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| ISBN | 1-5231-5077-7<br>1-4842-6778-8 |
| Edizione | [1st ed. 2021.] |
| Descrizione fisica | 1 online resource (505 pages) |
| Collana | Technology in Action Series |
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| Soggetti | Makerspaces<br>Maker |
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| Nota di contenuto | Chapter 1: Button Control of LED Illumination -- Chapter 2: Power Control Monitoring and Creation of Dedicated Graphical User Interfaces -- Chapter 3: Introduction to Scripting -- Chapter 4: Data Entry from the Screen -- Chapter 5: Digital Signal Concepts and Digital Signal Outputs -- Chapter 6: Analog or Digital Conversions for Input and Output -- Chapter 7: Variable Intensity and Power Controls -- Chapter 8: Counting Events and Timing -- Chapter 9: Graphical Data Recording -- Chapter 10: Current Control -- Chapter 11: Microcontrollers and Serial Communications.-. |
| Sommario/riassunto | It’s a simple question, but do you know how to take basic measurements with your Arduino, Raspberry Pi or PC? A lot of the times, you know how to use microcontrollers, sensors, and programming skills to collect data. This book takes it one step further to teach you how to transform your PC, Raspberry Pi, and Arduino to a device that can measure, collect, and analyze data. You'll begin from a simple starting point reviewing the basics of electronics and digital and analog concepts. As you advance through this book, you’ll work through 10 exercises to develop a working knowledge of microcontroller properties and graphical data presentation concepts, basic electronic technology, and the fundamentals of controlling and acquiring data. Arduino in Science is your guide to monitoring and |

measuring physical – chemical parameters with integrated circuitry and physical computational systems. You will: Review fundamental human machine interfacing with supervisory control and data acquisition software Examine timing, counting, and serial communication concepts Adapt microcontrollers to perform sophisticated functions Understand collection and presentation of data.