

Raspberry Pi 3 The Complete Beginners Guide

A Beginner's Guide to Coding Raspberry Pi Projects For
Dummies Full Stack Web Development with Raspberry
Pi 3 The Raspberry Pi 3 Project Book Build
Supercomputers with Raspberry Pi 3 Raspberry Pi 3
Cookbook for Python Programmers 20 Easy Raspberry
Pi Projects Python for Kids Raspberry Pi
Projects Raspberry Pi 3 Advanced Raspberry
Pi Raspberry Pi Cookbook Raspberry Pi 3 in easy
steps Raspberry Pi Hacking Raspberry Pi
Raspberry Pi User Guide The NEW Official Raspberry Pi Beginner's
Guide Programming the Raspberry Pi: Getting Started
with Python Raspberry Pi Raspberry Pi For
Dummies Science and Computing with Raspberry
Pi Getting Started with Raspberry Pi Exploring
Raspberry Pi Learn Electronics with Raspberry
Pi Raspberry Pi Learn Robotics with Raspberry
Pi Raspberry Pi 4 Beginner's Guide Adventures in
Raspberry Pi Raspberry Pi 3 Raspberry Pi 3 Raspberry Pi
3 Projects for Java Programmers Raspberry
Pi Raspberry Pi 3 Home Automation Projects Full Stack
Web Development with Raspberry Pi 3 Raspberry Pi
3 Raspberry Pi Projects for Kids Internet of Things
Programming Projects Raspberry Pi By
Example Raspberry Pi 3 Learning Python with
Raspberry Pi

A Beginner's Guide to Coding

A practical project-based guide to help you build and

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control your IoT projects Key Features Leverage the full potential of IoT with the combination of Raspberry Pi 3 and Python Build complex Python-based applications with IoT Work on various IoT projects and understand the basics of electronics Book Description The Internet of Things (IOT) has managed to attract the attention of researchers and tech enthusiasts, since it powerfully combines classical networks with instruments and devices. In Internet of Things Programming Projects, we unleash the power of Raspberry Pi and Python to create engaging projects. In the first part of the book, you'll be introduced to the Raspberry Pi, learn how to set it up, and then jump right into Python programming. Then, you'll dive into real-world computing by creating a "Hello World" app using flash LEDs. As you make your way through the chapters, you'll go back to an age when analog needle meters ruled the world of data display. You'll learn to retrieve weather data from a web service and display it on an analog needle meter, and build a home security system using the Raspberry Pi. The next project has a modern twist, where we employ the Raspberry Pi to send a signal to a web service that will send you a text when someone is at the door. In the final project, you take what you've learned from the previous two projects and create an IoT robot car that you can use to monitor what your pets are up to when you are away. By the end of this book, you will be well versed in almost every possible way to make your IoT projects stand out. What you will learn Install and set up a Raspberry Pi for IoT development Learn how to use a servo motor as an analog needle meter to read data Build a home security dashboard using an infrared motion detector Communicate with a web

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service that sends you a message when the doorbell rings Receive data and display it with an actuator connected to the Raspberry Pi Build an IoT robot car that is controlled through the internet Who this book is for Internet of Things Programming Projects is for Python developers and programmers who are interested in building their own IoT applications and IoT-based projects. It is also targeted at IoT programmers and developers who are looking to build exciting projects with Python.

Raspberry Pi Projects For Dummies

Helps readers get acquainted with hardware features on the Pi's board; learn enough Linux to move around the operating system; pick up the basics of Python; and use the Pi's input and output pins to do some hardware hacking.

Full Stack Web Development with Raspberry Pi 3

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

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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

The Raspberry Pi 3 Project Book

Ever wondered how to make a computer follow instructions? If so, then it is time to get coding! A Beginner's Guide to Coding is an easy-to-follow guide to the basics of coding, using the free programming languages of Scratch and Python. These step-by-step projects will have young coders talking to their own chatbots or making their own computer games in no time. Accessible, engaging, and fun, this book is bursting with eye-catching illustrations and fantastic projects to introduce aspiring young programmers to the world of coding.

Build Supercomputers with Raspberry Pi 3

Join the Raspberry revolution with these fun and easy Pi projects The Raspberry Pi has opened up a whole new world of innovation for everyone from hardware hackers and programmers to students, hobbyists, engineers, and beyond. Featuring a variety of hands-on projects, this easy-to-understand guide walks you through every step of the design process and will

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have you creating like a Raspberry Pi pro in no time. You'll learn how to prepare your workspace, assemble the necessary tools, work with test equipment, and find your way around the Raspberry Pi before moving on to a series of fun, lively projects that brings some power to your plain ol' Pi. Introduces Raspberry Pi basics and gives you a solid understanding of all the essentials you'll need to take on your first project Includes an array of fun and useful projects that show you how to do everything from creating a magic light wand to enhancing your designs with Lego sensors, installing and writing games for the RISC OS, building a transistor tester, and more Provides an easy, hands-on approach to learning more about electronics, programming, and interaction design for Makers and innovators of all ages Bring the power of Pi to your next cool creation with Raspberry Pi Projects For Dummies!

Raspberry Pi 3 Cookbook for Python Programmers

Get Started Now!! This book will give you a good grounding in getting started with your new Raspberry Pi 3, the tiny budget computer that does more than you could ever believe. We'll talk about the specs of this credit-card sized computer, how to set it up and how to code it using Python. If you are not au fait with Python, don't worry because I will give you an overview of the basics, everything you need to know. Lastly, I'll give you a couple of projects to get started with and a few tips on using your Raspberry Pi 3. Raspberry Pi 3 came out in February 2016 and, tiny

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and barebones as it is, it is thrashing the competition into oblivion. If you love to tinker, love to build your own devices and love to get your hands dirty with a bit of coding then Raspberry Pi 3 is for you. It's cheap, it's cheerful and, with a bit of practice, dead simple to use. Here is a preview of what this book will offer: An Overview of the Raspberry Pi 3 The Desktop and Connecting the Raspberry Pi 3 Setting Up Raspbian Installing Software on the Raspberry Pi 3 Getting Started with Raspberry Pi 3 Programming Project Ideas Hints and Tips much much more!! Don't wait any longer, get your copy today!!

20 Easy Raspberry Pi Projects

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 Raspberry Pi Projects is an excellent way to dig deeper into the capabilities of the Pi and to have great fun while doing it.

Python for Kids

Are you ready to get your complete Raspberry Pi 3 education? With this 2 in 1 bundle, you will learn everything there is to know to become a Raspberry Pi 3 Master.

Raspberry Pi Projects

The all NEW Raspberry Pi 3 User Guide! Completely up-to-date information so you can get the most out of your Raspberry Pi 3. Grab the guide that should have come in the box with your Pi! What can you do with your Raspberry Pi 3? Only this guide provides a comprehensive, easy to understand, and completely up-to-date explanation of the Raspberry Pi 3's many capabilities in 2018! Learn exactly what this remarkable computer can do and how you can implement the many features of this amazing device to improve your life, have fun, and save time every single day! Grab this guide today and learn: What are single board computers and how do they work? What is the Raspberry Pi 3? Raspberry Pi 3 Model B specifications How do I set up the Raspberry Pi 3? What is Raspbian? Installing Raspbian How do I Configure Raspbian? How do I connect using Bluetooth with my Raspberry Pi 3? What are my options for programming on my Raspberry Pi 3? Python What is the difference between Python versions? How to install multiple Python libraries What are some possible projects that I can do with my Raspberry Pi 3? Installing "DOOM" Installing the Kodi Multi Media Software on the Raspberry Pi 3 What is

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Kodi and what is it capable of? Turning your Raspberry Pi 3 into a Kodi Box Creating a Multi Room Audio system controlled by the Raspberry Pi Creating a Retro Game Console using the Raspberry Pi And much more! If you are going to have a Raspberry Pi 3, it only makes sense to also have the knowledge to get the most out of it. Empower yourself to enjoy all of the Pi's many capabilities when you grab this guide today!

Raspberry Pi 3

Raspberry Pi 3 - A Comprehensive Beginner's Guide! Raspberry Pi has revolutionized how programmer and machine interact, bringing forth a new era of human and technological interaction that has opened a whole new world of accessibility and fun! Raspberry Pi 3 has enabled its users to create inventions that have impacted our way of life forever. Its quick and easy to use interface has opened the flood gates to imaginations everywhere. This book will walk you step by step to creating and improving your Raspberry Pi creations that could make you the next big figure in the technological world! Here Is A Preview Of What Inside The Book: Introduction to Raspberry Pi 3 Operating System Powering Up and Running Connecting to a Network : Wired and WiFi Raspberry Pi Programming Languages Much, much more! Take Action Today and Learn Raspberry Pi 3 In No Time! Click the "Buy now with 1-Click" to the right and get this guide immediately.

Advanced Raspberry Pi

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Get your slice of Raspberry Pi With the invention of the unique credit card-sized single-board computer comes a new wave of hardware geeks, hackers, and hobbyists who are excited about the possibilities with the Raspberry Pi—and this is the perfect guide to get you started. With this down-to-earth book, you'll quickly discover why the Raspberry Pi is in high demand! There's a reason the Raspberry Pi sold a million units in its first year, and you're about to find out why! In *Raspberry Pi For Dummies, 3rd Edition* veteran tech authors Sean McManus and Mike Cook make it easier than ever to get you up and running on your Raspberry Pi, from setting it up, downloading the operating system, and using the desktop environment to editing photos, playing music and videos, and programming with Scratch—and everything in between. Covers connecting the Pi to other devices such as a keyboard, mouse, monitor, and more Teaches you basic Linux System Admin Explores creating simple hardware projects Shows you how to create web pages *Raspberry Pi For Dummies, 3rd Edition* makes computing as easy as pie!

Raspberry Pi Cookbook

“With futuristic homes on the rise, learn to control and automate the living space with intriguing IoT projects.” About This Book Build exciting (six) end-to-end home automation projects with Raspberry Pi 3, Seamlessly communicate and control your existing devices and build your own home automation system, Automate tasks in your home through projects that are reliable and fun Who This Book Is For This book is

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for all those who are excited about building home automation systems with Raspberry Pi 3. It's also for electronic hobbyists and developers with some knowledge of electronics and programming. What You Will Learn Integrate different embedded microcontrollers and development boards like Arduino, ESP8266, Particle Photon and Raspberry Pi 3, creating real life solutions for day to day tasks and home automation Create your own magic mirror that lights up with useful information as you walk up to it Create a system that intelligently decides when to water your garden and then goes ahead and waters it for you Use the Wi-fi enabled Adafruit ESP8266 Huzzah to create your own networked festive display lights Create a simple machine learning application and build a parking automation system using Raspberry Pi Learn how to work with AWS cloud services and connect your home automation to the cloud Learn how to work with Windows IoT in Raspberry Pi 3 and build your own Windows IoT Face Recognition door locking system In Detail Raspberry Pi 3 Home Automation Projects addresses the challenge of applying real-world projects to automate your house using Raspberry Pi 3 and Arduino. You will learn how to customize and program the Raspberry Pi 3 and Arduino-based boards in several home automation projects around your house, in order to develop home devices that will really rejuvenate your home. This book aims to help you integrate different microcontrollers like Arduino, ESP8266 Wi-Fi module, Particle Photon and Raspberry Pi 3 into the real world, taking the best of these boards to develop some exciting home automation projects. You will be able to use these projects in everyday tasks, thus making life

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easier and comfortable. We will start with an interesting project creating a Raspberry Pi-Powered smart mirror and move on to Automated Gardening System, which will help you build a simple smart gardening system with plant-sensor devices and Arduino to keep your garden healthy with minimal effort. You will also learn to build projects such as CheerLights into a holiday display, a project to erase parking headaches with OpenCV and Raspberry Pi 3, create Netflix's "The Switch" for the living room and lock down your house like Fort Knox with a Windows IoT face recognition-based door lock system. By the end of the book, you will be able to build and automate the living space with intriguing IoT projects and bring a new degree of interconnectivity to your world. Style and approach End to end home automation projects with Raspberry Pi 3.

Raspberry Pi 3 in easy steps

Expand Raspberry Pi capabilities with fundamental engineering principles Exploring Raspberry Pi is the innovators guide to bringing Raspberry 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

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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 Raspberry 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 Raspberry 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 Raspberry Pi.

Raspberry Pi

Want To Know What You Are Capable Of With The Raspberry Pi 3? Would You Like To Learn How To Easily Build And Use The Raspberry Pi 3? If So, You've Come To The Right Place This Book Has Got You Covered Raspberry Pi has revolutionized how programmers and machines interact, bringing forth a new era of human and technological interaction that has opened a whole new world of accessibility and fun! If you are new to programming Raspberry Pi 3 and would like to know more before taking steps, this

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book will provide you with all the information you need to take the first steps into the amazing world of Raspberry Pi 3! In this book you will learn the following awesome information: The Basics of Raspberry Pi 3 Programming Initial Set-Up of the Raspberry Pi 3 The Desktop and Connecting Raspberry Pi 3 Raspbian Basics Python 3 Basics Raspberry Pi 3 Projects Raspberry Pi 3 Tips and Accessories and many more! This book is the definitive resource on the Raspberry Pi 3. If you are someone with basic technical understanding, this book is for you. We'll get you started quick. If you're someone who is a little more advanced, this book is also for you. We've got tons of resources in a quick, concise and easy to read format to keep you learning for hours. So what are you waiting for, get cracking today on building some awesome projects! Get to know your way around computer administration and coding. Open your eyes to the technological possibilities of a Raspberry Pi system. The power can be yours! Don't look any further! Purchase "Raspberry Pi 3 Programming 101: The New User's Manual To Programming Raspberry Pi 3" right away and take the first steps on a path to computer expertise with this Raspberry Pi 3 guide!

Hacking Raspberry Pi

Make a variety of cool projects using the Pi with programming languages like Scratch and Python, with no experience necessary. You'll learn how the Pi works, how to work with Raspbian Linux on the Pi, and how to design and create electronic circuits.

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Raspberry Pi is everywhere, it's inexpensive, and it's a wonderful tool for teaching about electronics and programming. This book shows you how to create projects like an arcade game, disco lights, and infrared transmitter, and an LCD display. You'll also learn how to control Minecraft's Steve with a joystick and how to build a Minecraft house with a Pi, and even how to control a LEGO train with a Pi. You'll even learn how to create your own robot, including how to solder and even design a printed circuit board! Learning electronics can be tremendous fun — your first flashing LED circuit is a reason to celebrate! But where do you go from there, and how can you move into more challenging projects without spending a lot of money on proprietary kits? Learn Electronics with Raspberry Pi shows you how to and a lot more. What You'll Learn Design and build electronic circuits Make fun projects like an arcade game, a robot, and a Minecraft controller Program the Pi with Scratch and Python Who This Book Is For Makers, students, and teachers who want to learn about electronics and programming with the fun and low-cost Raspberry Pi.

Raspberry Pi User Guide

The Raspberry Pi is an inexpensive programmable credit-card sized computer that plugs into your TV and a keyboard. It can be used for many of the things that your PC does, like spreadsheets, word-processing and playing games, but its real purpose is to inspire children (and adults) to learn how to program. Over five million Raspberry Pis have been sold worldwide, so far! Raspberry Pi 3 in easy steps starts with the

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basic components you'll need, setting up the system and logging into the console. Then, in easy steps, it introduces you to the Raspbian operating system that is optimized for the Raspberry Pi. You'll learn how to customize the look and feel of your system, how to navigate the file system, and how to use the powerful system 'shell' to make things happen for you. The new GPIO interface is fully described, and the new NOOBS installer is also described for setup. Raspberry Pi 3 in easy steps enables complete beginners to create their very own computer programs with the Scratch visual programming environment. It also instructs programming in the high-level (human-readable) Python programming language, which is processed by the Python 'interpreter' to produce results fast. Examples demonstrate how to use the included Python 'pygame' module, to make your own games, and how to use the included 'Tkinter' module to create graphical windowed apps. Raspberry Pi 3 in easy steps also illustrates how to control electrical input and output on the Raspberry Pi header from Python scripts, including lighting a lamp, adding more buttons and controlling projects. With the knowledge gained from this book the reader can confidently advance to any future electronic Raspberry Pi project or other explore other programming environments. Covers the latest versions of Python.

The NEW Official Raspberry Pi Beginner's Guide

Discover how to build full stack web applications with the Raspberry Pi 3 About This Book Leverage

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JavaScript, HTML5, and Cloud APIs to create visual representations and interactive web pages. Learn to install and use a Node.js-based web framework to develop Raspberry Pi 3-powered web applications. A step-by-step guide that will cover from setting up a embedded system to developing embedded, device-powered interactive web applications. Who This Book Is For This book is aimed at hobbyist, enthusiasts, and developers eager to develop embedded device-powered web applications. Prior programming experience with JavaScript, HTML5, and Node.JS will be beneficial. What You Will Learn Get up and running with your Raspberry Pi Go full stack! Learn about the end-to-end development process for web applications, right from the OS up to the actual HTML web interface Discover that JavaScript is one of the fastest growing languages today, and is the only language that can be used both on a browser and server. This book will empower you to develop in a complete JavaScript stack See that the IoT is everywhere! Connect your application to the outside world. Make use of sensors in your Raspberry Pi to give your application an edge, and unleash the full power of the Internet of Things Build a rich UI with beautiful charts and data visualizations that can run on any browser Make your software data-driven. Learn how to utilize SQLite to collect and analyze data from multiple systems In Detail Modern web technology and portable computing together have enabled huge advances in the Internet of Things (IoT) space, as well as in areas such as machine learning and big data. The Raspberry Pi is a very popular portable computer for running full stack web applications. This book will empower you to master this rapidly evolving

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technology to develop complex web applications and interfaces. This book starts by familiarizing you with the various components that make up the web development stack and that will integrate into your Raspberry Pi-powered web applications. It also introduces the Raspberry Pi computer and teach you how to get up and running with a brand new one. Next, this book introduces you to the different kinds of sensor you'll use to make your applications; using these skills, you will be able to create full stack web applications and make them available to users via a web interface. Later, this book will also teach you how to build interactive web applications using JavaScript and HTML5 for the visual representation of sensor data. Finally, this book will teach you how to use a SQLite database to store and retrieve sensor data from multiple Raspberry Pi computers. By the end of this book you will be able to create complex full stack web applications on the Raspberry Pi 3 and will have improved your application's performance and usability. Style and approach Step-by-step instructions on developing a full stack web application and deploying it to the Cloud.

Programming the Raspberry Pi: Getting Started with Python

Start building amazing projects with the Raspberry Pi right out of the box About This Book Explore the vast range of opportunities provided by Raspberry Pi and other hardware components such as a webcam, the Pi camera, and sensors Get hands-on experience with coding, networking, and hardware with the Raspberry

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Pi platform Learn through ample screenshots that offer a play-by-play account of how to implement Raspberry-Pi-based real-life projects Who This Book Is For What's the best way to learn how to use your Raspberry Pi? By example! If you want something exciting to do whilst getting to grips with what your Pi can offer, this is the book for you. With both simple and complex projects, you'll create a wide variety of cool toys and functions with your Raspberry Pi - all with minimal coding experience necessary. What You Will Learn Set up your Raspberry Pi and get it ready for some interesting real-life projects Work with images, videos, webcams, and the Pi camera and create amazing time-lapse videos Explore the amazing world of Minecraft Pi Get to know how to use PiGlow for GPIO programming Interface your Pi with Grove Sensors and implement IoT applications Build your own cluster with Raspberry Pi Understand the networking and network programming fundamentals In Detail Want to put your Raspberry Pi through its paces right out of the box? This tutorial guide is designed to get you learning all the tricks of the Raspberry Pi through building complete, hands-on hardware projects. Speed through the basics and then dive right in to development! Discover that you can do almost anything with your Raspberry Pi with a taste of almost everything. Get started with Pi Gaming as you learn how to set up Minecraft, and then program your own game with the help of Pygame. Turn the Pi into your own home security system with complete guidance on setting up a webcam spy camera and OpenCV computer vision for image recognition capabilities. Get to grips with GPIO programming to make a Pi-based glowing LED

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system, build a complete functioning motion tracker, and more. Finally, get ready to tackle projects that push your Pi to its limits. Construct a complete Internet of Things home automation system with the Raspberry Pi to control your house via Twitter; turn your Pi into a super-computer through linking multiple boards into a cluster and then add in advanced network capabilities for super speedy processing!

Style and approach This step-by-step guide to building Raspberry-Pi-based projects is explained in a conversational and easy-to-follow style. Each topic is explained sequentially in the process of creating real-life projects, and detailed explanations of the basic and advanced features of various Python libraries are also included.

Raspberry Pi

An easy reference to Master the Raspberry Pi 4. Learn to Work with Python, GPIO pins and sensors, the Pi Camera Module, and build amazing projects like a Pro! This guide offers you the information you need to Master the Raspberry Pi 4 as a beginner! It walks you through everything you need to know to use the platform to the fullest. Here is a preview of what you will learn: Understand what the Raspberry Pi 4 is and how to set it up Understand how to connect remotely to your Raspberry Pi 4 and run it How to work with GPIO pins and read external inputs and sensors (buttons and PIR sensors) How to work with LED Cameras How interact with scratch and programming And So much more.

Raspberry Pi For Dummies

If you want to learn more about Raspberry Pi, this is the book for you! Boasting more than just the basics, this book will walk you through everything from setting up the Pi to building a smart TV. McCarthy begins by introducing the reader to OpenCV, which is the computer vision library used for the projects he describes throughout the book. He then outlines in detail how to program video cameras, how to create a GPS designated photo camera, and even link your Raspberry Pi to your Google Home to bring automation to your smart house. In this book you'll work through a series of projects that outline basic Raspberry Pi programming. The projects in this book include: How to create a face detection app Creating a print server that is network accessible How to create a weather app Building your own Smart TV More! Perhaps just as important as the projects themselves, McCarthy's book guides the reader on what he or she should already know before starting any of the projects. His "prerequisites" section explains how a basic understanding of Raspberry Pi is important to executing his projects, and provides resources for the Raspberry Pi programmer-to-be. But this book doesn't just stop with prerequisites! It also includes a "Chapter 0" for very beginners. This chapter takes a step-by-step approach to setting up the Raspberry Pi, connecting devices, and more. Once you set up your Raspberry Pi you'll be off and running! This book explores achievable, functional projects that you can create with your Raspberry Pi, and introduces you to the endless possibilities of

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Raspberry Pi programming. Whether you're new to the world of Raspberry Pi or simply looking for some new projects to hone your programming skills, this book delivers something useful for any reader. More about Raspberry Pi 3: The Raspberry Pi 3 is a credit-card sized computer that was designed to teach basic computer programming to children. It's an affordable option for schools and families, costing around e20-e40 (\$25-\$35) per unit. This capable computer allows kids to explore the fundamentals of coding in classrooms and at home! The Raspberry Pi 3 also has quite a bit of functionality outside of the classroom. It can be used to improve home automation, as a low-cost energy monitoring system, and more.

Programmers are constantly finding more uses for the Raspberry Pi, so now is a great time to learn how to work with that thing! This is the perfect book to enhance your knowledge and train your skills on Python and Node.js programming by developing fun projects. Grab your copy now!

Science and Computing with Raspberry Pi

Learn coding and electronics through 12 original and daring projects that hack wireless signals. The Raspberry Pi is an inexpensive, pocket-sized computer that will help you build and code your own hardware projects. Raspberry Pi Projects for Kids will show you how to harness the power of the Raspberry Pi to create 12 cool projects using simple code and common materials like a webcam, microphone, and LED lights. Step-by-step instructions and detailed

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diagrams guide you through each project. After a brief introduction to the Python programming language, you'll learn how to:

- Create an LED night-light that turns itself on and off
- Set up a Raspberry Pi camera to take selfies and videos
- Set up a webcam to stream video to your cell phone
- Manipulate environments in Minecraft
- Hijack local radio waves to play your own songs and recordings
- Configure Raspberry Pi to send texts to a cell phone
- Track your family members' locations via wi-fi and Bluetooth
- Create an MP3 player
- Set up a camera to take motion-triggered photos of wildlife
- Control the electronics in your home with your cell phone
- Teach Raspberry Pi to read aloud posts from your Twitter feed
- Play "Rock, Paper, Scissors" against Raspberry Pi

Raspberry Pi Projects for Kids will deliver hours of fun and endless inspiration!

Getting Started with Raspberry Pi

Learn the art of building enticing projects by unleashing the potential of Raspberry Pi 3 using Java

About This Book Explore the small yet powerful mini computer in order to run java applications Leverage Java libraries to build exciting projects on home automation, IoT, and Robotics by leveraging Java libraries Get acquainted with connecting electronic sensors to your Raspberry Pi 3 using Java APIs. Who This Book Is For The book is aimed at Java programmers who are eager to get their hands-on Raspberry Pi and build interesting projects using java. They have a very basic knowledge of Raspberry Pi.

What You Will Learn Use presence detection using the

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integrated bluetooth chip Automatic light switch using presence detection Use a centralized IoT service to publish data using RPC Control a robot by driving motors using PWM Create a small web service capable of performing actions on the Raspberry Pi and supply readings Image capture using Java together with the OpenCV framework In Detail Raspberry Pi is a small, low cost and yet very powerful development platform. It is used to interact with attached electronics by the use of it's GPIO pins for multiple use cases, mainly Home Automation and Robotics. Our book is a project-based guide that will show you how to utilize the Raspberry Pi's GPIO with Java and how you can leverage this utilization with your knowledge of Java. You will start with installing and setting up the necessary hardware to create a seamless development platform. You will then straightaway start by building a project that will utilize light for presence detection. Next, you will program the application, capable of handling real time data using MQTT and utilize RPC to publish data to adafruit.io. Further, you will build a wireless robot on top of the zuma chassis with the Raspberry Pi as the main controller. Lastly, you will end the book with advanced projects that will help you to create a multi-purpose IoT controller along with building a security camera that will perform image capture and recognize faces with the help of notifications. By the end of the book, you will be able to build your own real world usable projects not limited to Home Automation, IoT and/or Robotics utilizing logic, user and web interfaces. Style and approach The book will contain projects that ensure a java programmer gets started with building interesting projects using the

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small yet powerful Raspberry Pi 3. We will start with brushing up your Raspberry Pi skills followed by building 5-6 projects

Exploring Raspberry Pi

Discover how to build full stack web applications with the Raspberry Pi 3 About This Book Leverage JavaScript, HTML5, and Cloud APIs to create visual representations and interactive web pages. Learn to install and use a Node.js-based web framework to develop Raspberry Pi 3-powered web applications. A step-by-step guide that will cover from setting up a embedded system to developing embedded, device-powered interactive web applications. Who This Book Is For This book is aimed at hobbyist, enthusiasts, and developers eager to develop embedded device-powered web applications. Prior programming experience with JavaScript, HTML5, and Node.JS will be beneficial. What You Will Learn Get up and running with your Raspberry Pi Go full stack! Learn about the end-to-end development process for web applications, right from the OS up to the actual HTML web interface Discover that JavaScript is one of the fastest growing languages today, and is the only language that can be used both on a browser and server. This book will empower you to develop in a complete JavaScript stack See that the IoT is everywhere! Connect your application to the outside world. Make use of sensors in your Raspberry Pi to give your application an edge, and unleash the full power of the Internet of Things Build a rich UI with beautiful charts and data visualizations that can run on any browser Make your

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software data-driven. Learn how to utilize SQLite to collect and analyze data from multiple systems In Detail Modern web technology and portable computing together have enabled huge advances in the Internet of Things (IoT) space, as well as in areas such as machine learning and big data. The Raspberry Pi is a very popular portable computer for running full stack web applications. This book will empower you to master this rapidly evolving technology to develop complex web applications and interfaces. This book starts by familiarizing you with the various components that make up the web development stack and that will integrate into your Raspberry Pi-powered web applications. It also introduces the Raspberry Pi computer and teach you how to get up and running with a brand new one. Next, this book introduces you to the different kinds of sensor you'll use to make your applications; using these skills, you will be able to create full stack web applications and make them available to users via a web interface. Later, this book will also teach you how to build interactive web applications using JavaScript and HTML5 for the visual representation of sensor data. Finally, this book will teach you how to use a SQLite database to store and retrieve sensor data from multiple Raspberry Pi computers. By the end of this book you will be able to create complex full stack web applications on the Raspberry Pi 3 and will have improved your application's performance and usability. Style and approach Step-by-step instructions on developing a full stack web application and deploying it to the Cloud.

Learn Electronics with Raspberry Pi

Learn Raspberry Pi 3 The Right Way With the help of this book, you will learn how to properly program your Raspberry Pi 3, complete your own projects, and all the ins and outs of this minicomputer. Raspberry Pi 3 is an amazing piece of technology and the possibilities are endless once you are able to be in full control of it. Raspberry Pi 3: Complete Programming Guide with Step by Step Raspberry Pi 3 Projects for Beginners will get you well on your way with this amazing minicomputer! Read this book now and start learning the following What is Raspberry Pi? Raspberry Models Raspberry Pi Starters Kit Installation and Setup Raspberry Configuration Accessing Your Pi Remotely Python- Real Time Programming And Much, Much More Start Learning Raspberry Pi 3 Now! Download This Book Today

Raspberry Pi

Explains how to leverage the revolutionary Raspberry Pi computer in order to learn the versatile Python programming language. Original.

Learn Robotics with Raspberry Pi

A recipe-based guide to programming your Raspberry Pi 3 using Python Key Features Leverage the power of Raspberry Pi 3 using Python programming Create 3D games, build neural network modules, and interface with your own circuits Packed with clear, step-by-step recipes to walk you through the capabilities of

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Raspberry Pi Book Description Raspberry Pi 3 Cookbook for Python Programmers - Third Edition begins by guiding you through setting up Raspberry Pi 3, performing tasks using Python 3.6, and introducing the first steps to interface with electronics. As you work through each chapter, you will build your skills and apply them as you progress. You will learn how to build text classifiers, predict sentiments in words, develop applications using the popular Tkinter library, and create games by controlling graphics on your screen. You will harness the power of a built in graphics processor using Pi3D to generate your own high-quality 3D graphics and environments. You will understand how to connect Raspberry Pi's hardware pins directly to control electronics, from switching on LEDs and responding to push buttons to driving motors and servos. Get to grips with monitoring sensors to gather real-life data, using it to control other devices, and viewing the results over the internet. You will apply what you have learned by creating your own Pi-Rover or Pi-Hexipod robots. You will also learn about sentiment analysis, face recognition techniques, and building neural network modules for optical character recognition. Finally, you will learn to build movie recommendations system on Raspberry Pi 3. What you will learn Learn to set up and run Raspberry Pi 3 Build text classifiers and perform automation using Python Predict sentiments in words and create games and graphics Detect edges and contours in images Build human face detection and recognition system Use Python to drive hardware Sense and display real-world data Build a neural network module for optical character recognition Build movie recommendations system

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Who this book is for This book is for anyone who wants to master the skills of Python programming using Raspberry Pi 3. Prior knowledge of Python will be an added advantage.

Raspberry Pi 4 Beginner's Guide

After a crash course to get you set up with your Raspberry Pi, you'll learn how to build interactive projects like a digital drum set; a WiFi controlled robot; a Pong game; an intruder alarm and more. Along the way, you'll work with core components like LCD screens, cameras, sensors, and even learn how to set up your own server. Each project provides step-by-step instructions, full-colour photos and circuit diagrams, and the complete code to bring your build to life. If you re ready to hit the ground running and make something interesting, let Raspberry Pi Project Handbook be your guide.

Adventures in Raspberry Pi

Programming can feel daunting at times, and it is especially intimidating to beginners, but with the invention of the Raspberry Pi, it became much easier to learn and more affordable. The Pi is a tiny credit card-sized computer that led to the appearance of an entirely new community of geeks. With this straightforward, easy to follow guide, aspiring programmers can now learn the craft without feeling overwhelmed and develop cool gadgets and complex robots. The Raspberry Pi has sold millions of units since its arrival on the market, and this


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Comprehensive Beginner's Guide to Setup, Programming (Concepts and Techniques) and Developing Cool Raspberry Pi Projects will show you why! Here's what you will gain by reading this beginner-friendly book: Set up your very own Raspberry Pi and learn how to connect other devices to it. Learn how to work with Linux and use basic commands. Enter the world of Programming with Python, a powerful language with world-wide renown for being easy to learn, but highly versatile. Grasp the more advanced concepts of object-oriented programming. Explore the process of creating cool projects, from the humble web crawler to the mighty weather station. Open your mind to an entire world of possibilities. After all, it's easy as pie!

Raspberry Pi 3

Programming can feel daunting at times, and it is especially intimidating to beginners, but with the invention of the Raspberry Pi, it became much easier to learn and more affordable. The Pi is a tiny credit card-sized computer that led to the appearance of an entirely new community of geeks. With this straightforward, easy to follow guide, aspiring programmers can now learn the craft without feeling overwhelmed and develop cool gadgets and complex robots. The Raspberry Pi has sold millions of units since its arrival on the market, and this Comprehensive Beginner's Guide to Setup, Programming (Concepts and Techniques) and Developing Cool Raspberry Pi Projects will show you why! You can become your own computer engineer

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by knowing how to set up your operating system, as well as knowing and connecting which circuits and wires go into which of the board's pins. Since it was designed to teach young children how to program with user-friendly languages, including Scratch and Python, your head will explode when trying to figure out how to work with the board. The book will teach you everything there is to know about the Raspberry Pi, including the different versions, the ports, and how to properly attach peripherals like the monitor, keyboard, and mouse to it. You will then learn how to set up your Raspberry Pi hardware, how to assemble the case, connect a display, connect audio, set up your software, install your operating system Raspbian, how to manually install the Raspberry Pi, and also flashing from different operating systems. Here's what you will gain by reading this beginner-friendly book Set up your very own Raspberry Pi and learn how to connect other devices to it. Learn how to work with Linux and use basic commands. Enter the world of Programming with Python, a powerful language with world-wide renown for being easy to learn, but highly versatile. Grasp the more advanced concepts of object-oriented programming. Explore the process of creating cool projects, from the humble web crawler to the mighty weather station. Open your mind to an entire world of possibilities. After all, it's easy as pie!  Click the Buy Now button to get started on the amazing and endless adventure of Raspberry Pi projects!

Raspberry Pi 3

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Raspberry Pi is taking off like a rocket! You can use this amazing, dirt-cheap, credit card-sized computer to learn powerful hardware hacking techniques as you build incredibly creative and useful projects! This complete, full-color guide requires absolutely no experience with either hardware hacking or computer programming. Colorful photos guide you through each project, and the step-by-step instructions are stunningly clear and easy!

Raspberry Pi 3 Projects for Java Programmers

The NEW Official Raspberry Pi Beginner's Guide: updated for Raspberry Pi 4

Raspberry Pi

A step-by-step guide that will enhance your skills in creating powerful systems to solve complex issues
About This Book Carlos R. Morrison from NASA will teach you to build a supercomputer with Raspberry Pi 3
3 Deepen your understanding of setting up host nodes, configuring networks, and automating mountable drives
Learn various math, physics, and engineering applications to solve complex problems
Who This Book Is For This book targets hobbyists and enthusiasts who want to explore building supercomputers with microcomputers. Researchers will also find this book useful. Prior programming knowledge is necessary; knowledge of supercomputers is not.
What You Will Learn Understand the concept of the Message Passing

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Interface (MPI) Understand node networking. Configure nodes so that they can communicate with each other via the network switch Build a Raspberry Pi3 supercomputer. Test the supercluster Use the supercomputer to calculate MPI p codes. Learn various practical supercomputer applications In Detail Author Carlos R. Morrison (Staff Scientist, NASA) will empower the uninitiated reader to quickly assemble and operate a Pi3 supercomputer in the shortest possible time. The lifeblood of a supercomputer, the MPI code, is introduced early, and sample MPI code provides additional practice opportunities for you to test the effectiveness of your creation. You will learn how to configure various nodes and switches so that they can effectively communicate with each other. By the end of this book, you will have successfully built a supercomputer and the various applications related to it. Style and approach A progressive guide that will start off with serial coding and MPI concepts, moving towards configuring a complete supercluster, and solving real world problems

Raspberry Pi 3 Home Automation Projects

"The world of Raspberry Pi is evolving quickly, with many new interface boards and software libraries becoming available all the time. In this cookbook, prolific hacker and author Simon Monk provides more than 200 practical recipes for running this tiny low-cost computer with Linux, programming it with Python, and hooking up sensors, motors and other hardware--including Arduino. You'll also learn basic

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principles to help you use new technologies with Raspberry Pi as its ecosystem develops. Python and other code examples from the book are available on GitHub. This cookbook is ideal for programmers and hobbyists familiar with the Pi through resources such as Getting Started with Raspberry Pi (O'Reilly)."--

Full Stack Web Development with Raspberry Pi 3

The world of single-board computing puts powerful coding tools in the palm of your hand. The portable Raspberry Pi computing platform with the power of Linux yields an exciting exploratory tool for beginning scientific computing. Science and Computing with Raspberry Pi takes the enterprising researcher, student, or hobbyist through explorations in a variety of computing exercises with the physical sciences. The book has tutorials and exercises for a wide range of scientific computing problems while guiding the user through: * Configuring your Raspberry Pi and Linux operating system * Understanding the software requirements while using the Pi for scientific computing * Computing exercises in physics, astronomy, chaos theory, and machine learning

Raspberry Pi 3

Jump right into the pro-level guts of the Raspberry Pi with complete schematics and detailed hardware explanations as your guide. You'll tinker with runlevels, reporting voltages and temperatures, and work on a variety of project examples that you can

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tune for your own project ideas.. This book is fully updated for the latest Pi boards with three chapters dedicated to GPIO to help you master key aspects of the Raspberry Pi. You'll work with Linux driver information and explore the different Raspberry Pi models, including the Pi Zero, Pi Zero W, Pi 2, Pi3 B and Pi3 B+. You'll also review a variety of project examples that you can tune for your own project ideas. Other topics covered include the 1-Wire driver interface, how to configure a serial Linux console, and cross-compile code, including the Linux kernel. You'll find yourself turning to Advanced Raspberry Pi over and over again for both inspiration and reference. Whether you're an electronics professional, an entrepreneurial maker, or just looking for more detailed information on the Raspberry Pi, this is exactly the book for you. What You'll Learn Master I2C and SPI communications from Raspbian Linux in C Program USB peripherals, such as a 5-inch LCD panel with touch control and the Pi camera Study GPIO hardware, the sysfs driver interface and direct access from C programs Use and program the UART serial device. Who This Book Is For Advanced Raspberry Pi users who have experience doing basic projects and want to take their projects further.

Raspberry Pi Projects for Kids

Coding for kids is cool with Raspberry Pi and this elementary guide Even if your kids don't have an ounce of computer geek in them, they can learn to code with Raspberry Pi and this wonderful book. Written for 11- to 15-year-olds and assuming no prior

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computing knowledge, this book uses the wildly successful, low-cost, credit-card-sized Raspberry Pi computer to explain fundamental computing concepts. Young people will enjoy going through the book's nine fun projects while they learn basic programming and system administration skills, starting with the very basics of how to plug in the board and turn it on. Each project includes a lively and informative video to reinforce the lessons. It's perfect for young, eager self-learners—your kids can jump in, set up their Raspberry Pi, and go through the lessons on their own. Written by Carrie Anne Philbin, a high school teacher of computing who advises the U.K. government on the revised ICT Curriculum Teaches 11- to 15-year-olds programming and system administration skills using Raspberry Pi Features 9 fun projects accompanied by lively and helpful videos Raspberry Pi is a \$35/£25 credit-card-sized computer created by the non-profit Raspberry Pi Foundation; over a million have been sold Help your children have fun and learn computing skills at the same time with Adventures in Raspberry Pi.

Internet of Things Programming Projects

Learn the Raspberry Pi 3 from the experts! Raspberry Pi User Guide, 4th Edition is the "unofficial official" guide to everything Raspberry Pi 3. Written by the Pi's creator and a leading Pi guru, this book goes straight to the source to bring you the ultimate Raspberry Pi 3 manual. This new fourth edition has been updated to cover the Raspberry Pi 3 board and software, with detailed discussion on its wide array of configurations,

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languages, and applications. You'll learn how to take full advantage of the mighty Pi's full capabilities, and then expand those capabilities even more with add-on technologies. You'll write productivity and multimedia programs, and learn flexible programming languages that allow you to shape your Raspberry Pi into whatever you want it to be. If you're ready to jump right in, this book gets you started with clear, step-by-step instruction from software installation to system customization. The Raspberry Pi's tremendous popularity has spawned an entire industry of add-ons, parts, hacks, ideas, and inventions. The movement is growing, and pushing the boundaries of possibility along with it—are you ready to be a part of it? This book is your ideal companion for claiming your piece of the Pi. Get all set up with software, and connect to other devices

Understand Linux System Admin nomenclature and conventions
Write your own programs using Python and Scratch
Extend the Pi's capabilities with add-ons like Wi-Fi dongles, a touch screen, and more

The credit-card sized Raspberry Pi has become a global phenomenon. Created by the Raspberry Pi Foundation to get kids interested in programming, this tiny computer kick-started a movement of tinkerers, thinkers, experimenters, and inventors. Where will your Raspberry Pi 3 take you? The Raspberry Pi User Guide, 3rd Edition is your ultimate roadmap to discovery.

Raspberry Pi By Example

Learn all about the Raspberry Pi3 and what you can do with it. No previous technical skills required! Now

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with fully update URLs in the paperback version for easy reference The Raspberry Pi 3 is a powerful minicomputer that has gained popularity for its versatility with hobbyists, DIYers, students, and digital engineers. More than just a tiny computer, the RPI is also a microcontroller that can light LEDs, spin motors, obtain sensor input, and much more. This book serves as a beginners guide to the RPI 3. Including how to acquire the device, we also explain how to set it up and get going building your own projects- no prior experience with electronics is necessary! Between offering project ideas and links to popular peripherals, this book will keep the RPI owner busy learning and exploring the world around them with their Raspberry Pi. For children and adults alike, the RPI is an amazing device that fosters creativity; this book is the starter guide for their journey. This book will save you hours upon hours of trying to figure this stuff out for yourself! This book includes: What is the Raspberry Pi 3 How to set up RPI 3 How to use Raspbian GPIO Pins Project Ideas Accessories for the Pi Advanced Circuits with the RPI 3 Raspberry Pi Tips and Tricks Take action now and buy this book to start your journey towards Raspberry Pi 3 mastery! Free next day delivery for Amazon Prime Customers. Tags: Raspberry Pi, Raspberry Pi 3, Raspberry Pi 3 Book, Raspberry Pi 3 Guide, Raspberry Pi 3 Kindle, Raspberry Pi 3 2016, Raspberry Pi 3 Projects, Raspberry Pi 3 User Guide, Raspberry Pi 3 Programming, Raspberry Pi 3 Python, Raspberry Pi 3 Beginners

Raspberry Pi 3

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Introduces the basics of the Python programming language, covering how to use data structures, organize and reuse code, draw shapes and patterns with turtle, and create games and animations with tkinter.

Learning Python with Raspberry Pi

In *Learn Robotics with Raspberry Pi*, you'll learn how to build and code your own robot projects with just the Raspberry Pi microcomputer and a few easy-to-get components - no prior experience necessary! *Learn Robotics with Raspberry Pi* will take you from inexperienced maker to robot builder. You'll start off building a two-wheeled robot powered by a Raspberry Pi minicomputer and then program it using Python, the world's most popular programming language. Gradually, you'll improve your robot by adding increasingly advanced functionality until it can follow lines, avoid obstacles, and even recognize objects of a certain size and color using computer vision. Learn how to: - Control your robot remotely using only a Wii remote - Teach your robot to use sensors to avoid obstacles - Program your robot to follow a line autonomously - Customize your robot with LEDs and speakers to make it light up and play sounds - See what your robot sees with a Pi Camera As you work through the book, you'll learn fundamental electronics skills like how to wire up parts, use resistors and regulators, and determine how much power your robot needs. By the end, you'll have learned the basics of coding in Python and know enough about working with hardware like LEDs, motors, and sensors

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to expand your creations beyond simple robots.

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