

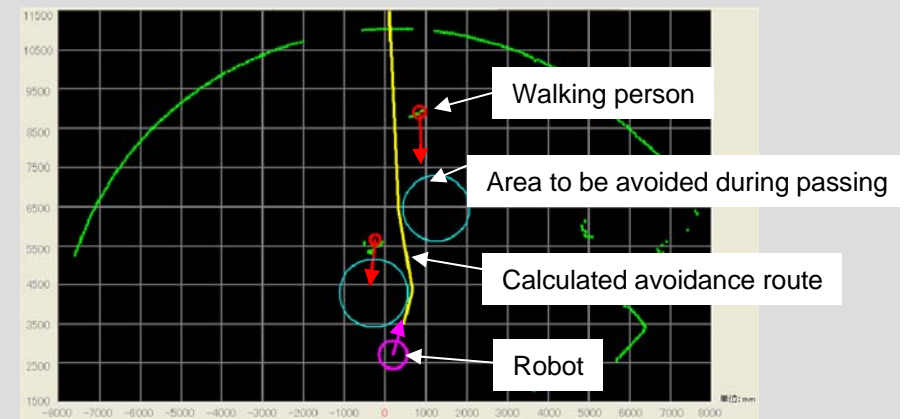
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Development of robot navigation technology to weave through walking crowds of people - Successful avoidance of collision confirmed on Hitachi robot "EMIEW" loaded with program -

EMIEW: Excellent Mobility and Interactive Existence as Workmate



Scene of passing through people



Calculation of avoiding route

The Mechanical Engineering Research Laboratory of Hitachi, Ltd. has developed a collision avoiding technology to enable a robot to weave within a crowd of people. The program was loaded on Hitachi's robot, EMIEW, and successful migration tested in a crowd of moving people. Further, the technology accommodates for human movement for avoiding collision into the robot's control system for the first time, thus tailoring to human sensibility, and enabling the robot to avoid collision in a smooth and natural manner. This technology will become essential if robots are to co-exist and support people, and is expected to find application in service robots acting as guides in commercial buildings, hotels and other facilities.

Part of this work incorporates research results achieved through collaborative research conducted with Professor Tsubouchi and Professor Yuta of Tsukuba University, as part of the Tsukuba-University-Hitachi alliance. EMIEW was developed as part of the "Project for the Practical Application of Next-generation Robots" commissioned by the New Energy and Industrial Technology Development Organization (NEDO), Japan.

This technology will be presented at the 24th Annual Conference of the Robotics Society of Japan, to be held at Tsushima campus of Okayama University in Okayama-shi, Japan, from 14th-16th September 2006. Further, EMIEW loaded with this technology will be on demonstration at FISITA 2006 World Automotive Congress Yokohama, to be held at Pacifico Yokohama, Yokohama-shi, Japan from 23rd - 26th October 2006.