Robot Shaping: An Experiment in Behavior Engineering (Hardback)

By Marco Dorigo, Marco Colombetti

MIT Press Ltd, United States, 1997. Hardback. Condition: New. Language: English . Brand New Book. foreword by Lashon Booker To program an autonomous robot to act reliably in a dynamic environment is a complex task. The dynamics of the environment are unpredictable, and the robots sensors provide noisy input. A learning autonomous robot, one that can acquire knowledge through interaction with its environment and then adapt its behavior, greatly simplifies the designer s work. A learning robot need not be given all of the details of its environment, and its sensors and actuators need not be finely tuned. Robot Shaping is about designing and building learning autonomous robots. The term shaping comes from experimental psychology, where it describes the incremental training of animals. The authors propose a new engineering discipline, behavior engineering, to provide the methodologies and tools for creating autonomous robots. Their techniques are based on classifier systems, a reinforcement learning architecture originated by John Holland, to which they have added several new ideas, such as mutespec, classifier system energy, and dynamic population size. In the book they present Behavior Analysis and Training (BAT) as an example of a behavior engineering methodology.

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Reviews

Extensive guideline! Its this sort of excellent read. it had been writtern quite properly and helpful. You can expect to like just how the writer create this book.
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This book will never be straightforward to start on reading through but quite enjoyable to learn. Better then never, though i am quite late in start reading this one. Your lifestyle span will probably be convert once you complete reading this publication.
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