1. Record Nr.   UNINA9910349523003321

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   Titolo   Raspberry Pi Assembly Language Programming : ARM Processor Coding
                      / / by Stephen Smith

   Pubbl/distr/stampa Berkeley, CA : , : Apress : , : Imprint : Apress, , 2019

   ISBN   9781484252871
                      148425287X

   Edizione   [1st ed. 2019.]

   Descrizione fisica 1 online resource (380 pages) : illustrations

   Collana   Technology in action

   Disciplina   794.81526

   Soggetti   Makerspaces
                      Maker

   Lingua di pubblicazione Inglese

   Formato   Materiale a stampa

   Livello bibliografico Monografia

   Nota di contenuto Chapter 1: Getting Started -- Chapter 2: Loading and Adding --
                      Chapter 3: Tooling Up -- Chapter 4: Controlling Program Flow --
                      Chapter 5: Thanks for the Memories -- Chapter 6: Functions and the
                      Stack -- Chapter 7: Linux Operating System Services -- Chapter 8:
                      Programming GPIO Pins -- Chapter 9: Interacting with C and Python --
                      Chapter 10: Multiply, Divide and Accumulate -- Chapter 11: Floating
                      Point Operations -- Chapter 12: Neon Coprocessor -- Chapter 13:
                      Conditional Instructions and Optimizing Code -- Chapter 14: Reading
                      and Understanding Code -- Chapter 15: Thumb Code -- Chapter 16:
                      64-Bits -- Appendix A: The ARM Instruction Set -- Appendix B: Linux
                      System Calls -- Appendix C: Binary Formats -- Appendix D: Assembler
                      Directives -- Appendix E: ASCII Character Set.

   Sommario/riassunto Gain all the skills required to dive into the fundamentals of the
                      Raspberry Pi hardware architecture and how data is stored in the Pi's
                      memory. This book provides you with working starting points for your
                      own projects while you develop a working knowledge of Assembly
                      language programming on the Raspberry Pi. You'll learn how to
                      interface to the Pi's hardware including accessing the GPIO ports. The
                      book will cover the basics of code optimization as well as how to inter-
                      operate with C and Python code, so you'll develop enough background
                      to use the official ARM reference documentation for further projects.
                      With Raspberry Pi Assembly Language Programming as your guide

you'll study how to read and reverse engineer machine code and then then apply those new skills to study code examples and take control of your Pi's hardware and software both.