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

- **Authors:** Simon Monk
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Description

An updated guide to programming your own Raspberry Pi projects. Learn to create inventive programs and fun games on your powerful Raspberry Pi—with no programming experience required. This practical book has been revised to fully cover the new Raspberry Pi 2, including upgrades to the Raspbian operating system. Discover how to configure hardware and software, write Python scripts, create user-friendly GUIs, and control external electronics. DIY projects include a hangman game, RGB LED controller, digital clock, and RasPiRobot complete with an ultrasonic rangefinder.

- Updated for Raspberry Pi 2
- Set up your Raspberry Pi and explore its features
- Navigate files, folders, and menus
- Write Python programs using the IDLE editor
- Use strings, lists, functions, and dictionaries
- Work with modules, classes, and methods
- Create user-friendly games using Pygame
- Build intuitive user interfaces with Tkinter
- Attach external electronics through the GPIO port
- Add powerful Web features to your projects

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The Raspberry Pi is an amazing single board computer (SBC) capable of running Linux and a whole host of applications. Python is a beginner-friendly programming language that is used in schools, web development, scientific research, and in many other industries. This guide will walk you through writing your own programs with Python to blink lights, respond to button pushes, read sensors, and log data on the Raspberry Pi. Notice: This tutorial was written with Raspbian version “April 2018” and Python version 3.5.3. Other versions may affect how some of the steps in this guide are perfo