

OSURC Maze Solving Contest Rules – Winter 2012

The Maze:

The maze will consist of a 4x8 grid of 8"x8" cells with white walls. The walls will be greater than 2.5" tall. Both the wall surfaces and the floor surface of the maze will be painted white. Both the entrance and the exit will be on opposite short sides of the maze. The maze will be constructed so that continuous following of a right wall will lead a robot from start to finish.

Robot Specifications:

All robots must fit within the 8"x8" maze cell footprint and must remain within the maze walls at all times. Sensor types are not restricted and can include IR rangefinders, sonar sensors, or cameras. No remote control or human intervention is allowed, all robots must be autonomous.

The Competition:

Each contestant will have three attempts to solve the maze while being timed by an OSURC judge. Time starts after a countdown from the judge and ends when any part of the robot crosses the exit opening of the maze. At the end of each trial, the contestant's time will be recorded.

Robots must complete the maze within three minutes or less. If a robot fails to complete the maze in the allotted time or drives out of the maze entrance, it does not receive a time for that round. One false-start is allowed for each contestant.

The fastest trials of each contestant will be tabulated and the first, second, and third place winners will be selected by the three fastest trials in order unless there is less than a 300ms difference between any of the top robots' times.

If two or more top-three times are within 300ms of each other, the contestants with close times will re-run their robots in the maze in sudden-death fashion where one robot is removed from the sudden-death rounds each round in which it is more than 300ms slower than the other robot(s) competing in the round.