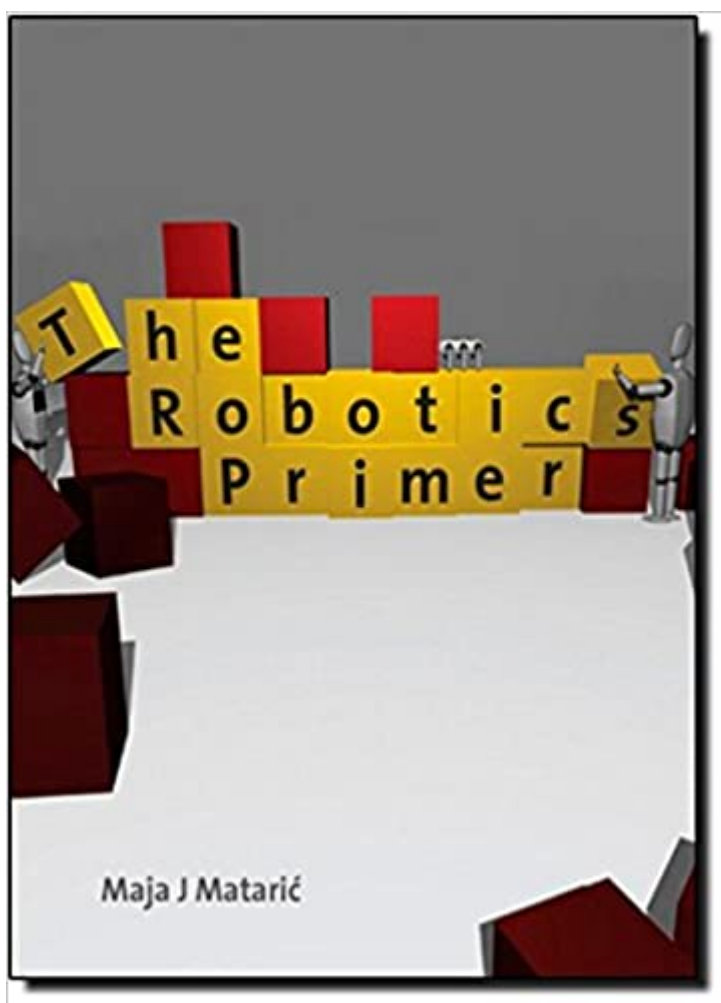The book was found

The Robotics Primer (Intelligent Robotics And Autonomous Agents Series)

Synopsis

The Robotics Primer offers a broadly accessible introduction to robotics for students at pre-university and university levels, robot hobbyists, and anyone interested in this burgeoning field. The text takes the reader from the most basic concepts (including perception and movement) to the most novel and sophisticated applications and topics (humanoids, shape-shifting robots, space robotics), with an emphasis on what it takes to create autonomous intelligent robot behavior. The core concepts of robotics are carried through from fundamental definitions to more complex explanations, all presented in an engaging, conversational style that will appeal to readers of different backgrounds. The Robotics Primer covers such topics as the definition of robotics, the history of robotics ("Where do Robots Come From?"), robot components, locomotion, manipulation, sensors, control, control architectures, representation, behavior ("Making Your Robot Behave"), navigation, group robotics, learning, and the future of robotics (and its ethical implications). To encourage further engagement, experimentation, and course and lesson design, The Robotics Primer is accompanied by a free robot programming exercise workbook that implements many of the ideas on the book on iRobot platforms. The Robotics Primer is unique as a principled, pedagogical treatment of the topic that is accessible to a broad audience; the only prerequisites are curiosity and attention. It can be used effectively in an educational setting or more informally for self-instruction. The Robotics Primer is a springboard for readers of all backgrounds -- including students taking robotics as an elective outside the major, graduate students preparing to specialize in robotics, and K-12 teachers who bring robotics into their classrooms.

Book Information

Series: Intelligent Robotics and Autonomous Agents series

Paperback: 328 pages

Publisher: The MIT Press (August 17, 2007)

Language: English

ISBN-10: 026263354X

ISBN-13: 978-0262633543

Product Dimensions: 7 x 0.6 x 9 inches

Shipping Weight: 1.1 pounds (View shipping rates and policies)

Average Customer Review: 4.1 out of 5 stars   13 customer reviews

Best Sellers Rank: #188,142 in Books (See Top 100 in Books)   #56 inÃ Â Books > Textbooks > Computer Science > Artificial Intelligence   #157 inÃ Â Books > Computers & Technology >

Customer Reviews

As with electronics and then computers, the world is about to be transformed yet again by the age of robotics. Every age needs its technology to be adopted by smart kids and dedicated hobbyists to provide the tide of people who will carry out the transformation. The Robotics Primer is a bridge between academia and everyperson, and its readers will become the crucibles of the new age. (Rodney Brooks, Director, MIT Computer Science and Artificial Intelligence Lab)Dr. Mataric has made a complex subject accessible to students of all ages. Students can learn in conjunction with hands-on experience using the robot workbook available online. This primer and workbook will give the student a first glimpse at the incredible possibilities of robotics. (Helen Greiner, Chairman and Co-founder of iRobot) The Robotics Primer is a rare combinationlively and enthusiastic as well as authoritative, written by one of the leaders of the field. If this doesn"t excite a new generation of roboticists, I'm not sure what will! A remarkable contribution: a fun, straightforward, and gentle introduction to robotics, that is accessible to virtually anyone interested in gaining such knowledge. I know of no better text to bootstrap aspiring roboticists into the language, knowledge, and culture of the field. (Ronald C. Arkin, Regents Professor & Director of the Mobile Robot Laboratory, Georgia Institute of Technology)This book is a very enthusiastic introduction to robotics. It is an excellent textbook for anyone designing or taking an undergraduate introductory course, and great reading for those interested in learning about robots. (Daniela Rus, Department of Electrical Engineering & Computer Science, MIT)

Maja J. Mataric is Professor of Computer Science and Neuroscience and Director of the Center for Robotics and Embedded Systems at the University of Southern California, where she is also Codirector of the Robotics Research Lab and Senior Associate Dean for research in the Viterbi School of Engineering.

This is an excellent book for beginners in the field of robotics and robotic programming. I teach an introductory class in robotic programming and use this book. While there are no sample programs or even much actual code, this book is excellent at presenting complex ideas in a simple way. Those just getting into the field are presented with concepts at a high level, which help place into context their actual programs. For example, when the book covers the topic of behavior based robots it

helps my students understand how their simple robot programs (running a Lego robot) fit into the much broader field of robotics. The concepts in this book may be simple to those experienced in the field, but the book successfully casts a lot of complex theory into clearly understandable ideas.On the other end of the spectrum, someone that may already be familiar with the academic literature and research can profit from this book because abstract ideas are presented in a simple manner. This can spark additional ideas because we often become so enmeshed in minutia we fail to step back and look at some of the fundamental ideas upon which our "minutia" are based. This book is a quick read for experts but is still a very good broad survey of the field. The bonus is that the book is not too expensive.Because the field of robotics is changing so fast a book containing specific pieces of technology or code will likely be out of date within a year. I would rather have a book that presents a survey of the fundamental concepts behind the technology and code. That type of book goes out of date much more slowly. Don't let the publication date keep you from purchasing this book.Good book. Get it.

I enjoyed reading this book but I was looking for a book that more specifically discussed programming robots. The book takes such a general approach to that subject that I can't imagine it could be very useful to anyone.I will give the author some benefit of doubt as I did not perform any of the experiments because you need your own robot, such as an accessorized iRobot Create, in order to perform the experiments and exercises. A robot and controllers can easily set you back $300-$500.The book does not actually get down to the fundamentals of designing and fabricating your own robot although it devotes adequate space to the discussion of the advantages of different sorts of motor drives and sensors.It was disappointing to me that author carefully distinguishes between a physical robot and a computer emulation and devotes almost no time to robot simulations.Most chapters have suggestions for further reading. If you don't need this book for a class, I'd suggest that you borrow a library copy, glance through it, and jot down some of those references and buy them instead.

Based on years of course notes, Dr. Mataric has written a wonderfully accessible introduction to and survey of the entire field of robotics. Much collective wisdom from the history of this emerging discipline is contained in these pages. And the on-line workbook, with hands-on programming exercises, is a huge plus. Nothing else like this book exists in the robotics literature.However, the reader should be warned that the book is rife with misprints. It is as if the book were not edited at all. MIT Press should be embarrassed at letting this book out the door in the state that it is in. Let's

hope later printings correct the legion of errors. Were it not for the constant misprints, I would have given it 5 stars.

Excellent price, fast shipping and the book condition is excellent. For sure I do recommend for any student who is willing to buy good quality product and affordable price.

School Textbook

I used this book for an introduction to robotics class that I taught this summer. It was quite helpful. I like the organization.

This book would probably be OK for a middle schooler. It briefly introduces very basic concepts in an often too cloying manner. It reads more as an entertainment kind of book than a useful technical reference. If you're someone who knows nothing about electronics or robots, and wants to know if they might be interested in getting started, this might be an OK book for you. If you're looking for a solid reference that you can come back to and help you solve actual robotics problems, look elsewhere.If the book didn't call itself a primer, I would rate it lower. Even for an introduction, it's just too light on content and too heavy on cloying analogies for my taste.

Great book. Arrived on time. Thanks!!!

Introduction to Autonomous Mobile Robots (Intelligent Robotics and Autonomous Agents series) The Robotics Primer (Intelligent Robotics and Autonomous Agents series) Evolutionary Robotics: The Biology, Intelligence, and Technology of Self-Organizing Machines (Intelligent Robotics and Autonomous Agents) Robotics: Everything You Need to Know About Robotics From Beginner to Expert (Robotics 101, Robotics Mastery) Cool Colleges: For the Hyper-Intelligent, Self-Directed, Late Blooming, and Just Plain Different (Cool Colleges: For the Hyper-Intelligent, Self-Directed, Late Blooming, & Just Plain Different) Robots and Robotics High Risk Robots Macmillan Library (Robots and Robotics - Macmillan Library) Robotics, Vision and Control: Fundamental Algorithms in MATLAB (Springer Tracts in Advanced Robotics) Robotics, Vision and Control: Fundamental Algorithms In MATLAB, Second Edition (Springer Tracts in Advanced Robotics) Robotics: Discover The Robotic Innovations Of The Future - An Introductory Guide to Robotics Robotics: Everything You Need to Know About Robotics from Beginner to Expert The Robotics Club: Teaming Up to

Build Robots (Robotics (Library)) TAZ: The Temporary Autonomous Zone, Ontological Anarchy, Poetic Terrorism (Autonomedia New Autonomy Series) Autonomous Maintenance for Operators (The Shopfloor Series) Aircraft Control and Simulation: Dynamics, Controls Design, and Autonomous Systems Ethereum: Blockchains, Digital Assets, Smart Contracts, Decentralized Autonomous Organizations Tic Tac Tome: The Autonomous Tic Tac Toe Playing Book WP205 - Bastien Piano Basics - Theory - Primer Level (Primer Level/Bastien Piano Basics Wp205) WP210 - Bastien Piano Basics - Performance - Primer Level (Primer Level/Bastien Piano Basics Wp210) American Public Education Law Primer (Peter Lang Primer) Primer of Biostatistics, Seventh Edition (Primer of Biostatistics (Glantz)(Paperback))