Goskills

Getting Started with the Raspberry Pi Computer

GoSkills online course syllabus

Skill level
Beginner

Lessons
20

Accredited by
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Pre-requisites
No prior experience needed

Video duration
1h 28m

Estimated study time
1h 28m

Instructor
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Introduction

1 Intro to Raspberry Pi

Learning about computers, programming and electronics can be difficult sometimes.

Choosing the Right Raspberry Pi

2 Raspberry Pi computers

There are several different types of Raspberry Pi's on the market, but the Raspberry Pi Computer is the most popular.

3 Raspberry Pi compute module

Although the Raspberry Pi Compute Module has more capabilities than the Raspberry Pi Computers, it's intended for industry and not beginners.

4 Raspberry Pi Pico

The Raspberry Pi Pico is the first Raspberry Pi product line that is not a full computer.

Setting Up the Raspberry Pi 4

5 Raspberry Pi 4 features

As of this guide, the Raspberry Pi 4 is the most recent and the most powerful Raspberry Pi computer.

6 Accessory requirements

Even though the Raspberry Pi has a lot of functionality built in, there are still some components needed to set it up for first use.

7 Installing the Raspberry Pi OS

All computers, including the Raspberry Pi, require an operating system in order to use them.

Raspberry Pi Linux Basics

8 Raspberry Pi OS initial setup

Once the Raspberry Pi OS is installed, it requires a few additional customizations for use.

9 Remote access

Operating a Raspberry Pi doesn't require a physical monitor, mouse or keyboard to be attached to it.

10 Basic Linux Terminal commands

The most efficient way to use Linux is through its Command Line Interface, but in order to do so, there are some commands that are helpful to know.

Raspberry Pi Python Basics

11 Python programming environment

The Raspberry Pi OS comes with several different coding editors.

12 Python syntax

Similar to how grammatical rules give structure to a book or document, Python code also has rules that follow a certain structure.

13 Variables and data types

The Python programming language makes it easy to add, subtract or compare numbers and values.

14 Control flow

When a Python script is executed, it always runs linearly line-by-line until the end of the code.

Physical Computing

15 Input and output pins

A revolutionary feature of the Raspberry Pi is the ability to use it as an interface with other components and electronic devices.

16 Breadboard basics

An easy way to create an electronic circuit without soldering is by using a breadboard.

17 Buttons and inputs

The Raspberry Pi can send data to, and receive data from a electronic components, such as buttons and LEDs respectively.

18 Connecting sensors

Some electronic components produce lots of data that can be used with a Raspberry Pi and Python for graphing or monitoring the data.

19 The Raspberry Pi camera

A great feature of the Raspberry Pi is it's ability to use a digital camera and analyze what it "sees".

Conclusion

20 Begin your Raspberry Pi journey

Thank you for taking the time to watch this course!

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