1. Record Nr. UNINA9910726281303321

Autore	Fox Jennifer <1934->
Titolo	Beginning Breadboarding : Physical Computing and the Basic Building Blocks of Computers / / by Jennifer Fox
Pubbl/distr/stampa	Berkeley, CA : , : Apress : , : Imprint : Apress, , 2023
ISBN	9781484292181 1484292189
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (502 pages)
Collana	Maker Innovations series
Disciplina	929.374
Soggetti	Makerspaces Maker
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Chapter 1: Introduction, Supplies, and Circuit Diagrams -- Chapter 2: Paper Circuits -- Chapter 3: Breadboards and Outputs -- Chapter 4: Controlling Electricity (Passive Components) -- Chapter 5: Interacting with Electricity Using Buttons and and Switches (Electromechanical Components) -- Chapter 6: Encoding Information into Electricity (Logic Gates, Part 1) -- Chapter 7: Sensors! -- Chapter 8: Transistors: The Building Blocks of Computers -- Chapter 9: Logic Gates, Part 2 -- Chapter 10: A Simple Computer -- Appendix: Bonus Projects.
Sommario/riassunto	Using fun, hands-on projects, learn what a circuit is and how it works! This book uses a common tool in electronics, the breadboard, to build your way to an understanding of circuits, circuit components, and the basics of computers. You'll master current, voltage, and resistance. With that you can control outputs like lights and motors as well as inputs like switches and sensors. You'll also discover the difference between analog and digital electrical signals while studying both electricity and computers. Dabble in electrical engineering, whether you are interested in building things with electronics or learning to program simple, physical systems. Build your own electronic projects to learn how electronics work. And also how computers store information and process requests. You'll work with simple, low-cost tools like conductive tape before developing up to working with breadboards and

discovering the components to build more complex systems. With Beginning Breadboarding, makers of all ages and backgrounds can learn to build real-life physical computing systems and projects. Have fun building something with tangible results while learning all the theory you need to make new projects of your own! You will: Rapidly prototype circuits with breadboards Use common components to make simple electronic devices Share electrical energy and control the flow of electricity through components.