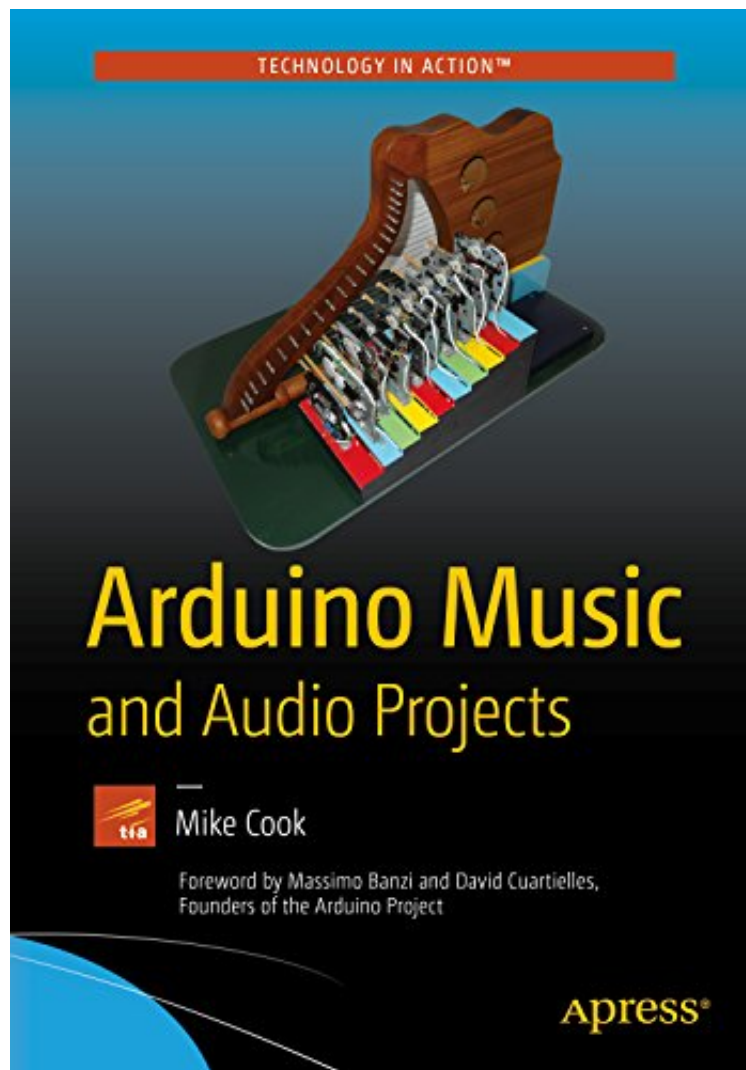


## Arduino Music and Audio Projects

Mike Cook

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**Mike Cook : Arduino Music and Audio Projects** before purchasing it in order to gauge whether or not it would be worth my time, and all praised Arduino Music and Audio Projects:

1 of 1 people found the following review helpful. Five Stars By Jeffry Archambeau Woohooooo! It has lots of stuff I've been trying to figure out! 1 of 2 people found the following review helpful. Great resource for technical musicians. By Customer Good book with specific information regarding the use of Arduino with music synthesis and MIDI. 5 of 5 people found the following review helpful. Nice book, yet if you are looking for a solid signal processing book, please read my comment. By Customer The book is a good start for people who are interested in digital music. These days, the Arduino board is kind of a "must" for beginners who are new to coding, so I won't speak much about it. It is a good choice of coding platform. The book gives a good understanding of how digital music works these days, especially

with MIDI interface etc. It is also very readable with many figures, high quality and printed with color, supporting the text throughout the book. The only negative thing is that the book does many, many things via the usage of libraries. Well, isn't this what Arduino is appreciated for? Yes, definitely. However in my opinion, the extensive usage of libraries keep the reader away from the topic. As an example, there is this chapter "Signal Processing" towards the end of the book. It informs the reader of some very, very basic principles of signal processing. This trend can be acceptable since this is a beginner book. Yet it does not even do the most basic stuff without the help of libraries. I would love to see the code for sampling an outside source via the analog to digital converter, storing it in an array, filtering it in the appropriate way and playing it back. The author does this, yet the code takes only a few lines because of the library commands. I can't see the analog-to-digital conversion taking place, nor the filtering taking place, nor the outputting taking place. All I see is a big, `Get_Samples_Music_Filter_and_Play();` command which does the whole thing. I would love to see some more details, and less using of library commands. Nevertheless, it is a good book, so I am giving it a 5/5

This book is for musical makers and artists who want to gain knowledge and inspiration for your own amazing creations. "Grumpy Mike" Cook, co-author of several books on the Raspberry Pi and frequent answerer of questions of the Arduino forums, brings you a fun and instructive mix and simple and complex projects to help you understand how the Arduino can work with the MIDI system to create musical instruments and manipulate sound. In Part I you'll find a set of projects to show you the possibilities of MIDI plus Arduino, covering both the hardware and software aspects of creating musical instruments. In Part II, you learn how to directly synthesize a wave form to create your own sounds with Arduino and concludes with another instrument project: the SpoonDuino. Finally, in Part III, you'll learn about signal processing with the Arduino Uno and the Due — how to create effects like delay, echo, pitch changes, and realtime backwards audio output. If you want to learn more about how to create music, instruments, and sound effects with Arduino, then get on board for Grumpy Mike's grand tour with Arduino Music and Sound Projects. What you'll learn Hands-on musical instrument projects using Arduino Both the hardware and software aspects of creating musical instruments Signal processing and sound effects projects Explanations and inspiration from Arduino expert "Grumpy Mike" Cook Who this book is for Arduino and electronics enthusiasts who want to create music and sound projects, and musicians who want to tinker to create innovative instruments and sounds.

It is targeted at musicians and the musically inclined who already have some experience in both C code and homebrew —makers— style hardware tooling. The short index is relatively complete and useful. Pointers with uniform resource locators (URLs) of outside resources are provided in the main body of the chapters. This is a very targeted title for a special hands-on audience, and for that reader it is of interest and utility. (David Bellin, Computing s, April, 2016) About the Author Mike Cook has been making electronic things since he was at school in the 60s. A former Lecturer in Physics at Manchester Metropolitan University, he has written more than three hundred computing and electronics articles in the pages of computer magazines for 20 years starting in the 1980s, mainly for The Micro User and Acorn Computing. Leaving the University after 21 years when the Physics department closed down, he got a series of proper jobs where he designed digital TV set top boxes and access control systems. Now retired and freelancing, he spends his days surrounded by wires, exhibiting at Maker Fairs, and patrolling the Arduino forum as Grumpy Mike. He is the co-author of three books about the Raspberry Pi, all published by Wiley: Raspberry Pi For Dummies, First and Second editions (with Sean McManus); Raspberry Pi Projects (with Andrew Robison); and Raspberry Pi Projects for Dummies (with Jonathan Evans). He also has a monthly column in The MagPi, an online and print magazine published by the Raspberry Pi foundation.