

BEGINNING AND ADVANCED PRODUCT PHOTOGRAPHY

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with Lydia Brewer - <http://www.lydiabrewerphotography.com>

When it comes to eCommerce, high-quality product photography is key to increasing your sales. You can easily learn to set-up our own photo studio at home on a limited budget. This course sets out to teach you to master your camera, window light, white paper, and foam board reflectors to create product images like the professionals.

1. EXPOSE CORRECTLY – using the exposure triangle - Camera settings determine a camera sensor's relationship to light, and ISO, aperture, and shutter speed are the keys elements towards properly exposing an image. ISO sets sensitivity to light, aperture controls how much light gets through, and shutter speed is how long your sensor is exposed to light. The exposure triangle is a common way of associating the three variables that determine the exposure of a photograph: aperture, shutter speed, and ISO. One must balance all three of these to achieve a desired result, an adjustment of one requires an adjustment of at least one of the others.

ISO – Stands for International Standards Organization and is the measure of a digital camera sensor's sensitivity to light. The ISO range for a camera can be as low as ISO 35 or ISO 50 and as high as ISO 4,000,000. The majority of DSLRs tend to start at either ISO 100 or ISO 200 and top off at ISO 3200 or ISO 6400.

Especially true in studio settings, when the camera is on a tripod, ISO 200 will always create a significantly sharper and cleaner image than a shot at ISO 1600 when the aperture and shutter settings are the same. The lower the ISO number the less sensitive your camera is to light and the finer the grain. Higher ISO settings are generally used in darker situations to achieve faster shutter speeds. You can increase ISO to capture images in lower light, or just to capture images faster, but there's a cost. Higher ISO settings can lead to grainy, or "noisy," images. Each time you double your ISO number (like from ISO 400 to ISO 800), the sensor becomes twice as sensitive to light and therefore require only half as much light to attain the correct exposure. In auto mode, the iPhone camera normally picks a low ISO and a higher shutter speed combination. You have to switch to 'manual exposure' mode to get access to controlling the shutter speed and/or the ISO. The iPhone shutter speed can't be adjusted in the native camera app, but you can easily adjust it using an app like Camera+. Just tap the middle icon above the shutter release button (or to the left if you're holding your phone horizontally) to access the manual shutter speed and ISO control sliders.

Aperture – Aperture is the size of the opening in a lens through which light passes to reach the sensor of the camera body. Aperture is expressed in f/numbers or "f/stops" such as f/1.2 or f/22. Smaller numbers, like f/1.2, indicate larger apertures, while larger numbers, such as f/22 indicate smaller apertures. The aperture not only controls the amount of light that enters the camera, but it also controls the depth-of-field. Depth of field is defined as "the zone of acceptable sharpness in front of and behind the subject on which the lens is focused." Simply put: how sharp or blurry is the area behind your subject. Wide apertures, like f/1.2, yield a more shallow depth-of-field, while small apertures, like f/22, yield a greater depth-of-field.

Using a low f/stop means more light is entering the lens and therefore the shutter doesn't need to stay open as long to make a correct exposure which translates into a faster shutter speed. Again, the reverse is true: using a high f/stop means that less light is entering the lens and therefore the shutter will need to stay open a little longer which translates into a slower shutter speed and a faster ISO.

We use focus and depth of field to direct attention to what is important in the photograph, and we use lack of focus to minimize distractions that cannot be eliminated from the composition. In a landscape, scenic or studio photograph we usually want to see as much detail as possible from foreground to background; we want to achieve the maximum depth of field by choosing a small aperture (higher f/stop, like f/8 or f/11).

The most important thing to know about these numbers is that, from each number to the next, the aperture decreases to half its size, allowing 50% less light through the lens.

The scale is as follows: f/1.4, f/2, f/2.8, f/4, f/5.6, f/8, f/11, f/16, f/22.

Shutter Speed – Shutter speed or exposure time is the length of time when the sensor inside the camera is exposed to light. Shutter speed is measured in seconds – or in most cases fractions of seconds. The bigger the denominator the faster the speed (ie 1/1000th of a second is much faster than 1/30th of a second.) While handholding a camera, you will need to be using shutter speeds of 1/60th of a second or faster. This is because anything slower than this is very difficult to use without getting camera shake. Camera shake is when your camera is moving while the shutter is open and results in blur in your photos. Avoiding camera shake is the one key element of getting sharp, in focus pictures. The use of tripods in conjunction with low ISOs, large apertures and long shutter speeds is mandatory. Shutter speed can have a dramatic impact on the appearance and quality of photographs, especially when moving objects are involved.

2. ACHIEVE PRECISE FOCUS

No matter what type of camera you're using, [getting your subject in sharp focus](#) is essential for high quality photos with superb detail. Getting sharp images involves a combination of a few different techniques, and when put together they will produce a far higher success rate of sharp images

While taking studio quality images, these tips are considered helpful:

- USE A TRIPOD!!!
- MAKE YOUR TRIPOD STURDY - Avoid extending the center column and legs of your tripod more than is necessary. The taller you make your tripod, the more it will wobble, and the harder it'll be to get pin sharp images. If your tripod has a hook underneath, hang something off it to provide extra stability. Many professionals carry an empty "rock bag" that they can fill with stones to give a good, heavy weight which will hold the tripod still even in strong winds.
- USE A REMOTE CABLE RELEASE / DO NOT TOUCH THE CAMERA
- TURN VIBRATION REDUCTION OFF - Many cameras and lenses come with a built-in vibration reduction system, which works to stabilize the image when hand-holding your camera. Unfortunately, when your camera is mounted on a tripod, this system can be confused by the lack of movement, and actually cause slight tremors as it moves around trying to find some.

- **USE MIRROR LOCK-UP** - Another source of vibration in cameras is the mirror in front of the sensor. When you press the shutter button, this mirror flicks up out of the way, and this can cause the camera to move slightly. Mirror lock-up (MLU) holds the mirror in its retracted position, so that when you take the shot it doesn't need to move. Most digital SLRs have this feature, and it can make a big difference to how sharp your photos turn out.
- **USE THE SHARPEST APERTURE** - Camera lenses can only achieve their sharpest photos at one particular aperture. This is typically 2 to 3 stops down from the widest aperture, putting it around f/8 on most lenses.
- **SWITCH TO SINGLE POINT AUTOFOCUS** - When focusing, most cameras will try to keep as much of the scene acceptably sharp as possible. This is fine when you want to see detail everywhere, but it does mean that no one object will be super sharp. Switch your camera into single point focus mode. This tells your camera to focus sharply on just one point (typically in the center of the frame). Before composing your shot, focus by aiming this point at your subject and half pressing the shutter. This will keep the subject as sharp as possible.
- **LOWER YOUR ISO** - The higher your ISO speed, the more digital noise you'll get in your photo. This causes sharp details to appear fuzzy, affecting the overall sharpness of the image. Wherever possible, use your camera's lowest ISO setting (typically around ISO 100 or 200), as long as it doesn't negatively affect other settings such as your shutter speed.
- **USE A BETTER LENS** - Good quality lenses make a big difference to the sharpness of your photos, and more expensive lenses are generally sharper than cheap ones. Obviously, changing a lens can be very costly, but think of it as an investment in better photos.
- **REMOVE LENS FILTERS** - Filters reduce the sharpness of your lens, affecting the final image quality. When they're not needed, take them off to improve clarity.
- **CHECK SHARPNESS ON YOUR LCD SCREEN** - Zoom in to 100% to check how sharp your image is

Additionally, while handholding a camera under non-studio conditions, these tips are important:

- Use your **RIGHT-HAND** to grasp the right side of the camera at the grip.
- Your **LEFT-HAND** should support the weight of the camera.
- **FIND A MAKESHIFT TRIPOD** - Add extra stability by leaning against a solid object like a wall or a tree or by sitting or kneeling down. The stiller you can keep your body, the sharper your image will be.
- **STEADY YOURSELF** - When hand-holding your camera, the biggest source of vibration and movement is your body, so try to hold it as still as possible. Hold the camera as **CLOSE TO YOUR BODY** as possible and **TUCK YOUR ELBOWS** into your sides. Before you take your shot take a gentle but **DEEP BREATH, HOLD IT, then EXHALE WHILE TAKING THE SHOT.**
- **SQUEEZE THE SHUTTER BUTTON** - When pressing the shutter button, do so as gently as you can. Make sure your finger is in contact with the button to begin with (rather than hovering over it) and gradually squeeze down on it rather than pushing it quickly. Once the button is down, hold your finger there until the camera has finished taking the shot.
- **INCREASE YOUR SHUTTER SPEED** - A faster shutter speed is less susceptible to movement, so increase it as far as you can. As a bare minimum you should stick to the rule of thumb that says to use a shutter speed of at least "1/focal length". So for a 100mm lens you'd want to use a speed of 1/100 of a second or faster.

- **SHOOT IN BURST MODE** - Rather than taking photos one at a time, switch your camera to its continuous shooting (burst) mode and snap several shots at a time. You'll usually find that if you fire off 10 shots at a time, 1 or 2 will be sharp. Be sure to bring a big memory card as this technique uses a lot of space.
- **TURN IMAGE STABILIZATION ON** - Although vibration reduction systems can cause problems when your camera is mounted on a tripod, they work wonders when you're holding it. In optimum conditions they can give you as much as 3 extra stops of exposure, which can make the difference between a photo which is blurry and one which is sharp as a tack.
- Use **CONTINUOUS FOCUS MODES** when possible, for fast moving objects.

3. RULE OF THIRDS

The rule of thirds is considered a basic, yet essential and powerful guideline to help photographers compose their image and decide where to place their subject(s) or key elements to create a well-balanced and interesting photo. The rule of thirds divides an image into a 3x3 grid, created by two equally spaced horizontal lines and two equally spaced vertical lines. This technique suggests that placing the subject or point of interest in your image along one of these lines enhances the visual aesthetic of your photo by giving the image more energy and impact. In fact, placing the subject at the intersection of the two of the lines, called power points, provides a maximum visual impact. Utilizing the rule of thirds when composing your images is a great way to add dynamic interest to your photos.

4. WHITE BALANCE

On automatic settings, cameras take a reading of the type of light you're shooting in and adjust settings to compensate. This is the White Balance (sometimes called Temperature) setting. For example, fluorescent light adds a greenish tint and standard light bulbs cast a red-orange tint. Automatic white balance compensates to reduce the tint.

In product photography, it's helpful to have manual control over this setting since minor adjustments can make images really pop. Plus, getting the white balance right during shooting can eliminate the need to color-correct images on your computer. That's a real time-saver.

5. EXPLORE YOUR CAMERA

If you want high quality product images, you need to set your camera's controls yourself. By learning to use 'manual mode' you will be able to adapt the camera to your studio environment and in order to create great looking product images that sell!

Camera modes: Automatic, Portrait, Macro, Landscape, Sports, Night, Movie, Aperture Priority, Shutter Priority, Program and Manual

- **EXPERIMENT!!!**
- **Take lots of pictures**
- **Shoot in RAW file format where possible**
- **Hold the camera straight** - Not squaring the camera can make viewers feel dizzy.
- **Shoot from different perspectives** – Up high, down low, etc.
- **For detail shots - get in close** - Fill the frame with your subject and see how much better your photo will look without so much wasted space.

- **Find the light**, see the light, control the light
- **Be aware of backgrounds** - change your shooting angle. Use aperture to blur the background. Using focal length (longer lens) to blur backgrounds. Move subject away from background. Place subjects in front of open spaces. Fill your frame with your subject. Make your own background. Remove distracting elements in post-production.
- **Shoot in open shade** - A wash of soft, natural light provides the best color balance for product photos and minimizes harsh shadows. You can find this perfect light outdoors on an overcast day or at mid-morning or early evening. Or indoors, utilizing window light.
- **Avoid Using Filters!**
- **No on-camera (direct) flash!**
- **Lock your focus and recompose your photograph**
- **Limit your color palette**
- **Use Lightroom or Photoshop for Post-Processing** - Free App: Adobe Photoshop Express

6. BUILDING THE STUDIO

WHAT YOU WILL NEED

- **A camera** - DSLR cameras produce the highest quality image, if you know how to set them correctly. If you have a great DSLR, wonderful but with today's advances in technology, it's absolutely feasible to create great product images utilizing your smartphone's advanced camera features and a tripod. Whichever camera you choose to use for the photoshoot, make sure that your device has autofocus and the maximum amount of megapixels possible.
- **A tripod** - <http://photojojo.com/store/awesomeness/mobile-gorillapod>
- **A white background** - Rolls of seamless white background paper are inexpensive, widely available, and easily positioned with a background stands or taped to the wall.
- **White bounce cards** made of foam board
- **A table** - Utilize a [table](#) so that your product sits higher, which will make it easier for you to photograph your product during the photoshoot. Depending upon the type of image stabilization equipment you choose to use, it would be easy to prop your smartphone on the table as well.
- **A light source** - There are many options for lighting, but the easiest and most budget-friendly option to use is natural window light. Set up your product and equipment near a large window to allow for ample light in your frame. If natural light is difficult for you to find, try using a larger lamp or renting a soft box-type lighting kit, depending on how big your object may be.
- **A shot list** - A list of all the images you want to capture. It should include your product, the angles needed, details to highlight, and what an item should be paired with if you're assembling looks. Be sure to include CAD illustrations, or some other graphic element, if your shot list is going to be guidance for someone who doesn't know your products by name. A shot list will keep you moving forward at pace during your shoot, and also ensure you capture all the images you need. You can check shots off your list as they're taken.

ALSO HELPFUL

- **Tape** for keeping things in place (clear and double-sided tape works best)
- **Pencil and paper** in case you need to scribble notes or plan a setup
- **Clamps** to hold equipment in place (like your sweep or a reflector)
- **Fishing line** to hold up smaller products, particularly jewelry
- **Pocket scissors** to cut the fishing line or any loose fabric threads
- **Glue dots** for keeping smaller products in place

- **Non-damaging hooks** if you want to photograph clothing on hangers, or towels/sheets in a hanging position
 - **Spare batteries** or a charger for when your camera decides to die in the middle of a shoot
 - **Clothespins/pegs** to make the clothing fit perfectly — you can pin clothes from the back to make the front look better
 - **Safety pins** for smaller adjustments, like pinning collars in place
 - **An iron** - creases always seem to magically appear, don't they?
 - **Coat hangers** to keep your products nice and neat while they're not being photographed
- TO DO
- Set up your table
 - Set up your background
 - Set up your camera
 - Set up your product in the middle of the surface.
 - Set up the reflector card.
 - Take the picture and evaluate
 - Retouch and resize images
 - Upload your pictures to your website

7. THINGS TO CONSIDER

Branding should be central to every decision your company makes, including:

- Your social media posts
- Website updates
- All your marketing efforts.

There are 3 types of Ecommerce Product Photography - images that should be used on your product page and across your marketing channels:

- **Studio shots** focus on the product alone. These are the most common and effective type of shot for selling products online. These shots are well-lit, taken against a plain or very simple background, show different angles, and highlight fine details. Studio shots are considered ideal because they cut clutter and keep shoppers focused on the product. Studio shots are great for showing products from different angles, such as front, back, and side, and for highlighting image details. Since most ecommerce websites allow you to upload several images to your item page, you can use angle shots to showcase every detail to shoppers.
- **Lifestyle or in-use shots** show the item being worn or in use. These are useful for showing relative size or fit for products such as watches, purses, jewelry, clothing, and decorative accents. They also help shoppers visualize how they might use items like electronic accessories, cookware, desk accessories, and home decor.
- Think of elaborate magazine spreads and print advertisements. These stylized product pictures are called "**glory shots**" because they showcase your products in all their glory. This type of product photography takes lifestyle shots up a notch to showcase items in realistic settings. Glory shots require work and space to set up, but can be worthwhile since they let online shoppers see how products will fit into their lives.

8. RETOUCHING AND POST PRODUCTION

Photo editing programs let you improve so-so product shots in many ways, from color correction to erasing any stray specks that pop up. Each editing program is unique, but they all allow you to adjust image brightness and color, and some even have pretty accurate auto color correction tools. As you become more experienced, you'll enjoy having manual controls for image editing and color correction.

- **Brightness** – This control lets you brighten, or darken, the overall shot.
- **Contrast** – This control adjusts relative light and dark areas and can help make details stand out.
- **White Balance / Color Cast** – This can adjust the overall tint of the image to remove the greenish or red/orange hue from pictures taken with indoor lights.
- **Color Variations or Curves** – This gives you more specific controls over image color than white balance/color cast.
- **Retouching Tools** – Tools like erasers and blotters let you remove stray specs that show up in your ecommerce product pictures. They also let you remove support materials, like the fishing line used to hold items upright during shooting.

9. FILE SIZE

The most common, and best, file type for website photo images is a .jpg. A good rule of thumb is to save a .jpg at medium quality for good detail at a file size that won't slow your product pages down.

As a rule, product images are best saved at about 600-800 px wide. Smaller images may not show the details you wish, and larger will appear overly large on screen. But always refer to your ecommerce store for their optimal image sizes.