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Nota di contenuto	Part 1: Smart -- Chapter 1: A Brief History of Smart Things -- Chapter 2: The DYI Smart Era -- Chapter 3: Beyond the Hype: Smart Today and Tomorrow -- Part 2: Smart Hardware -- Chapter 4: EE for the total n00b -- Chapter 5: Advanced Circuit Components -- Chapter 6: Circuit Building Lab -- Part 3: Smart Software -- Chapter 7: Touch, Taste, See, Hear, Smell -- Chapter 8: The Small Computer -- Chapter 9: Smart Device Building Lab -- Part 4: Performance -- Chapter 10: Smart System Building Lab -- Chapter 11: Your First Good PCB.
Sommario/riassunto	With the rapid development of the Internet of Things, a gap has emerged in skills versus knowledge in an industry typically segmented into hardware versus software. Practitioners are now expected to possess capabilities across the spectrum of hardware and software skills to create these smart devices. This book explores these skill sets in an instructive way, beginning at the foundations of what makes “smart” technology smart, addressing the basics of hardware and hardware design, software, user experiences, and culminating in the considerations and means of building a fully formed smart device, capable of being used in a commercial capacity, versus a DIY project.

Practical Smart Device Design and Construction includes a set of starter projects designed to encourage the novice to build and learn from doing. Each project also includes a summary guiding you where to go next, and how to tie the practical, hands-on experience together with what they have learned to take the next step on their own. You will: Review practical smart device design and construction considerations such as size, power consumption, wiring needs, analog vs digital, and sensor types and uses Examine methods and tools for creating your own designs such as circuit board designs, and wiring and prototyping tools Receive hands-on guidance while building your own prototype projects Determine software needs for speed versus ease, security, and basics of programming and data analytics for smart devices.