

assembler and C languages. The book concludes with a gallery of games and other creative student final projects. Appendices cover analog and digital oscilloscope usage, a Verilog primer, and notes on transmission lines.

With more than 1100 pages, *Learning the Art of Electronics* is a massive and ambitious text. In any undertaking so large, typos abound, but an active errata website is gathering corrections for subsequent printings. The book retains many of the handsomely drawn circuits of the original *The Art of Electronics* and is much more comprehensive. However, some attention-getting analogies—for example, figure 4N.12, which describes a “rose colored lens” in terms of a stout girl and a scrawny boy—set the wrong tone and should have been retired in 1989. The editors, I suspect, know this; both the caption and a footnote invite the reader to interchange genders, and yet the humor relies on body shaming either way.

Instructors will want to know if *Learning the Art of Electronics* can stand alone as an undergraduate lab text. The answer is yes. While the book does cross-reference *The Art of Electronics*, it “means to be self-sufficient,” and it achieves that goal. I would lean toward path 2 for the microcontroller labs, given the low-cost, high-pin-count microcontrollers and compilers that can be readily substituted to streamline final projects. In no way, however, should that recommendation be considered a criticism of Hayes’s fine introduction to electronics.

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