### **Internet Lesson Protocols for Distanced Learning**

Use Zoom! There is a good reason for using Zoom instead of Skype...Zoom has a "High Fidelity Music Protocol" that is much better than Skype as long as one is running version 5.2.2 (45106.0831) or later. Make sure to put the actual application on the computer and then make the student a contact and send them a message "inviting" them to be a contact.

## Laptops Only, please!

- If the student does not have one available, they can use a tablet or smartphone, but the Video and Audio will be greatly compromised.
- Make sure the student is on wi-fi or an ethernet cable for best quality and cost. Make sure no-one else in their house is streaming hi-def or playing online games.... the bandwidth will be severely compromised. If necessary, have their service provider visit and check their wiring, modem and MBPS speed. You can check your speed yourself by typing fast.com into your search engine. I did all of this in my office, listening room and studio and went from 40 MPBS to 180 MBPS.
- Make sure everyone is plugged in! Video conferencing drains batteries quickly.
- Have everyone place all their communications devices on DO NOT DISTURB. No interruptions!
- Make sure everyone is well lit, and from the front or side, not the back.
- Do **NOT** use earbuds or air pods.... speaker sound will be much better. However, if there are high quality headphones available that can be even better than speakers.
- Use the little video of yourselves in the upper center of your laptop to set your screen angle to show your face and entire instrument so we can see embouchure **and** fingers.
- Set up the laptop about 4-5 feet away so the sound is not oversaturated, and then one must lean forward towards it to speak or turn up the mic as our voice volume is so much lower than our instrument volume.

## Physical Setup: In a quiet, private environment!!

We want to duplicate the normal feeling of a physical lesson where the teacher sits directly to the student's right. The picture below shows the students setup.

The student should have their stand directly in front of them with another stand or desk of some kind to their right, upon which the device can be held or propped so they can see the teacher and vice versa!

The device should be at a 45-degree angle to them so the teacher can see their fingers and their embouchure, and the student can turn to look at the teacher easily too.

The teacher should be set up as a mirror image to the student. You can see me to the right of the student in the picture below. My stand in my studio is centered in front of me, and my laptop is to my left at a 45-degree angle. I have a copy of the music they are playing on my stand and I can turn my head easily to watch them! It is very much like sitting beside each other angled towards each other.



# **Audio Setup**

• To improve the outgoing sound:

**Audio-Technica AT2020USB Deluxe USB Cardioid Condenser Microphone** into MacBook Pro USB port. Also works fine with PC's running Windows. Under \$300 on Amazon, ranked equal to \$1000 mics by reviewers in professional audio magazines and websites!



# • To improve the incoming sound:

AudioQuest Dragonfly Cobalt Digital Analog Converter/Amplifier from USB output into minijack out to external amplifier and speakers or directly into headphones. There are two less expensive models, the mid-priced Red and the lowest-priced Black. All are excellent and you can connect them directly to desktop computer speakers without amplifiers. Readily available from Amazon and they have a great warrantee. This will also improve your music listening experience dramatically on phone or tablet.



## **Good Value Speakers:**

**Bose Companion 20** speakers are very inexpensive and good quality, and connect directly to your computer without a separate amplifier (except you should use a Dragonfly DAC USB plug!)



The following are better but require a receiver or integrated amplifier.

Bose 161™ speaker system.



# Even better! Bose 201 or 301 Direct/Reflecting Speaker System



Pretty hard to beat the Sony Stereo Receiver STR-DH130 for value.



**Headphones** can prevent hearing an echo back from your speakers through your microphone to the other party. Wear them with one earphone on and one off, so you can hear your own sound with one ear, and sound from the other party with your other ear.

<u>Do not purchase Beats Headphones!</u> They are a marketing company, not an audio company. And do not use bluetooth, wired headphones are always better.

Here are some better choices, incredible value.

#### Sennheiser HD 280 Pro



**Audio Technica ATH M50X** 



#### HiFiMan HE400i

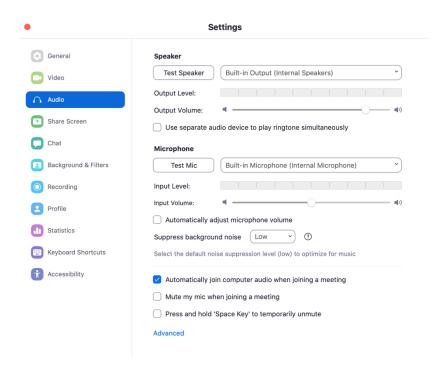


If one wants the very best results for the lessons, this kind of investment in the studio or practice space really pays off! The mic and speakers of laptops are not hi-fidelity!

### Setting Up Audio/Video on Zoom:

- Open the Zoom App.
- Click Zoom on the top left-hand side of your screen.
- Click on Preferences, then on Audio.
- Disable the automatic settings for microphone and speakers.

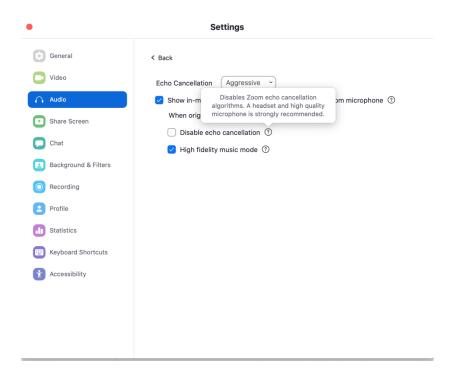
Here are the settings on the first page of Audio preferences if one is using computer speakers. You need to play with the Output and Microphone settings to find the right volume for your system.



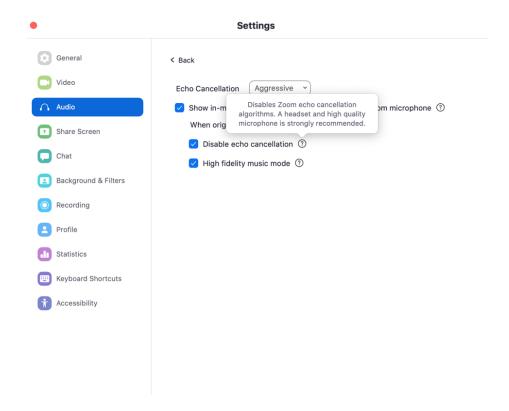
You must choose the correct speaker output and mic if you are using a Dragonfly DAC and/or an External Microphone through USB ports.

•	Settings
General	Speaker
Video	Test Speaker AudioQuest DragonFly Cobalt v1.0
Audio     Audio	Output Level:
↑ Share Screen	Output Volume:  Use separate audio device to play ringtone simultaneously
Chat	Microphone
Background & Filters	Test Mic AT2020USBi
Recording	Input Level:
Profile	Input Volume:
Statistics	Automatically adjust microphone volume  Suppress background noise Low   ①
E Keyboard Shortcuts	Select the default noise suppression level (low) to optimize for music
Accessibility	<ul> <li>Automatically join computer audio when joining a meeting</li> <li>Mute my mic when joining a meeting</li> <li>Press and hold 'Space Key' to temporarily unmute</li> </ul> Advanced

Click "Advanced." Here are the settings if you are using speakers.



### Here are the settings if you are using headphones.



Make **SURE** you have checked "Show in-meeting option to "Enable Original Sound" from microphone." Then make sure the top left corner of your screen during meetings you see "**Turn off original sound.**" That means you are getting "original sound" from your mic instead of sound that is processed for meetings, and you will be able to enable High Fidelity Music Mode. **If it says "Turn on original sound,"** *click on it to do so!* 

#### The Music

- The teacher cannot see the student's music! The student must send a list the day before of all the material so the teacher can have it handy.
- The teacher will only have copies of technique, etudes, solo or chamber pieces that they have issued the student! So, if the students working on technique, etudes, solo pieces, chamber pieces or ensemble repertoire from elsewhere, such as their school or an advanced ensemble, they MUST scan it and send it to the teacher the day before the lesson at latest!
- Teachers and students must number their bars! They don't have to number every bar, but number the 1<sup>st</sup> bar of every line...do that before scanning and sending material. The teacher cannot point at where they want the student to start when they are not in the same room!
- The teacher may need to tell the student where to start AND stop.... the student cannot hear the teacher while he or she is playing.

#### Other

- Make sure student has some way of taking notes and ask them to review the important parts of the lesson and what you are going to focus on for the next lesson.
- Students must have their metronome and a pencil handy!

The above points should not be necessary!
All good musicians have these to hand all the time!

# **Payment**

- Via Interac Transfer same day as lesson just for one lesson. It is preferable to being paid ahead and certainly being paid after a few weeks. This way there is nothing to keep track of.
- This can easily be set up with most banks.
- Pay to the appropriate email address via computer. Make the account automated
  to that email address so the student will not need a password. Your bank site might
  take them to a screen for that anyway, and the student just has to keep clicking
  through the screens for the first payment only.
- Ask the studenet not use their phone for payment, as that gives the teacher no information as to who has paid!

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