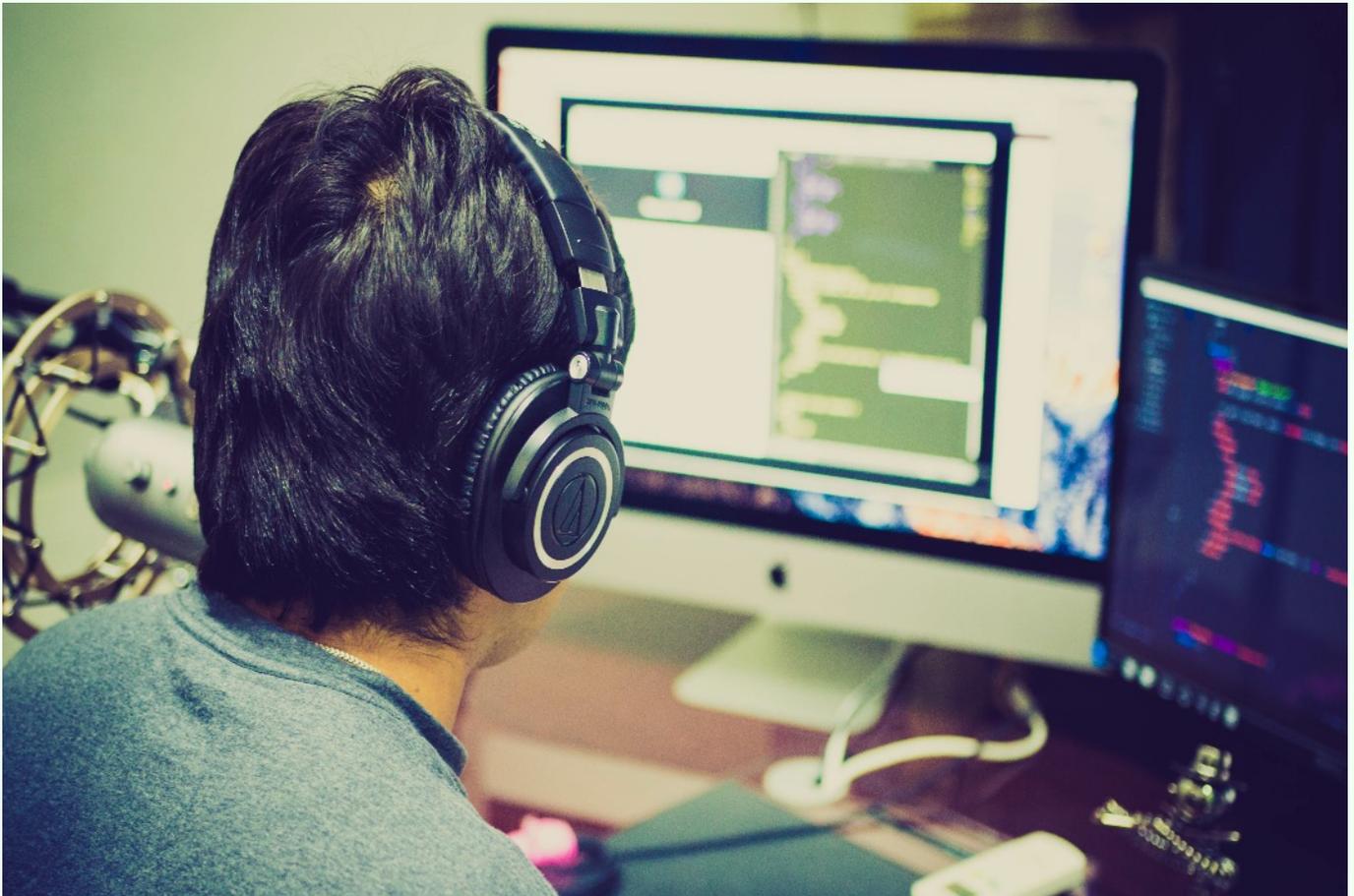


The Layman's Guide to Home Recording

Learn which tools you need to get started with recording audio at home.



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Introduction

The practice of home recording for music, podcasting or other audio projects has never been easier. The home computer and the Internet have enabled us to record our audio projects from anywhere, even having different members of the project recording their parts on their own and joining the different sections later. We now have the ability to cut, splice, rearrange and edit our recorded audio with a few clicks of the mouse.

Recording at home is a very enjoyable and rewarding process. Taking an idea and seeing it materialize into a finished song, podcast or mash up, whatever your audio idea may be, is a very exciting experience. However, there is a lot to consider when deciding what to use when setting up your home studio. There are so many hardware and software options available to us these days that it can get a little overwhelming and difficult to choose which products are best for your recording situation. In this e-book I will introduce you to the main tools you need to get up and running with recording at home.

What You'll Need

Audio Interfaces

An audio interface allows you to connect your microphone, instrument and midi controller to your computer. The audio interface allows your instruments, microphone and midi controllers to communicate with a recording program by converting analog audio signals to digital audio that can be understood by your computer. There are other ways to get your audio recorded and transferred to your computer later, like an external recorder/mixer, for example, but for this book I will concentrate on using an audio interface combined with a Digital Audio Workstation, or DAW.

The main features to look for when considering an audio interface are the input types and output types. One of the main differences in audio interfaces is how many inputs and outputs you have available to you. Unless you are recording a full band all at the same time or many people speaking as a group discussion then you don't really need an interface with more than two inputs.

Inputs:

There should be an XLR input for your microphone and a standard 1/4" TRS cable input for your instruments. It is becoming standard to have multi use inputs on audio interfaces which can accept an XLR or TRS cable. Each input should have it's own gain level adjustment.

If you plan on using midi then look for a 'midi in' port, usually found on the back of the device. There is almost always a headphone jack with it's own volume adjustment and finally a main output level adjustment.



Outputs:

There needs to be left and right Line Out jacks that you plug your studio monitors (speakers) into. There may be a midi out next to the midi in but I know in my case I only use the midi in and the interface takes care of the midi out to the computer through the USB connection between the audio device and the computer. Having said that you need to have a way to connect the device to your computer, which is usually done with a USB connection but can also be a firewire connection. You need a special card in you computer that can accept a firewire cable if that is what type of output is on the audio interface. I would recommend sticking with USB. The USB connections are getting faster and can easily handle the transfer of data required for audio recording.

What You'll Need

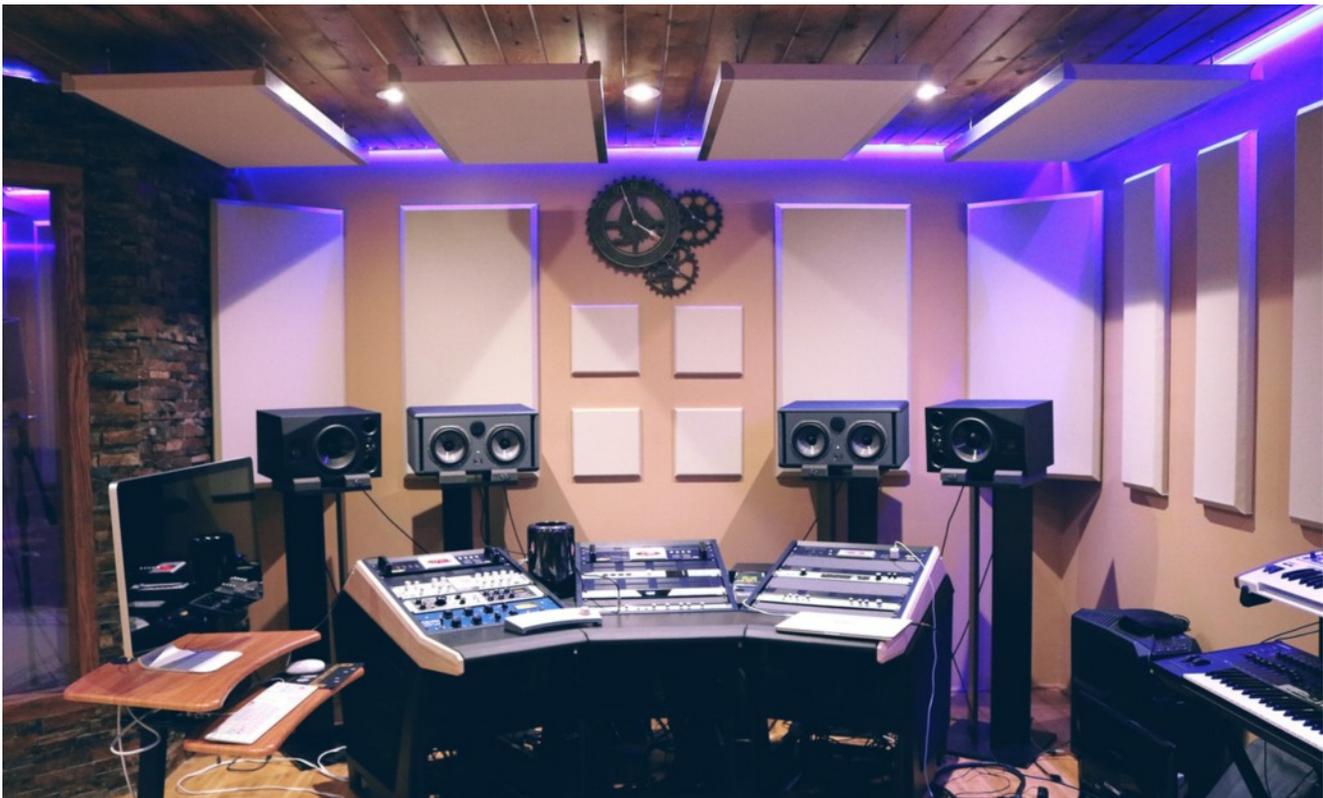
Audio Interfaces Cont...

You will also want to look for a 'phantom power' or 48v on/off switch. This is for condenser microphones that require a power source and can be found on most audio interfaces. Finally you will usually find, but not always, a 9V DC power connection option which can be used to power the device instead of drawing power from your PC through the USB cable.

There are many types of audio interfaces on the market today. Here are just a few names you can look for:

- M-Audio
- Presonus
- Behringer
- Steinberg
- Focusrite
- Tascam
- Roland

I hope this information will help you make a good decision when choosing an audio device.



What You'll Need

Cables

You will need an XLR cable for your microphone and a 1/4" TRS cable if you plan on using guitars, bass or other instruments requiring this type of cable. You will also need a USB cable or possibly a firewire cable, depending on the cable connection on the audio interface. Most will have a USB connection. Finally you will need a 9V DC adapter if you don't want to draw the power from your computer through the USB cable.



Studio Monitors

Studio monitors are speakers but they are not the same as your typical speakers you would hook up to your stereo to listen to music. Studio Monitors are designed to have a flat response which means they do not add any effect on the sound coming from your recording, so you can get a true and clean idea of how your recording sounds. Typical loud speakers are designed to provide the best quality of sound for music and are tuned to provide a sound that is most pleasing for listening entertainment. You'll want to use studio monitors for home recording.

These are some of the more popular studio monitors you could consider:

M-Audio Studiophile, JBL LSR305
Alesis Elevate 6, Yamaha HS8
KRK RP8G2, and Behringer MS16.

I use Roland Cakewalk MA-150 monitors for my music recordings, but any of the ones listed will do a great job for you. There are far too many to list them all but this is a great start.



What You'll Need

Headphones

A great pair of noise cancelling headphones is essential to your home studio. This type of headphone will allow you to listen to the playback of your recording with no outside noise interference. There are different options when it comes to headphones, namely open back and closed back. Here is a link to a great blog on this subject, open or closed back headphones.



Microphones

When it comes to recording audio at home, I would recommend a good condenser microphone with an XLR cable. You can find direct to USB microphones which is great if you are connecting directly to your computer, but I would suggest using a microphone with an XLR connection to your audio interface. This is my preference, as this setup will provide a clean, balanced signal to your audio interface. A good shock mount will limit any noise interference from vibrations and also prevent damage to your mic due to bumping and knocking. Some good brands to look for are:



Shure
Sennheiser
Rode
Neuman
and Blue.

I use a Behringer B-1 Studio condenser microphone.

What You'll Need

Summary

You probably noticed that I have mentioned both music and podcasting. Although these are two completely different things, you can get what you need recorded, if that's vocals, instruments or speaking, using the tools I've mentioned on the previous pages. So I think as far as recording at home goes, these two activities are ok being grouped together.

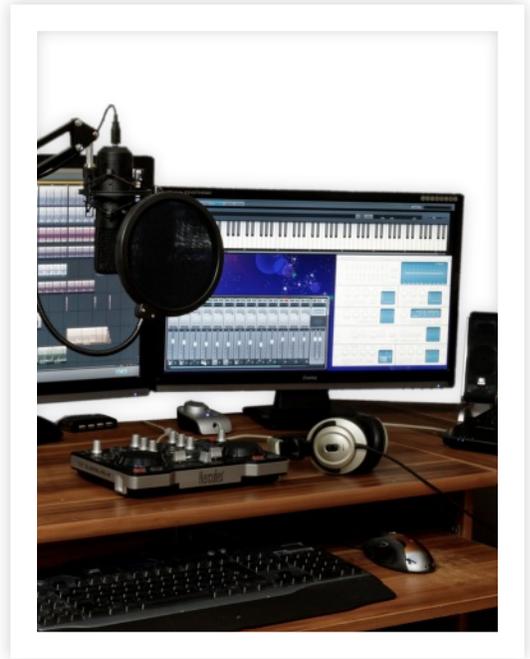
I should briefly discuss instruments here as well. There are different preferences out there about how to record your guitar or bass at home. Some people like to plug the instrument directly into their amp and then put a microphone up to the amp and connect that microphone to the audio interface. This way your sound is controlled by what you have coming out of the amp. Other's, like myself prefer to plug the instrument directly into the audio interface and get the sound you are looking for from your DAW, or plugins within your DAW. I think both methods can produce great results so this is something you may want to experiment with.

Speaking of DAWS, if you are just starting out I would try Audacity. It's free and great for beginners. If you are looking for something with a few more options, these are some of the top DAWS available. Protools, Cubase, Logic Pro, Samplitude Pro X3, Reaper, Presonus Studio, FL Studio and Ableton Live.

So to quickly recap what we have covered, let's take a quick look back at the tools needed for home recording.

- Audio Interface
- Proper cables
- Studio Monitors
- Headphones
- Microphone
- Daw (Digital Audio Workstation)

Home Recording can get far more complicated and involved than what I have covered, but this should be enough to get started. I hope this helps you choose the tools you need for this fun and rewarding endeavour.



Where to Post

So you have got yourself all setup and have started recording your great songs or amazing podcast. Now where will you share your creations?

If you have some songs you would like to share with the world then some of the best places to post them are Soundcloud, ReverbNation, and Youtube, if you have video. Another great source for having your music heard is Internet radio. Many of these stations are more than happy to play music from independent artist. Some of them even prefer to only play music from independent artist. I have had my music played on Belter Radio, Lonely Oak Radio and Rucker's Dive Radio, which are all great Internet radio stations. If you find you are getting more serious, then having a website for you or your band is another great option. Check out Bandzoogle. They specialize in websites for musicians and their pricing is very reasonable.

If you are doing Podcast there are also many places to post your creations. Soundcloud isn't just for music, it's also a great place for your podcast. Archive.org, Amazon S3, Ourmedia.org, Podomatic and Podbean are a few more options available to you. Many people are also posting their podcast on iTunes.

This brings us to the end of this guide. I hope you find this information helpful and are inspired to get your own home recording studio up and running.