

Micromouse robot runs maze in record-breaking five seconds (w/ Video)

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"Egg Torte" micromouse

(PhysOrg.com) -- The 31st All Japan Micromouse Robot annual competition is held in November each year to find the fastest robotic micromouse to navigate a maze, and this year's competition promises to be hotly contested, with the winner of the regional competition in Chubu, Japan, a firm favorite.

The "Egg Torte" micromouse bot won first prize in the regional competition by learning to solve the maze, remembering the layout, and then making the fastest sprint through the maze. The half-size mouse was developed by [Kato](#), who last year came second in the competition with his earlier robot, the full-sized Tetra. Tetra was fastest in that competition, but did not win due to a problem with the overhead

lighting.

The rules of the competition allow the autonomous micromouse bots to spend a few minutes surveying the maze to find the optimal route from the starting point to a set target area within the maze. They can then make several test runs before attempting to sprint to the target area in the fastest possible time.

The Egg Torte robot does not have the benefit of an overhead view, does not use GPS, and cannot "see" over the walls of the [maze](#). The miniature wheeled robot uses infrared sensors to sense the presence of the walls, but is robust enough to survive any collisions.

The electronic circuit board that forms the basis of the robot is extremely well planned, with Kato taking into account aerodynamics, weight and center of mass of components as well as their electrical properties when making his selections and positioning the various components.

The micromouse competition has been held since the late 1970s, with events around the world, including the UK, US, [Japan](#), India, South Korea and Singapore. Micromouse competitions attract amateur and professional [robot](#) designers and builders from around the world.

More information:

www.ntf.or.jp/mouse/micromouse2010/index_EN.html

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