

USD Robotic Programming Contest

Frequently Asked Questions (FAQ)

- 1) What are the starting and ending positions for the robot?

Answer: The enclosed image will show you the starting (in red) and finishing (in green) positions of the robot.

- 2) The rules have the robot dimensions of 13 cm x 8.5 cm. How to measure the robot?

Answer: The robot dimensions are for the frame. If you use the Activity-Bot, you are fine.

- 3) How will the maze (at the contest) look like?

Answer: Topology of the mazes at the contest will be similar to the one on the right hand side with the gates may be moved to the left, right, up or down.

- 4) Will there be islands built into the maze itself, such that wall hugging would not work for a travel method?

Answer: Wall following program would not work well if the robot goes into an empty square.

- 5) How does the 18 cm cells work with 1.05 x 2.05 m?

Answer: $18 \text{ cm} \times 5 \text{ cells} \times 1.044 \text{ (5\% tolerance)} + 2 \times 5.5 \text{ cm (border from the side walls to the edge of the board)} = 1.05 \text{ m}$. This calculation holds same for the length of 2.05 m but with 10 cells.

- 6) What can our students do after finishing their competing runs?

Answer: The students can stay to watch the competition and learn how the other teams programmed their robots. Scores will be updated live on the big screen. There will be USD campus tours at different time slots.

- 7) Can our teams share the robot?

Answer: Yes, the teams can share the robot but a different program must be used for each team.

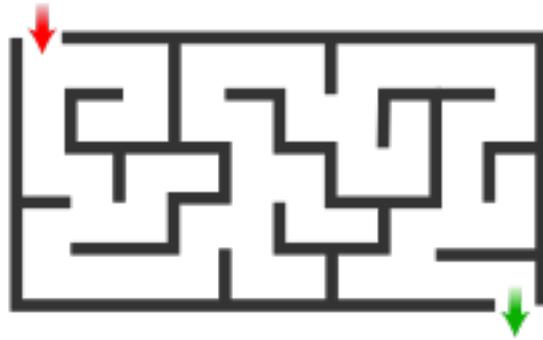


Fig. 1 A sample maze

For more information, contact us at ph: 605-677-5388 and e-mail: cs@usd.edu.

The department of computer science is willing to provide support for high schools for this Programming Contest.