

This document is aimed at providing all the necessary information for remote dubbing and voice-over recordings. In the light of COVID 19, and resulting closure of studios in most locations, the use of remote recording may provide an alternative to studio recordings and thus a contingency plan. It needs to be noted though, that it is never going to replace recordings in a proper studio environment in normal conditions.

When undertaking any home-based remote recording the link between the Sound Engineer, the Actor and the Director is of key importance. In order to fully succeed, we have to be aware of the following 4 areas:

1. Reliable internet connection with sufficient upload/download speed
2. Equipment on Actor's side (microphone, preamp, all properly set-up)
3. Silent recording location
4. Acoustic treatment of the recording location

For additional information visit [www.AudioBCA.org](http://www.AudioBCA.org)

## **Equipment & System**

- Windows or MacOS computer
- Fast and reliable internet connection (network cable preferred over Wi-Fi)
- Google Chrome browser - version 49 or higher <https://www.google.com/chrome/>
- No license is required

## **List of Recommended Equipment**

- Recommended USB microphones (preferable for plug-and-play setup):
  - Apogee Mic+ <https://apogeedigital.com/products/mic>
  - Audio Technica At2020USB + [https://www.audio-technica.com/cms/wired\\_mics/5879a6ca22e5aa7e/index.html](https://www.audio-technica.com/cms/wired_mics/5879a6ca22e5aa7e/index.html)
  - Apogee HypeMic <https://apogeedigital.com/products/hypemic>
  - Rote NT USB <http://www.rote.com/microphones/nt-usb>
  - Blue Yeti Studio <https://www.bluedesigns.com/products/yeti/>
  - Blu Yeti Pro <https://www.bluedesigns.com/products/yeti/>

**Important: do not use omnidirectional microphones.**

- Recommended closed back headphones:
  - AKG K271 MKII <https://www.akg.com/Headphones/Professional%20Headphones/K271MKII.html>
  - Beyer Dynamic DT770 <https://europe.beyerdynamic.com/dt-770-pro.html>
  - Sony MD7506 [https://pro.sony/ue\\_US/products/headphones/mdr-7506](https://pro.sony/ue_US/products/headphones/mdr-7506)

Closed-back headphones have a solid outer shell with no perforations of any sort such that the shell effectively cups the entire ear. On the other hand, open-back headphones are designed so that the outer shell of the ear covering is perforated in some fashion, typically with horizontal cut-outs. This may cause sound leakage and therefore cannot be used for recordings.

- Recommended microphone stands:
  - K&M table microphone stand: <https://www.k-m.de/en/products/mic-stands/table-stands-table-bases/23150-tabletop-microphone-stand-black-3-8>
  - Rode PSA1 table microphone arm <http://www.rodete.com/accessories/psa1>

Microphone Stand: this element is very important for the durability of your equipment. We advise you to invest in a microphone foot with cast iron base to avoid repetitive falls from your microphone.

Suspension: this is the element on which you screw the microphone. Once in place it avoids capturing vibrations that can be caused by blowing on the microphone foot.

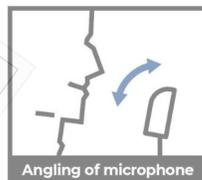
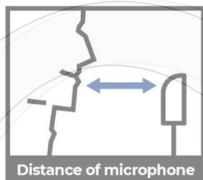
- Recommended pop filters:
  - K&M pop filter: <https://www.k-m.de/en/products/mic-stands/popkiller/23956-popkiller-black?number=23956-000-55>
  - A Pop Shield: Use it to filter out plosives (the wind of the syllables "peuh" and "teuh"). It also protects the microphone capsule from saliva. Place it from 4 to 5 cm from your microphone.
- Recommended reflection filter:
  - SE Electronics Reflection Filter X <https://www.seelectronics.com/reflexion-filter-x>
  - Reflexion Filter: We highly recommend using a reflexion filter or acoustic screen

## Microphone Placement

This may seem like a minor detail, but the placement of the microphone makes all the difference. Position the microphone as far from walls as possible, this will prevent unintentional recording of strange resonances.



- A distance of 70-90cm will achieve a proper balance for a home dubbing environment.
- Talk over the microphone.
- Always blow or breathe loudly past the microphone to the left or right.
- Adjust the microphone to the height of the chin.



# Best Practices for Remote Recording

Choose the right place in your home:

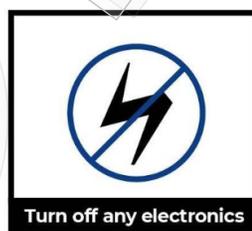
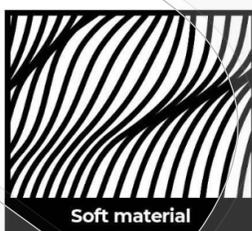
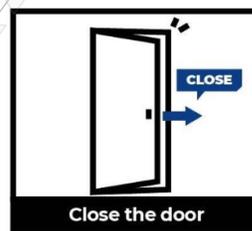
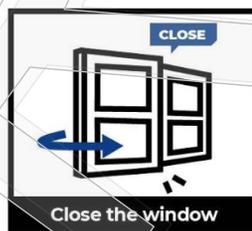
- One of the most influential factors in the recording process is your choice of room to capture the voice.
- The sound mixer wants vocals to sound as dry as possible. This means that the voice should sound close and present.
- When soundwaves bounce off of hard surfaces in your room, the recorded voice will actually sound more distant.
- Below are our general tips in finding or creating the best place in your home to record.

Try to use a small-to-medium room full of soft objects with textiles such as beds, curtains, carpet, etc. All of these tend to absorb sound, making the room a less reverberant and a more neutral environment that produces the best results.

Please avoid rooms with lots of hard surfaces and windows. Kitchen and bathroom are absolutely not the ideal places to record in.

Make sure you have turned off all devices that may make noise during the recording session.

## Optimized Recording Environment



Follow these basic guidelines when selecting and setting up your recording area.

## Do's:

- Choose the quietest room of your home (evaluating outdoor and indoor noises).
- Make sure that all noisy equipment is turned off (A/C units, fan coils, washing machines, dishwashers).
- Close all the doors and windows and draw the curtains
- Computers with fans or external drives should be as far as possible from the microphone.
- Avoid corners and reflective surfaces – do not stay too close to the walls.
- Make sure the room has soft materials in it. Hard surfaces reflect your voice, blankets & pillows on the side and back walls may help to reduce early reflections.
- Make sure to have as many items in the room as possible. For instance, place a clothes rack with linens in the room, distribute blankets and pillows. The more fabrics in the room, the better
- If your walls are tiled, hang some blankets in front of them.
- If you have a large bookshelf (filled with books), position yourself so that it stays behind your back. It is going to provide nice sound diffusion. You should maintain at least a 1.5m distance between your back and the bookshelf.
- Check if the floor area you are standing on is not squeaky. Record in a room with a carpet.
- If you are in a seated position, make sure your chair and desk do not produce sounds when moving back and forth. Also, consider covering your desk with a blanket or a thick cloth to reduce sound reflections.
- Install a pop filter at a distance of 4-5cm from the microphone (not parallel to the membrane).
- Start with a distance of 15-20cm between the microphone and the mouth.
- Prior to proceeding with the recording session, the recording engineer will provide suggestions on how to improve the setup after checking initial audio samples.



## Don'ts:

- Don't use plastic blinds in front of your windows, instead use curtains or hang a blanket in front of the window
- Don't record in the bathroom or kitchen
- Don't record near any windows
- Don't record near glass, tiles or any hard, reflective surfaces
- Don't record when there are outside noises like heavy machinery, children playing, etc. Wait until the noise is gone.

## Recording Process

- Wait for the Sound Engineer to connect you and bring you ON AIR.
- Mute your microphone during recording the takes. Unmute it to comment on the performance only in between the takes.
- Open a new window or tab in Google Chrome.

Before making any decisions on the equipment purchase, please follow this rule:

- If you already own some of the equipment of the recording chain – provide the list to the Sound Engineer and ask for suggestions on what to buy. Example – if the Actor has an audio interface but does not have a microphone, it makes no sense to buy a USB microphone because it overlaps with microphone preamplifier in the audio interface. Instead it would make more sense to buy a dynamic or condenser microphone. This needs to be consulted first with a Sound Engineer.
- If you do not have any elements of the recording chain and you are willing to buy them – please provide the description of your recording room to the Sound Engineer as far as acoustics is concerned. Based on the current status (amount of room reflections, background noise) and your ability to enhance the acoustic conditions, you may consider two equipment options: 1) USB microphone – most likely will be cheaper than dynamic microphone + audio interface, but will provide less separation from the room acoustics, 2) Cardioid or supercardioid dynamic microphone + audio interface with high quality preamplifier\* – most likely more expensive, however will provide more acoustic separation from the room acoustics.
- \*Dynamic microphones output typically very low-level signals which need to be amplified much more than the levels of condenser microphones. In other words, dynamic mics are gain hungry and require preamps with a lot of gain (could be as much as 55 dB for spoken word). These preamps are more expensive than the regular ones.