Record Nr. UNINA9910373930403321 Autore Munro Deborah **Titolo** DIY MEMS: Fabricating Microelectromechanical Systems in Open Use Labs / / by Deborah Munro Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-33073-7 Edizione [1st ed. 2019.] 1 online resource (xvi, 188 pages): illustrations Descrizione fisica 620.5 Disciplina Soggetti Electronic circuits **Electronics** Microelectronics Biomedical engineering Nanotechnology Industrial engineering Production engineering **Electronic Circuits and Devices** Electronics and Microelectronics, Instrumentation Biomedical Engineering/Biotechnology Nanotechnology and Microengineering Industrial and Production Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Nota di contenuto Introduction -- National Nanotechnology Coordinated Infrastructure (NNCI) -- Working in a Cleanroom -- MEMS Fabrication Process --Equipment -- Tools and Supplies -- Designing for MEMS -- Soft Materials -- Imaging & Metrology -- Testing -- Transporting --Regulatory Approval Pathways -- Locations of the Facilities -- Meet the Lab Directors -- Collaborating with a Facility -- International Options -- Intellectual Property -- Getting Project Assistance -- Costs --Taking the First Steps.

This book describes the future of microscopically small medical devices and how to locate a lab to start conducting your own do-it-yourself

Sommario/riassunto

microelectromechanical systems (MEMS) research in one of the many national, international, government, and other regional open use facilities, where you can quickly begin designing and fabricating devices for your applications. You will learn specific, tangible information on what MEMS are and how a device is fabricated, including what the main types of equipment are in these facilities. The book provides advice on working in a cleanroom, soft materials, collaboration, intellectual property and privacy issues, regulatory compliance, and how to navigate other issues that may arise. This book is primarily aimed at researchers and students who work at universities without MEMS facilities, and small companies who need access to MEMS resources. Introduces the MEMS fabrication processes and equipment Explains how to take the first steps - where to start and get initial advice and further assistance Includes a global list of MEMS facilities and resources with contact information.