

Explore Intel Edison

By Harry Fairhead

Download Read Online

Explore Intel Edison By Harry Fairhead

The **Intel® Edison** is a remarkable device. It is as small as an embedded processor, but has enough power to allow it to be used as a tiny server. With its built-in support for WiFi, GPIO, I2C and SPI it is a capable IoT device. However, to make use of its unique qualities you have to take a step beyond its simple Arduino emulation and make use of it as itself, in its native mode. This means using the mini-breakout board and dealing with the fact that it is a 1.8V logic device and programming it using C to bring out its full power. Once you know how, this isn't as difficult as it seems at first. The rewards are well worth the effort. **Exploring Intel® Edison** starts with setting it up for the mini-breakout board. Then it looks at the advantages of choosing C as the language in which to program it, showing how to set up the Intel® System Studio IoT Edition IDE. Now we are ready to get building circuits and coding. Using the mraa library is the direct way to work with the GPIO lines and we need to master it before looking at ways of making things faster with memory-mapped I/O, achieving realtime facilities with Linux and using pulse width modulation. From here we are able to start connecting sensors - the HTU21D (I2C), DHT11/22 (custom) and the DS18B20 (1-wire). There are problems to overcome along the way – how to convert from 1.8V to work with higher voltages and how to support a 1-wire bus. The final circuit, to add AtoD, uses the SPI bus and implements a software emulation. Finally we look beyond mraa with a Linux-based approach to working with GPIO lines and how to set the GPIO mode.

Download Explore Intel Edison ...pdf

Read Online Explore Intel Edison ...pdf

Explore Intel Edison

By Harry Fairhead

Explore Intel Edison By Harry Fairhead

The **Intel® Edison** is a remarkable device. It is as small as an embedded processor, but has enough power to allow it to be used as a tiny server. With its built-in support for WiFi, GPIO, I2C and SPI it is a capable IoT device. However, to make use of its unique qualities you have to take a step beyond its simple Arduino emulation and make use of it as itself, in its native mode. This means using the mini-breakout board and dealing with the fact that it is a 1.8V logic device and programming it using C to bring out its full power. Once you know how, this isn't as difficult as it seems at first. The rewards are well worth the effort. **Exploring Intel® Edison** starts with setting it up for the mini-breakout board. Then it looks at the advantages of choosing C as the language in which to program it, showing how to set up the Intel® System Studio IoT Edition IDE. Now we are ready to get building circuits and coding. Using the mraa library is the direct way to work with the GPIO lines and we need to master it before looking at ways of making things faster with memory-mapped I/O, achieving realtime facilities with Linux and using pulse width modulation. From here we are able to start connecting sensors - the HTU21D (I2C), DHT11/22 (custom) and the DS18B20 (1-wire). There are problems to overcome along the way – how to convert from 1.8V to work with higher voltages and how to support a 1-wire bus. The final circuit, to add AtoD, uses the SPI bus and implements a software emulation. Finally we look beyond mraa with a Linux-based approach to working with GPIO lines and how to set the GPIO mode.

Explore Intel Edison By Harry Fairhead Bibliography

- Rank: #700740 in Books
- Published on: 2016-07-27
- Original language: English
- Dimensions: 9.25" h x .46" w x 7.50" l, .78 pounds
- Binding: Paperback
- 200 pages

Download Explore Intel Edison ...pdf

Read Online Explore Intel Edison ...pdf

Download and Read Free Online Explore Intel Edison By Harry Fairhead

Editorial Review

About the Author
Harry Fairhead has been working with microprocessors, and electronics in general, for many years. This is his first book since the best selling The 386/486 Personal Computer: A Power User's Guide. Harry is Editor of IoT-Programmer.com and a regular contributor to I-Programmer.info, where he covers all aspects of hardware.

Users Review

From reader reviews:

Scott Halpin:

Book is written, printed, or descriptive for everything. You can know everything you want by a publication. Book has a different type. We all know that that book is important point to bring us around the world. Next to that you can your reading ability was fluently. A publication Explore Intel Edison will make you to end up being smarter. You can feel much more confidence if you can know about almost everything. But some of you think in which open or reading a book make you bored. It's not make you fun. Why they could be thought like that? Have you looking for best book or ideal book with you?

Holly Hughes:

Your reading sixth sense will not betray a person, why because this Explore Intel Edison reserve written by well-known writer whose to say well how to make book which can be understand by anyone who else read the book. Written in good manner for you, still dripping wet every ideas and publishing skill only for eliminate your current hunger then you still doubt Explore Intel Edison as good book not only by the cover but also from the content. This is one publication that can break don't judge book by its deal with, so do you still needing another sixth sense to pick this specific!? Oh come on your reading through sixth sense already alerted you so why you have to listening to yet another sixth sense.

Carolyn Alcantara:

Don't be worry when you are afraid that this book will filled the space in your house, you could have it in e-book means, more simple and reachable. This Explore Intel Edison can give you a lot of buddies because by you looking at this one book you have point that they don't and make you more like an interesting person. This specific book can be one of one step for you to get success. This guide offer you information that maybe your friend doesn't understand, by knowing more than other make you to be great individuals. So , why hesitate? We need to have Explore Intel Edison.

Marivel Tye:

What is your hobby? Have you heard this question when you got students? We believe that that issue was given by teacher for their students. Many kinds of hobby, Everybody has different hobby. And also you know that little person including reading or as reading through become their hobby. You have to know that reading is very important and book as to be the issue. Book is important thing to provide you knowledge, except your personal teacher or lecturer. You see good news or update concerning something by book. A substantial number of sorts of books that can you go onto be your object. One of them is niagra Explore Intel Edison.

Download and Read Online Explore Intel Edison By Harry Fairhead #RKVX29SIA5L

Read Explore Intel Edison By Harry Fairhead for online ebook

Explore Intel Edison By Harry Fairhead Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Explore Intel Edison By Harry Fairhead books to read online.

Online Explore Intel Edison By Harry Fairhead ebook PDF download

Explore Intel Edison By Harry Fairhead Doc

Explore Intel Edison By Harry Fairhead Mobipocket

Explore Intel Edison By Harry Fairhead EPub