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Soggetti Programmable controllers

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Note generali Includes index.

Nota di contenuto Front Cover; AVR: An Introductory Course; Copyright Page; Contents;

Acknowledgements; Preface; Chapter 1. Introduction; Short bit for PIC users; Number systems; Adding in binary; Negative numbers; An 8-bit Flash microcontroller; Initial steps; Choosing your model; Flowchart; Writing; Assembling; Registers; Instructions; Program template; Chapter 2. Basic Operations with AT90S1200 and Tiny12; Program A: LED on; Programs B and C: Push Button; Programs D and E: Counter; Program F: Chaser; Program G: Counter v.3.0; Program H: Traffic Lights; Program I:

Logic Gate Simulator

Major Program J: Frequency Counter Chapter 3. Introducing the rest of the family; Chapter 4. Intermediate Operations; Interrupts; Program K:

Reaction Tester; Program L: 4-bit analogue to digital converter;

Program M: Voltage Inverter; Major Program N: Melody Maker; Chapter 5. Advanced Operations; PWM- Pulse Width Modulation; UART; Program O: Keyboard Converter; Final Program P: Computer Controlled Robot; Conclusions; Appendix A. Specifications for some PICs; Appendix B. Pin layouts of various AVRs; Appendix C. Instruction overview; Appendix D.

Instruction glossary

Appendix E. Interrupt vector tablesAppendix G. ASCII conversion; Appendix H. When all else fails, read this; Appendix I. Contacts and further reading; Appendix J. Sample programs; Answers to exercises; Index

Sommario/riassunto

This book includes 15 programming and constructional projects, and covers the range of AVR chips currently available, including the recent Tiny AVR. No prior experience with microcontrollers is assumed. John Morton is author of the popular PIC: Your Personal Introductory Course, also published by Newnes.*The hands-on way of learning to use the Atmel AVR microcontroller*Project work designed to put the AVR through its paces*The only book designed to get you up-and-running with the AVR from square one