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Titolo	Plan-Based Control of Robotic Agents [[electronic resource]] : Improving the Capabilities of Autonomous Robots // by Michael Beetz
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Collana	Lecture Notes in Artificial Intelligence ; ; 2554
Disciplina	629.892
Soggetti	Robotics Automation Artificial intelligence Computer science Computer communication systems Special purpose computers Control engineering Mechatronics Robotics and Automation Artificial Intelligence Computer Science, general Computer Communication Networks Special Purpose and Application-Based Systems Control, Robotics, Mechatronics
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Overview of the Control System -- Plan Representation for Robotic Agents -- Probabilistic Hybrid Action Models -- Learning Structured Reactive Navigation Plans -- Plan-Based Robotic Agents -- Conclusions.
Sommario/riassunto	Robotic agents, such as autonomous office couriers or robot tourguides, must be both reliable and efficient. Thus, they have to flexibly interleave their tasks, exploit opportunities, quickly plan their course of action, and, if necessary, revise their intended activities. This

book makes three major contributions to improving the capabilities of robotic agents: - first, a plan representation method is introduced which allows for specifying flexible and reliable behavior - second, probabilistic hybrid action models are presented as a realistic causal model for predicting the behavior generated by modern concurrent percept-driven robot plans - third, the system XFRMLEARN capable of learning structured symbolic navigation plans is described in detail.
