Software prerequisite

Regarding the software you should have a little knowledge of a non graphical text editor as vi, emacs or nano. Even if you can connect an LCD display, a keyboard and a mouse directly to embedded kits and then use the graphical interface, in this book we assume that you is able to do little modifications to text files by using a text only editor.
The host computer, that is the computer you will use to cross-compile the code and/or to manage your embedded systems, is assumed running a GNU/Linux based distribution. My host PC is running an Ubuntu 15.10 but you can use also a newer Ubuntu Long Term Support (LTS) or a Debian based system too with little modifications or you may use another GNU/Linux distribution but with a little effort from you mainly regarding the cross-compiling tools installation, libraries dependencies and packages management. Foreign systems such as Windows, MacOS or similar are *not* covered by this book due the fact you should not use low technology systems to develop code for high technology system!
Knowing how a C compiler works and how to manage a Makefile is required.
This book will present some kernel programming techniques but these must cannot be taken as a *kernel programming course*. You need a proper book for such topic! However each example is well documented and you will find several suggested resources. Regarding the kernel I'd like to state that the version used into this book is 4.4.x.

As a final note I suppose that you known how to connect a GNU/Linux based board on the Internet in order to download a package or a generic file.

Hardware prerequisite

In this book all code is developed for BeagleBone Black board *revision C*, for SAMA5D3 Xplained *revision A* or for the WandBoard *revision C1* (depending on the board used) but you can use an older revision without any issues, in fact the code is portable and it should work on other systems too (but the DTS files whose must be considered apart)!
Regarding the computer peripherals used in this book I reported in each chapter where I got the hardware and where you can buy it but, of course, you can decide to surf the Internet in order to find a better and cheaper offer. A note where to find the datasheet is also present.
You should not have any difficulties in order to connect the hardware presented in this book with the embedded kits since the connections are very simple and well documented. They don't require any particular hardware skills to be performed from you (apart knowing how to use a solder), however having a minor knowledge in electronics may help.