# **Online Lessons With Zoom**

# **Mac System Requirements:**

### Versions - Mac OS X - 10.10 Or Higher.

Dual-core 2Ghz or higher (Intel i3/i5/i7 or AMD equivalent) Ram - At Least 4 GB.

## **Bandwidth Requirements:**

For 1:1 video calling:

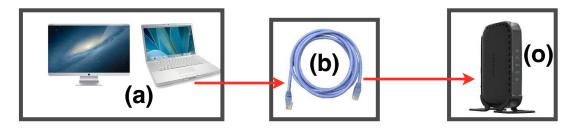
For high-quality video: 600kbps (up/down)

For 720p HD video: 1.2Mbps (up/down)

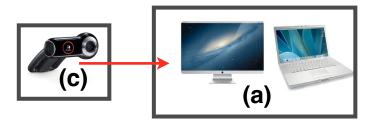
For 1080p HD video: 3.8Mbps/3.0Mbps (up/down)

### **Recommended Online Gear Setup**

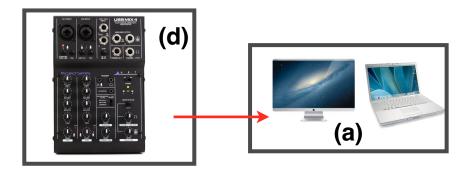
1) A hardline connection from your computer-(a) to your high-speed internet modem-(o) using a ethernet cable-(b).



2) A usb connection from an external webcam-(c) to your computer-(a).



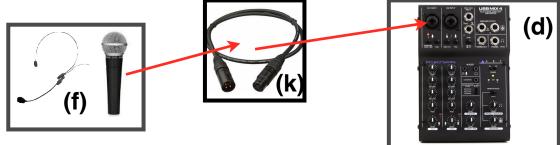
3) A audio connection from your mixer-(d) to your computer-(a) using the usb cable that comes with the mixer.



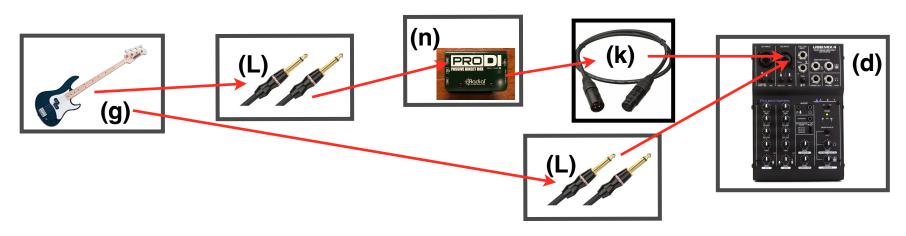
4) (<u>Optional</u>) - A connection from your computer-(a) to an External monitor-(e) with either a DVI, VGA, or a HDMI connection-(o).



5) Your voice microphone-(f) with a XLR connection-(k) plugged it into channel 1 of the mixer-(d) should be the only live mic you should use during the lessons. This will allow you to balance your voice volume with the other audio for you and the teacher. I recommend a regular vocal microphone on a stand.

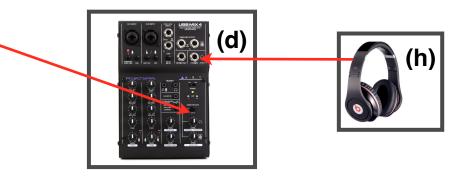


6) You should plug your bass-(g) into the input of channel 2 on your mixer with a standard 1/4 inch instrument cable-(L) or an XLR cable-(k) if you are using a direct box-(n).

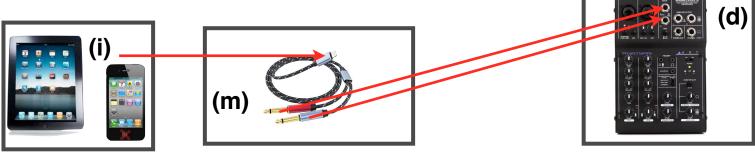


7) Your headphones-(h) should be used to listen to all of the audio during the lesson. Plug your headphones into the (1/4 inch) headphone jack on your mixer and adjust your headphone volume from the (Phones - Monitor) volume control on your mixer-(d).



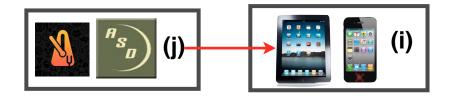


8) You should connect from your audio playback device-(i) using what ever audio connection is needed from your phone or tablet split to 2 mono 1/4" cables-(m) into the line in 3/4 L/R input channels of your mixer-(d).

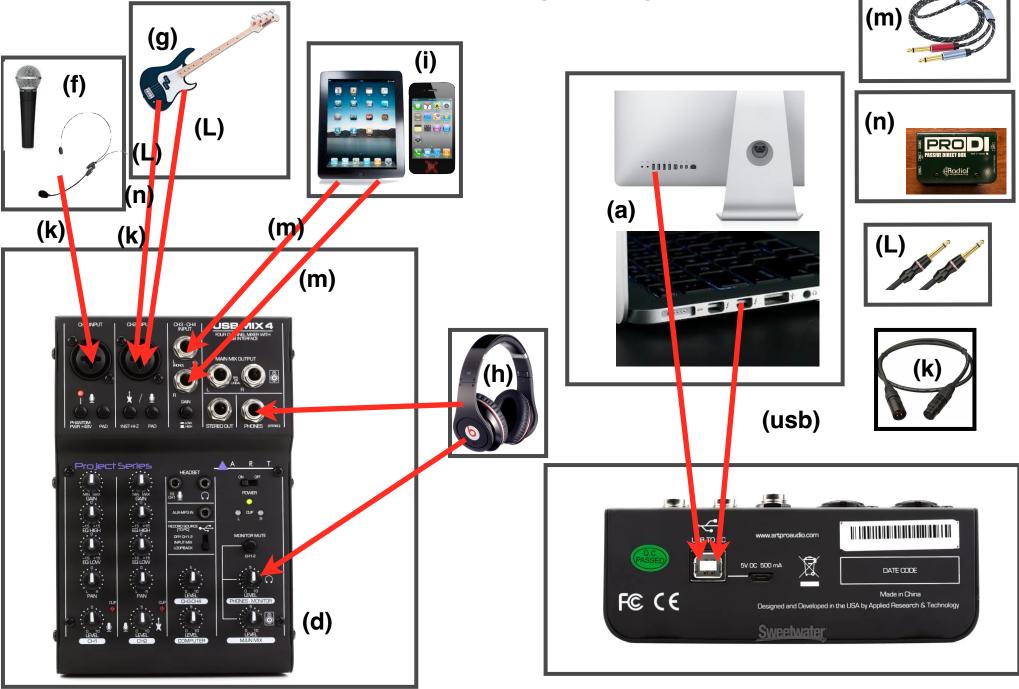


9) I recommend using a separate audio playback device-(i) that can run apps such as the *Amazing Slow Downer-(j)* - http://www.ronimusic.com and the METRONOME Connect

App - https://apps.apple.com/rs/app/metronome-connect/id1629209970-(j)



## Mac Audio Hook Diagram For Zoom Mixer View



### Mac Audio Hook Up Diagram For Zoom Computer View

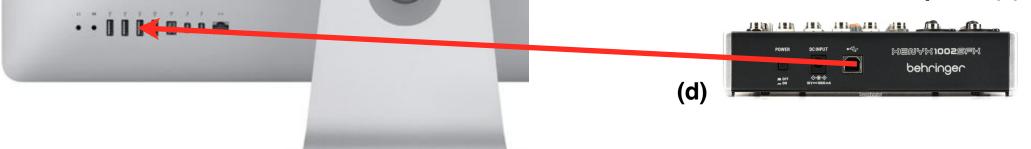


USB Port (a)

USB Connection From The Mixer-(d) To The USB Port Of The Computer-(a)



USB Connection From The Mixer-(d) To The USB Port Of The Computer-(a)



#### **Recommended For A Better Lesson Experience**

- 1) Your External webcam-(c) should be mounted away and up on a stand pointing at a downward angle towards you. The camera in your computer will work, but has a limited field of view.
- 2) Using an external monitor-(e) although optional will allow you to view pdf files and other materials while also being able view the instructor. You will need to make sure you have the necessary adapter to connect from your computer, usually it will be a HDMI connector.
- 3) For the fastest internet possible, it is best to use a hard line connection using a ethernet cable from your modem to your computer. (*Wifi Usually Does Not Work As Well*).
- 4) Use a USB Hub if your computer does not have enough or the right kind connection ports.
- 5) Store lesson videos and curriculum on a separate hard drive to save space in your computer which will help it run better.

### This Is What Your Output Audio Settings Should Look Like In Your Computer System Preferences

|                    | Sound  |   |
|--------------------|--|---|
| earch              | Sound Effects  |   |
| Rodgers Russell    | Alert sound  | Boop 💲 🕞  |
| Family             | Play sound effects through                                 | Selected Sound Output Device 💲  |
| Wi-Fi              | Alert volume   | I |
| Bluetooth          | Play sound on startup                                      | •   |
| Network            | Play user interface sound effects                          |   |
| Notifications      | Play feedback when volume is changed                       |   |
| Sound              |  |   |
| Focus              | Output & Input   |   |
| Screen Time        | Output   | Input   |
| General            | Name   | Туре  |
| Appearance         | External Headphones  | Headphone port  |
| Accessibility      | MacBook Pro Speakers                                       | Built-in  |
| Control Center     | Sceptre F24  | HDMI  |
| Siri & Spotlight   | Studio 68c   | USB   |
| Privacy & Security | Applications may be able to access head spatialized audio. | pose information when playing   |
| Desktop & Dock     |  |   |
| Displays           | Output volume  |   |
| Wallpaper          |  | Mute  |
|                    |  |   |

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### This Is What Your Audio Settings Should Look Like In Your Zoom Settings

| • |                      | Settings  |  |
|---|----------------------|---|--|
| 0 | General              | Speaker<br>Test Speaker Studio 68c *  |  |
|   | Video                | Output Level:   |  |
| 0 | Audio                | Output Volume: 🖪 🔵 🛋  |  |
| • | Share Screen         | Use separate audio device to play ringtone simultaneously   |  |
| 2 | Team Chat            | Microphone  |  |
| 6 | Zoom Apps            | Test Mic Studio 68c ·   |  |
|   | Background & Effects | Input Level:  |  |
| 0 | Recording            | Input Volume:   |  |
| 8 | Profile              | Automatically adjust microphone volume Audio Profile  |  |
|   | Statistics           | <b>Zoom optimized audio</b> (recommended for most users) ⑦  |  |
| U | Feedback             | Original sound for musicians (recommended for studio environments)                                    |  |
|   | Keyboard Shortcuts   | Displays in-meeting toggle to switch between Zoom optimized audio and<br>Original sound for musicians |  |
| i | Accessibility        | High-fidelity music mode ⑦  |  |
|   |                      | Secho cancellation (?)  |  |
|   |                      | Stereo audio 🕜  |  |

# **Recommended Audio Gear For Lessons**

### 1) ART USBMix4 Mixer with USB Interface

\$106.00 At Sweetwater

https://www.sweetwater.com/store/detail/USBMIX4--art-usbmix4-mixer-with-usb

#### 2) Whatever Stereo Audio Connection Is Needed From Your Computer, Phone Or Tablet Needs To Split Into 2 Mono 1/4" Cables To Go Into The Mixer. You Can Order This On Amazon.

#### 3) Radial ProDI 1-Channel Passive Instrument Direct Box. \$130.00

https://www.sweetwater.com/store/detail/ProDI--radial-prodi-1channel-passive-instrument-direct-box