



 SYNTHASE

The Composer's Toolkit



The hardware, software, and skills you need to kickstart your composing.

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START SIMPLE

If you're relatively new to composing, whether for live instruments or in a DAW, you may feel a little overwhelmed sorting through what's actually useful for you and what is going to be a dead-end. This guide is designed to give you an overview of common hardware, software, skills, and mindsets shared by many composers. Following this guide can save you time and money by cutting through the hype of "must-have" gear or skills.

The suggestions in this guide will give you a great deal of breadth of possibility in working. But it's also worth noting that artists with a unique sound tend to have a unique set of tools.

For that reason and others, it's best not to try to acquire too much too early. **Even if money is no object for you, I recommend starting with the "Starter Pack" in each of these categories, and then only expanding when you feel limited.** Creativity works best when there are some limitations, and you'll make best use of your tools once you know what problems they solve for you. You can come back to this guide at that point, or you may have learned about niche tools that will suit you better and aren't covered here.

Enjoy putting together your toolkit, and then get to work making things!

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STARTER PACK



Hardware

Any Computer or Tablet

In the age of browser-based software like Flat and Soundtrap (see below), any internet-connected computer, including a Chromebook, will allow you to make scores and projects. Thanks to apps for iPad and other tablets, you can also get great results without a computer. If you're working with a tablet, it will make life much easier to attach a keyboard or use a stylus (although I will say that the last time I checked, the apps that claimed to let you draw in notes with a stylus did not work the way I wanted them to).



Software

Free Notation Software or DAW

If you work with scores, generous free options are available: Musescore Studio has all the features you'll need for awhile; Dorico, Sibelius, and Finale also have free versions that give you a head start if you're pretty sure you'll switch to professional software someday. If you're restricted to the browser, Flat and Noteflight give you basic options. If you're more interested in working with sounds than notes on a staff, you'll need a Digital Audio Workstation (DAW): Garageband and two browser-based options, Bandlab, and Soundtrap are free and very beginner-friendly.



Hard Skills

Basic Musicianship

When you're ready to stop re-inventing the wheel, learn scales and chords. Learning them at the keyboard will allow your fingers to help you understand them, but you should also sing as much as possible, because your voice is your most direct and powerful musical instrument. Learning music notation (a must for classical and orchestral composers) will help you study scores of other composers, and help you express your own music in new ways. But don't get too caught up in books—remember that music is sound.



Soft Skills

Listening

The music you love is the music that can teach you the most, because you already understand it in the way that matters. Soak it into your soul as much as possible, and then (only later), see if you can figure out how it does what it does to you. Is there a particular rhythm or timbre that gets you every time? How do you feel when it flows between sections? Also be sure to keep expanding your horizons by finding other people who love music, hearing the music they love, and finding out what they love about it.

EXPANSION PACK



Hardware

- **MIDI Keyboard**

While this is an upgrade from the *bare* minimum, it's likely to be your *first* upgrade, because it allows you to perform music into your software, which can give it a much more natural sound than if you punch in every note (not to mention a faster workflow and the ability to improvise ideas). The main decisions are how weighted the keys are and how many keys there are. Here's a [full blog post](#) I wrote on buying a MIDI keyboard. A good basic option is the M-Audio Keystation 61 MK3.

- **Studio Headphones**

Good studio headphones should also be an early upgrade. Your computer's internal speakers can't produce bass frequencies well, and many general consumer headphones and ear buds "sweeten" the sound, which could end up skewing your mix. Studio headphones are designed to reproduce sound accurately, warts and all. If you're working in a noisy environment and/or want to keep from bothering people around you, get closed-back headphones. If you're only going to be using them for composing and you have an isolated environment, get open-back headphones. My choice for the last 15+ years: Sony MDR-7506.

- **Monitor Speakers**

While headphones are great for hearing sound details, you might not want to wear them day in and day out as you work. Also, especially if you're writing for media, many of your listeners will be listening on speakers instead of headphones, which creates a very different experience. For these reasons, you may want some "studio monitor" speakers. Active monitors require power and can connect either directly to your computer's 1/8" output or, for better results, to your audio interface. For more bass, you'll need bigger monitors. Five-inch ones like the Mackie MR524 will still get you a decent sound though.

• MIDI/DAW Controller

MIDI faders are a mainstay for film composers, who rely on them to adjust expression as they play on a keyboard. The faders can be programmed to any parameter in your DAW. If you'd also like to use the faders to record automation in your DAW, then you'll need them to be motorized, so they can eerily recreate your motions, but these can get expensive fast. For all controllers, longer faders are better because they give you control (these are measured in millimeters). Novation LaunchControl XL is a good non-motorized solution.

• Audio Interface

An audio interface connects your computer with analog audio equipment—most importantly microphones, headphones, and speakers. If you never plan on recording with microphones (or if you only use USB mics), you can get away with running your headphones or speakers directly into your computer. If you do want to record with mics, though, a two-channel interface will get you a long way. The Focusrite Scarlett 2i2 is an incredibly popular option. Alternatively, for a more on-the-go approach, you can use a handheld recorder like an interface (see below).

• A High(er)-Performance Computer

If all you're doing is using notation software with factory sounds, you'll have to look elsewhere for an excuse to get a fancy machine. However, if you're using big sample libraries and effects plugins, you may start to run into performance issues with lower-end setups. The biggest single factor here is memory, and a memory upgrade (if it's possible for your device) may be all you need to get things working smoothly. While there are plenty of PC-user composers, Logic only runs in the Mac universe, and many creatives find the factory specs of models like the MacBook Pro to be a great match.

• External Storage

I can tell you this from bitter experience: hard drives fail, and they fail hard. The only way to have any peace of mind if you care about your files is to have a good system for storage and backup. Use an external hard drive such as a WD MyPassport for your project files and sample libraries, and back up your project files to other hard drives or to the cloud, with a service like Backblaze.

• Staff Paper and Pencil

While there are endless apps that claim to help you capture your ideas best, some of us appreciate the freedom of a pencil-to-paper interface when sketching out ideas. You can print out staff paper online, or for large-format ideas, consider the Carta No. 27 paper. You may already have a favorite pencil by now; mine is the Dixon Ticonderoga.

• Phone or Handheld Recorder

I use my phone's voice memo app very frequently for capturing musical ideas in their rawest form. Having something to capture these ideas, without stopping to figure them out, is essential. Phone apps can also be used for recording sounds or samples, but for better fidelity and more functionality, you may want to consider a portable recorder. Recorders like the Zoom H4essential can also act as audio interfaces, allowing you to connect external microphones.



Software

• Professional Notation Software

While MuseScore seriously upped its game in late 2022 with version 4, giving it a great sound and powerful features, it still doesn't quite have the functionality of professional, paid notation software. Finale and Sibelius were the only contenders for years until Dorico came on the scene with an approach that's much more about musically encoding your ideas in order to give you flexible and well laid-out presentation of them. For this reason, Dorico is now my preferred professional notation software.

• Professional DAW

The sheer number of Digital Audio Workstations on the market is impressive and can be a bit overwhelming, but the main features—editing and mixing audio and MIDI while hosting plugins for effects and instruments—are the same among all of them. The different DAWs do tend to have different cultures though, as well as different specialities, and thus communities and learning materials for particular styles of music will cluster around particular DAWs. As composers (as opposed to audio engineers who use Pro Tools), we're likely to come across Logic, Cubase, and Ableton Live most often. Film composers will likely prefer Logic or Cubase, while those interested in loop or sample-based music may prefer Ableton Live. My choice here is currently Ableton Live.

• Plugins

All professional DAWs come with "factory" sounds and effects, and it's a great idea to explore these until they start to feel like they're holding you back. When that happens, you'll enter the realm of the plugin (sometimes generically called a VST, although there are other file formats as well), a piece of software that runs inside your DAW to generate or process sounds. The good news is that there are lots of free plugins, from the Kontakt player to generous packages from Native Instruments, Spitfire Audio, and more. Paid plugins are generally more powerful though, and professional film composers invest a great deal in orchestral libraries like Symphobia and Albion One. If you're most interested in good playback out of notation software, Note Performer has a bit of a monopoly on that particular niche.

• Additional Software

You can do just about everything your heart desires in notation software or a DAW. However, composers are always in search of unique sounds, and people with unique sounds tend to also have pretty unique workflows. Audacity is a free wave editor which can come in handy for simple edits. If you want deep programmatic control of sounds and events, Max is a great place to start, and even has a very elegant integration with Ableton Live. If you want something similar without the pricetag, consider the free and stripped-down alternative, Puredata or, if you're ready for it, the fully text-based programming environment Supercollider (also free). For those working with visual scores, a vector illustration software, like Adobe Illustrator or Inkscape (free), can help you add visual customizations.



Hard Skills

• Aural Skills

Once you can learn from anything you hear, you have the power to progress in whatever direction you want. Aural skills are the key to understanding music through music's own medium—sound. Basic theory skills can help support aural skills by giving you patterns and structures, like chords and scales, to listen for. Spend as much time as you can with music you love, trying to figure out melodies, chords, timbres, and rhythms, by ear, and those techniques will be at your fingertips when you need them.

• Instrumentation & Orchestration

If you're going to write for an instrument you don't play, you should have a good mental model of it. That means you can clearly imagine playing it, including the sounds that come out in every register, at every dynamic, and all of the techniques you're writing. Building those models is called studying instrumentation. Orchestration is understanding what happens when multiple instruments play together in an orchestra or other ensemble, which demands studying a lot of scores with recordings and attending live concerts.

• Acoustics and Digital Audio

When you can't seem to get the sound you want, understanding how sound works will be your lighthouse. A working knowledge of the overtone series, including the basic mechanics of it, is an important tool for all composers. If you're using a computer as an instrument, taking time to understand waveforms, spectrographs, digital sampling, envelopes, and other digital audio concepts will save you so much trial-and-error in the future.

• History and Repertoire

All of your favorite music comes from somewhere, and is probably part of some kind of musical culture or subculture as defined by the people who care about it the most. If you want to people to respect you for your contributions within the culture, you'll have to show some respect for the previous contributions that have formed its identity. Musical cultures are not always hard lines, so it's fine to feel inspired by several musical genres. Your homework for each one may include deep dives into discography, scores, books, and interviews, as well as showing up for live events.

• Instrumental Proficiency

There are a few excellent composers who don't really play any instrument very well, but there are many more who are highly accomplished at an instrument. Piano is a common choice because proficiency at the keyboard allows you to model larger ensembles, but other instruments have advantages too: high wind and brass players are more connected with breath and often melodic line, those who play low instruments understand harmonic foundations, playing electric guitar with pedals gives you a window into timbre. Also, the more you play other people's music that you like, the more you're internalizing how to make it.



Soft Skills

• Curiosity

Learning to compose isn't a matter of reading a how-to-guide or watching a few tutorials. It's a highly personal process that you'll develop by following the sounds that intrigue and compel you, and trying to understand how to make them. You will also expand your musical taste, in part by listening with an open mind, especially when you encounter others who love music that's unfamiliar to you. Look for inspiration and information everywhere, including in the world outside of music.

• Obsessiveness

Almost every artist I know is obsessive in some way. That could mean getting into flow states that are hard to get out of, or working tirelessly toward a vision even when nobody else understands it. We go to bed thinking about our projects and we wake up thinking about them again. This is not required in order to have fun making music, but if you're exploring doing it professionally, you'll need a heavy dose of obsessiveness to drive you through the difficult times. While this is more of a personality trait than a skill, it can be one that we repress, often for good reason. Cultivating a healthy relationship with obsession—one that doesn't tax your relationships with people you care about—can allow you to unlock access to your artistic inspiration.

• Kindness

Okay putting this in the "expansion pack" feels a little weird, because it's a basic requirement of being human. But Composers tend to spend a lot of time by themselves, and sometimes get complexes about their own genius, even when others don't share that view. If this is you, use that confidence to provide a strong, positive presence to those around you, especially your collaborators. Most opportunities in the music world come from gelling with the right people.

• Intuition

If you're doing it right, you're going to get a lot of advice in your journey as a composer (this guide is no exception). In order to navigate all of it, be sure to keep a strong sense of what you love about music, and about making it. For every decision, ask if it will get you closer to those goals. That even extends to decisions within your music itself (*should I extend this section here? would this be a good place for that new chord voicing I learned?*). You might be surprised at how easy it is to get swept away by what others believe good music is, and what it takes to make it. If your own, authentic experience of music is your guiding light, you and your listeners will be better off for it.

**Thank you for participating in the
5-Day Composition Challenge!**

**The next step in your growth as a
composer is inside the Synthase
Composers Academy.**

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today.**

