

New Robot Motion

Planning and Control edited by Michael Brady, John Hollerbach, Timothy Johnson, Tomas Lozano-Perez, and

Mathew Mason

Senior and graduate level courses are being developed or planned in many places to prepare students to contribute to the development of the field of robotics and its industrial applications. *Robot Motion* will serve this emerging audience as a single source of information on current research.

Robot Manipulators

Mathematics, Programming, and Control *Richard P. Paul* This book provides a significant contribution to the

practical realization of robots. Through the mathemat-

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Nineteen contributions are grouped in sections covering Dynamics; Trajectory Planning; Compliance and Force Control; Feedback Control; and Spatial Planning. Each section is introduced by a substantial analytical survey that lays out the problems in that area of robotics and the approaches and solutions that have been tried. An overall introduction relates robotic research to trends in the development of artificial intelligence.

The editors are all research scientists at MIT's Artificial Intelligence Laboratory. In addition, Michael Brady is coeditor with Richard Paul of *The International Journal of Robotics Research* (MIT Press). 550 pp. \$37.50

ics of homogeneous transformations, it logically and coherently develops algorithms for computer-feedback control. It catalogs theoretical principles that are the prerequisite for the next exciting generation of truly automated robots, programmed and interactive with sensors. Mathematical derivations are complete and illustrations well selected. The book is written in the style of a text and has been used to teach robotics to graduate and undergraduate students in engineering and computer science.

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Notes for Contributors

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