

Learn to Program with Scratch: A Visual Introduction to Programming with Games, Art, Science, and Math

By Majed Marji

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Scratch is a fun, free, beginner-friendly programming environment where you connect blocks of code to build programs. While most famously used to introduce kids to programming, Scratch can make computer science approachable for people of any age. Rather than type countless lines of code in a cryptic programming language, why not use colorful command blocks and cartoon sprites to create powerful scripts?

In *Learn to Program with Scratch*, author Majed Marji uses Scratch to explain the concepts essential to solving real-world programming problems. The labeled, color-coded blocks plainly show each logical step in a given script, and with a single click, you can even test any part of your script to check your logic. You'll learn how to:
–Harness the power of repeat loops and recursion
–Use if/else statements and logical operators to make decisions
–Store data in variables and lists to use later in your program
–Read, store, and manipulate user input
–Implement key computer science algorithms like a linear search and bubble sort

Hands-on projects will challenge you to create an Ohm's law simulator, draw intricate patterns, program sprites to mimic line-following robots, create arcade-style games, and more! Each chapter is packed with detailed explanations, annotated illustrations, guided examples, lots of color, and plenty of exercises to help the lessons stick. *Learn to Program with Scratch* is the perfect place to start your computer science journey, painlessly.

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Editorial Review

Review
"Fills a void in the current literature on how to play with and manipulate Scratch."
—School Library Journal

"A terrific resource for middle or higher grade educators who are looking for great Scratch projects that align to other content areas."
<—EdSurge

"...this book is aimed at the complete beginner, but it goes deeper, exploring powerful programming concepts that show how useful Scratch is, for kids and adults."
<—Boing Boing

About the Author
Majed Marji is a senior development engineer at General Motors and an adjunct faculty member at Wayne State University in Michigan. He holds a PhD in electrical engineering from Wayne State University and an MBA in strategic management from Davenport University.

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Brian Andres:

This Learn to Program with Scratch: A Visual Introduction to Programming with Games, Art, Science, and Math book is not ordinary book, you have after that it the world is in your hands. The benefit you will get by reading this book is actually information inside this e-book incredible fresh, you will get information which is getting deeper an individual read a lot of information you will get. That Learn to Program with Scratch: A Visual Introduction to Programming with Games, Art, Science, and Math without we recognize teach the one who reading it become critical in thinking and analyzing. Don't possibly be worry Learn to Program with Scratch: A Visual Introduction to Programming with Games, Art, Science, and Math can bring once you are and not make your bag space or bookshelves' grow to be full because you can have it within your lovely laptop even cell phone. This Learn to Program with Scratch: A Visual Introduction to Programming with Games, Art, Science, and Math having good arrangement in word as well as layout, so you will not experience uninterested in reading.

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Mary Wright:

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