Getting Started with Video Streaming
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Want to try live video streaming but don’t know how to start? This guide is for you! You don’t need a production studio, elaborate and expensive equipment, and years of experience to produce high quality videos. This guide will help you create videos with great image and audio quality using standard equipment that is easy to find and affordable. You can leverage these expert tips to help you get started quickly.
setup

STEP 1 · LOCATION & LOGISTICS

- **Controlled Environment**
  Choose a location where there is limited background noise. A closed office with a “do not disturb” sign, conference room, or designated production space is ideal. Closing the windows and turning off the fan and air conditioning is helpful for noise control. Remember to mute any phones in the room, turn off personal email notifications and social media alerts on your computer and mobile devices, etc.

- **Background**
  Take a good look at the background to see how it will appear in the shot behind you. Are there any distracting movements going on? Is the background cluttered? If so, position the camera to minimize as many of these distractions as possible or consider finding a more approvable.

- **Wired Internet Connection**
  The consistency of your network connection is crucial. Wireless connections can fluctuate in strength throughout the course of a 30-60 minute video production and may even suffer from drop-offs. Because of this, we recommend connecting your computer to the internet through a wired ethernet connection. We also recommend testing your connection speed to ensure that you have the proper bandwidth to deliver your message. A high definition video stream requires a minimum of 3-8 Mbps consistent upload bandwidth. If there is no vinternet connection at your production location, bonded cellular solutions from companies like LiveU and Teradek may be an option.

STEP 2 · CAMERA/LIGHTING/AUDIO/CONTENT/QUESTIONS & COMMENTS

- **Camera Positioning**
  If you are shooting through a webcam, the best way to capture your image is often to elevate the camera to your eye level. You can accomplish this by raising your computer or webcam by placing it on top of a box positioned directly in front of you. Make sure that the camera is stable and steady. If you have a camcorder, we recommend placing it on a sturdy tripod and elevating the camera to place the lens at eye-level.

Example of eye-level camera positioning
Camera Positioning Cont.

When broadcasting or recording your message, be sure to maintain direct eye contact with the camera as if you are talking to a particular audience. If this is a two person shoot, don’t be afraid to turn and look at the other individual and have a discussion. This will appear more natural. When you want to address a point directly to the audience, you can then turn back to face directly toward the camera. Be sure to smile, sit or stand up straight, and relax. Think of it as just another conversation with a friend and have fun.

Lighting

Lighting is often the most overlooked area in setting up a video production, but it can have a major impact on the image quality of your stream. The goal is to create an evenly lit space with minimal shadowing.

Try to use the available lights in your location, placing them in front of you to cast a favorable amount of illumination on your face. You don’t need to get fancy. A simple lamp can accomplish this or, if there is plenty of sun or ambient light, you can position yourself in a way that makes the best use of it.

Avoid positioning yourself with a bright light in the background behind you as this may affect the exposure of your image. To remedy this, try changing your position, closing the curtains on your window or turning off the background light.

If you have the means to purchase a simple light kit, check out our recommendations listed below in the Equipment section. A two or three point light kit allows you to have more control over the light in your environment and produce professional looking results.

Audio

Some people use earbud headphones with a built-in microphone. If you choose to use this approach, we recommend using only one ear bud and placing the wired portion behind your back or weaving it under your top, keeping the wire out of sight while allowing the microphone to pick up your audio. Be sure to test the clarity of your audio during the run-through a day prior to your broadcast and again the day of the session before you go “live.”

For the best results, we recommend a basic lavalier kit which can be connected directly into a camera or audio mixer. This will provide very clear audio for your audience and is easy to conceal. Check out the Equipment section below for some recommendations.

Content

With our Producer product, you can capture the display of another computer through the network. This allows you to display slides or images, demonstrate software, or share websites while you are speaking. With slides or documents, we recommend simple, concise elements instead of lengthy text-heavy statements to boost the attention of your audience and allow them to focus on your message. Brief bullet-points, large text, contrasting colors, engaging images, and a consistent look work best.

Answering Questions

We recommend using a second laptop or tablet logged into the broadcast to monitor the questions from your audience as they come in. You can mute the audio and scroll through the questions to see what points most interest your audience and where you need to elaborate or clarify. If possible, have a producer available to help you handle the questions and comments.
equipment

VIDEO CAMERA

It’s easy to get started with a simple set up. You can choose an affordable camera with an external lavalier, such as the Panasonic HC-V770 ($500). This camera will produce excellent image quality and also enables you to control the exposure and monitor the audio for high quality results. You can purchase an affordable lavalier microphone for under $50 that provides even higher quality audio and is very simple to use. Just attach the microphone to the camera, set the levels, place the camera on a tripod, and adjust your lighting for great high definition video and high quality audio.

Panasonic HC-V770 (~$500)

You can then take the video and audio signal directly from the camera into a external capture device and convert the signal for use in a computer. The capture device usually connects to your Mac or PC via Thunderbolt or USB 3.0. Once you’ve transferred the signal to your computer, you can use Ustream Producer to add graphics and broadcast your message.

Check Price

TRIPOD

Use a simple, yet sturdy tripod to provide you with the flexibility to pan or tilt and adjust the height of your camera. There are a variety of options ranging in durability and smoothness. The Magnus VT-3000 is an excellent tripod to get you started.

Magnus VT-3000 Tripod System with Fluid Head (~$129)

Check Price
LIGHTING KIT

You can use natural light but to get the best & most consistent results, we recommend that you use the 3-point lighting technique employing a 3-piece lighting kit.

Three-point lighting is a standard and effective lighting method used in video production. The “key” light is the principal source used to illuminate the subject.

**Flolight KIT 3-Point Lighting Kit (~$499)**

This 3 piece fluorescent kit is relatively inexpensive and simple to setup. You can use this lighting kit in a variety of setups to meet your needs.

[Check Price]

**Interfit Super Cool-lite 5 Two Light Kit (~$199)**

If you would prefer a simpler setup, you can start with two lights, using just the key and fill lights to compose your image. This two-light soft box kit, will provide even light and is very easy to setup.

[Check Price]

AUDIO

**Lavalier Microphone (~$75)**

You can use a wireless or wired Lavalier. This can easily be attached to your collar or shirt. Be sure to place it high enough so that the microphone can pick up your voice clearly and without distortion. Also ensure that it is placed securely, so it does not pick up the rustling sound generated by the movement of your clothing.

We’ve tested and found that Vidpro XM-L Wired Lavalier microphones work seamlessly with entry-level cameras. They produce high-quality audio, are easy to connect with its 3.5 mm connector, are affordable and provide a significant upgrade over the internal microphone found in most cameras. They also have a 20 foot cable that provides plenty of room to maneuver. You can find them via a number of different resellers.

[Check Price]
Headphones
For best results, we recommend using a pair of comfortable over-the-ear headphones to monitor the audio. They ensure that you can shut out external noise from your environment and focus on the audio that is going out on your stream. Many consumer models come with noise cancelling features, however we advise against using noise canceling as it may muffle the sound.

SWITCHING/ENCODING

Computer with IBM Watson Media’s Producer
You can use a Mac or PC desktop or laptop. We recommend that you have at least 8GB RAM or more to run the software properly. We also recommend an Intel i5 processor or above to ensure enough processing power.

Our Producer product is a powerful switching software that allows you to enhance and customize your production by adding graphics, picture-in-picture, videos, and music.

External Capture Device
The Black Magic Shuttle Device is an excellent tool for capturing the video and audio signals from your camera or mixer and converting it into a signal that your computer can read. Black Magic has several devices for both Mac and PC. The Black Magic Intensity is one that we have found to be very versatile and effective for a simple setup.

PACKAGE (~$1500)*
Panasonic HC-V770 Camera
Magnus VT-3000 Tripod
Vidpro XM-L Wired Lavalier Microphone
Blackmagic Design Intensity Shuttle Capture Device
Interfit Super Cool-lite 5 Two Light Kit
IBM Watson Media’s Producer

* The actual prices you would pay may vary depending upon a variety of factors, including but not limited to the vendors you select, and do not reflect taxes or other added fees.
About IBM Watson Media

Created in January 2016, IBM Watson Media brings together innovations from IBM’s R&D labs with the cloud video platform capabilities of Clearleap and Ustream. Through the unit, IBM delivers a powerful portfolio of video services that spans open API development, digital and visual analytics, simplified management and consistent delivery across global industries. IBM Watson Media supports top media and enterprise companies with reliable video on-demand and streaming services.

For more information on IBM Watson Media, please visit www.ibm.com/cloud-computing/solutions/video.