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Nota di contenuto	Front Cover; Apple I Replica Creation: Back to the Garage; Copyright Page; Contents; Foreword; Chapter 1. The History of the Apple I; Introduction; The Apple I; The Apple I Owners Club; Apple I Pioneer Interviews; Summary; Chapter 2. Tools and Materials; Introduction: Tools You'll Need; Multimeter; Logic Probe; Breadboard; Wire-Wrap Tools; Soldering Iron and Materials; Power Supply; TTL Chips; Circuit Boards and Software Tools; Chip Pullers and Straighteners; Keyboard and Monitor; Ambience; Chapter 3. Digital Logic; Introduction; Breadboarding; Electricity; Gates; Circuits with Algebra Latches and Flip-FlopsWhat Is Data?; A Few More Chips; Summary; Chapter 4. Building the Replica; Introduction; Learning to Solder; Assembling the Replica I; Serial I/O Board; Using McCAD EDS SE; Summary; Chapter 5. Programming in BASIC; Introduction; Setting Up BASIC; Hello World; Input , Variables, Strings; Math; FOR/NEXT; IF/THEN; GOSUB; Arrays; Strings, In Depth; PEEK and POKE; The CALL Command; Commands; Error Codes; Richard III: Interactive Fiction; Summary; Chapter 6. Programming in Assembly; Introduction; Using the Monitor; Setting Up the Assembler; Registers; Hello World TV TypewriterX and Y; Memory Addressing; Interacting with Memory; Printing Strings; String Subroutines; Bit Representation; Using the Stack;

Bit Manipulation; Math Calculations; Summary; Chapter 7. Understanding the Apple I; Introduction; Bus; Clock; Processor; Memory; I/O with the 6821; Keyboard In; Video Out; Summary; Appendix A. ASCII Codes; Appendix B. Operation Codes and Status Register; Appendix C. OpCode Matrix; Appendix D. Instructions by Category; Load and Store; Arithmetic; Increment and Decrement; Shift and Rotate; Logic; Compare and Test Bit; Branch; Transfer; Stack Subroutines and JumpSet and Clear; Miscellaneous; Appendix E. Hacking Macintosh; Compubrick SE; Building a UFO Mouse; Adding Colored Skins to the Power Macintosh G4 Cube; Other Hacks and Resources; Appendix F. Electrical Engineering Basics; Introduction; Fundamentals; Basic Device Theory; Microprocessors and Embedded Systems; Soldering Techniques; Common Engineering Mistakes; Web Links and Other Resources; Syngress Publishing License Agreement; Index

Sommario/riassunto

The perfect book for computer hobbyists, Apple I Replica Creation: Back to the Garage is sure to equally appeal both to kids with gift certificates looking for fun on a snowy January day as well as to adults eager to learn the basics of simple microcomputer design. The book will begin by teaching readers the basics of computer processing by discussing the functionality of the 9 chip on the Apple I motherboard. From there, readers will be taught the basics of memory access and video input and output. Readers then learn how to assemble the various hardware components into a fully functioning App
