starts with the referee's command.

17. Each robot must correctly place at least one token of its own color and at least one green token; otherwise, the robot will not be evaluated.

18. With the referee's approval, technical intervention can be made to the robot for up to 1 minute. The technical intervention takes place on the field under the supervision of the referee. During this period, the robot of the team not requesting a break will also be stopped by the referee.

19. Each team has only 1 technical break right during the match.

20. It is forbidden for any team member to enter the competition area and change the position of the tokens during the match. If detected, the respective team will be disqualified from the competition.

21. From the start of the match, including technical breaks, no part or module changes can be made to the robot. Violation of this rule will result in the team being disqualified from the competition.

22. The robots' areas will be designated as red or blue, determined by a coin toss. The green area and green tokens are shared by both robots. The sticker provided by the referees must be affixed to the robot.

23. The direction in which the robot faces when placed in the area designated by the coin toss will be determined by the competitor.

24. Referees can stop and restart the game without waiting for the competition duration if necessary.

25. If a problem arises that prevents the robots from continuing the match, the robots will be examined by the referees, and a decision will be made on whether a technical break intervention is possible. If it is determined that the robot cannot continue, it will be removed from the game.

26. There are no restrictions on the number, color, or shape of tokens that robots can collect.

27. Robots must collect tokens of their own color in their own color areas and green tokens only in green areas. Violation of this rule will result in penalty points.

28. The rules in the scoring system apply to the chips sent to the zones by the robot's push.

29. If there are enough robots, an elimination system will be applied, and the winning robot will advance to the next round.

30. If the number of robots is low, a league system may be applied. In this system, the winning robot earns 3 points, while the losing robot earns no points. In case of a tie in points, the ranking will be determined based on the average.

31. In competitions, if a robot remains inactive for more than 45 seconds, it will be disqualified.

Scoring

32. For a token to be considered collected, it must be entirely within the area and remain stationary for 1 second.

33. Tokens considered collected, regardless of whether they are in the correct or incorrect area, will be collected by the referees. Tokens that are deemed collected but are moved by the robot before being taken by the referee will also be considered valid.

34. A robot is deemed to have earned the point the instant it meets the requirement of holding the token in its designated area for one second. If the opposing robot manages to acquire this token before the referee removes it from the field:

    a) The point secured by the first robot remains valid and shall not be revoked or cancelled.

    b) The token acquired by the opponent remains in play and is treated as a new game piece.

    c) The opponent robot may also earn or lose points with this same token by fulfilling the necessary conditions.

35. Each blue and red token placed in the correct area is worth +10 points.

36. Each green token placed in the correct area is worth +20 points.

37. If the robot places the token designated for its area in the opponent's area, it will receive -25 penalty points.

38. If the robot places a green token in blue or red area, it will receive -40 penalty points.

39. Tokens placed by the robot in the opponent's area will earn the opponent points equal to the value of the token, +10, if the token matches the area's color; otherwise, it will have no effect on the score.