UGLEBJERG

Guide to home Recording

Recording music is about a lot more than the amount and quality of your gear. It's possible to achieve a lot on a budget - it just takes a lot of work and persistence and you have to know your gear, your surroundings, your music and your own strengths and weaknesses as a musician really well. Most people can put up a few microphones and get a signal on the computer, but if the goal is a high-quality release, there's a lot more to it and it takes a lot of dedication throughout the entire process.

In this guide, I've gathered some advice on how to optimize your own recordings. You can get really far on your own, but I will definitely advise you to associate yourself with an experienced engineer/producer, like myself, and go to a professional recording studio if the budget allows it. In some cases it makes sense to record some elements in a studio and the rest by yourselves.

Feel free to call or write to me at +45 60155094 or Frederik@Uglebjerg.com if you have any questions or just want to hear more. Also check out my website www.Uglebjerg.com where you can listen to my portfolio and read more about me and what I offer and find other guides like this one.

In general

This guide can be summed up like this: Be critical! Use your ears and eyes and be super critical. If it doesn't sound good during the recordings it won't either after mixing/mastering.

Follow your ears. If it sounds good it is good. It doesn't matter if you're doing what I'm writing in this guide or if you're going your own way.

Gainstaging - be sure that the signal never gets too loud during recording. It shouldn't be too quiet either. Find a good sweet spot.

Practice and prepare from home - record when you're recording. The microphones capture everything, so try to minimize those imperfections you don't really notice in the rehearsal space. Recording is a discipline of its own and the most important thing will always be the performance itself. If you're playing awesome then it's gonna sound awesome - if you're playing badly then... You get it. Start recording yourself practicing, listen back and focus on improving the things that don't sound quite right.

Show your skills - not your weaknesses. This might seem obvious but time and time again I see musicians in the studio who want to show off their skills on their instrument but end up showcasing their weaknesses instead because they overestimate their own skills and try to play parts that they haven't quite nailed down yet. Try to be as conscious as possible about your own strengths and weaknesses. Record parts that you can play with confidence and always think about what is best for the song. Save all the showoff stuff for the stage or until you have it on lock.

Know your gear and don't track through equalizers and/or compressors if you don't know exactly what you're doing.

Google and Youtube are your friends! You can find countless guides and videos that can help you throughout the process.

Are you tracking the band live or one instrument at a time? I will definitely recommend tracking one instrument at a time as it gives a lot more options throughout the process and makes it a lot easier to fix potential mistakes. Always start with the drums, then bass/rhythm guitars, keys/synths and then leads/vocals. Plan a good amount of time for the vocals so that the singer doesn't have to track an entire album in an afternoon. It can be a good idea to start tracking vocals fairly early on in the process and space it out over the entire session.

Keep the same sample rate and bit depth throughout the recording process. The standard is either 44,1 khz or 48 khz and 24 bit. Be sure to check that before every recording session.

Document everything you do throughout the process. Take pictures of settings, positions, gear used, etc. and take notes.

If we've agreed that I'm gonna be mixing it afterwards:

- Do some test-recordings and send them my way before you begin the actual recordings. Please send some photos and descriptions as well. I'll go through it all and provide you with feedback.
- I've got some reference recordings of vocals, guitars, drums and bass. Let me know, and I'll send them to you so you can compare your own recordings with professional recordings.

Drums

Depending on the number of microphones you have at your disposal, I would prioritize the microphones like this:

- 2x overheads, kick (inside), snare (top), toms, 2x room mics, snare (bottom), mono room mic, spot mics, kick (outside), other.

Use the best microphones available. Here are some suggestions on some good starting points that don't break the budget:

- SM57 on the snare. It can be used on toms as well. Otherwise Sennheiser e604's on toms. Behringer BA 19A, Sennheiser 602 II or Audix d6 on kick. A couple of small condensers as overheads such as the Røde NT5 or SE Electronics SE7. Same goes for the rooms and spot mics.

Mic placement:

- Place the overheads at equal length from the snare. About 120-140 cm away from it.
- Place the close mics close to the drum, they're capturing and point it towards the center of the drum. Try to point them away from the other drums/cymbals as much as possible.
- If you don't already have a port hole in the kick drum I highly recommend making one. Place the mic about halfway inside the drum.
- Place the room mics with a good amount of distance between each other as well as the drum kit. Place them fairly high above the ground. Experiment with the placement and where you point them to get the desired sound. Sometimes it sounds great pointing them away from the drum kit.

You HAVE to use quality cymbals. This is one of the most important aspects of getting a good drum sound as budget cymbals simply don't sound good and can ruin the entire mix.

Tuning:

- Spend a good amount of time tuning the drums at the beginning of the session and make sure that they stay in tune throughout. New drum heads are often a good investment but it depends on the desired sound.
- Feel free to use dampening gel/tape to kill overtones and reach the desired sound.
- Don't be afraid to put some blankets or pillows in the kick drum if you want a short, controlled and impactful kick sound for rock/metal.
- Think carefully about your desired sound and work towards it.

Editing

- There's often a good amount of editing needed after a drum tracking session. Maybe, we've agreed that I'll take care of it. If not, then thoroughly read up on how to edit drums in your DAW.
- You can read more about editing in general further down in this guide.

Guitars and bass

Get the instrument serviced by an experienced guitar/bass tech beforehand.

New strings! Change strings along the way when the sound becomes dull. Compare throughout the session with the sound at the beginning of the recordings. As a rule of thumb, change guitar strings after every third song. Bass strings don't need changing that often. Use your ears and if you're recording a DI signal, look at the DI waveform and see if it has changed since you last put on new strings.

Is the instrument in tune? This is a way bigger issue than you might think. Check the tuning as often as possible. Sometimes one chord might be in tune while another isn't, so you might have to record them separately. Be extremely critical!

Are there any noises that shouldn't be there? Humming, rattling, weird resonances and excessive string noises are common issues as well as open strings sustaining when they shouldn't. A good idea is to dampen the strings that aren't in use in a certain riff/section with a tissue or something like that. Again - be critical! An annoying noise hanging over a riff cannot be fixed in the mix.

Consider your sonic goals and what you can do to achieve them. A lot can be done in the mix, but not miracles. There are a lot of variables throughout the recording process, so be sure to make careful decisions with your goal in mind.

- Which guitar/bass should you use for this song/section?
- With/without pick?
- Which pickup(s)?
- Which amp/cabinet/pedals?

Be sure to always record a DI-signal as well. This gives us the opportunity to reamp later. Use a dedicated DI box for the best results. The DI box should be first in the chain.
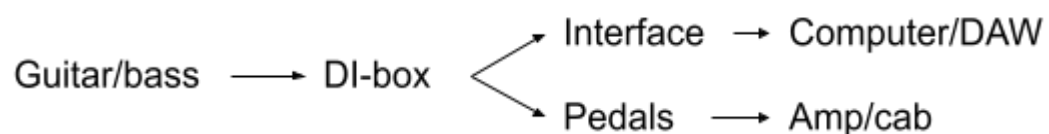
When recording bass the DI-signal is the most important. Be sure to get a good clean DI signal.

Record two good(!!!) takes of all the rhythm-guitars, so they can be dubbed and panned in the mix. If you think some other guitar-parts need dubbing, record two (good!!!) takes of those as well.

If you're recording through amps and cabs, consider your mic choice and spend a good amount of time on the positioning of the mic(s). The SM57 is the industry standard, so that's a safe choice. Listen to the different speaker units and choose the one you think sounds the best. Place the microphone so that it's right at the edge of the speaker cone and as close to the cabinet as possible. Adjust according to preference. Even moving the mic 1 centimeter can make a big difference!
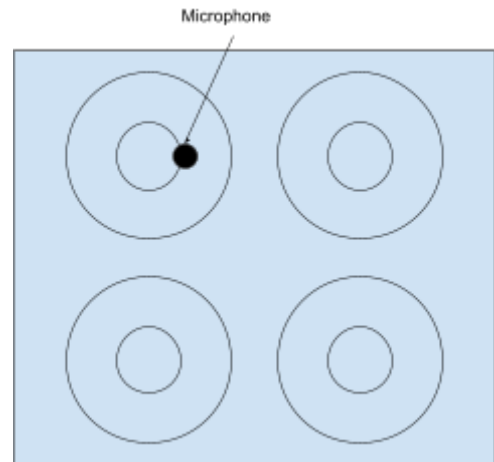
Be very careful about the phase relationship if you're using more than one microphone. Make sure that they're the same distance to the speaker. Here's a good method to get a good phase relationship:

- Flip the phase on one of the mics (can be done on the preamp or in your DAW) and listen to the combined sound of the two mics. Adjust the mics until the two sources cancel each other out as much as possible. When the sound is as thin as possible, flip the phase back and the two mics should sound massive together.

Vocals

Use a good quality mic. The Shure SM7b is a somewhat affordable classic for rock and metal. Alternatively use a large diaphragm condenser. There are a lot of great options in most price ranges.

Always use a pop filter. Place it about 10 cm from the mic. Some mics like the SM7b already have a pop filter built into it.

Record in as "dead" a space as possible. Minimize the reverberation in the room as much as you can by hanging up duvets, blankets, etc.

In regards to the performance itself, pronunciation, attitude, emotion, energy and confidence is the most important aspect. A note that's out of pitch can be corrected - a bad performance cannot.

Record a few dubs of the vocals anywhere where you want the vocals to have a bigger sound or as a natural chorus effect. In some genres, getting the right vocal sound requires a lot of dubs and layers of harmonies throughout the track.

Editing

Editing often plays a big part in getting the different elements to gel together and is a must, if the end goal is a modern and professional production. Editing includes things such as vocal tuning, editing timing of individual instruments and removing unwanted noises. We can either agree on me doing the editing or you can give it a go yourselves, although I don't recommend doing it yourselves, if you don't know exactly what you're doing - you can easily end up doing more harm than good.

Always edit the drums before you record the rest of the instruments. It's generally a good idea to do some editing continuously so you have a more finished sound to lean against during the rest of the recordings.

Never use elastic audio or stretch/compress a recording when there's more than one mic picking up the same source. This can be on a drum kit or a guitar cabinet with multiple mics. It changes the phase relationship between the mics and messes up the sound completely. Instead use slip editing. You can learn more about it on Google/Youtube.

Clean up your tracks. Remove any unwanted noises and anything else that isn't supposed to be audible in the final product. Make fades/crossfades on every edit.

Preparing and sending your files off for mixing

- Start by backing up your session.
- Clean up all the tracks. Remove any unwanted noises and sounds that you don't want in the final mix. Make sure to do fades and crossfades on all clips.
- Give all your tracks precise names. Start each instrument group with the same letter. For example: "D kick in", "D snare top", "D snare bot", "G rtm gtr L", "G rtm gtr R", "V lead vocal verse", and so on. It has to make sense for someone who hasn't seen/heard the tracks before.
- Consolidate all the tracks to zero (00:00). Can be done while exporting. Make sure there are a couple of seconds of silence before the song starts.
- If you have any particular effects or inserts on a track that you want me to keep in the mix, please send me two versions of that track. One with the effect on (wet) and one raw version with the effect removed (dry). Name them something like "S synth verse wet" and "S synth verse dry".

- Export as .wav-files. 24 or 16 bit in the same sample rate that you recorded it in.
- Make sure that all the mono tracks are exported as mono and stereo as stereo.
- If a song changes tempo, please export a tempo-map as well. Alternatively, write down the tempo changes in a document and send it along.
- Try to open up the exported files in a new session. Pretend that you've just received them and see/hear them for the first time. Is it all organized? Does the track names correspond with what's actually on the track? Is there a visible waveform on all tracks? Are the mono tracks mono and stereo tracks stereo?
- Export your raw mix of the song and send it along as a reference to me.
- Create a document with song titles, tempos, song notes and everything else that is relevant to the project. Keep it short and precise. It might be relevant for me to know something about how it was recorded. Is it recorded in one session or over a longer period of time at different locations? Did you use some cool microphone techniques? Etc. Also send a short description of the sound you're after and let me know about any specific effects you might want in a section of the track. Feel free to pick 3-5 buzzwords from the list below and elaborate with your own words.
- Organize it all logically in a zip-file and send it to Frederik@Uglebjerg.com via Dropbox or Wetransfer.

Video Guide on how to prepare your files for mixing (This example is in Pro Tools).
https://youtu.be/qrfHzz0SS4o

Video guides on how to export multitracks for mixing.
- Logic: https://youtu.be/JKWM-zM1J8M
- Pro Tools: https://youtu.be/6cmcHBs_5wo
- Cubase: https://youtu.be/T5sDE-kCzRs
- Reaper: https://youtu.be/jiCJ5DTUXIU
- Studio One: https://youtu.be/CMJAbdlrwUk

dark	cohesive	dry	lush	polished
warm	separated	wet	intimate	raw
bright	wild	live	sharp	tight
in your face	controlled	studio	soft	airy