

Errata of
Embedded Systems with ARM Cortex-M Microcontrollers in Assembly Language and C
Second Edition
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Thank you all for providing me feedbacks and corrections!

Chapter 1. See a Program Running

- Page 11, Figure 1-10, the NAND gates have active-low set and reset but the truth table uses active-high signals.
- Page 26, Question 10, “Thumb of rule” should be “Rule of thumb”.

Chapter 2. Data Representation

- Page 53, Question 4, “approve” should be “prove”.
- Page 53, in Question 7, 8, 9, “the same format as Question 5” should be “the same format as Question 6”.

Chapter 3. ARM Instruction Set Architecture

Chapter 4. Arithmetic and Logic

- Page 86, Example 4-2, “C = N ^ Mask; // C = 0b10010111 = 0x97” should be “C = N ^ Mask; // C = 0b10010110 = 0x96”
- Page 95, Question 2, item 5, “BFI r3, r1, ~~r0~~” should be “BFI r3, r1, #4, #8”.

Chapter 5. Load and Store

Chapter 6. Branch and Conditional Execution

- Page 131, Exercise Question 11. The code has a bug. If a and b are minimum, c is mistakenly returned.

Original code	Corrected Code
<pre>if (a < b && a < c) { min = a; } else if (b < a && b < c) { min = b; } else { min = c; }</pre>	<pre>if (a ≤ b && a < c) { min = a; } else if (b < a && b < c) { min = b; } else { min = c; }</pre>

Chapter 7. Structured Programming

Chapter 8. Subroutines

Chapter 9. 64-bit Data Processing

Chapter 10. Mixing C and Assembly

Chapter 11. Interrupt

Chapter 12. Fixed-point and Floating-point Arithmetic

- In Example 12-3,
ASRS r3, r2, #31 ; [~~r4:r3~~ r3:r2] stores sign extended B
BL division_64_bits ; Take four input register (r0:r1, ~~r4:r3~~ r3:r2)

Chapter 13. Instruction Encoding and Decoding

Chapter 14. Generic-purpose I/O

Chapter 15. General-purpose Timers

Chapter 16. Stepper Motor Control

Chapter 17. Liquid-crystal Display (LCD)

- Page 407, last paragraph, “The duty ratio of this LCD is **4**” should be “The duty ratio of this LCD is **1/4**”
- Page 409, Table 17-2, in the first row, the name of bit 24 should be **3B**, instead of 3A.
- Page 410, Figure 17-7, the arrow of the right branch of two decision block is incorrect.
- Page 413, first sentence, “encoding five letters (A-**Z**)” should be “encoding five letters (A-**E**)”

Chapter 18. Real-time Clock (RTC)

Chapter 19. Direct Memory Access (DMA)

Chapter 20. Analog-to-Digital Converter

Chapter 21. Digital-to-Analog Converter

Chapter 22. Serial Communication Protocols

Chapter 23. Multitasking

Chapter 24. Digital Signal Processing