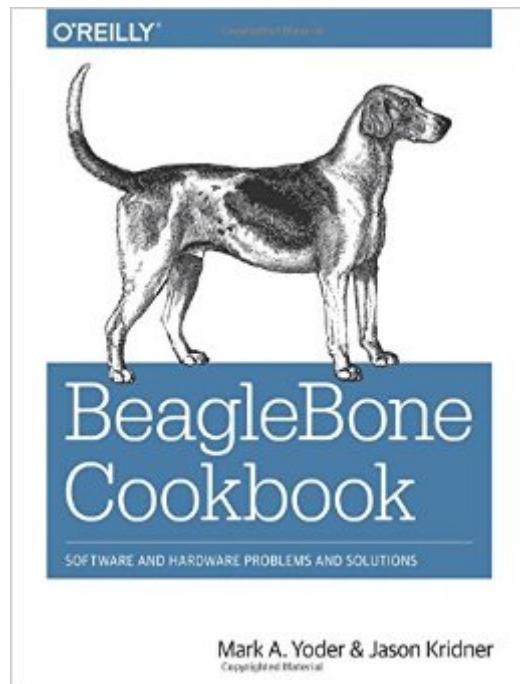# BeagleBone Cookbook: Software And Hardware Problems And Solutions

## Synopsis

BeagleBone is an inexpensive web server, Linux desktop, and electronics hub that includes all the tools you need to create your own projectsâ "whether itâ ™s robotics, gaming, drones, or software-defined radio. If youâ ™re new to BeagleBone Black, or want to explore more of its capabilities, this cookbook provides scores of recipes for connecting and talking to the physical world with this credit-card-sized computer.All you need is minimal familiarity with computer programming and electronics. Each recipe includes clear and simple wiring diagrams and example code to get you started. If you donâ ™t know what BeagleBone Black is, you might decide to get one after scanning these recipes.Learn how to use BeagleBone to interact with the physical worldConnect force, light, and distance sensorsSpin servo motors, stepper motors, and DC motorsFlash single LEDs, strings of LEDs, and matrices of LEDsManage real-time input/output (I/O)Work at the Linux I/O level with shell commands, Python, and CCompile and install Linux kernelsWork at a high level with JavaScript and the BoneScript libraryExpand BeagleBoneâ ™s functionality by adding capesExplore the Internet of Things

## Book Information

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## Customer Reviews

First, I must confess that although I read the review by  Customer before I bought the book, not being a Linux expert and thinking that his/her note about libsoc was just some arcane Linux issue, it didn't register. Well, I experienced the problem first hand when I tried to install libsoc in example 5-4

on p 177. Although I made a hokey hack work around, I learned that the correct solution is to get version 1.11.6 of Automake. This issue is known, documented, and now closed. See below. By the way, libsoc makes using C easy, and C code runs faster than BoneScript.https://github.com/jackmitch/libsoc/issues/27Getting back to book, just the first chapter alone makes it worth the price. It will get you started from scratch, and you will be able to do things after a few pages. (Part of the credit goes to Beagleboard.org and TI for the clever tools they created.) By the end of the chapter you will learn how to create an SD card and load the Flash by following detailed, explicit, easy-to-understand instructions, a big time saver!I read the book chapter by chapter and tried some of the examples. The format of each recipe is: Problem statement, Solution, and Discussion. The Problem statement is short, a couple of lines or so. The Solution tells what hardware you need, part numbers, and where it may be obtained. Then it tells what software you need to install and step by step instructions on how to do it. Lastly, is the code. In the cases where the code requires elaboration, explanatory text mapped to code lines is provided. Lastly, there is a Discussion section related to the example, either directly or tangentially. The Discussions generally make good reading, even if you are not interested in implementing the example.

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