
Programming The Beaglebone Black Getting Started With Javascript And Bonescript

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Programming the BeagleBone

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BeagleBone Cookbook

Tools and Techniques for Building with Embedded Linux

BeagleBone Robotic Projects

Efficient Object-Oriented and Template Microcontroller Programming

Linux-Powered Electronic Projects With Python and JavaScript

Beaglebone Black

Programming the BeagleBone Black: Getting Started with JavaScript and BoneScript

Android for the BeagleBone Black

Programming the Intel Galileo: Getting Started with the Arduino -Compatible Development Board

Exploring BeagleBone

The BeagleBone Black Primer

Learning BeagleBone Python Programming

Crafting Electronic Systems with BeagleBone and BeagleBone Black

JavaScript Robotics

BeagleBone Black Programming using Matlab

Linux Kernel Programming

BeagleBone Essentials
Exploring BeagleBone
Mastering Embedded Linux Programming
Raspberry Pi 3 and Beaglebone Black for Engineers
A comprehensive guide to kernel internals, writing kernel modules, and kernel synchronization
Mastering Embedded Linux Programming
BeagleBone Black Programming by Example
BeagleBone: Creative Projects for Hobbyists
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Getting Started With
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NATHANIAL KENDALL

Using Yocto Project with BeagleBone Black Packt Publishing Ltd

BeagleBone is an inexpensive web server, Linux desktop, and electronics hub that includes all the tools you need to create your own projects—whether it’s robotics,

gaming, drones, or software-defined radio. If you’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 don’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 world Connect force, light, and distance sensors Spin servo motors, stepper motors, and DC motors Flash single LEDs, strings of LEDs, and matrices of LEDs Manage real-time input/output (I/O) Work at the Linux I/O level with shell commands, Python, and C Compile and install Linux kernels Work at a high level with JavaScript and the BoneScript library Expand BeagleBone’s

functionality by adding capes Explore the Internet of Things

Interfacing to the Real World with

Embedded Linux Packt Publishing Ltd

Elevate your skill levels in using and programming the Raspberry Pi 3 & BeagleBone Black! The Aim Of This Book Is To Equip You With All The Information And Knowledge You Need To Get Up And Running With Raspberry Pi 3 & BeagleBone Black As Soon As You Take It Out Of The Box... What You'll Learn In This Book? Comparing Raspberry Pi 3 & BeagleBone Black Raspberry Pi 3 Chapter 1: Introduction - Embedded Systems & The Raspberry Pi Chapter 2: Moving Toward A Smarter Internet - The Internet Of Things Chapter 3: Understanding The Raspberry Pi Versions & Features Chapter 4: Understanding The Raspberry Pi 3 Chapter 5: The Raspberry Pi 3 - Hardware Setup Chapter 6: Operating Systems Required For Raspberry Pi 3 Chapter 7: NOOBS for Raspberry Pi 3 Chapter 8: Connecting The Raspberry Pi 3 Chapter 9: Starting And Programming Raspberry Pi 3 Chapter 10: General Purpose Input Output (GPIO) Chapter 11: Understanding And Accessing Python 3 Programming Using Python 3

Chapter 12: Understanding And Accessing Mathematica Chapter 13: Programming In Mathematica Chapter 14: Accessing Camera In Raspberry Pi 3 Chapter 15: Raspberry Pi 3 - Getting Ahead With IOT Chapter 16: Conclusion - Sculpting Your Career In IOT BeagleBone Black Chapter 1: Introduction to Beaglebone Black Chapter 2: Products and Variants Chapter 3: Features of Beaglebone Black Chapter 4: Debian Chapter 5: Ways of interacting with Beaglebone Chapter 6: Connecting and controlling GPIO Chapter 7: Python Programming for BeagleBone Black Chapter 8: Project using BeagleBone Black This is an exclusive Raspberry Pi 3 & BeagleBone Black User Guide & Programming Guide. Use this book to get ahead in the world of Internet Of Things! Get Started With Raspberry Pi 3 & BeagleBone Black Today! *Programming the BeagleBone* PE Press Learn how to write high-quality kernel module code, solve common Linux kernel programming issues, and understand the fundamentals of Linux kernel internals Key Features Discover how to write kernel code using the Loadable Kernel Module framework Explore industry-grade

techniques to perform efficient memory allocation and data synchronization within the kernel Understand the essentials of key internals topics such as kernel architecture, memory management, CPU scheduling, and kernel synchronization Book Description Linux Kernel Programming is a comprehensive introduction for those new to Linux kernel and module development. This easy-to-follow guide will have you up and running with writing kernel code in next-to-no time. This book uses the latest 5.4 Long-Term Support (LTS) Linux kernel, which will be maintained from November 2019 through to December 2025. By working with the 5.4 LTS kernel throughout the book, you can be confident that your knowledge will continue to be valid for years to come. This Linux book begins by showing you how to build the kernel from the source. Next, you'll learn how to write your first kernel module using the powerful Loadable Kernel Module (LKM) framework. The book then covers key kernel internals topics including Linux kernel architecture, memory management, and CPU scheduling. Next, you'll delve into the fairly complex topic of

concurrency within the kernel, understand the issues it can cause, and learn how they can be addressed with various locking technologies (mutexes, spinlocks, atomic, and refcount operators). You'll also benefit from more advanced material on cache effects, a primer on lock-free techniques within the kernel, deadlock avoidance (with lockdep), and kernel lock debugging techniques. By the end of this kernel book, you'll have a detailed understanding of the fundamentals of writing Linux kernel module code for real-world projects and products. What you will learn

- Write high-quality modular kernel code (LKM framework) for 5.x kernels
- Configure and build a kernel from source
- Explore the Linux kernel architecture
- Get to grips with key internals regarding memory management within the kernel
- Understand and work with various dynamic kernel memory alloc/dealloc APIs
- Discover key internals aspects regarding CPU scheduling within the kernel
- Gain an understanding of kernel concurrency issues
- Find out how to work with key kernel synchronization primitives
- Who this book is for

This book is for Linux programmers beginning to find their way

with Linux kernel development. Linux kernel and driver developers looking to overcome frequent and common kernel development issues, as well as understand kernel internals, will benefit from this book. A basic understanding of Linux CLI and C programming is required.

Bad to the Bone Packt Publishing Ltd
 In-depth instruction and practical techniques for building with the BeagleBone embedded Linux platform
 Exploring BeagleBone is a hands-on guide to bringing gadgets, gizmos, and robots to life using the popular BeagleBone embedded Linux platform. Comprehensive content and deep detail provide more than just a BeagleBone instruction manual- you'll also learn the underlying engineering techniques that will allow you to create your own projects. The book begins with a foundational primer on essential skills, and then gradually moves into communication, control, and advanced applications using C/C++, allowing you to learn at your own pace. In addition, the book's companion website features instructional videos, source code, discussion forums, and more, to ensure that you have everything you need. The

BeagleBone's small size, high performance, low cost, and extreme adaptability have made it a favorite development platform, and the Linux software base allows for complex yet flexible functionality. The BeagleBone has applications in smart buildings, robot control, environmental sensing, to name a few; and, expansion boards and peripherals dramatically increase the possibilities. Exploring BeagleBone provides a reader-friendly guide to the device, including a crash course in computer engineering. While following step by step, you can: Get up to speed on embedded Linux, electronics, and programming Master interfacing electronic circuits, buses and modules, with practical examples Explore the Internet-connected BeagleBone and the BeagleBone with a display Apply the BeagleBone to sensing applications, including video and sound Explore the BeagleBone's Programmable Real-Time Controllers Updated to cover the latest Beagle boards, Linux kernel versions, and Linux software releases. Includes new content on Linux kernel development, the Linux Remote Processor Framework, CAN bus, IoT frameworks, and

much more! Hands-on learning helps ensure that your new skills stay with you, allowing you to design with electronics, modules, or peripherals even beyond the BeagleBone. Insightful guidance and online peer support help you transition from beginner to expert as you master the techniques presented in Exploring BeagleBone, the practical handbook for the popular computing platform.

Linux for Embedded and Real-time Applications John Wiley & Sons

Program your own BeagleBone Black projects! Build creative BeagleBone Black devices--no prior programming or electronics experience required. In Programming the BeagleBone Black, electronics guru Simon Monk explains essential application development methods through straightforward directions and cool downloadable examples. Discover how to navigate the board, write and debug code, use expansion capes, and control external hardware. Easy-to-follow plans show you how to wire up and program a Web-controlled roving robot and an e-mail notifier that lights an incandescent lamp. Set up the BeagleBone Black and explore

its features Connect to your computer via USB or Ethernet Use the BeagleBone Black as a stand-alone PC Write and execute BoneScript code Use JavaScript functions and timers Perform analog and digital I/O Work with expansion capes and modules Design Web interfaces that control electronics Assemble and program a robot and an e-mail notifier

Real-Time C++ Maker Media, Inc.

If you have some experience with the BeagleBone or similar embedded systems and want to learn more about security and privacy, this book is for you. Alternatively, if you have a security and privacy background and want to learn more about embedded development, this book is for you. You should have some familiarity with Linux systems and with the C and Python programming languages.

BeagleBone for Secret Agents Packt Publishing Ltd

BeagleBone Black is a low-cost, community-supported development platform for developers and hobbyists. This book helps you to get started with BeagleBone Black development using Python and Node.js with Debian Linux platform. Several demo samples are be

provided to accelerate your learning. The following is highlight topics in this book: * Preparing Development Environment * Basic Configuration * Serial Debugging * BeagleBone Black Programming Language * BeagleBone Black I/O Programming: GPIO, Analog I/O (PWM), UART, SPI, I2C/TWI * Arduino Development * Working with XBee IEEE 802.15.4 * OpenCV Development

BeagleBone Cookbook McGraw Hill Professional

If you are a programmer, scientist, or someone interested in modern computer technology that goes beyond the typical PC, then this book will show you the outstanding possibilities of cluster computing with modern embedded systems based on ARM architecture. Whether you need a high-speed or low-cost scalable cluster for simulations or want to try something new, this book is the right guide for you.

Tools and Techniques for Building with Embedded Linux "O'Reilly Media, Inc."

Learn to build amazing robotic projects using the powerful BeagleBone Black. About This Book Push your creativity to

the limit through complex, diverse, and fascinating projects Develop applications with the BeagleBone Black and open source Linux software Sharpen your expertise in making sophisticated electronic devices Who This Book Is For This Learning Path is aimed at hobbyists who want to do creative projects that make their life easier and also push the boundaries of what can be done with the BeagleBone Black. This Learning Path's projects are for the aspiring maker, casual programmer, and budding engineer or tinkerer. You'll need some programming knowledge, and experience of working with mechanical systems to get the complete experience from this Learning Path. What You Will Learn Set up and run the BeagleBone Black for the first time Get to know the basics of microcomputing and Linux using the command line and easy kernel mods Develop a simple web interface with a LAMP platform Prepare complex web interfaces in JavaScript and get to know how to stream video data from a webcam Find out how to use a GPS to determine where your sailboat is, and then get the bearing and distance to a new waypoint Use a wind sensor to sail

your boat effectively both with and against the wind Build an underwater ROV to explore the underwater world See how to build an autonomous Quadcopter In Detail BeagleBone is a microboard PC that runs Linux. It can connect to the Internet and run OSes such as Android and Ubuntu. You can transform this tiny device into a brain for an embedded application or an endless variety of electronic inventions and prototypes. This Learning Path starts off by teaching you how to program the BeagleBone. You will create introductory projects to get yourselves acquainted with all the nitty gritty. Then we'll focus on a series of projects that are aimed at hobbyists like you and encompass the areas of home automation and robotics. With each project, we'll teach you how to connect several sensors and an actuator to the BeagleBone Black. We'll also create robots for land, sea, and water. Yes, really! The books used in this Learning Path are: BeagleBone Black Cookbook BeagleBone Home Automation Blueprints Mastering BeagleBone Robotics Style and approach This practical guide transforms complex and confusing pieces of technology to become accessible with easy- to-succeed

instructions. Through clear, concise examples, you will quickly get to grips with the core concepts needed to develop home automation applications with the BeagleBone Black.

BeagleBone Robotic Projects John Wiley & Sons

Master BeagleBone programming by doing simple electronics and Internet of Things projects About This Book Quickly develop electronics projects that interact with Internet applications using JavaScript and Python Learn about electronics components such as sensors and motors, and how to communicate with them by writing programs A step-by-step guide to explore the exciting world of BeagleBone—from connecting BeagleBone to doing electronics projects and creating IoT applications Who This Book Is For If you want to learn programming on embedded systems with BeagleBone by doing simple electronics projects, this book is for you. This book is also helpful to BeagleBone owners who want to quickly implement small-scale home automation solutions. It is assumed that you have familiarity with C and Python programming. Some familiarity with

electronics is helpful but not essential. What You Will Learn Connect your BeagleBone to a computer in different ways and get the Cloud9 IDE running to quick-start programming on the BeagleBone Get to know about BeagleBone extension pins such as GPIO and how to connect various electronics components with BeagleBone Read and write to various electronics components such as LED, Push-button, sensors, and motors Grasp in-depth theory on Analog, PWM, and BUS programming and the electronics components used in programs Handle data to and from various BUS supporting modules such as UART, I2C, and SPI using the Adafruit BBIO Python library Write real-life IoT applications in JavaScript and Python such as shooting an e-mail on overheat and controlling a servo motor remotely Make use of online free cloud services to store and analyze sensor data collected on the BeagleBone Discover what else can be done using the BeagleBone Get to grips with embedded system BUS communication In Detail The whole world is moving from desktop computers to smartphones and embedded systems. We are moving towards utilizing

Internet of Things (IoT). An exponential rise in the demand for embedded systems and programming in the last few years is driving programmers to use embedded development boards such as Beaglebone. BeagleBone is an ultra-small, cost-effective computer that comes with a powerful hardware. It runs a full-fledged Debian Linux OS and provides numerous electronics solutions. BeagleBone is open source and comes with an Ethernet port, which allows you to deploy IoT projects without any additions to the board. It provides plenty of GPIO, Analog pins, and UART, I2C, SPI pins which makes it the right choice to perform electronics projects. This gives you all the benefits of Linux kernel such as multitasking, multiusers, and extensive device driver support. This allows you to do programming in many languages including high-level languages such as JavaScript and Python. This book aims to exploit the hardware and software capabilities of BeagleBone to create real-life electronics and IoT applications quickly. It is divided into two parts. The first part covers JavaScript programs. The second part provides electronics projects and IoT

applications in Python. First, you will learn to use BeagleBone as tool to write useful applications on embedded systems. Starting with the basics needed to set up BeagleBone and the Cloud9 IDE, this book covers interfacing with various electronics components via simple programs. The electronics theory related to these components is then explained in depth before you use them in a program. Finally, the book helps you create some real-life IoT applications. Style and approach An easy-to-follow guide full of real-world electronics programs and quick troubleshooting tips using BeagleBone. All the required electronics concepts are explained in detail before using them in a program and all programs are explained in depth. Most of the theory is covered in the first part; while the second part gives you some quick programs. Packt Publishing Ltd The BeagleBone Black Primer Master BeagleBone Black: Today's most powerful low-cost embedded development platform! You can do amazing things with BeagleBone Black. Get started in just five minutes: all you need is a USB cable and this easy, hands-on primer! Brian

McLaughlin teaches you enough to be seriously dangerous. Start with the simplest embedded programming concepts. Explore BeagleBone Black's capabilities, and learn all the essentials, from controlling I/O to establishing network connections. Then, step by step, master increasingly advanced techniques with the Cloud9 IDE and BoneScript...Integrate external hardware...Install Linux or Android...Use Cape expansion boards to do even more. Don't just learn it: do it. This guide is packed with projects, from weather stations, to car computers, to a "capstone" project using Software Defined Radio to capture signals from local airspace and orbiting satellites! You won't just put BeagleBone Black to work: you'll start imagining great projects of your own. And then you'll build them. Discover how BeagleBone Black works, and what it can do Get your BeagleBone Black—and get it working, fast Link your BeagleBone Black to the world, and link yourself to the global BeagleBone community Learn to read schematics and use them to connect hardware Prototype your projects with breadboards Extend BeagleBone Black

with Capes Add sensors to capture and use data from the environment Use actuators to make things happen in the real world Make your BeagleBone Black recognize your face Learn from mistakes, and go beyond what you've already learned Brian McLaughlin is an engineer by profession and by hobby. Building on a solid foundation in software, he was first exposed to advanced hardware topics while working on the Hubble Space Telescope. After working for Lockheed Martin, he joined NASA, where he's supported many of NASA's most exciting missions. He holds a B.S. in computer science (North Carolina State University) and an M.S. in systems engineering (University of Maryland). He's also written for GeekDad and is a member of the growing Maker community.

Efficient Object-Oriented and Template Microcontroller Programming Createspace Independent Publishing Platform
An annotated guide to program and develop GNU/Linux Embedded systems quickly About This Book Rapidly design and build powerful prototypes for GNU/Linux Embedded systems Become

familiar with the workings of GNU/Linux Embedded systems and how to manage its peripherals Write, monitor, and configure applications quickly and effectively, manage an external micro-controller, and use it as co-processor for real-time tasks Who This Book Is For This book targets Embedded System developers and GNU/Linux programmers who would like to program Embedded Systems and perform Embedded development. The book focuses on quick and efficient prototype building. Some experience with hardware and Embedded Systems is assumed, as is having done some previous work on GNU/Linux systems. Knowledge of scripting on GNU/Linux is expected as well. What You Will Learn Use embedded systems to implement your projects Access and manage peripherals for embedded systems Program embedded systems using languages such as C, Python, Bash, and PHP Use a complete distribution, such as Debian or Ubuntu, or an embedded one, such as OpenWrt or Yocto Harness device driver capabilities to optimize device communications Access data through several kinds of devices such as GPIO's, serial ports, PWM, ADC,

Ethernet, WiFi, audio, video, I2C, SPI, One Wire, USB and CAN Practical example usage of several devices such as RFID readers, Smart card readers, barcode readers, z-Wave devices, GSM/GPRS modems Usage of several sensors such as light, pressure, moisture, temperature, infrared, power, motion In Detail Embedded computers have become very complex in the last few years and developers need to easily manage them by focusing on how to solve a problem without wasting time in finding supported peripherals or learning how to manage them. The main challenge with experienced embedded programmers and engineers is really how long it takes to turn an idea into reality, and we show you exactly how to do it. This book shows how to interact with external environments through specific peripherals used in the industry. We will use the latest Linux kernel release 4.4.x and Debian/Ubuntu distributions (with embedded distributions like OpenWrt and Yocto). The book will present popular boards in the industry that are user-friendly to base the rest of the projects on - BeagleBone Black, SAMA5D3 Xplained, Wandboard and system-on-chip

manufacturers. Readers will be able to take their first steps in programming the embedded platforms, using C, Bash, and Python/PHP languages in order to get access to the external peripherals. More about using and programming device driver and accessing the peripherals will be covered to lay a strong foundation. The readers will learn how to read/write data from/to the external environment by using both C programs or a scripting language (Bash/PHP/Python) and how to configure a device driver for a specific hardware. After finishing this book, the readers will be able to gain a good knowledge level and understanding of writing, configuring, and managing drivers, controlling and monitoring applications with the help of efficient/quick programming and will be able to apply these skills into real-world projects. Style and approach This practical tutorial will get you quickly prototyping embedded systems on GNU/Linux. This book uses a variety of hardware to program the peripherals and build simple prototypes.

Linux-Powered Electronic Projects With Python and JavaScript Morgan & Claypool Publishers

The open source nature of Linux has always intrigued embedded engineers, and the latest kernel releases have provided new features enabling more robust functionality for embedded applications. Enhanced real-time performance, easier porting to new architectures, support for microcontrollers and an improved I/O system give embedded engineers even more reasons to love Linux! However, the rapid evolution of the Linux world can result in an eternal search for new information sources that will help embedded programmers to keep up! This completely updated second edition of noted author Doug Abbott's respected introduction to embedded Linux brings readers up-to-speed on all the latest developments. This practical, hands-on guide covers the many issues of special concern to Linux users in the embedded space, taking into account their specific needs and constraints. You'll find updated information on:

- The GNU toolchain
- Configuring and building the kernel
- BlueCat Linux
- Debugging on the target
- Kernel Modules
- Devices Drivers
- Embedded Networking
- Real-time programming tips and techniques
- The

RTAI environment • And much more The accompanying CD-ROM contains all the source code from the book's examples, helpful software and other resources to help you get up to speed quickly. This is still the reference you'll reach for again and again! * 100+ pages of new material adds depth and breadth to the 2003 embedded bestseller. * Covers new Linux kernel 2.6 and the recent major OS release, Fedora. * Gives the engineer a guide to working with popular and cost-efficient open-source code.

Beaglebone Black McGraw Hill Professional If you are a developer with some hardware or electrical engineering experience who wants to learn how to use embedded machine-learning capabilities and get access to a GNU/Linux device driver to collect data from a peripheral or to control a device, this is the book for you.

[Programming the BeagleBone Black:](#)

[Getting Started with JavaScript and](#)

[BoneScript](#) Packt Publishing Ltd

Learn how to build physical computing systems using BeagleBone Black and Python About This Book Get to grips with the fundamentals of BeagleBone Leverage Python scripts to program BeagleBone for

your requirements Build four exciting projects, from home automation to a tele-controlled robot Who This Book Is For This book is intended for hobbyists and consumers who wish to create impressive projects using BeagleBone. You must be familiar with Python programming. What You Will Learn Program on BeagleBone Black using Python Interface sensors and actuators to BeagleBone Black Build your own real-time physical computing systems Connect physical computing systems to cloud servers Build your own home automation and home security system Build your own tele-controlled robot with real-time video streaming In Detail BeagleBone is a low cost, community-supported development platform to develop a variety of electronic projects. This book will introduce you to BeagleBone and get you building fun, cool, and innovative projects with it. Start with the specifications of BeagleBone Black and its operating systems, then get to grips with the GPIOs available in BeagleBone Black. Work through four types of exciting projects: building real-time physical computing systems, home automation, image processing for a security system,

and building your own tele-controlled robot and learn the fundamentals of a variety of projects in a single book. By the end of this book, you will be able to write code for BeagleBone in order to operate hardware and impart decision-making capabilities with the help of efficient coding in Python. Style and approach This book is a step by step guide that will walk you through the fundamentals of building different projects using BeagleBone Black.

Android for the BeagleBone Black

Createspace Independent Publishing Platform

This comprehensive book provides detailed materials for both novice and experienced programmers using all BeagleBone variants which host a powerful 32-bit, super-scalar TI Sitara ARM Cortex A8 processor. Authored by Steven F. Barrett and Jason Kridner, a seasoned ECE educator along with the founder of Beagleboard.org, respectively, the work may be used in a wide variety of projects from science fair projects to university courses and senior design projects to first prototypes of very complex systems. Beginners may access the power of the "Bone" through the user-friendly

Bonescript examples. Seasoned users may take full advantage of the Bone's power using the underlying Linux-based operating system, a host of feature extension boards (Capes) and a wide variety of Linux community open source libraries. The book contains background theory on system operation coupled with many well-documented, illustrative examples. Examples for novice users are centered on motivational, fun robot projects while advanced projects follow the theme of assistive technology and image processing applications. Key Features: - Provides detailed examples for all BeagleBone variants, including the newest "next generation" BeagleBone Black - BeagleBone is a low cost, open hardware, expandable computer first introduced in november 2011 by beagleboard - BeagleBone variants, including the original BeagleBone and the new beaglebone black, hosts a powerful 32-bit, super-scalar arM Cortex A8 processor - BeagleBone is small enough to fit in a small mint tin box - "Bone" may be used in a wide variety of projects from middle school science fair projects to university courses and senior design

projects to first prototypes of very complex systems - Novice users may access the power of the bone through the user-friendly bonescript environment - Seasoned users may take full advantage of the Bone's power using the underlying Linux-based operating system - A host of feature extension boards (Capes) and a wide variety of Linux community open source libraries are available - The book provides an introduction to this powerful computer and has been designed for a wide variety of users - The book contains background theory on system operation coupled with many well-documented, illustrative examples - Examples for novice users are centered on motivational, fun robot projects - Advanced projects follow the theme of assistive technology and image processing applications
Programming the Intel Galileo: Getting Started with the Arduino -Compatible Development Board Packt Publishing Ltd
MATLAB provides APIs to access BeagleBone Black board. This book helps you to get started with BeagleBone Black Programming using Matlab. The following the highlight: * Preparing Development Environment * Setting up BeagleBone

Black Development for MATLAB * Working with GPIO * Working with PWM and ADC * Working with I2C * Working with SPI * Working with Serial Port * Working with Web Camera * Working with BeagleBone Black Linux Command * Measuring and Plotting Sensor Data in Real-Time
Exploring BeagleBone McGraw Hill Professional
Programming the BeagleBone Black: Getting Started with JavaScript and BoneScript McGraw Hill Professional
The BeagleBone Black Primer Packt Publishing Ltd
The BeagleBone is a tiny computer board about the size of a credit card and which has all the capability of a desktop. This volume guides you step-by-step throughout the process of getting acquainted with your BeagleBone Original or BeagleBoneBlack. You'll learn how to get set up, use the software, build the hardware, and code your projects, with plenty of examples to walk you through the process. You'll move carefully through your first BeagleBone project, then get ideas for even better, more advanced programs.
Learning BeagleBone Python

Programming John Wiley & Sons
 Over 60 recipes and solutions for inventors, makers, and budding engineers to create projects using the BeagleBone Black About This Book Learn how to develop applications with the BeagleBone Black and open source Linux software Sharpen your expertise in making sophisticated electronic devices Explore the BeagleBone Black with this easy-to-succeed recipe format Who This Book Is For If you are a hardware, Linux, and/or microcomputing novice, or someone who wants more power and possibilities with product prototypes, electronic art projects, or embedded computing experiments, then this book is for you. It is for Internet of Things enthusiasts who want to use more sophisticated hardware than the Raspberry Pi or the Arduino can provide. Whether you are an engineering student, a DIYer, an inventor, or a budding electronics enthusiast, this book delivers accessible, easy-to-succeed instructions for using an advanced microcomputing platform. What You Will Learn Set up and run the BeagleBone Black for the first time

Learn the basics of microcomputing and Linux using the command line and easy kernel mods Make introductory projects with Python, JavaScript, BoneScript, and Node.js Explore physical computing and simple circuits using buttons, LEDs, sensors, and motors Discover the unique features of the BeagleBone Black and its real-time computing functions Build intermediate level audio and video applications Assemble and add ingredients for creating Internet of Things prototypes In Detail There are many single-board controllers and computers such as Arduino, Udoo, or Raspberry Pi, which can be used to create electronic prototypes on circuit boards. However, when it comes to creating more advanced projects, BeagleBone Black provides a sophisticated alternative. Mastering the BeagleBone Black enables you to combine it with sensors and LEDs, add buttons, and marry it to a variety of add-on boards. You can transform this tiny device into the brain for an embedded application or an endless variety of electronic inventions and prototypes. With dozens of how-tos, this

book kicks off with the basic steps for setting up and running the BeagleBone Black for the first time, from connecting the necessary hardware and using the command line with Linux commands to installing new software and controlling your system remotely. Following these recipes, more advanced examples take you through scripting, debugging, and working with software source files, eventually working with the Linux kernel. Subsequently, you will learn how to exploit the board's real-time functions. We will then discover exciting methods for using sound and video with the system before marching forward into an exploration of recipes for building Internet of Things projects. Finally, the book finishes with a dramatic arc upward into outer space, when you explore ways to build projects for tracking and monitoring satellites. Style and approach This comprehensive recipe book deconstructs a complex, often confusing piece of technology, and transforms it to become accessible and fun with snappy, unintimidating prose, and extensive easy-to-succeed instructions.

Related with Programming The Beaglebone Black Getting Started With Javascript And Bonescript:

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