

PIIE *media training*

Setting Up Your Webcam

Audiovisual tips and tricks to help you
look your best in virtual meetings

Created by the PIIE digital media team
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Introduction

1.1 How to look professional on camera

Looking good on camera is not hard, but it is not going to happen by itself either. Here are some tips on how to adjust lighting and camera equipment to help you look professional and create a good impression. Audio should also factor into your setup, Poor quality audio will make you hard to understand and defeat the purpose of these webcasts.

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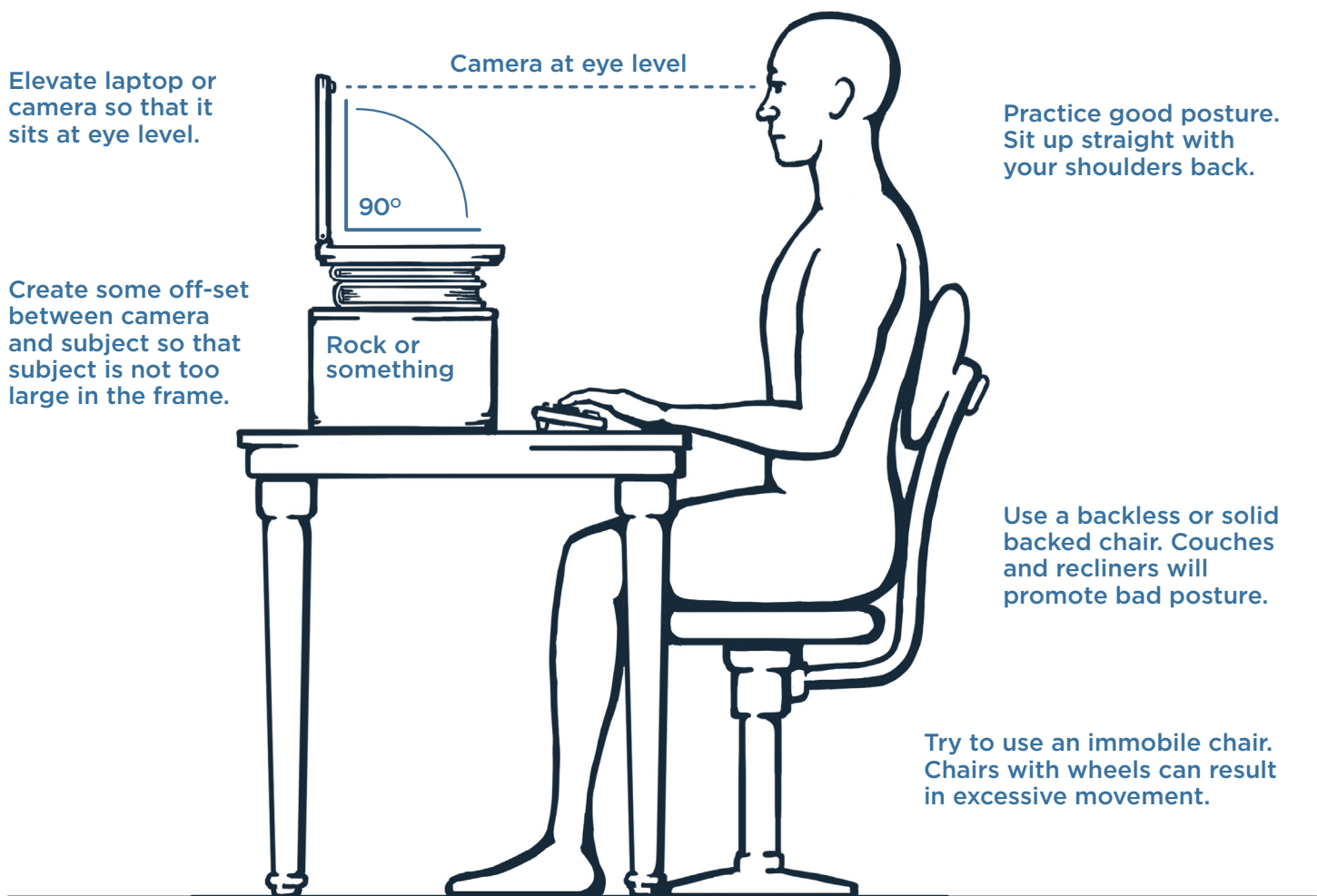
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Webcam Setup

2.1 Setup Overview



Properly positioning your setup. This involves no special equipment, and requires only a basic amount of effort and planning on the part of the subject. Make sure that the camera is at eye level. Having an off-height camera creates low angle and high angle shots. Both of these are off-putting for interviews. Avoid sitting too close or too far from the camera. You will need to experiment until you find the distance that creates the best framing for you. Finally, try to center yourself in the frame.

2.2 Proper Camera Height

Unless there is a specific purpose (and chances are there's not) always position your camera at eye level. This creates the most natural framing for conversations and interviews.

Wrong



Camera below eye height

The camera is below eye height, creating an awkward low angle shot. No one wants to see your quarantine nose hairs.

Wrong



Camera above eye height

The camera is above eye height, creating an awkward high angle shot. This makes the subject look submissive and weak.

Right



Camera at eye height

The camera is at eye height. This is how humans naturally converse, and creates the most appealing framing for the subject.

2.3 Proper Camera Distance

You should experiment to find the proper distance between your face and the camera. If the camera is too far away, you will appear too small and get lost in the background, if you are too close, you will look like you are overbearing and crowding the camera.

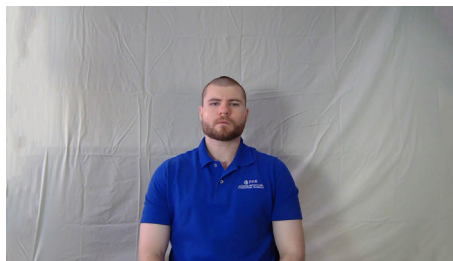
Wrong



Camera too close

The subject is too close to the camera. this is unsettling and gives the appearance of getting in someones face.

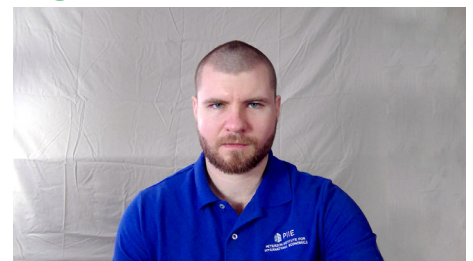
Wrong



Camera too far

The subject is too far away from the camera, causing the subject to get lost in the background.

Right



Proper camera distance

The subject should give the appearance of being at natural conversation distance. Experiment with your setup until you find the proper distance.

Remember, when setting up your camera, **position the camera, not yourself**, if you put yourself in an awkward position to match your camera, you will drift back to a more comfortable position over the course of the session, knocking yourself out of alignment.

2.4 Posture

Proper posture is not just good for your spinal health, it will also help convey confidence, competence and poise while on camera. Sit up straight with your shoulders slightly back. You should keep a neutral spine, and not pull your shoulder blades together to the point that it is uncomfortable. Avoid slouching, sitting back or lounging in your chair, these habits make you look like you are not paying attention to the conversation. It is also important to maintain your posture throughout the session. You can start with good posture, but begin to slouch as fatigue sets in. Not only does this look bad, it changes your eye height, which will cause your camera to be out of alignment with your face.

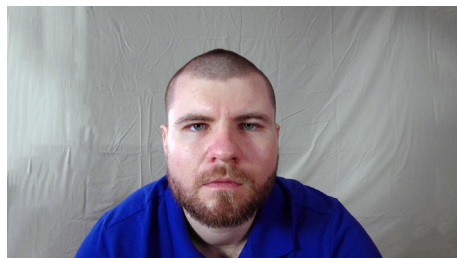
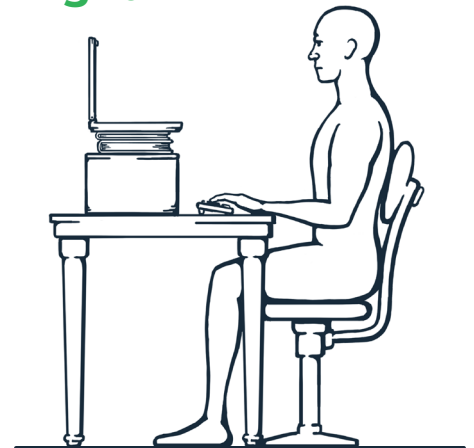
Wrong



Wrong

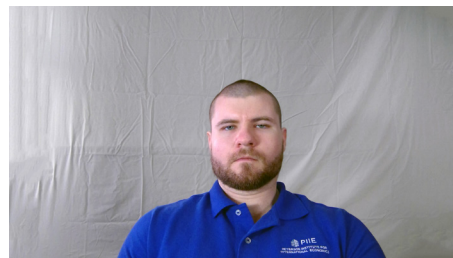


Right



Slouching

Slouching gives the impression of a hunchback squinting at the camera. It can also make the subject look old or frail.



Lounging

Lounging or sitting back looks sloppy, adds weight, and gives the impression that you are not paying attention.



Proper Posture

Proper posture gives the impression of a healthy and attentive subject.

2.5 Framing



Centered

This is the position that you want to use 90% of the time. Given that you have little to no control over the settings on the receiving end, this is the safest option for making sure that you look decent on the camera. This should be common sense, but test your rig beforehand to make sure that the camera is pointed where you think it is pointed.



Rule of thirds

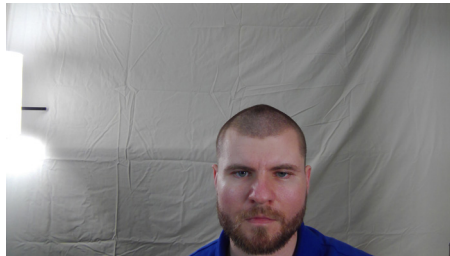
The rule of thirds involves dividing the frame into thirds horizontally and vertically and putting points of interest where those lines intersect. On the webcam, this means putting your face into the upper left or upper right third. While this can look nice, it can also be problematic because you don't know the viewing settings on the receiving end of the feed.

2.6 Examples of Poor Framing

Off center



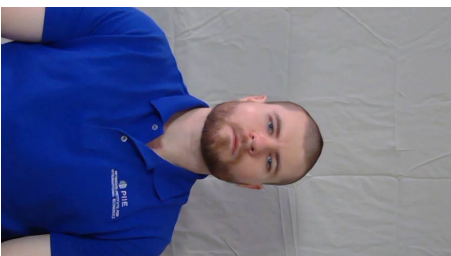
Camera too high



Camera too low



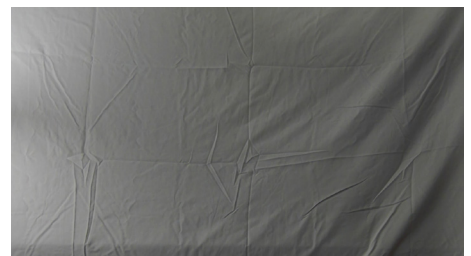
Camera set to portrait



Not looking at camera



Set to front camera



Lighting

3.1 Lighting Overview (3-point lighting)

Most interview lighting setups are based around the 3-point lighting model. This involves using three lights to light the subject: a key light, fill light, and back light. This setup is flattering to most individuals and helps the subject to look good at his or her best.



Key Light

The key light is your main light source

The key light is your primary light source, it should be positioned to the side and in front of the subject. Start with the light at a 45° angle to the subject and experiment to get the most flattering angle. The key light should always be your brightest light and should shine directly onto the subject.

Fill Light

The fill light is used to fill the shadows created by the key light

It is used to soften the shadows created by the key light. It should be less bright and more diffused than the key light and does not have to shine directly onto the subject (although it often does). Remember, this light is meant to reduce and soften your shadows, not eliminate them. The weaker your fill light, the more dramatic your shadows will appear.



Back Light

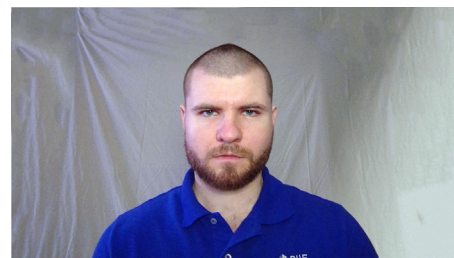
The back light outlines and creates a rim light around the subject

It's more subjective than your other lights. It is meant to create a flattering rim around the subject. Back lights are usually positioned on the same side as the key light, and elevated to shine down on the subject. Experimentation is key to finding the best angle for the rim light. While this light is not necessary, it greatly increases the perceived quality of the subject.

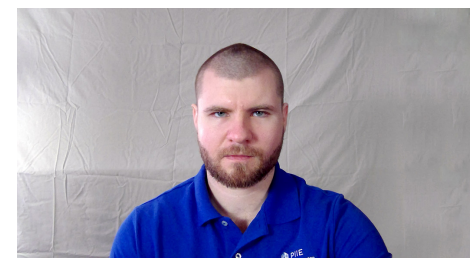
Key light only



Key and fill lights

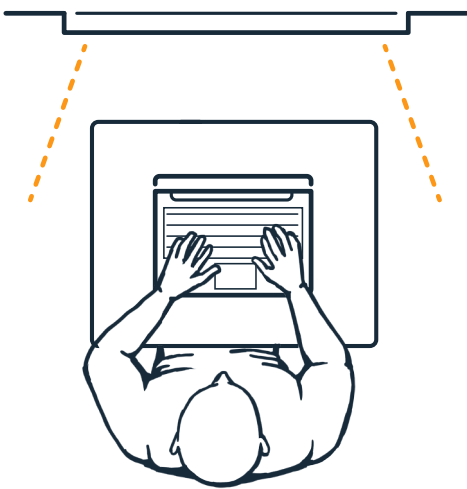


Key, fill, and back lights



While 3-point lighting is preferable, you can get decent results with less hassle with a single light source. The easiest way to do this is to face a window (but not in direct sun, sunlight is naturally diffuse and colored). Using natural lighting is a simple way of getting passable results without any special equipment. If you don't have access to a window you can use a single artificial light directly in front and slightly above the subject.

3.2 Basic lighting (natural light)



A simple way of providing decent lighting is to sit in front of a window. This will provide natural light that is relatively pleasing to the eye. Avoid direct sunlight, which will be too harsh, or sunlight running through blinds, which can cause streaks on the subject's face.



3.3 Basic lighting (artificial light)



If a window is not available, or your sources of natural light are too harsh, you can use a single light source placed in front of and slightly above the subject. Specialized halo lights are available, and work well, but other lights will also do the job. A single light source should be relatively diffuse. You can use wax paper or some other translucent material to add diffusion to a light source to make it less harsh.



You should note that your monitor is also a light source, but light from a monitor tends to be blue and harsh, which can lead to a “hostage video” effect.

3.4 Diffusion and Reflection

Direct light, especially artificial light from lamps and LEDs, is too harsh for most lighting setups. Two techniques for mitigating this are diffusion and reflection. Diffusion involves shining the light through a translucent material like wax paper or professional diffusion sheets. Reflection involves facing the light source away from the subject and bouncing the light off a matte white surface, like a wall or piece of poster board.

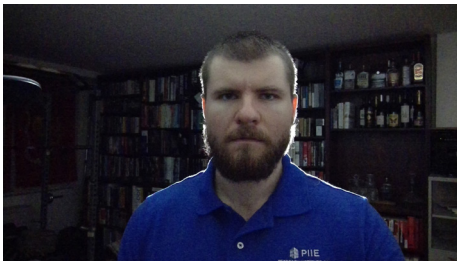
3.5 Be Aware of Shiny and Reflective Surfaces

Things like mirrors, polished metal, and glass will reflect light. This can cause unwanted effects, such as glare and bright spots. Eyeglasses are also a major issue, if your glasses are reflecting the light from your monitor or other lights it will be distracting to the viewer. Take them off unless you absolutely need them.

3.6 Lighting that you should avoid

There are a thousand ways to die when it comes to bad lighting. Here are some of the more common problematic lighting setups that you should avoid. Make sure that you test your camera feed before a session so that you are aware of any errant lighting and fix it before you're live.

Backlit subject



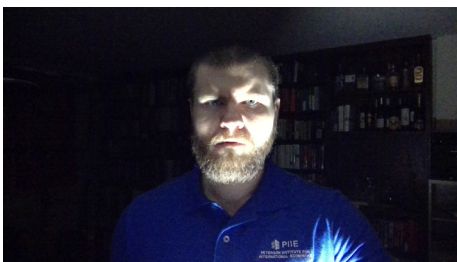
Side angle lighting



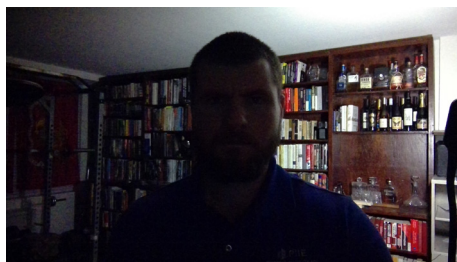
Light source in the frame



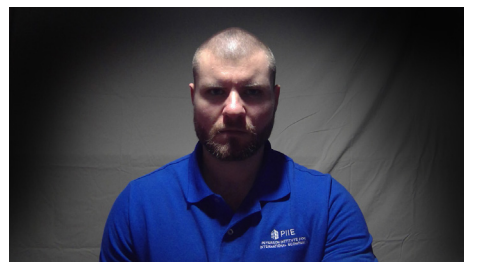
Low angle lighting



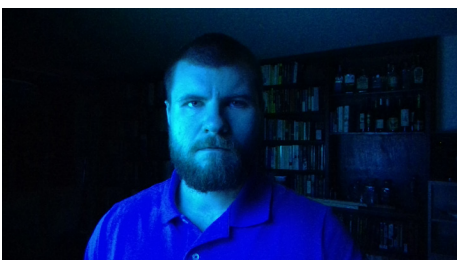
Background only lighting



Light directly above subject



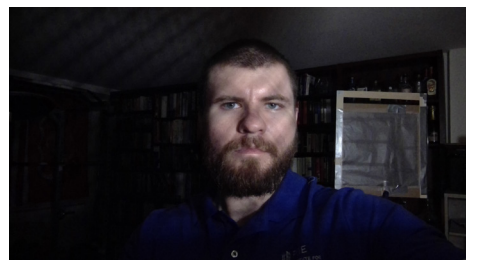
Tinted lights



Different colored lights



Spotchy lighting



3.7 Examples of lighting setups

Ad hoc 3-point setup made with household items



1 artificial light setup

Homemade diffusion panel



While professional equipment makes the process of interview lighting much easier, good results can be achieved using household materials. Wax paper makes decent diffusion, and light can be reflected off a white bed sheet to create a soft fill light. Some imagination, ingenuity, and prior planning will allow you to create good lighting without investing in costly and specialized set equipment.

Backgrounds

4.1 Your Appearance

Rule 1: Dress professionally

If you wouldn't wear it in the office, don't wear it in a virtual meeting. Appropriate attire will vary based on the business and the meeting, but a good rule of thumb is to dress as you would if you were doing the meeting in person. So, wear shoes, wear pants, and assume they can see all of you regardless of the actual framing.

Appropriate



Appropriate



Not appropriate



Rule 2: Makeup is your friend

Makeup will help enhance your appearance. Women need no help here; the men need to borrow their wives' foundation and apply strategically to prevent bright spots (bald spots are the worst offenders and should be touched up). You should also dab (do not rub, it will make the skin turn red) your face with a paper towel to mop up any sweat or grease droplets before going on camera.

4.2 Your Background

Rule 1: Do not use the virtual background

The virtual background has become very popular since the start of the pandemic but is counterproductive and should be avoided if at all possible. The algorithm used to determine what is the subject and what is the background is not particularly accurate. This causes uneven cropping and outlining that is unsettling at best. In some cases, it can push the subject into the uncanny valley, triggering the disgust response in viewers. Depending on the subject's clothing, the algorithm can also calculate parts of the subject as background, leading to parts of the subject disappearing or fading out.

The virtual background is also resource intensive, and can increase the chance of freezes, dropped frames, and out of sync audio/video feeds. With this in mind, any post-processing, such as the "touch up my appearance" feature in Zoom and the blur background in teams should be avoided if possible.

The bottom line is that unless your apartment is a pig sty or a crime scene, you are better off just using the background behind the camera.

Rule 2: Make sure you have a clearly defined silhouette

As a rule, you should contrast with your background. However, take special care that the silhouette of your head and shoulders stands out from your background.

Wrong



Chair-back muddies subject silhouette

The chair back interferes with the silhouette of the subject. This breaks up the head and shoulders, resulting in a less appealing composition.

Wrong



Clothing blends into background

The subject's suit and turban blend into the background, reducing contrast and making it hard for the viewer to focus on the subject.

Right



High contrast silhouette

The subject's head and shoulders contrast with the background, creating a clear silhouette and making it easy for the viewer to focus on the subject.

Rule 3: Remove background objects that draw attention

Having props and trinkets in your background adds interest and can make a setting look less antiseptic. However, these objects should not be so eccentric that they draw attention away from the subject. Generally speaking, you should go for less clutter, as a more austere and organized space will convey professionalism. Also avoid lots of bright colors in your background (bookshelves are especially guilty of this). You should always be the most interesting thing on your screen, you want your viewers focusing on you, not wandering around your background.

Objects to Avoid

- Flags (unless you represent that nation)
- Large religious displays
- Very colorful objects
- Bright or alluring artwork
- Objectionable material
- Firearms or weapons
- Alcohol
- War trophies
- Clutter
- Dishes
- Exercise equipment
- Anything that moves or lights up
- Large writing (some branding is ok)

These backgrounds are too distracting



Rule 4: Make sure your room is clean

Obviously, you should make sure your space is clean before going on camera, you are trying to look like a professional, not a hostage or a squatter. A clean and organized space will help to make sure that you are putting your best foot forward and conveying the best image that you can.

These backgrounds are messy and unprofessional



Conclusion

As you can see, most of this is common sense. Dedicate some time to curating and tweaking your setup. The result will be a massive increase in quality and a more effective presentation vehicle for you and your firm.

What all virtual meeting backgrounds should aspire to be



Audio

5.1 Audio Basics

Get the highest quality microphone that you can find

Good audio will increase the perceived visual quality of your webcam (and bad audio will make good visuals appear low quality). A good mic is a great investment, and you should buy the best one that you can afford.

Try to create some audio insulation in your meeting space

Audio insulation will help to minimize outside noise and make your audio sound crisper (and it will make your meeting less annoying for your spouse and neighbors). Sound bounces off hard surfaces like wood or drywall, so to insulate your audio you need to place sound absorbing material between your speakers and those hard surfaces. You can buy professional insulation, but similar results can be achieved with moving blankets and quilts.

Avoid bulky headphones if possible

Bulky headphones look unprofessional and should not be worn if possible. Wired earbuds are ok, but wireless versions are the least intrusive, and should be your first choice if you have them.

Minimize ambient noise

There are few things more annoying than hearing a constant accompaniment of email pings, cellphones, and computer notifications. When you are in a virtual meeting, put your phone on silent, and mute your computer notifications so that your audio isn't interrupted by random noises. You should also let any other occupants in your house know that you are in a meeting so they can be as quiet as possible.

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