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Descrizione fisica	1 online resource (X, 301 p.) : 77 illus., 72 illus. in color
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Nota di contenuto	Echinoderminspired soft robotic systems for locomotion and grasping -- Fabrication and design of an octopusinspired soft robot -- Dynamics and control of a shinspired propulsion in an underwater vehicle -- Fluidic actuation in articial muscles for underwater applications.
Sommario/riassunto	This book includes representative research from the stateofheart in the emerging eld of soft robotics, with a special focus on bioinspired soft robotics for underwater applications. Topics include novel materials, sensors, actuators, and system design for distributed estimation and control of soft robotic appendages inspired by the octopus and seastar. It summarizes the latest findings in an emerging eld of bioinspired soft robotics for the underwater domain, primarily drawing from (but not limited to) an ongoing research program in bioinspired autonomous systems sponsored by the Oce of Naval Research. The program has stimulated crossdisciplinary research in biology, material science, computational mechanics, and systems and control for the purpose of creating novel robotic appendages for maritime applications. The book collects recent results in this area.

Describes stateoftheart in bioinspired soft robotics for underwater domain Presents opportunities for new researchers to become exposed to this eld Contains a collection of cuttingedge crossdisciplinary research in one monograph Illustrates modeling, design, and implementation of soft robotics systems.
