Título:

Autor:

Precio: $1076.40

Editorial:

Año: 2000

Tema:

Edición: 1ª

Sinopsis

ISBN: 9780262133838

This text covers all the material needed to understand the principles behind the AI approach to robotics and to program an artificially intelligent robot for applications involving sensing, navigation, planning, and uncertainty. Robin Murphy is extremely effective at combining theoretical and practical rigor with a light narrative touch. In the overview, for example, she touches upon anthropomorphic robots from classic films and science fiction stories before delving into the nuts and bolts of organizing intelligence in robots.Following the overview, Murphy contrasts AI and engineering approaches and discusses what she calls the three paradigms of AI robotics: hierarchical, reactive, and hybrid deliberative/reactive. Later chapters explore multiagent scenarios, navigation and path-planning for mobile robots, and the basics of computer vision and range sensing. Each chapter includes objectives, review questions, and exercises. Many chapters contain one or more case studies showing how the concepts were implemented on real robots. Murphy, who is well known for her classroom teaching, conveys the intellectual adventure of mastering complex theoretical and technical material.An Instructor's Manual including slides, solutions, sample tests, and programming assignments is available to qualified professors who are considering using the book or who are using the book for class use.