

Tabletop Photography

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Introduction

When you think about tabletop photography, two main purposes come to mind: product photography (such as pictures on an eBay ad) and still life photography (such as Edward Weston's peppers).

In product photography, the goal is soft light that provides even illumination of the subject so that all features are visible to allow the prospective purchaser to evaluate the item(s). This is an example of product photography:



In still life photography, the artist constructs a pleasing image using objects and light. Sometimes that image can be simply illuminated with soft light similar to product photography such as this tomato:



Usually, however, still life images are constructed with directional light that creates shadows that emphasize and play on the shapes and textures of the objects. This fruit still life is an example:



This topic will cover both modes of table top photography. **Soft light photography** is most easily accomplished with a light tent and two light sources. **Directional light photography** can be done with one light source and a reflector or with multiple light sources. Like anything in photography, you can spend thousands of dollars on fancy equipment. Light stands, background holders, flashes, flash triggers and a flash meter can run up quite a tab. The methodology covered in this session uses constant source light (non-flash) and relatively limited amounts of other equipment to get you going with a modest budget. An additional advantage of constant light is that you can see what the light is doing without taking a photo. Later you can decide whether you need additional equipment to create the images that you want to make.

Use of a gray card

In both modes of tabletop photography, it is easiest to achieve pleasing and consistent results if you measure and set expose using a gray card. This is because in tabletop photography, there are often large areas of white background or of dark shadow. White can fool the camera into underexposing, which turns the intended subject too dark. Black can fool the camera into overexposing, which turns the shadows gray and over lightens the intended subject. If you are not familiar with a gray card, it is a neutral gray piece of cardboard with a reflectance of 18% which is a standard reference point for camera meters. Gray cards can be purchased for a few dollars at full service camera stores or on-line. Some photographers recommend shooting a frame with the gray card included under each lighting set-up. This can be helpful if critical color balance is essential.

Soft Light Photography – What you need

1. A camera on a tripod with a standard lens. Unless you are photographing stamp or coin sized objects, you do not need a macro lens, though a prime lens with good close focusing might have the least distortion.
2. A gray card.
3. A light tent. Light tents are available from many sources, sometimes sold as kits with lamps and even with mini-tripods. I personally think a stand-alone tent is a better buy, but you might find an attractively priced kit. Buy one big enough to hold your intended subjects. For really tight budgets, Google “How to make a light tent” for numerous articles on DIY light tents.
4. Two light sources. These can be as simple as two goose-neck desk lamps. Good bulbs to use are the “corkscrew” fluorescent 100W equivalent or higher. Be sure to get ones labeled “daylight” or “natural.”
5. A “bib” or liner for your light tent. Most tents come with one, but you might not want to use it. Your liner has to be absolutely smooth and absolutely clean. Even if you iron it immediately before use, it is difficult to get all folds and ripples/waves out. I recommend a piece of seamless background paper or a cut-down piece of poster board.

Soft Light Photography – How to take the photo

1. Put your light tent on a table, insert the liner, arrange your subjects.
2. Put your two light sources on either side of the tent, a few inches away.

3. Prop the gray card in front of the subject, as close as possible.
4. If there are strong room lights, turn them off.
5. Set your camera to white balance = sunny; iso = low (100 or 200 but NOT auto); image stabilization = off; shooting mode to Aperture Priority (usually A or Av) and Aperture to moderate (f8 or f11 or f16).
6. Move or zoom your camera so the gray card fills the view and depress the shutter half way. Alternately, you can set your metering to spot and point the spot to the gray card. Make note of the shutter speed the camera selects. This will be your exposure time. Don't be surprised if it is more than a second!
7. Set your camera to Manual and dial in the f-stop from step 5 and the shutter speed from step 6. You can remove the gray card.
8. Put your camera on the tripod, compose and shoot. For best sharpness, use a cable release or your camera's timer to trip the shutter. You can move the camera around, zoom, rearrange the objects, etc without affecting the exposure.

Directional Light Photography – What you need

1. A camera on a tripod with a standard lens. Unless you are photographing stamp or coin sized objects, you do not need a macro lens, though a prime lens with good close focusing might have the least distortion.
2. A gray card.
3. A background. An excellent background for still life images is seamless paper. This can be bought in 53 inch wide by 12 yard long rolls in a variety of colors. Black is useful for dramatic compositions and white is suitable for many subjects. Fabric can be bought at discount or fabric stores, usually for a few dollars per yard, but this can be difficult to keep wrinkle and lint free. Black velvet works well. Poster board works for the smallest subjects, but since it is desirable to have some distance between the subject and the background, its utility is limited.
4. A background holder. An adjustable background holder is a nice-to-have accessory, but probably not cost effective for casual use. A holder can be improvised from a piece of PVC pipe, a shower curtain rod, or anything similar that can be suspended or propped behind the subject .
5. A light source. This can be as simple as a clamp light or goose-neck desk lamp. It is good to have some direction added, so you can roll dark paper into a tube to tape around the lamp dome (a “snood”) - but be careful about overheating! A small umbrella or a dish reflector can also be used. Good bulbs to use are the “corkscrew” fluorescent 100W equivalent or higher. Be sure to get ones labeled “daylight” or “natural.”
6. A reflector. This can be a piece of poster board or foam board, a scrap of mat board (pure white) or anything similar.
7. Masking or gaffer's tape, clothes pins or other clamps and some extra pieces of black and white poster board are handy to have around.

Directional Light Photography – How to take the photo

1. Since your subject is “out in the open,” directional light photography should be done in a dim room with little artificial light and no bright windows.
2. Set up your background. There should be several feet between where the subject will

be placed and the “wall” formed by the background. The background should be draped so that it hangs straight down, but there should be a gentle curve as it meets the table. Tape as necessary. Make sure it is smooth and dust free!

3. Place and arrange your subjects.
4. Start with your light source directly in front of your subject. Move it around all the way to the side, perhaps even slightly behind, and watch what happens to the subject and the shadows. Also try closer and further away. Rearrange the objects as desired. Sharp angled lighting produces more dramatic effects.
5. When you have the main light set, perform the same steps with the reflector. When you've decided where to put the reflector, mark the spot and put the reflector down.
6. Prop the gray card close to the subject and facing the main light.
7. Set your camera to white balance = sunny; iso = low (100 or 200 but NOT auto); image stabilization = off; shooting mode to Aperture Priority (usually A or Av) and Aperture to moderate (f8 or f11 or f16).
8. Move or zoom your camera so the gray card fills the view and depress the shutter half way. Alternately, you can set your metering to spot and point the spot to the gray card. Make note of the shutter speed the camera selects. This will be your exposure time. Don't be surprised if it is more than a second!
9. Set your camera to Manual and dial in the f-stop from step 7 and the shutter speed from step 8. You can remove the gray card.
10. Replace the reflector. Now all the light you will use is in place, so you should check the background for light spill. A dark background might be getting too much light. Wave your hand a few inches from the back. If you can see the shadow, it is a good idea to put something between the light and the background. Alternately, a white background might need additional light to keep from going gray.
11. If you are shooting on a dark background, check carefully for lint or dust! Put your camera on the tripod, compose and shoot. For best sharpness, use a cable release or your camera's timer to trip the shutter. You can move the camera around, zoom, rearrange the objects a bit, etc without affecting the exposure. You can also move the reflector. If you are planning a shot with really deep shadows, you might want to bracket one stop underexposure as well as the measured exposure.

Sources for tents, seamless, stands, etc.

Local: Southeastern Camera, Raleigh

Local: Peace Camera, Raleigh

On-line: <http://www.porters.com/>

On-line: <http://www.adorama.com/>

On-line: <http://www.amvona.com/shop>

On-line: <http://www.bhphotovideo.com/>

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