**Tip:** Use the Bookmarks I created for you on your left to Navigate to the 7 Home Studio Components faster and easier

## Home Recording Studio Setup For Beginners – The **Ultimate Essentials Guide**

musicproductiontips.net/home-recording-studio-setup-for-beginners/

**Paschalis** On 04.13.15, by Paschalis

Welcome to Home Recording Studio Setup For Beginners - The Essentials, the A to Z guide that will help you build your own home studio in no time.

If you're a home recording enthusiast, you may have wandered the internet checking out recording studios and the first thing you might have noticed, is the huge rooms with the tons of hardware processors.

If you've seen all these processors and thought "damn it costs a fortune to build a studio" then I've got some great news for you. You don't need to own anything that you've seen.

A computer with an audio interface and some other minor stuff like cables are enough to get you going. Even famous producers and audio engineers are going full ITB (In The Box – meaning that they use only processors in the computer and not out of the box or out of the computers).

Technology is fantastic right? Famous analog processors with their unique vibe and sound that used to use the space of a whole room, can now be used inside our computer.

Let's start with the necessary home recording beginner list, shall we?



## **Home Recording Studio Setup Essentials**

I'll start with some bullets and then I'll explain and talk about each and every subject thoroughly, so you can get the best price to value ratio.

I've been mixing, selling and buying gear for almost a decade and I've learnt something really important: Just because it costs more it does not mean it sounds better. While this is true in general, it's even more true if we talk about audio gear.

A great example of it, is that I sold my \$3.000 genelec monitors to get \$300 monitors and I could not believe that I actually liked the latter more. The genelecs were way too good to mix through them, they sounded like hi-fi speakers.

So my aim in this post, is not only to show you how to build your own home recording studio, but also to save you money by pointing you to the right direction and gear. Gear and tutorials for you to produce a song with a **commercial sound**.

## **Choosing The Best Computer For Home Recording**

Since you're a beginner in home recording, you should not worry about outboard compressors or EQs – even pros don't nowadays with all this brand new technology.

I am going full ITB (In The Box) in the moment and I don't miss my analog gear at all, but I'll stop here cause I don't want to transform this guide to a "Analog VS Digital" topic.

I am in love with modern recording – mixing techniques and sooner or later some of the analog fanatics will come and spread some inaccuracies and I want to get rid of that.

So, back to the point, here are the main parts of a home recording computer:

- CPU
- RAM

Yes, that is all. If you've got money to invest for a great home recording computer that's the 2 main parts that you should invest most of your money in.

Plugins need processing power and RAM.

I've found out that CPU is mostly used on plugins like EQs, Compressors and Reverb analog-modeled units, while RAM is mostly used on libraries like Kontakt Libraries.

If you're composing hip-hop or orchestral music for example, then you will need lots of RAM in order for your computer to load every single velocity of each library.

More velocities = better, cause you can play with the velocities and make the audio sounds like it's played by a real human and not a computer.

No matter if you're using libraries or not, you're going to need lots of CPU for your compressors, delays, reverbs, EQs and saturation plugins.

There are some plugins that actually mimic the analog sound of its "real" analog counterpart, thus the need for processing power.

You can save money by getting a mediocre graphics card, so it's better to invest those dollars for a better CPU and RAM combo, as long as we speak about a home recording computer and not a gaming computer.



#### PC or Mac?

The reason I started by mentioning the necessary hardware components of a home recording computer, and not the Operating System, is because **the hardware is what really matters**.

People have been fighting for ages – and continue to fight – about which OS is better.

I believe the right question to ask is: *How well do my audio interface drivers work along with my Operating System?* 

I owned a MAC for 3 years. Then I needed to upgrade my computer – since I wanted to go full In the Box – but I didn't want to spend a fortune to do it.

So I thought to give Windows a go. I installed Windows 7 with the Service Pack 1 and my audio interface's drivers. My preferred company for audio interfaces is RME, which is known for its solid drivers.

To tell you the truth, I noticed no difference between the 2 Operating Systems. People claim that Windows crash a lot, but I had absolutely no problems with a fresh install of Windows 7 and the latest driver's version of my audio interface.

So I was happy that I went with Windows, cause I would need around \$1.500 more to get the same CPU and RAM power on a MAC.

Final verdict? Focus on getting decent hardware and work with the OS you're used to and you'll be fine!

## **My Custom Made Computers**

In order to save you money (and time) I've created 2 custom computers for you. The first one is supersufficient for home recording and in-the-box mixing.

The 2nd one is a bit of an overkill but it's well worth the money, especially if you need extra RAM for using kontakt libraries. Perfect for hip-hop and cinematic compositions that require lots of RAM.

Both were created by me, with a single target in mind: Get the best price to value ratio to a computer that will last, work flawlessly and being able to push its CPU limits.

[Currently searching for a recommended online custom computer store. I will update the article again with custom made links. Till then, consider subscribing to the newsletter to stay updated.]

## **Best Audio Interface Under 200 Dollars**

Now that we've made some things clear about computers it's time to get an audio interface. But what's an audio interface?

An audio interface is simply put, your sound card. It's the device that communicates with your computer, converting the audio signal from digital to analog and vice-versa.

It's also the device that gives you the option to select how far you want to push your CPU power, by adjusting the buffer size. Lower buffer size = less recording latency but more CPU power is needed, while a higher buffer size does the exact opposite.

The most important factors to take into consideration, while choosing an audio interface though, is the number of inputs and outputs. No matter how many inputs an audio interface may have, you can record a full album using only one input.

Even professionals choose to record each instrument separately when recording a whole band. Drums usually go first. You really don't need to use all inputs at the same time, so we'll save lots of money by choosing an audio interface that's got just the necessary ones.

After lots of tests and in-depth search, I came to the conclusion – well not only me, but also the rest of the home recording world out there – that the best value to price audio interface is the Focusrite Scarlett 2i2.



#### Reasons:

• Stable drivers – It's really hard for it to crash, both on Windows or Mac.

- **Direct Monitor** It's a pretty unique and fantastic feature of this sound card. When you record, you enable it and you get almost 0ms in latency. This is more important than you may think and other sound cards, in the same price range, lack this feature.
- Best value to price ratio I've tried out similar audio interfaces to this price range (or even \$50 more) and no other sound card was as good as this.
- 2 Inputs While 1 input is enough for home recording projects, what if you want to record yourself and your guitar at the same time? With 2 inputs you can.

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#### **Best Studio Monitors Under 300 Dollars**

The studio monitors I'm going to mention right now, can easily change the title from the *Best Studio Monitors Under 300 Dollars* to the *Best Studio Monitors Ever <del>Under 300 Dollars</del>.* 

See what I did there?

Yes they are that good that I even sold my \$1.000+ genelecs to get these \$300 monitors.

I could not believe that I had actually saved myself \$1.500, plus got myself better monitors. Remember what we said above? Expensive does not always mean better.

#### **How To Choose Studio Monitors**

I want to save you time, so instead of pointing out the reasons I went with the \$300 monitors in this article, I've included everything here: Monitors for Mixing and Mastering – Which should I choose?.

I highly recommend you to check it out, it's got anything you need to know about monitors.

While the article above has detailed information, I'd like to add the most important aspects when choosing monitors here:

- The monitors must be true and not "lie" to you They must not have exaggerated bass, mids or high end. They must be as *flat* as possible.
- They must be clean and able to produce each and every frequency You need these monitors to mix, thus you need quality and in-depth sound.

So back to the point... These are my beloved studio monitors:



The monitors above are the JBL LSR 305 Monitors.

These are the monitors I own right now and I cannot describe how happy I am that I decided to give them as shot.

These guys even kick some serious "behind" between its famous competitors such as the KRK Rokit or the Yamaha 5 inch speakers.

You can also check out the Amazon Reviews: 4.9 out of 5 stars. Talk about quality, right?

I've found an amazon deal that includes both of the monitors and cables, for just **\$280 for everything – 2 monitors and cables**.

This deal is pretty sweet, so do yourself a favor and please don't order the monitors by piece, because (including the cables), the price would surpass \$300.

Why spend more than 300 dollars when can you get everything for \$280? Click the image below to get redirected to the deal (I hope it's still active):



I'd like to add something important: If your room is untreated and you feel like the bass is getting exaggerated by the reflections of your wall, then these monitors have a a couple of switches on the back. It's got 2 switches with 2 options each. You can boost or reduce 2db for the low end or/and the high end.

What I did was to use the low end switch, removing 2db of the low end and I left the high end switch at the default setting. You really don't have to do the same, each room is different, but having options like these is powerful, cause you can calibrate the monitors according to your own room sound.

## **Best Headphones For Mixing And Mastering**

This step is not necessary for your home recording studio setup. This is optional, but it's recommended to read this chapter for extra knowledge.

When trying to find the best headphones for mixing and mastering the same principles apply, just like when searching mixing speakers.

The sound must be real and not exaggerated in highs, mids or bass. Headphones must sound as *flat* as possible.

I've tried 5 headphones for mixing and mastering, 4 of them sucked, I could add them here but bashing is really not my cup of tea.

Instead of focusing on negative statements and on what you should avoid, I prefer to focus on what really worked.

My own preference (and almost 80% of the rest home recording world out there) prefer to mix and



**Important Note:** If you own monitors, then headphones are completely optional. There are some benefits depending on each situation though, like:

- Respect your family or neighbors If you primarily work at night then headphones can help you
  mix and master while not bothering your family. This does not mean that you can't mix on
  monitors on low volume too. If the rooms are not next to each other then definitely go for
  monitors.
- 2. Not Enough Room If you've got no room to put your monitors to, you can get headphones.
- 3. Use them as Reference It's always wise to switch to a different playback device, to kind of "refresh" your ears, and then switch back to your monitors again.

It's always better to mix on monitors, your ears will last longer on each mixing session. The good thing about the Sennheiser HD 600 headphones though, is that they don't have harsh high mids and you'll be able to mix for many more hours compared to other headphones.

Since this guide talks about the Home Recording Studio Setup Essentials, and one of my targets is to save you money, I recommend you to ditch headphones completely and practice mixing on speakers. If money is not an issue, then go for both.

A cheaper alternative: If the Sennheisers seem too high for your budget, consider getting the Sony MDR 7506 headphones. These are my 2 favorite headphones, I give the HD600s a 4.8/5 and the MDRs a 4/5. It's really hard to find better headphones in this price range, but if you do, leave a comment and I'll make sure to test them out and update the post!

Headphones for tracking vocals: If you plan on recording someone, then don't spend a fortune on

headphones. The vocalist will be happy enough to wear headphones, he doesn't really cares about frequencies and stuff, as long as he can hear himself. Don't worry about getting expensive headphones for vocal tracking, let's save some money for now.

## **Best Daw For Beginners**

Another important component for your home recording studio setup is to choose a DAW.

If you don't know what a DAW is or does, please check out this article. If you're bored to read the article, then a DAW is simply put the program you're using to record, mix and master.

The most popular Digital Audio Workstations are Cubase and Pro Tools. A couple of others are Ableton, Studio One and Reaper.

I can't really tell you which DAW is the best or which sounds best, because there's really no sound difference between the DAWs. Some people swear that they can hear slight differences, but let's not change the subject of this post. [cough] But all daws sound the same [/cough].

I've used a total of 4 DAWs in my life, for at least 1 year per daw (I am a daw freak I know), so I hope my experience will help you decide which is best for you. Before I tell you which I'm using right now allow me to explain how to choose your own recording software.

#### **How To Choose Your DAW**

All DAWs do the same job and have been created with the same target in mind: To help you produce, record, mix and master music.

It really doesn't matter for the listener to know how you've created a song. He really doesn't care, all he cares is the sound of the song and the song itself. Think of yourself as an example...

When you listen to a song on youtube, do you really care if the producer used Pro Tools or Cubase? Nope. All that matters is the final product.

Choosing a recording software is similar to choosing a car. The final destination (song) can be reached quicker depending on how well you know how to drive your car (shortcuts).

Knowing how to take advantage of the shortcuts and the general flow of your software, then that's the best daw for you.

But since you can't try out every single daw out there, let me help you with these statements:

- Pro Tools Mostly used for mixing and mastering purposes. Great routing workflow but lacks in MIDI.
- Cubase It has one of the most powerful MIDI editors. Especially useful for composers that use heavy kontakt libraries (cinematic, orchestral, hip-hop, etc).
- Studio One Similar workflow and shortcuts to cubase. It's like a modern version of cubase with some "fresh" minds developing it. Great MIDI workflow too.
- Reaper This has got a downloadable demo version that never expires. It's super simple, has got different workflow and shortcuts from Cubase and Studio One. A huge plus: It's got the most user-friendly community in the history of DAWs.
- Ableton Live Mostly used for EDM productions. Easy workflow and also has the ability to automate everything you click, thus the name Live.
- FL Studio Mostly used for EDM productions.

I started off using Cubase, since my main aim was to compose cinematic music. Then I switched to Pro

Tools, because I was really curious to know why so many people use it. I felt that the reason behind it was its great mixing workflow, but it was lacking in MIDI so I thought I'd try something else.

I downloaded Reaper. I fell in love with its simple, yet powerful workflow and tools. But I believe reaper would be awesome for those that haven't been used to Cubase like me... Reaper's shorcuts were really different from Cubase's ones, so I needed to find something similar to cubase.

I didn't want to go back to cubase cause I was tired with all the updates and, as mentioned, I am a DAW maniac. So, for the past year I've been using Studio One. I'm currently in love with it, it's got almost the same shortcuts like cubase's got and a drag and drop feature that I can't live without.

# Final Opinions – What Should I Get?

The final verdict is to try as many as you can by downloading the demos, but my personal view is to go with *Reaper*, especially if you're a beginner and have never tried out something else.

It's so simple, yet so powerful you'll



love it, plus its demo version never expires – but please support the developers if you like it, they're worth every cent.

If you've got more money to spend, then go for cubase or studio one. Both work in similar ways. Cubase's super benefit is its powerful MIDI editor while Studio One's powerful and unique feature is its *drag and drop* workflow. I went with Studio One.

If you're really indifferent about MIDI features, then go with Pro Tools.

They've been designed with the recording-mixing-mastering mindset, not really caring about MIDI. Be prepared to spend a fortune though. **Pro Tip:** Get reaper and save your money for beers. OK chill man, it's your money I won't tell you what to do, Jesus.

## **Best Microphone For Home Studio Setup**

A vocal microphone is necessary for your home recording studio setup, as long as you plan to record others or yourself. If you're composing instrumental music then you can ditch the vocal microphone completely and purchase some kontakt libraries (pianos, violins, drum-kits, etc).

If you really want to record vocals then there's a home recording vocal package out there, that it's impossible to beat its price to value ratio. The package I'm talking about is the package in the image below:



Why is this considered to be the best microphone package for a home recording studio setup for beginners? Here are the reasons:

- It was built with the home recording beginner studio in mind.
- It's got anything you need to record properly.
- The microphone has top-notch quality audio. Great sound and noiseless.
- Free popshield.
- · Free shockmount.
- Free XLR Cable.
- 10 Year Warranty.
- Rode NT1A Studio Secrets. Tutorials and guides for getting the best sound out of your Rode NT1-A.

I know that many high-end gear fanatics will start bashing the post commenting that "there's no best mic, each mic is different", so in order to make this post as informative as possible, I've got to say that I partially agree with them. There really is no best microphone in the world, because each mic has its sound.

But the package I mentioned above is really the **Complete Vocal Recording Solution**, especially for someone who's just entering the home recording world. I speak from personal experience that this package is the real deal, I've also experimented with more expensive microphones, but the Rode Nt1 is a mic I find myself using it all the time.

Plus, for what you get, you really can't go wrong with a 10 Year Warranty for \$229 from this amazon deal. I've spent \$1.000 for a single microphone and sold it to get something that cost \$300 and I was

happier with it. Let us not judge audio quality by its price.

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## **Best Midi Keyboard For Beginners**

While you can use your computer keyboard to play notes, one of the drawbacks that I've found is that it lacks a **Modulation** control like in the image below.



The reason I find that I need a modulation control is when I use Violin Libraries.

I adjust the **modulation control to play the role of the velocity**. It's smoother and way more natural to record violins while playing with modulation to change its velocity.

On the other side, if you're producing music with almost no need of dynamics – such as rock, techno, EDM, hip-hop and rap – I strongly advise you **to save your money**. You can easily fix the dynamics using your mouse in the midi editor later.

To tell you the truth, we all know that hard style genres don't really need dynamics, instead we focus on getting an aggressive and in-your-face sound. Natural dynamics are crucial for orchestral music, but for hard genres we can live without the modulation control.

## **How To Choose A MIDI Keyboard**

If you still feel the need that you want to buy a MIDI keyboard no matter what, then here are some pointers you should consider before purchasing. You should ask yourself: "What exactly changes the price of a MIDI keyboard?".

There are 4 huge factors that determine the price of a MIDI keyboard:

- The quantity of keys.
- The quality of the keys Are the keys velocity sensitive?
- The extra controls such as a built-in mixer.
- Transport controls.

**Quantity of keys:** You can find midi keyboards with 25, 49, 61, 76 and 88 keys. The more the keys the more money they will cost. 49 or 61 keys are enough for most people, while 76 and 88 keys seem a bit of an overkill. On the other side 25 keys are not really sufficient even for a home recording studio. I would go with 49 keys, unless I have more room on my desk where I would aim for 61 keys.

**Quality of keys:** Even the least expensive midi keyboard have velocity enabled keys. Plus, most keyboards have quality keys nowadays in the \$100 price range. I would aim for no less than \$100 when considering to get a midi keyboard with quality keys.

**Extra Controls:** Some midi keyboards have extra knobs, buttons and switches. You can configure them to work in conjunction with your recording software so you can be able to play with the faders without using a mouse. If money is an issue and my aim is to get the best value to price ratio I would ditch the extra controls completely.

**Transport Controls:** Living in 2015, even the cheapest midi keyboards have transport controls now. The midi keyboard I am going to suggest below has also got transport controls that work flawlessly with most recording programs and applications.

## **Best Price To Value Ratio Midi Keyboard For Beginners**

One of the best keyboards that's got everything that you really need is the M-Audio Keystation 49.

It's got transport controls, great keys with velocity sensitivity, 49 keys which are more than enough for a home recording studio setup, modulation and pitch bend controls and only costs \$99.

You really can't beat a price like that for a quality midi keyboard for your home recording studio setup, that also includes the fundamental controls for your music production needs.

#### Conclusion

There you have it. The gear mentioned above are the perfect essentials for a home recording studio setup for beginners. My aim was not only to satisfy the home recording beginners though. Someday you won't be a beginner anymore, so I had **one more target** while writing this post.

My second, yet important target I focused on, was to provide you with gear that won't need to be replaced in the near future. Practice will make you better in some months, your experience will improve, but everything I mentioned will still work more than fine. You won't have to replace something if your experience improves.

A great example of this, is the monitors that I mentioned above. The more you use them the more you love them. Please don't assume that the more you get better, the more gear you need to improve. **This is simply inaccurate**.

Every single gear mentioned was personally tried and tested by me, but also was the choice of almost the 85% of the home recording world out there. I went and checked out every single review out there, lurking in forums, reading personal opinions and reviews, buying and comparing home recording gear and prices, so you won't have to.

Since opinions differ, it's pretty logical and I totally understand that some people will disagree with some of the gear. Please consider leaving a comment below and I would be happy to update the post. But please, don't forget the main purpose of this post, which is to achieve as professional recordings as possible with the best price to value ratio.

I won't take seriously, responses like "This \$1.000 keyboard is way worse than that \$50 keyboard". If you really believe that something that you read is wrong, then please say it. Be kind, explain the reasons behind your belief and offer value in general. Rude comments and personal attacks to other commenters won't be allowed.

It's time for me to say bye for now, if this post helped you in any way then consider subscribing to my newsletter, to give me permission to send you free lessons and tutorials. I send only free knowledge and only e-mails about home recording and music production.

If by any means you regret it in the future, there's a link in each and every email that gives you the option to unsubscribe with 1 click. There's no risk whatsoever. You have total control.

Liked what you read? Please help all home recording enthusiasts save their money and build a correct home recording studio setup by sharing this post below.

Thank you very much and please don't hesitate to join our forums, we're a group of music lovers that help each other achieve better recordings. Wish you a great day and happy recordings.

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