

Raspberry Pi France Tutoriels Pour Raspberry Pi Et

A journal for the farm, the garden, and the fireside, devoted to improvement in agriculture, horticulture, and rural taste; to elevation in mental, moral, and social character, and the spread of useful knowledge and current news. Vous avez envie de concevoir des montages avec Arduino ou Raspberry Pi qui interagissent avec leur environnement ? Pour cela vous avez besoin de capteurs, et cet ouvrage vous aidera à passer rapidement des idées à la réalisation. Chaque chapitre est consacré à un type de capteur (mouvement, lumière, son, etc.) et comporte : des expériences qui expliquent la manière d'utiliser un capteur ; des tests de validation ; un mini-projet qui montre comment combiner différentes technologies pour obtenir un montage performant. Les nombreux exemples de code commentés vous seront précieux pour créer vos propres projets. Les montages que vous pourrez réaliser : un éthylotest personnel, un détecteur de fumée qui envoie un courriel d'alerte, une sonnette hantée qui sonne avant qu'on ne la touche, un jeu vidéo Pong, un dôme lumineux sensible à la couleur, un écran graphique qui réagit aux sons ambiants, une station météo... Le code source des programmes et de nombreux liens et références utiles sont disponibles sur www.dunod.com/contenus-complementaires/9782100717934 ainsi que sur botbook.com, le site de référence de la version d'origine.

An up-to-date guide to creating your own fun and useful Raspberry PiTM programs This fully updated guide shows how to create inventive programs and fun games on your powerful Raspberry Pi—with no programming experience required. Programming the Raspberry PiTM: Getting Started with Python, Third Edition addresses physical changes and new setup procedures as well as OS updates to the current version 4. You will discover how to configure hardware and software, write Python scripts, create user-friendly GUIs, and control external electronics. Step-by-step projects include a digital clock prototype and a fully functioning Raspberry Pi robot. Configure your Raspberry Pi and explore its features Start writing and debugging Python programs Use strings, lists, functions, and dictionaries Work with modules, classes, and methods Apply object-oriented development methods Create user-friendly games using Pygame Build intuitive user interfaces with guizero Interface with hardware using the gpiozero library Attach external electronics through the GPIO port Add powerful Web features to your projects The term Intelligent Environments (IEs) refers to physical spaces in which IT and other pervasive computing technologies are combined and used to achieve specific goals for the user, the environment, or both. The ultimate objective of IEs is to enrich user experience, improve management of the environment in question and increase user awareness. This book presents the proceedings of the following workshops, which formed part of the 12th International Conference on Intelligent Environments (IE16), held in London, UK, in September 2016: the 5th International Workshop on Smart Offices and Other WorkPlaces (SOOW'16); the 5th International Workshop on the Reliability of Intelligent Environments (WoRIE'16); the 1st International Workshop on Legal Issues in Intelligent Environments (LIIE'2016); the 2nd International Symposium on Future Intelligent Educational Environments and Learning (SOFIEE'16); the 2nd International Workshop on Future Internet and Smart Networks (FI&SN'2016); the International Workshop on Intelligent Environments Supporting Healthcare and Well-being (WISHWell'2016); the International Workshop on Computation Sustainability, Technologies and Applications (CoSTA'2016); the Creative Science 2016 (CS'16) and Cloud-of-Things 2016 (CoT'16); the Workshop on Wireless Body Area Networks for Personal Monitoring in Intelligent Environments (WBAN-PMIE); and the Physical Computing Workshop. The workshops focused on the development of advanced intelligent environments, as well as newly emerging and rapidly evolving topics, emphasizing the multi-disciplinary and transversal aspects of IEs, as well as cutting-edge topics. The book will be of interest to all those whose work involves them in the use of intelligent environments.

Tutoriels et projets

Python 3 Image Processing

Software and Hardware Problems and Solutions

Advanced Technologies, Systems, and Applications II

Comprehensive Tutorial and Reference Via Swift

A practical guide to forming a killer marketing strategy through data analysis with Python

Using Inertial Sensors for Position and Orientation Estimation

Master Metal: The Next-Generation Graphics and GPU Programming Platform for Apple Developers Metal enables Apple developers to maximize performance in demanding tasks like 3D graphics, games, scientific programming, visualization, and GPU-accelerated machine learning. Metal(R) Programming Guide is the authoritative, practical guide to Metal for all iOS programmers who are interested in graphics programming but don't know where to start. Pioneering Apple developer Janie Clayton covers everything from basic draw calls to advanced parallel computing, combining easy-to-understand conceptual explanations with well-tested Swift 4/Xcode 9 sample code (available for download at GitHub). Clayton introduces the essential Metal, graphics, and math concepts every graphics programmer needs to know. She also discusses key graphics-specific libraries, concepts, and Metal Classes, presenting techniques and examples you'll find valuable for both graphics and data processing. Clayton also provides coverage of the Metal Compute Pipeline, demonstrating practical GPU programming applications ranging from image processing to neural networking. Quickly get a basic Metal project running Work with Metal resources and memory management Learn how shaders are compiled and accessed by the CPU Program both 2D and 3D graphics with Metal Import 3D models and assets from Blender, Maya, and other programs Apply imported textures to model objects Use multipass rendering to efficiently implement computationally expensive techniques Leverage tessellation to reduce mesh detail Use the GPU for a wide spectrum of general-purpose computing applications Get started with the Metal Performance Shaders Framework Register your product at informit.com/register for convenient access to downloads, updates, and/or corrections as they become available. Normal 0 false false EN-US X-NONE X-NONE

Arduino is an open-source platform that makes DIY electronics projects easier than ever. Gone are the days when you had to learn electronics theory and arcane programming languages before you could even get an LED to blink. Now, with this new edition of the bestsellingArduino: A Quick-Start Guide, readers with no electronics experience can create their first gadgets quickly. This book is up-to-date for the new Arduino Zero board, with step-by-step instructions for building a universal remote, a motion-sensing game controller, and many other fun, useful projects. This Quick-Start Guide is packed with fun, useful devices to create, with step-by-step instructions and photos throughout. You'll learn how to connect your Arduino to the Internet and program both client and server applications. You'll build projects such as your own motion-sensing game controller with a three-axis accelerometer, create a universal remote with an Arduino and a few cheap parts, build your own burglar alarm that emails you whenever someone's moving in your living room, build binary dice, and learn how to solder. In one of several new projects in this edition, you'll create your own video game console that you can connect to your TV set. This book is completely updated for the new Arduino Zero board and the latest advances in supporting software and tools for the Arduino. Sidebars throughout the book point you to exciting real-world projects using the Arduino, exercises extend your skills, and "What If It Doesn't Work" sections help you troubleshoot common problems. With this book, beginners can quickly join the worldwide community of hobbyists and professionals who use the Arduino to prototype and develop fun, useful inventions. What You Need: This is the full list of all parts you'd need for all projects in the book; some of these are provided as part of various kits that are available on the web, or you can purchase individually. Sources include adafruit.com, makershed.com, radioshack.com, sparkfun.com, and mouser.com. Please note we do not support or endorse any of these vendors, but we list them here as aconvenience for you. Arduino Zero (or Uno or Duemilanove or Diecimila) board USB cable Half-size breadboard Pack of LEDs (at least 3, 10 or more is a good idea) Pack of 100 ohm, 10k ohm, and 1k ohm resistors Four pushbuttons Breadboard Jumper wire / connector wire Parallax Ping))) sensor Passive Infrared sensor An infrared LED A 5V servo motor Analog Devices TMP36 temperature sensor ADXL335 accelerometer breakout board 6 pin 0.1" standard header (might be included with the ADXL335) Nintendo Nunchuk Controller Arduino Ethernet shield Arduino Proto shield and a tiny breadboard (optional but recommended) Piezo speaker/buzzer (optional) Tilt sensor (optional) A 25-30 Watts soldering iron with a tip (preferably 1/16") A soldering stand and a sponge A standard 60/40 solder (rosin-core) spool for electronics work

With millions of new users and several new models, the Raspberry Pi ecosystem continues to expand—along with a lot of new questions about the Pi's capabilities. The second edition of this popular cookbook provides more than 240 hands-on recipes for running this tiny low-cost computer with Linux, programming it with Python, and hooking up sensors, motors, and other hardware—including Arduino and the Internet of Things. Prolific hacker and author Simon Monk also teaches basic principles to help you use new technologies with Raspberry Pi as its ecosystem continues to develop. This cookbook is ideal for programmers and hobbyists familiar with the Pi through resources, including Getting Started with Raspberry Pi (O'Reilly). Python and other code examples from the book are available on GitHub. Set up your Raspberri Pi and connect to a network Work with its Linux-based operating system Program Raspberry Pi with Python Give your Pi "eyes" with computer vision Control hardware through the GPIO connector Use Raspberry Pi to run different types of motors Work with switches, keypads, and other digital inputs Use sensors to measure temperature, light, and distance Connect to IoT devices in various ways Create dynamic projects with Arduino

An advanced guide to creating powerful high-performance GUIs for modern, media-rich applications in various domains such as business and game development Key FeaturesGain comprehensive knowledge of Python GUI development using PyQt 5.12Explore advanced topics including multithreaded programming, 3D animation, and SQL databasesBuild cross-platform GUIs for Windows, macOS, Linux, and Raspberry PiBook Description PyQt5 has long been the most powerful and comprehensive GUI framework available for Python, yet there is a lack of cohesive resources available to teach Python programmers how to use it. This book aims to remedy the problem by providing comprehensive coverage of GUI development with PyQt5. You will get started with an introduction to PyQt5, before going on to develop stunning GUIs with modern features. You will then learn how to build forms using QWidgets and learn about important aspects of GUI development such as layouts, size policies, and event-driven programming. Moving ahead, you'll discover PyQt5's most powerful features through chapters on audio-visual programming with QtMultimedia, database-driven software with QtSQL, and web browsing with QtWebEngine. Next, in-depth coverage of multithreading and asynchronous programming will help you run tasks asynchronously and build high-concurrency processes with ease. In later chapters, you'll gain insights into QOpenGLWidget, along with mastering techniques for creating 2D graphics with QPainter. You'll also explore PyQt on a Raspberry Pi and interface it with remote systems using QtNetwork. Finally, you will learn how to distribute your applications using setuptools and PyInstaller. By the end of this book, you will have the skills you need to develop robust GUI applications using PyQt. What you will learnGet to grips with the inner workings of PyQt5Learn how elements in a GUI application communicate with signals and slotsLearn techniques for styling an applicationExplore database-driven applications with the QtSQL moduleCreate 2D graphics with QPainterDelve into 3D graphics with QOpenGLWidgetBuild network and web-aware applications with QtNetwork and QtWebEngineWho this book is for This book is for programmers who want to create attractive, functional, and powerful GUIs using the Python language. You'll also find this book useful if you are a student, professional, or anyone who wants to start exploring GUIs or take your skills to the next level. Although prior knowledge of the Python language is assumed, experience with PyQt, Qt, or GUI programming is not required.

14th International Symposium, CMMR 2019, Marseille, France, October 14–18, 2019, Revised Selected Papers

Raspberry Pi Projects

Electronic Projects with Python, Scratch, and Linux

Raspberry Pi User Guide

Get Started with MicroPython on Raspberry Pi Pico

Beginning FPGA: Programming Metal

Programmer en Java avec un Raspberry Pi

Le langage Java et le nano-ordinateur Raspberry Pi sont deux outils incroyablement populaires et pédagogiques dans le monde des technologies actuelles. Cet ouvrage les réunit, dans le but de vous apprendre à programmer en Java en réalisant différents projets simples d'électronique avec un Raspberry Pi 3 (modèles B, B+, A+ et Zero WH). Le livre débute par l'installation et l'utilisation de l'environnement de développement Eclipse pour Java, puis présente le port GPIO du Raspberry Pi, en s'aidant des schémas produits par Fritzing. Il utilise ensuite des scripts Python pour tester des composants montés sur une platine de test. L'apprentissage de Java s'effectue en douceur à l'aide de la librairie Pi4J qui gère le port GPIO : d'abord avec des LED, puis en utilisant un relais et différents capteurs (de mouvement, lumière, température...). Vous apprendrez aussi à programmer un serveur web en Java grâce à l'accès Wi-Fi du Raspberri Pi. Enfin, vous manipulerez une base de données SQLite avant de réaliser le projet final : l'envoi d'un e-mail depuis le Raspberry Pi avec la photo de l'intrus entré dans votre logement ! Ce livre d'une grande richesse de contenu est complété par 120 exercices corrigés, dont les solutions sont disponibles en ligne. À qui s'adresse ce livre ? Aux débutants en programmation Java Aux amateurs d'électronique souhaitant programmer en Java Aux étudiants et aux makers

In-depth instruction and practical techniques for buildingwith the BeagleBone embedded Linux platform Exploring BeagleBone is a hands-on guide to bringinggadgets, gizmos, and robots to life using the popular BeagleBoneembedded Linux platform. Comprehensive content and deep detailprovide more than just a BeagleBone instructionmanual—you'll also learn the underlying engineeringtechniques that will allow you to create your own projects. Thebook begins with a foundational primer on essential skills, andthen gradually moves into communication, control, and advancedapplications using C/C++, allowing you to learn at your own pace.In addition, the book's companion website featuresinstructional videos, source code, discussion forums, and more, toensure that you have everything you need. The BeagleBone's small size, high performance, low cost,and extreme adaptability have made it a favorite developmentplatform, and the Linux software base allows for complex yetflexible functionality. The BeagleBone has applications in smartbuildings, robot control, environmental sensing, to name a few,and, expansion boards and peripherals dramatically increase thepossibilities. Exploring BeagleBone provides areader-friendly guide to the device, including a crash coursein computer engineering. While following step by step, you can: Get up to speed on embedded Linux, electronics, andprogramming Master interfacing electronic circuits, buses and modules, withpractical examples Explore the Internet-connected BeagleBone and the BeagleBonewith a display Apply the BeagleBone to sensing applications, including videoand sound Explore the BeagleBone's Programmable Real-TimeControllers Hands-on learning helps ensure that your new skills stay withyou, allowing you to design with electronics, modules, orperipherals even beyond the BeagleBone. Insightful guidance andonline peer support help you transition from beginner to expert asyou master the techniques presented in Exploring BeagleBone,thepractical handbook for the popular computing platform.

Pars à la découverte d'Arduino ! Amusant et facile à lire, ce livre te fera découvrir l'électronique et surtout le formidable potentiel d'Arduino, un petit microcontrôleur programmable qui permet de réaliser plein de projets ludiques. Avec des composants simples, du carton et de la colle, tu seras guidé dans la mise en oeuvre de montages de difficulté croissante, allant d'un panneau d'affichage de LED à un jeu de labyrinthe à bille. Combinant avec intelligence théorie et pratique, cet ouvrage fera de toi un pro d'Arduino et des circuits électroniques. Dans notre société toujours plus numérique, cela te donnera un super avantage pour la suite de ton parcours scolaire. Dans ce livre, tu fabriqueras : un carillon a vent électronique un mini coffre-fort à combinaison une boule de cristal qui s'illumine par magie un labyrinthe à bille qui mémorise ton score un affichage lumineux sur la manche d'un vêtement et bien d'autres projets ! A qui s'adresse cet ouvrage ? Aux 10-15 ans, parents et enseignants. Sur www.editions-eyrolles.com/go/arduino Télécharge toutes les ressources (code source, vidéos) du livre.

Aimed at IT security professionals, pentesters, and security analysts who have basic knowledge of Kali Linux and want to conduct advanced penetration testing techniques. What You Will Learn Installing, setting up and customizing Kali for pentesting on multiple platforms Pentesting routers and embedded devices Bug hunting 2017 Pwning and escalating through corporate network Buffer overflows 101 Auditing wireless networks Fiddling around with software-defined radio Hacking on the run with NetHunter Writing good quality reports In Detail With the current rate of hacking, it is very important to pentest your environment in order to ensure advanced-level security. This book is packed with practical recipes that will quickly get you started with Kali Linux (version 2016.2) according to your needs, and move on to core functionalities. This book will start with the installation and configuration of Kali Linux so that you can perform your tests. You will learn how to plan attack strategies and perform web application exploitation using tools such as Burp, and Jexboss. You will also learn how to perform network exploitation using Metasploit, Sparta, and Wireshark. Next, you will perform wireless and password attacks using tools such as Patator, John the Ripper, and airoscript-ng. Lastly, you will learn how to create an optimum quality pentest report! By the end of this book, you will know how to conduct advanced penetration testing thanks to the book's crisp and task-oriented recipes. Style and approach This is a recipe-based book that allows you to venture into some of the most cutting-edge practices and techniques to perform penetration testing with Kali Linux.

The First 20 Hours

Getting Started with Raspberri Pi

Mastering GUI Programming with Python

Interfacing to the Real World with Embedded Linux

Het complete handbook

Raspberry Pi Cookbook

Metal Programming Guide

What can you do with the Raspberry Pi, the affordable computer the size of a credit card? All sorts of things! If you're learning how to program--or looking to build new electronic projects, this hands-on guide will show you just how valuable this flexible little platform can be. Updated to include coverage of the Raspberry Pi Model B+, Getting Started with Raspberry Pi takes you step-by-step through many fun and educational possibilities. Take advantage of several preloaded programming languages. Use the Raspberry Pi with Arduino. Create Internet-connected projects. Play with multimedia. With Raspberry Pi, you can do all of this and more. In Getting Started with Raspberry Pi, you'll: Get acquainted with hardware features on the Pi's board Learn enough Linux to move around the operating system Start programming in Python and Scratch Draw graphics, play sounds, and handle mouse events with Pygame Use the Pi's input and output pins to do some hardware hacking Discover how Arduino and the Raspberry Pi can work together Create your own Pi-based web server with Python Work with the Raspberry Pi Camera Module and USB webcams

Microelectromechanical system (MEMS) inertial sensors have become ubiquitous in modern society. Built into mobile telephones, gaming consoles, virtual reality headsets, we use such sensors on a daily basis. They also have applications in medical therapy devices, motion-capture filming, traffic monitoring systems, and drones. While providing accurate measurements over short time scales, this diminishes over longer periods. To date, this problem has been resolved by combining them with additional sensors and models. This adds both expense and size to the devices. This tutorial focuses on the signal processing aspects of position and orientation estimation using inertial sensors. It discusses different modelling choices and a selected number of important algorithms that engineers can use to select the best options for their designs. The algorithms include optimization-based smoothing and filtering as well as computationally cheaper extended Kalman filter and complementary filter implementations. Engineers, researchers, and students deploying MEMS inertial sensors will find that this tutorial is an essential monograph on how to optimize their designs.

Provides step-by-step instructions for building a variety of LEGO Mindstorms NXT and Arduino devices.

Build DIY wireless projects using the Raspberry Pi Zero W board About This Book Explore the functionalities of the Raspberry Pi Zero W with exciting projects Master the wireless features (and extend the use cases) of this \$10 chip A project-based guide that will teach you to build simple yet exciting projects using the Raspberry Pi Zero W board Who This Book Is For If you are a hobbyist or an enthusiast and want to get your hands on the latest Raspberry Pi Zero W to build exciting wireless projects, then this book is for you. Some prior programming knowledge, with some experience in electronics, would be useful. What You Will Learn Set up a router and connect Raspberry Pi Zero W to the internet Create a two-wheel mobile robot and control it from your Android device Build an automated home bot assistant device Host your personal website with the help of Raspberry Pi Zero W Connect Raspberry Pi Zero to speakers to play your favorite music Set up a web camera connected to the Raspberry Pi Zero W and add another security layer to your home automation In Detail The Raspberry Pi has always been the go –to, lightweight ARM-based computer. The recent launch of the Pi Zero W has not disappointed its audience with its \$10 release. "W" here stands for Wireless, denoting that the Raspberry Pi is solely focused on the recent trends for wireless tools and the relevant use-cases. This is where our book—Raspberry Pi Zero W Wireless Projects—comes into its own. Each chapter will help you design and build a few DIY projects using the Raspberry Pi Zero W board. First, you will learn how to create a wireless decentralized chat service (client-client) using the Raspberry Pi's features?. Then you will make a simple two-wheel mobile robot and control it via your Android device over your local Wi-Fi network. Further, you will use the board to design a home bot that can be connected to plenty of devices in your home. The next two projects build a simple web streaming security layer using a web camera and portable speakers that will adjust the playlist according to your mood. You will also build a home server to host files and websites using the board. Towards the end, you will create free Alexa voice recognition software and an FPV Pi Camera, which can be used to monitor a system, watch a movie, spy on something, remotely control a drone, and more. By the end of this book, you will have developed the skills required to build exciting and complex projects with Raspberri Pi Zero W. Style and approach A step-by-step guide that will help you design and create simple yet exciting projects using the Raspberry Pi Zero W board.

Les capteurs pour Arduino et Raspberri Pi

ARM Assembly Language Programming with Raspberry Pi Using GCC

Develop impressive cross-platform GUI applications with PyQt

Exploring BeagleBone

Proceedings of the 2020 Future of Information and Communication Conference (FICC), Volume 1
D è s 10 ans - D é couvre Arduino et l' é lectronique gr à ce à 9 aventures tr é pidantes !

Data Science for Marketing Analytics

Forget the 10,000 hour rule! what if it's possible to learn the basics of any new skill in 20 hours or less? Take a moment to consider how many things you want to learn to do. What's on your list? What's holding you back from getting started? Are you worried about the time and effort it takes to acquire new skills:time you don't have and effort you can't spare? Research suggests it takes 10,000 hours to develop a new skill. In this nonstop world when will you ever find that much time and energy? To make matters worse, the early hours of practicing something new are always the most frustrating. That's why it's difficult to learn how to speak a new language, play an instrument, hit a golf ball, or shoot great photos. It's so much easier to watch TV or surf the web . . . In The First 20 Hours, Josh Kaufman offers a systematic approach to rapid skill acquisition! how to learn any new skill as quickly as possible. His method shows you how to deconstruct complex skills, maximize productive practice, and remove common learning barriers. By completing just 20 hours of focused, deliberate practice you'll go from knowing absolutely nothing to performing noticeably well. Kaufman personally field-tested the methods in this book. You'll have a front row seat as he develops a personal yoga practice, writes his own web-based computer programs, teaches himself to touch type on a nonstandard keyboard, explores the oldest and most complex board game in history, picks up the ukulele, and learns how to windsurf. Here are a few of the simple techniques he teaches: Define your target performance level: Figure out what your desired level of skill looks like, what you're trying to achieve, and what you'll be able to do when you're done. The more specific, the better. Deconstruct the skill: Most of the things we think of as skills are actually bundles of smaller subskills. If you break down the subcomponents, it's easier to figure out which ones are most important and practice those first. Eliminate barriers to practice: Removing common distractions and unnecessary effort makes it much easier to sit down and focus on deliberate practice. Create fast feedback loops: Getting accurate, real-time information about how well you're performing during practice makes it much easier to improve. Whether you want to paint a portrait, launch a start-up, fly an airplane, or juggle flaming chainsaws, The First 20 Hours will help you pick up the basics of any skill in record time . . . and have more fun along the way.

Les capteurs pour Arduino et Raspberry PiTutoriels et projetsDunod

This book presents high-quality research on the concepts and developments in the field of information and communication technologies, and their applications. It features 134 rigorously selected papers (including 10 poster papers) from the Future of Information and Communication Conference 2020 (FICC 2020), held in San Francisco, USA, from March 5 to 6, 2020, addressing state-of-the-art intelligent methods and techniques for solving real-world problems along with a vision of future research Discussing various aspects of communication, data science, ambient intelligence, networking, computing, security and Internet of Things, the book offers researchers, scientists, industrial engineers and students valuable insights into the current research and next generation information science and communication technologies.

Learn how to use a Raspberry Pi in conjunction with an Arduino to build a basic robot with advanced capabilities. Getting started in robotics does not have to be difficult. This book is an insightful and rewarding introduction to robotics and a catalyst for further directed study. You'll be led step by step through the process of building a robot that uses the power of a Linux based computer paired with the simplicity of Arduino. You'll learn why the Raspberry Pi is a great choice for a robotics platform; its strengths as well as its shortcomings; how to overcome these limitations by implementing an Arduino; and the basics of the Python programming language as well as some of the more powerful features. With the Raspberry Pi you can give your project the power of a Linux computer, while Arduino makes interacting with sensors and motors very easy. These two boards are complimentary in their functions; where one falters the other performs admirably. The book also includes references to other great works to help further your growth in the exciting, and now accessible, field of smart robotics. As a bonus, the final chapter of the book demonstrates the real power of the Raspberry Pi by implementing a basic vision system. Using OpenCV and a standard USB web cam, you will build a robot that can chase a ball. What You'll Learn Install Raspbian, the operating system that drives the Raspberry Pi Drive motors through an I2C motor controller Read data through sensors attached to an Arduino Who This Book Is For Hobbyists and students looking for a rapid start in robotics. It assumes no technical background. Readers are guided to pursue the areas that interest them in more detail as they learn.

12 réalisations pas à pas

The Official Raspberry Pi Camera Guide

Raspberry Pi

The Country Gentleman

Linux

Rute User's Tutorial and Exposition

Your brain on hardware

About the Raspberry Pi: Raspberry Pi boards are low cost yet powerful boards using Arm processors. They can be used for both educational and industrial purposes.About this book: This book covers Arm Assembly programing for Raspberry Pi boards. Although the Arm instructions are standard, the assembler directives vary in GCC and non-GCC assemblers. In this book, you learn how to write Arm assembly programs in Linux and the GCC based compilers. This book also gives you a general view of the Arm and Rasperry Pi architecture.If you are using this book for a university course, the source code, tutorials, Power Points and other support materials are available on our website: www.NicerLand.comHere is the table of contents: Chapter 1: The History of ARM, Raspberry Pi, and MicroprocessorsChapter 2: ARM Architecture and Assembly Language Programming Chapter 3: Arithmetic and Logic Instructions and Programs Chapter 4: Branch, Call, and Looping in ARM Chapter 5: Signed Integer Numbers Arithmetic Chapter 6: ARM Memory Map, Memory Access, and Stack Chapter 7: ARM Pipeline and CPU Evolution Chapter 8: ARM and Thumb Instructions Chapter 9: ARM Floating-point Arithmetic Chapter 10: Interrupts and Exceptions Chapter 11: Cache in ARM Appendix A: ARM Cortex-A Instruction Description Appendix B: ARM Assembler Directives Appendix C: Macros Appendix D: Flowcharts and Pseudocode Appendix E: Passing Arguments into Functions We also have a book on writing Arm Assembly Programs for non-GCC compilers entitled "ARM Assembly Language Programming & Architecture" which covers Arm assembly language programming for Keil and other non-GNU IDEs.

CD-ROM contains: Electronic version of text in HTML format

Learn to build software and hardware projects featuring the Raspberry Pi! Congratulations on becoming a proud owner of a Raspberry Pi! Following primers on getting your Pi up and running and programming with Python, the authors walk you through 16 fun projects of increasing sophistication that let you develop your Raspberry Pi skills. Among other things you will: Write simple programs, including a tic-tac-toe game Re-create vintage games similar to Pong and Pac-Man Construct a networked alarm system with door sensors and webcams Build Pi-controlled gadgets including a slot car racetrack and a door lock Create a reaction timer and an electronic harmonograph Construct a Facebook-enabled Etch A Sketch-type gadget and a Twittering toy Rasperry Pi Projects is an excellent way to dig deeper into the capabilities of the Pi and to have great fun while doing it.

Expand Rasperry Pi capabilities with fundamental engineering principles Exploring Rasperry Pi is the innovators guide to bringing Rasperry Pi to life. This book favors engineering principles over a 'recipe' approach to give you the skills you need to design and build your own projects. You'll understand the fundamental principles in a way that transfers to any type of electronics, electronic modules, or external peripherals, using a "learning by doing" approach that caters to both beginners and experts. The book begins with basic Linux and programming skills, and helps you stock your inventory with common parts and supplies. Next, you'll learn how to make parts work together to achieve the goals of your project, no matter what type of components you use. The companion website provides a full repository that structures all of the code and scripts, along with links to video tutorials and supplementary content that takes you deeper into your project. The Rasperry Pi's most famous feature is its adaptability. It can be used for thousands of electronic applications, and using the Linux OS expands the functionality even more. This book helps you get the most from your Rasperry Pi, but it also gives you the fundamental engineering skills you need to incorporate any electronics into any project. Develop the Linux and programming skills you need to build basic applications Build your inventory of parts so you can always "make it work" Understand interfacing, controlling, and communicating with almost any component Explore advanced applications with video, audio, real-world interactions, and more Be free to adapt and create with Exploring Rasperry Pi.

Perception, Representations, Image, Sound, Music

Recipes to Begin, Expand, and Enhance Your Projects

Tools and Techniques for Building with Embedded Linux

Intelligent Environments 2016

An Introduction to the Fastest-Selling Computer in the World

Projects for Extending MINDSTORMS NXT with Open-source Electronics

This is the book for you if you are a student, hobbyist, developer, or designer with little or no programming and hardware prototyping experience, and you want to develop IoT applications. If you are a software developer or a hardware designer and want to create connected devices applications, then this book will help you get started.

This book constitutes the refereed proceedings of the 14th International Symposium on Perception, Representations, Image, Sound, Music, CMMR 2019, held in Marseille, France, in October 2019. The 46 full papers presented were selected from 105 submissions. The papers are grouped in 9 sections. The first three sections are related to music information retrieval, computational musicology and composition tools, followed by a section on notations and instruments distributed on mobile devices. The fifth section concerns auditory perception and cognition, while the three following sections are related to sound design and sonic and musical interactions. The last section contains contributions that relate to Jean-Claude Risset's research.

Use Arrow's affordable and breadboard-friendly FPGA development board (BeMicro MAX 10) to create a light sensor, temperature sensor, motion sensor, and the KITT car display for Knight Rider. You don't need an electronics engineering degree or even any programming experience to get the most out of Beginning FPGA: Programming Metal. Just bring your curiosity and your Field-Programmable Gate Array. This book is for those who have tinkered with Arduino or Rasperry Pi, and want to get more hands-on experience with hardware or for those new to electronics who just want to dive in. You'll learn the theory behind FPGAs and electronics, including the math and logic you need to understand what's happening - all explained in a fun, friendly, and accessible way. It also doesn't hurt that you'll be learning VHDL, a hardware description language that is also an extremely marketable skill. What You'll Learn: Learn what an FPGA is and how it's different from a microcontroller or ASIC Set up your toolchain Use VHDL, a popular hardware description language, to tell your FPGA what to be Explore the theory behind FPGA and electronics Use your FPGA with a variety of sensors and to talk to a Raspberry Pi Who This Book is For: Arduino, Rasperry Pi, and other electronics enthusiasts who want a clear and practical introduction to FPGA.

Want to create devices that interact with the physical world? This cookbook is perfect for anyone who wants to experiment with the popular Arduino microcontroller and programming environment. You ' ll find more than 200 tips and techniques for building a variety of objects and prototypes such as IoT solutions, environmental monitors, location and position-aware systems, and products that can respond to touch, sound, heat, and light. Updated for the Arduino 1.8 release, the recipes in this third edition include practical examples and guidance to help you begin, expand, and enhance your projects right away—whether you ' re an engineer, designer, artist, student, or hobbyist. Get up to speed on the Arduino board and essential software concepts quickly Learn basic techniques for reading digital and analog signals Use Arduino with a variety of popular input devices and sensors Drive visual displays, generate sound, and control several types of motors Connect Arduino to wired and wireless networks Learn techniques for handling time delays and time measurement Apply advanced coding and memory-handling techniques

End-to-end penetration testing solutions

For Camera Module & High Quality Camera

Getting Started With Rasperry Pi

Make: Lego and Arduino Projects

Advanced Bash Scripting Guide

Exploring Rasperry Pi

Beginning Robotics with Rasperry Pi and Arduino

Haal alles uit deze mini-computer. In dit uiterst handige boekje vind je alles wat je moet weten over de Raspberry Pi. O.a. de volgende onderwerpen komen aan bod: Direct aan de slag, aansluiten en installeren Ontdekken, alle extra's voor de Raspberry Pi, add-ons, uitbreidingssets en nog veel meer Tutorials, met o.a. programmeren met scratch, je eigen mediaspeler bouwen, streaming TV, je eigen desktop bouwen, anoniem blijven met Tor Coding, aan de slag met commond line, python This book presents innovative and interdisciplinary applications of advanced technologies. It includes the scientific outcomes of the 9th DAYS OF BHAAAS (Bosnian-Herzegovinian American Academy of Arts and Sciences) held in Banja Vrućica, Teslić, Bosnia and Herzegovina on May 25–28, 2017. This unique book offers a comprehensive, multidisciplinary and interdisciplinary overview of the latest developments in a broad section of technologies and methodologies, viewed through the prism of applications in computing, networking, information technology, robotics, complex systems, communications, energy, mechanical engineering, economics and medicine, to name just a few.

The Raspberry Pi is a credit card-sized computer that plugs into your TV and a keyboard. It is a capable little computer which can be used in electronics projects, and for many of the things that your desktop PC does, like spreadsheets, word processing, browsing the internet, and playing games. It also plays high-definition video. This book takes you step-by-step through many fun and educational possibilities. Take advantage of several preloaded programming languages. Use the Raspberry Pi with Arduino. Create Internet-connected projects. Play with multimedia. With Rasperry Pi, you can do all of this and more.

Gain a working knowledge of practical image processing and with scikit-image.Key features Comprehensive coverage of various aspects of scientific Python and concepts in image processing. Covers various additional topics such as Rasperry Pi, conda package manager, and Anaconda distribution of Python. Simple language, crystal clear approach, and straight forward comprehensible presentation of concepts followed by code examples and output screenshots. Adopting user-friendly style for explanation of code examples.DescriptionThe book has been written in such a way that the concepts are explained in detail, giving adequate emphasis on code examples. To make the topics more comprehensive, screenshots and code samples are furnished extensively throughout the book. The book is conceptualized and written in such a way that the beginner readers will find it very easy to understand the concepts and implement the programs.The book also features the most current version of Rasperry Pi and associated software with it. This book teaches novice beginners how to write interesting image processing programs with scientific Python ecosystem. The book will also be helpful to experienced professionals to make transition to rewarding careers in scientific Python and computer vision. What will you learn Rasperry Pi, Python 3 Basics Scientific Python Ecosystem NumPy and Matplotlib Visualization with Matplotlib Basic NumPy, Advanced Image Processing with NumPy and Matplotlib Getting started with scikit-image Thresholding, Histogram Equalization, and Transformations Kernels, Convolution, and Filters Morphological Operations and Image Restoration Noise Removal and Edge Detection Advanced Image Processing OperationsWho this book is for Students pursuing BE/BSc/ME/MSc/BTech/MTech in Computer Science, Electronics, Electrical, and Mathematics Python enthusiasts Computer Vision and Image Processing professionals Anyone fond of tinkering with Rasperry Pi Researchers in Computer Vision Table of contents1. Concepts in Image Processing2. Installing Python 3 on Windows3. Introduction to Rasperry Pi4. Python 3 Basics5. Introduction to the Scientific Python Ecosystem6. Introduction to NumPy and Matplotlib7. Visualization with Matplotlib8. Basic Image Processing with NumPy and Matplotlib9. Advanced Image Processing with NumPy and Matplotlib10. Getting Started with Scikit-Image11. Thresholding Histogram Equalization and Transformations12. Kernels, Convolution and Filters13. Morphological Operations and Image Restoration14. Noise Removal and Edge Detection15. Advanced Image Processing Operations16. Wrapping UpAbout the authorAshwin Pajankar is a polymath. He has more than two decades of programming experience. He is a Science Popularizer, a Programmer, a Maker, an Author, and a Youtuber. He is passionate about STEM (Science-Technology-Education-Mathematics) education. He is also a freelance software developer and technology trainer. He graduated from IIT Hyderabad with M.Tech. in Computer Science and Engineering. He has worked in a few multinational corporations including Cisco Systems and Cognizant for more than a decade. Ashwin is also an online trainer with various eLearning platforms like BPBOnline, Udemy, and Skillshare. In his free time, he consults on the topics of Python programming and data science to the local software companies in the city of Nasik. He is actively involved in various social initiatives and has won many accolades during his student life and at his past workplaces.His Website: http://www.ashwinpajankar.com/His LinkedIn Profile: https://www.linkedin.com/in/ashwinpajankar/

Programming the Raspberry Pi: Getting Started with Python

Advances in Information and Communication

Workshop Proceedings of the 12th International Conference on Intelligent Environments

Kali Linux - An Ethical Hacker's Cookbook

Python Programming for Arduino

Rasperry Pi Zero W Wireless Projects

Magento 2 Developer's Guide

Turbocharge your marketing plans by making the leap from simple descriptive statistics in Excel to sophisticated predictive analytics with the Python programming language Key FeaturesUse data analytics and machine learning in a sales and marketing contextGain insights from data to make better business decisionsBuild your experience and confidence with realistic hands-on practiceBook Description Unleash the power of data to reach your marketing goals with this practical guide to data science for business. This book will help you get started on your journey to becoming a master of marketing analytics with Python. You'll work with relevant datasets and build your practical skills by tackling engaging exercises and activities that simulate real-world market analysis projects. You'll learn to think like a data scientist, build your problem-solving skills, and discover how to look at data in new ways to deliver business insights and make intelligent data-driven decisions. As well as learning how to clean, explore, and visualize data, you'll implement machine learning algorithms and build models to make predictions. As you work through the book, you'll use Python tools to analyze sales, visualize advertising data, predict revenue, address customer churn, and implement customer segmentation to understand behavior. By the end of this book, you'll have the knowledge, skills, and confidence to implement data science and machine learning techniques to better understand your marketing data and improve your decision-making. What you will learnLoad, clean, and explore sales and marketing data using pandasForm and test hypotheses using real data sets and analytics toolsVisualize patterns in customer behavior using MatplotlibUse advanced machine learning models like random forest and SVMUse various unsupervised learning algorithms for customer segmentationUse supervised learning techniques for sales predictionEvaluate and compare different models to get the best outcomesOptimize models with hyperparameter tuning and SMOTWho this book is for This marketing book is for anyone who wants to learn how to use Python for cutting-edge marketing analytics. Whether you're a developer who wants to move into marketing, or a marketing analyst who wants to learn more sophisticated tools and techniques, this book will get you on the right path. Basic prior knowledge of Python and experience working with data will help you access this book more easily.

Make the most out of the world's first truly compact computer It's the size of a credit card, it can be charged like a smartphone, it runs on open-source Linux, and it holds the promise of bringing programming and playing to millions at low cost. And now you can learn how to use this amazing computer from its co-creator, Eben Upton, in Raspberry Pi User Guide. Cowritten with Gareth Halfacree, this guide gets you up and running on Raspberry Pi, whether you're an educator, hacker, hobbyist, or kid. Learn how to connect your Pi to other hardware, install software, write basic programs, and set it up to run robots, multimedia centers, and more. Gets you up and running on Rasperry Pi, a high-tech computer the size of a credit card Helps educators teach students how to program Covers connecting Raspberry Pi to other hardware, such as monitors and keyboards, how to install software, and how to configure Raspberry Pi Shows you how to set up Raspberry Pi as a simple productivity computer, write basic programs in Python, connect to servos and sensors, and drive a robot or multimedia center Adults, kids, and devoted hardware hackers, now that you've got a Raspberry Pi, get the very most out of it with Raspberry Pi User Guide.

Program your own Raspberry Pi projects Create innovative programs and fun games on your tiny yet powerful Raspberry Pi. In this book, electronics guru Simon Monk explains the basics of Raspberry Pi application development, while providing hands-on examples and ready-to-use scripts. See how to set up hardware and software, write and debug applications, create user-friendly interfaces, and control external electronics. Do-it-yourself projects include a hangman game, an LED clock, and a software-controlled roving robot. Boot up and configure your Raspberry Pi Navigate files, folders, and menus Create Python programs using the IDLE editor Work with strings, lists, and functions Use and write your own libraries, modules, and classes Add Web features to your programs Develop interactive games with Pygame Interface with devices through the GPIO port Build a Raspberry Pi Robot and LED Clock Build professional-quality GUIs using Tkinter

Harness the power of Magento 2 – The most recent version of the world's favourite e-Commerce platform for your online store About This Book Set up, configure, and power up your Magento environment from development to production Master the use of Web API to communicate with the Magento system and create custom services Create custom modules from scratch to extend the core functionality of the Magento system Who This Book Is For This book is intended primarily for intermediate to professional-level PHP developers who are interested in Magento development. For backend developers, several topics are covered that will enable you to modify and extend your Magento 2 store. Frontend developers will also find some coverage on how to customize the look of the site in the frontend. What You Will Learn Set up the development and production environment of Magento 2 Understand the new major concepts and conventions used in Magento 2 Build a miniature yet fully-functional module from scratch to manage your e-commerce platform efficiently Write models and collections to manage and search your entity data Dive into backend development such as creating events, observers, cron jobs, logging, profiling, and messaging features Get to the core of frontend development such as blocks, templates, layouts, and the themes of Magento 2 Use token, session, and Oauth token-based authentication via various flavors of API calls, as well as creating your own APIs Get to grips with testing Magento modules and custom themes, which forms an integral part of development In Detail Magento is one of the most exciting, flexible, and customizable e-commerce systems. It offers you an extensive suite of powerful tools for creating and managing an online store. After years of development, Magento 2 introduces itself with a strong emphasis on modularity, Web API's, automated testing and overall new technology stack platform. The long-awaited Magento 2 release introduces a whole new e-commerce platform to develop online stores. The all new Magento 2 architecture, Web APIs, and a host of other features are equally challenging to master as much as they are exciting to use. This book will ease the learning curve by offering step-by-step guidance on how to extend the core functionality of your Magento 2 store. This book is your one-stop guide to build and customize a quality e-commerce website from the latest version of one of the largest, fastest growing, and most popular e-commerce platforms—Magento 2. We start off with an introduction to the fundamental concepts of Magento to give you a foundation to work from. We then move on to configure the development and basic production environment for Magento. After this, you'll get to grips with the major concepts and conventions that are new to the Magento 2 platform. We then delve deeper to get to the core of automated deployments, persisting data, writing data fixture scripts and applying various backend and frontend modifications. As we near the end of the book, you will learn to make API calls and write automated tests. Finally, you will be guided through building a full-blown helpdesk module from scratch. By the end of this book, you will have learned a wide range of techniques to extend and customize your Magento 2 store to fit the requirements of your business. Style and approach This book is a mix of theoretical and step-by-step approaches, explained in a conversational and easy-to-follow style. Topics are explained sequentially, giving detailed explanations of the basic and advanced features to get you working on Magento 2.

Programming the Raspberry Pi, Third Edition: Getting Started with Python

How to Learn Anything . . . Fast!

Raspberry Pi et l'ESP 8266 pour la domotique

Arduino: A Quick-Start Guide

A l'aventure avec Arduino !

Arduino Cookbook

Using Python and OpenCV

Le micro-ordinateur Rasperry Pi est un outil simple et puissant pour des installations domotiques. L'ESP 8266 est une puce Wifi compacte qui permet au Rasperry de communiquer sans fil. Ce composant, facile à programmer et bon marché (5 euros), possède un microprocesseur 32 bits qui le rend parfaitement autonome. Cela fait du système Rasperry Pi + ESP 8266 le couple idéal pour des applications de domotique ou d'Internet des objets. Cet ouvrage détaille la réalisation d'une vingtaine de montages qui seront faciles à réaliser pour les makers.

Proceedings of the International Symposium on Innovative and Interdisciplinary Applications of Advanced Technologies (IAT)

Code the Classics Volume 1