RICOCHET ROBOT

by Alex Randolph for any number of players

Contents

- 4 boards printed on both sides
- 1 plexiglas center-piece
- 4 plexiglas, ricochet robots in different colors
- 4 square tokens in the robots' colors
- 17 round target chips
- 1 sand clock (approximately 1 minute)
- 1 rule sheet

Preparations

Before playing for the first time, carefully detach the tokens and chips from their cardboard frame.

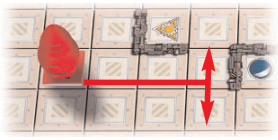
- Join the four boards with either side up, holes toward the center (there are 96 different ways of doing this). Fix in place with the center-piece. Place the sand clock beside the board.
- Distribute the 4 robots randomly on 4 spaces of the board not marked with a target symbol. Slip a corresponding colored square token under each robot.
- Shuffle the 17 target chips face down an the table.
- Pick up one chip from the table and place it face up on the center-piece; play may now begin.

Objective

In each round, the objective is to collect the chip in the center. One space on the board, the target space, has the same color and symbol as this chip. Your task is to figure out how the robot of that color, the active robot, can be made to end up on this target space in as few moves as possible. The player who can succeeds in the fewest moves collects the chip ... and the one who collects most chips wins the game!

Planning the robots' moves

At the start of a round the robots move only in the players' minds; in other words, each player tries to imagine the shortest route to the target space without actually moving the pieces. Robots move horizontally or vertically as the players direct, but they have no brakes! This means that once a robot is set in motion, it cannot stop until it hits an obstacle. Obstacles are the edges of the board, the walls pictured on the board, the center-piece and other robots. When a robot hits an obstacle, it can either stop or ricochet at right angles, left or right, until it hits another obstacle - and so on indefinitely. Each movement of a robot to the next obstacle counts as 1 move. When a robot stops, it may move back the way it came only after another robot moves.



When a robot reaches a square with a diagonal colored wall, it passes through the wall if its color matches the wall and bounces off the wall at right angles if its color does not match the wall. When a robot reaches a wall opening, it passes through and appears, still moving, on the board exactly opposite the opening. In these special cases, the robot does not “stop” and continues to an obstacle, counting the entire move as just one move.

Playing out a round

- A round begins when a player picks up a chip and places it on the center-piece.
- Each player then tries to figure out how the active robot (the robot whose color corresponds to the color of the chip) can be brought to the target space (the one with the chip’s color and symbol) in as few moves as possible. In most cases, one or more other robots will have to be moved to serve as obstacles and these moves must be counted too, of course, (see example 1).
- If the chip in the center is the "cosmic vortex" (which has all colors), any robot, including the silver robot, may be considered the active robot and be brought to the cosmic vortex target space.

- On its way to the target space an active robot must hit and ricochet off (turn right or left) an obstacle at least once. If it could reach the target space without ricocheting, another route must be chosen (see example 2).

As soon as a player has found a solution, he may bid aloud the number of moves he thinks is required and set up the sand clock. The other players have now 1 minute to make their bids. There is no order of bidding and players may bid more than once. Successive bids will usually be lower but may also be equal and even higher (for example, when a player finds a previous lower bid unsound). Once a player has made a bid, he may not change it to a higher number.

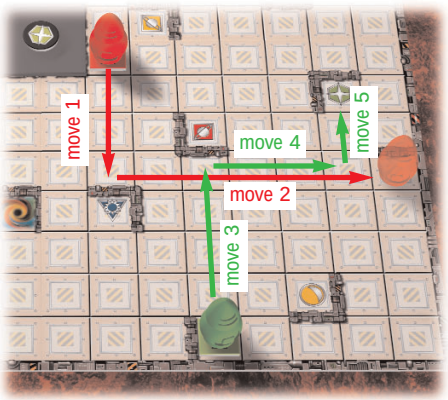
- When the sand clock runs out, the lowest bidder plays out the round. He moves the robots as he had planned, counting his moves aloud. If the number of moves he makes matches or is lower than the number he bid, he collects the chip and the round is over. If he fails, he must return the robots he moved to their starting spaces (square colored tokens) and the turn passes to the player with the next higher number. In case of equal bids, the player who is behind in the game (has the fewer chips) has precedence. This continues until a player succeeds. If no one succeeds, no one gets the chip, which is returned and reshuffled on the table.
- As soon as one round is over another can begin. Slip the colored tokens under the robots that were moved, pick up a new chip and place it on the center-piece, etc.

End of the game

A 2-player game ends as soon as a player has won 8 chips; a 3-player game when a player has won 6 and a 4-player game when a player has won 5. If more than 4 are playing, continue until all the chips have been won. Of course, players are free to end in any other way they agree to before the start of the game.

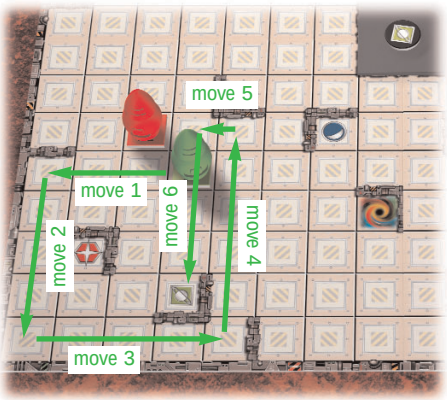
Note: most situations on the board can be solved in less than 10 moves, but occasionally a situation will arise that requires twenty or more. Such situations are interesting as problems, but in a game they tend to be frustrating. Therefore, we recommend that if, after 4 or 5 minutes no one has made a bid, one of the players set up the sand clock. If at the end of the minute there has not been a bid, return the chip to the table, reshuffle and replace it with another.

Example 1:
a different robot is moved
to serve as obstacle.



The red robot is moved to create an obstacle (moves 1 and 2); then the green robot uses it as an obstacle as shown (moves 3-5). Notice that the obstacle-robot, like the target robot, had to move without stopping until it hit an obstacle.

Example 2:
the green robot could move directly to the target space, but since this is not allowed, another route is chosen.



The chosen other route requires 6 moves. Notice that the route crosses the robot's own colored square token, which shows that these tokens are not obstacles.

Expansion rules

You may mix the boards from both this version and the original, but always use a complete set: be certain the full board has all 17 different target spaces.

Tournament variant

When playing in a tournament setting, we suggest the following change: in case of equal bids, the player who bid first has precedence.

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