

1. Record Nr.	UNINA9910299495403321
Titolo	Robotic Fabrication in Architecture, Art and Design 2014 // edited by Wes McGee, Monica Ponce de Leon
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2014
ISBN	3-319-04663-2
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (399 p.)
Disciplina	005.437 4019 620 629.892
Soggetti	Robotics Automation User interfaces (Computer systems) Robotics and Automation User Interfaces and Human Computer Interaction
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Preface.- Foreword by the Association -- Scientific Papers -- Projects -- Workshops -- Industry Papers.
Sommario/riassunto	Robotic automation has become ubiquitous in the modern manufacturing landscape, spanning an overwhelming range of processes and applications-- from small scale force-controlled grinding operations for orthopedic joints to large scale composite manufacturing of aircraft fuselages. Smart factories, seamlessly linked via industrial networks and sensing, have revolutionized mass production, allowing for intelligent, adaptive manufacturing processes across a broad spectrum of industries. Against this background, an emerging group of researchers, designers, and fabricators have begun to apply robotic technology in the pursuit of architecture, art, and design, implementing them in a range of processes and scales. Coupled with computational design tools the technology is no longer relegated to the repetitive production of the assembly line, and is

instead being employed for the mass-customization of non-standard components. This radical shift in protocol has been enabled by the development of new design to production workflows and the recognition of robotic manipulators as “multi-functional” fabrication platforms, capable of being reconfigured to suit the specific needs of a process. The emerging discourse surrounding robotic fabrication seeks to question the existing norms of manufacturing and has far reaching implications for the future of how architects, artists, and designers engage with materialization processes. This book presents the proceedings of Rob|Arch2014, the second international conference on robotic fabrication in architecture, art, and design. The work contained traverses a wide range of contemporary topics, from methodologies for incorporating dynamic material feedback into existing fabrication processes, to novel interfaces for robotic programming, to new processes for large-scale automated construction. The latent argument behind this research is that the term ‘file-to-factory’ must not be a reductive celebration of expediency but instead a perpetual challenge to increase the quality of feedback between design, matter, and making. .

---