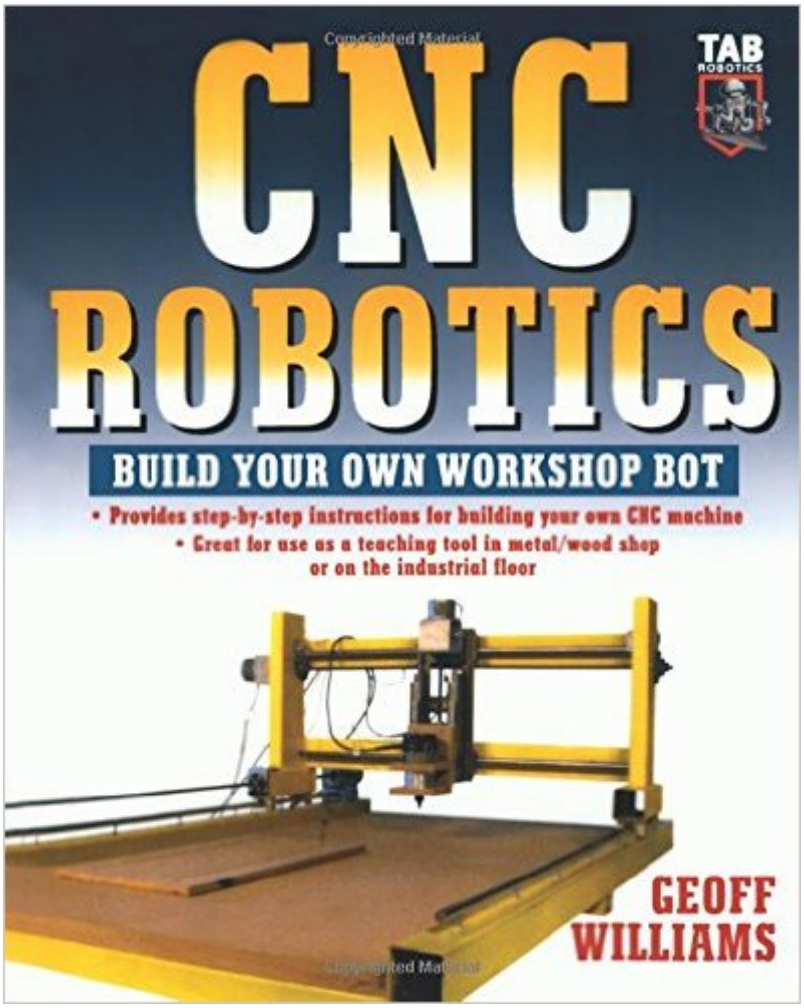
# CNC Robotics: Build Your Own Workshop Bot



## Synopsis

Here’s the FIRST book to offer step-by-step guidelines that walk the reader through the entire process a building a CNC (Computer Numerical Control) machine from start to finish. Using inexpensive, off-the-shelf parts, readers can build CNC machines with true industrial shop applications such as machining, routing, and cutting--at a fraction of what it would cost to purchase one.  * Great for anyone who wants to automate a task in their home shop or small business * Easy-to-use Windows-based software controls the robotic automation * Builders can scale and customize the machine to suit their own industrial needs * Numerous tips, tricks, and pictorials walk the reader through every step--design, construction, and completion

## Book Information

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Average Customer Review:  3.1 out of 5 starsÂ Â See all reviewsÂ (31 customer reviews)

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## Customer Reviews

I waited anxiously for this book to become available, and even paid $15 for overnight delivery when finally had it in stock.The pre-pub blurbs say it shows you how to build the equivelent of a $7500 workshop bot (an intentional play on the name ShopBot I guess) for $1500, and the cover front and rear are full of promises not delivered inside..."Great for use... on the industrial floor" NOT!"Provides step-by-step instructions for building your own CNC machine"... "Scaling and customizing instructions for building just the robot you want"... "Sources for easily obtained parts"There is no discussion of design rationale, bearing loads, etc. He just jumps in and, in a 12 page Chapter 1

(three of which are used for showing the explosion views of the $3000? NuArc copy camera he scrounged the entire Y-axis carriage and rails from and telling you he made the Z axis from a TV shelf slide), tells you what he used. Nothing about the pros and cons and accuracy implications of different linear motion components, ballscrews vs acme, etc. Less text in the chapter than someone would use in a web forum post breifly describing their homebuilt CNC machine.Chapter 2 uses 51 of its 62 pages to reprint the manufacturer's documentation (probably available online) for the L297 and L298 chips he uses in his stepper motor driver... Chapter 3 is 20 pages showing how to photo etch his printed cicuit board... Chapter 4 is 13 pages showing how to drill the board and solder the components on.

There are too many major flaws in this book. He builds his machine with a Nu-Arc camera positioner. How is anyone else supposed to find this exact model? Probably the worst part are the IC logic and driver chips. You will not be able to put this together unless you are already an experienced electronic technician.He shows you a schematic with some seemingly 80's era integrated circuits. (Judging by the xerox-looking images and misspelled words). These chips are hopelessly out of date. Modern chips have built in protective diodes, so you won't have to search all of creation for the ones his plans require. The way to go is to by a driver kit for $20 from Electronickits.com. (You'll need 3 of these).Some things he did made me wonder why: 1) Why have so many little jumper points on the boards for options that are unlikely to be used? I bought wire connectors for these unneccessarily. He didn't list mini-jumpers in the parts list. Only after very carefully studying the pictures, can you see what he is doing. 2) On page 4 he says he was impressed by how nice the Pac-Sci stepper motor people were to him when they were selling him his motors. On page 14 he says that he's not using Pac-Sci motors! Why? What happened? We paid some bones for this book and we want to learn from his experience. There just isn't enough explaining in this book. On the good side is that this book will teach you how easy it is to make your own circuit boards: Laser paper and an iron. You have to experiment a little, but it is very satisfying to know that you will be able to make your own boards if the need arises. I found that removing the paper while it is still hot will deposit enough "resist". No need to soak in water.

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