



5 Tips for Stunning Insect Photography

By: Simon Ringsmuth

Capturing gorgeous photos of insects might seem difficult, but it's actually pretty easy – once you know a few tips and tricks.

In this article, I share my five best insect photography tips, including:

- How to find insects to shoot
- How to level up your insect compositions

How to pick the perfect angle for stunning insect photos

By the time you're finished reading, you'll be ready to head out and capture some mind-blowing insect shots of your very own!

Let's get started.

1. Search patiently for good subjects

This might sound obvious...

...but if you want to take great insect photos, you must learn to find insects in the first place. Our many-legged counterparts are all around us, but they don't usually announce their presence with a trumpet blast. You have to spend time looking!

So when you head out with your camera, don't get frustrated if you don't see any insects. Have some fun looking for critters in grass, dirt, trees, and more. It might take a few minutes, but if you search, you will find plenty of potential subjects.

In my experience, after a bit of subject searching, you can find great insects on trees, shrubs, rocks, benches, buildings, and pretty much everywhere else. Don't be afraid to search in your own backyard, either; as long as you have grass, trees, or soil, you're bound to find a few good subjects.

Of course, make sure you wear casual clothing that you don't mind getting dirty – insects often live in the soil, after all! I sometimes crouch down on the ground, straddle a fence, or perch atop a ladder to get a better view of these small critters. It's tough, messy work – but it's also a great way to get some fascinating photos.

Viewfinder cover was taken by.





I wanted to get a closer look at some magnolia flowers and noticed that they were full of bees. I got a shot of one of them on its way to gather some nectar.

2. Wait for the best shots

I'd like to let you in on a little secret:

Insects aren't so good at following directions. Most bugs simply will *not* listen to perfectly reasonable requests like "Hold still!" or "Turn the other way!"

So what does this mean for you?

As an insect photographer, you must learn to be *patient*. Once you find a subject (see the previous tip), you can't expect to get a stunning photo right away. Wait, watch, and be ready – so that when a good opportunity presents itself, you'll *nail* the shot.



This might mean watching a cicada explore a shrub, keeping your eye on a beetle as it blazes a trail across your lawn, or waiting for dinner to fly into a spider's web. It sounds boring, but if you open yourself up to the insect world, you may actually find a lot to be fascinated by.

Pro tip: The slightest sound can disturb our tiny little friends, so take care to move about quietly. And don't intrude on the insects' activities. If your camera has a long zoom lens, you can use it to get close-up shots from a distance.

Another tip: If you want to photograph insects in action, you'll need to use a fast shutter speed – but in low -light situations, a fast shutter speed will often produce a too-dark image. That's when you'll want to bump up your ISO; sure, a high ISO might produce noise, but it's better to capture a noisy image than a blurry one.



Sometimes you have to keep an eye on a critter for a long time, and even after many minutes of waiting, it may decide to scurry off or fly away. That's just how insect photography goes! When you set out to take pictures of insects, *nothing* is guaranteed.

That said, if you can find a balance between shooting and waiting, you might be pleasantly surprised by the results.

3. Capture the eyes, not just the insect

This tip might seem a bit strange – and it's not always easy to accomplish – but if you can capture an insect's *eyes*, your photos will reach a whole new level.

As the saying goes, "The eyes are the window to the soul." And this doesn't just hold true for humans; it also works for animals and even bugs!

You see, when you get a shot of an insect's eyes, it's almost like the two of you are sharing a moment. Like you and the insect are watching each other and allowing one another to share space for a few seconds.



I don't know what this wasp was thinking, but judging by his expression, it was something like, "Leave me alone, and I'll leave you alone."

I'm no entomologist, and I have no idea if insects are thinking anything at all when I take their pictures. But seeing their eyes and faces lends a significant amount of depth to what would otherwise be just another photo of just another bug. It takes time and patience, but if you can capture your insect subjects' eyes, you can draw your viewers to your photos in new and compelling ways.

Note that, if you want to capture insect eyes, you'll need to pay attention to your camera angle *and* your point of focus. Here, manual focus can be a big help, assuming your subject remains stationary; that way, you can ensure that the eyes remain tack-sharp.



4. Shoot from down low

It's a mistake that beginning insect photographers make all the time:

Standing above the insect subject and pointing the camera down.

You can use this approach, and you might get some pictures of spiders, beetles, or giant ants, but they won't be *nearly* as interesting, compelling, or engaging as they would be if you tried a lower angle. For instance, you might try getting down on a level with the insect, so that your camera seems to peer directly into the insect's little world. This will give you an intimate result, one that serious insect photographers *love*.

You can even try getting down below the insect and shooting up; this move will make the insect loom above the viewer in a fun little reversal.

I followed this cottonwood borer for almost half an hour as it climbed all over a pine tree, all because I wanted to get a picture from a more unconventional angle:

A Guide to Filters for Lenses

By Allan Weitz



If you ask most consumer-camera owners why they keep a filter on their lens, a majority will most likely reply, "For protection." Although filters do, in fact, protect the surface of your lens against dust, moisture, and the occasional thumb print, the primary function of lens filters is really to improve the image quality of the pictures you take—depending on the filter you're using and how you use it—in a variety of obvious and not-so-obvious ways.

Are there a few basic filters or do I need to buy many filters?

The most basic filters are ultra-violet reducing filters (UV), Skylight filters, and protection filters, which depending on the manufacturer are either glass filters with basic anti-reflective coatings, or in some cases, merely plainclothes UV filters, which isn't dishonest. To keep the front element of your lens clean and safe, any of the above will suffice, but if you're looking to protect your lens *and* improve the image quality of your stills and video, you're going to want to purchase a UV or Skylight filter.



UV filters, also referred to as Haze filters, are designed to cut through the effects of atmospheric haze, moisture, and other forms of airborne pollutants, each of which contributes to image degradation. UV/ Haze filters are available in varying strengths. If you plan on photographing near large bodies of open water, at higher altitudes, in snow or other conditions that magnify the intensity of ambient ultra-violet light, you should definitely consider a stronger level of UV filtration (UV-410, UV-415, UV-420, UV-Haze 2A, UV-Haze 2B, UV-Haze 2C and UV-Haze 2E). Depending on the strength of the UV coatings, UV filters appear clear, or in the case of heavier UV coatings, have a warm, amber-like appearance and require anywhere from zero to about a half stop of exposure compensation.

An alternative to UV/Haze filters are Skylight filters, which are available in a choice of two strengths—Skylight 1A and Skylight 1B. Unlike UV/Haze filters, which have a warm amber appearance, Skylight filters have a magenta tint that is preferable when photographing skin tones or using color slide film, which depending on the film stock often has a blue bias that is typically counterbalanced by the magenta tint of Skylight filters.

Regardless of their strength, skylight filters do not have any effect on the camera exposure, are equal to UV filters in terms of cutting through atmospheric haze and protect your lens against dust, moisture, and fingerprints that can all be damaging to lens coatings if not removed in a timely manner.

I've found 52mm UV filters for as little as \$9.95 and as much as \$29.95. What's the difference and why should one UV filter cost two or three times more than another?

Even though one UV filter might appear indistinguishable from another UV filter costing two or three times as much, the differences between them can be considerable, beginning with the quality of the glass used in the manufacturing process. Though one would suspect there's little difference between one piece of glass and another, make no mistake about it—there's glass and there's glass, and the differences can make a dif-

ference in the quality of your images.

The primary criteria of good glass versus so-so glass are the chemical composition of the glass, how it was made and even *where* it was made. These are followed by the thickness of the glass (the thinner, the better) and the coatings used to minimize flare and maintain optimal color and contrast levels. Although the differences between an inexpensive filter and a pricier filter may not be all that apparent when photographing with a kit zoom lens, they become increasingly obvious when used with costlier, higher-performance lenses. In the case of color and Polarizing filters, which typically consist of a thin layer of color film (or Polarizing material) sandwiched between two layers of glass, the film is usually bonded to the glass layers in pricier filters. This eliminates air surfaces and other irregularities that can negatively affect the optical purity of the filter than less expensive filters designed to perform the same functions.

The other difference between entry-level filters and the pricier versions has to do with the retaining rings, which in the case of cheaper filters are invariably made of aluminum (a relatively soft metal) that are subject to denting and jamming if they're not screwed on straight. Conversely, the retaining rings used on pricier filters are most always made of brass and, as such, are less likely to get jammed onto your lens or dent when they strike hard surfaces.

The bottom line is if you go the extra mile (and expense) by purchasing a better lens, you shouldn't compromise the results of your investments by saving a few dollars on the filter.

What are Kaeseman filters and why are they priced noticeably higher than regular filters?

Kaeseman filters, which are invariably Polarizing filters, are manufactured with more weather-proofing seals than non-Kaeseman filters. They are worthy investments if your photographic interests include traveling to and working in damp, extreme climates.

Aside from UV/Haze and Skylight filters, what other types of filters should I consider for everyday picture-taking?

If you photograph landscapes—or any outdoor scenics for that matter—you should certainly have a Polarizing filter handy at all times. Polarizing filters are best known for making clouds seemingly pop out from darkened blue skies, saturating colors and eliminating glare and reflections from the surfaces of water, glass, and other polished surfaces.



Polarizing filters are mounted in a secondary ring that you manually rotate while viewing your subject through the viewfinder until you dial in the desired level of Polarization. The downside of Polarizing filters is that you lose about three stops of light in the process of optimizing the image, but the results cannot be mimicked using Photoshop plug-ins or other forms of post-capture voodoo.

Polarizing filters are also available combined with additional filtration such as warming filtration (81A, 81C, 81EF, 85, 85B), Enhancing and Intensifying, Skylight, UV/Haze and a measure of diffusion.

Polarizing filters are available in two formats: linear and circular. Though they look and perform identically, circular Polarizing filters are designed specifically for use with autofocus lenses while linear are best used with manual-focus lenses. Circular Polarizers, on the other hand, can be used with AF or MF optics with equal results.

What are Neutral Density filters and how would I use them?

Neutral density (ND) filters are essentially gray-toned filters designed to absorb calibrated degrees of light as it passes through the lens. Most commonly broken down in 1/3, 2/3, and full-stop increments, ND filters are more recently also available as variable-density filters that you can infinitely adjust by rotating the filter

on its mount as you would a Polarizing filter.

There are many applications for ND filters. Chief among them is their ability to allow you to shoot at wider f-stops under bright lighting conditions. ND filters are used extensively by filmmakers and videographers as tools that allow them better exposure control due to the limited shutter-speed options afforded by the cinema and video process.

ND filters also make it possible to blur the movement of pedestrian traffic and flowing water under bright lighting conditions by allowing you to drop your shutter speeds while maintaining full control of how much or how little depth of field you desire, based on the amount of ND filtration you place in front of the lens. What's the difference between Neutral Density and Graduated Neutral Density Filters?

Neutral density filters are even, edge to edge, in their degree of density while graduated neutral density filters are typically clear on one end and slowly build up density toward the opposite side of the filter. Graduated ND filters are most commonly used to even out scenes containing extreme exposure variations on opposite sides of the frame.



Examples of

these types of scenarios include landscapes in which the top of a mountain is bathed in sunlight, while the valley below lies in shade; and multi-story atriums where the primary source of illumination is an overhead skylight from which the light gradually falls off as it approaches the lower levels. Graduated filters can also be used in evenly lit areas to darken the sky or foreground for stylistic reasons.

In addition to neutral graduated filters, colored grad filters are also available, and are useful for adding a touch of subliminal color into a scene while darkening the foreground or background.

Should I consider warming and cooling filters?



While warming (adding yellow to the scene) and cooling (adding blue to the scene) can be applied to an image file post capture in Photoshop or other image-editing software, there are still those—including film shooters, who prefer to filter the lens at the time the exposure is made.

Most photographers warm or cool their images for aesthetic or mood reasons. A bit of warming is often desired for portraits, or when photographing at midday during the summer months when the sun's light can be bluer and harsh. Warming can also be effective when taking pictures on overcast or rainy days. Conversely, cooling filters can be used to correct color in images in which the color temperature is too warm to suit your intentions. Warming filters include all 81 and 85-series filters, and cooling filters include all 80 and 82-series filters.

When using cooling, warming, and other color filters with digital cameras, it's important to set the White Balance to a setting close to the ambient color temperature, i.e. Daylight, Overcast, Tungsten, Fluorescent, etc., and avoid Auto WB, which will intuitively try to correct, according to its own parameters, the mood and tone you're trying to establish. Auto WB may not render results that are in agreement with your personal vision.

I've heard landscape photographers talk about Enhancing and Intensifying filters. What makes them so special?

Enhancing and Intensifying filters are modified to cut some of the orange portion of the color spectrum, which results in higher saturation levels in reds and cleaner, less muddy interpretation of earth tones. They are especially popular for photographing fall foliage and landscapes.



I've seen photographers using red, green, yellow, and other color filters. Aside from making everything look red, green, yellow, etc, when should I consider using color filters?

While color filters do make everything look red, yellow, green or whatever color you might place in front of the lens, their most common use is for black-and-white photography.

When shooting black-and-white, the color of the filter being used blocks that color from reaching the film (or sensor) surface, which depending on the filter color and subject matter, can drastically change its tonal qualities. As an example, shooting through a yellow filter better delineates clouds against blue skies. Orange filters further darken blue skies and make the clouds pop more, and red filters darken blue skies even more and make the clouds pop out most dramatically.

Green filters on the other hand, are effective at improving skin tones in black-and-white portraits.



What are color-correction filters used for?

Color-correction filters, also called cc filters, consist of cyan, magenta, yellow, red, green, and blue filters. Each of these is available in 10% increments and is used for modifying or correcting the color balance of mismatched or irregular light sources. The need for cc filters is not as great in these digital days as it was in the time of film. Nevertheless, they are still used by many photographers who would rather correct their images at the time of capture.





As with warming, cooling, and other color filters, it's advisable to avoid the Auto WB setting on your digital camera when using cc filters and instead choose daylight, overcast, tungsten, fluorescent or whatever setting is closest to the ambient lighting conditions under which you're working.

Are there filters other than the glass screw-on types?

Aside from the glass screw-on filters most photo enthusiasts and pros depend on, there are also polyester, gelatin, and resin filters, which are used for both creative as well as technical applications. Usually square or rectangular in form, these filters are most commonly used with filter holders or matte boxes that fit in front of the lens via screw-in or friction mount filter holder adapters. The filters are dropped into place in slots that keep the filters flat and parallel to the front lens surface in order to maintain optimal image quality.

Are polyester, gelatin or resin filters better than glass filters?

It depends on what you mean by "better." If you mean sharper, some of these filters, especially the thinner resin and gelatin filters—depending on the brand and material—are optically purer than glass. They are also lighter to transport, and if you plan on purchasing an entire series of filters, these alternatives will be less expensive than a comparable set of glass filters.

These alternative filters are also handy if you have lenses with differing filter threads. All you need is a single set of step-down rings, starting with the largest thread down to the smallest size, to go along with the filter holder. (These same step-down rings can also be used with screw-in glass filters if you are using lenses with differing filter thread sizes—there's no need to purchase multiple sets of filters.)

The downside however is that non-glass filters are easily damaged and in the case of gel filters, near impossible to clean when smudged by an errant fingerprint. So if you do go this route, be extra careful when handling them and by all means invest in a box of disposable plastic or cotton gloves.

What are slim filters?

Slim filters have narrow profiles and sometimes lack threads on the forward side of the filter ring. Slim filters, which are available in almost every filter size, are designed for use with lenses featuring angles of view wider than about 74°, or the equivalent of a 28mm lens. By utilizing a thinner retaining ring, the filter is less likely to vignette the corners of the frame. Depending on the make and model, many kit zooms require thin or slim-mount filters.

What other types of filters are there?

There are many types of creative and technical filters available for pros and serious enthusiasts alike. Included among them are filters that produce prism and star-like patterns, filters for close-ups, diffusion, infrared imaging, as well as contrast control. Their creative applications are up to you! The Takeaway

- UV / Haze and Skylight filters protect the surface of your lens against scratches, dust, moisture, and fingerprints, which in the long term can harm the lens coatings. UV / Haze and Skylight filters also minimize atmospheric haze, which results in better overall image quality. Protective filters also keep dust, moisture, and fingerprints at bay, but are not as effective in cutting through atmospheric haze.
- The difference between an inexpensive filter and a pricier one has to do with the quality of the glass (the costlier filter most likely contains optically purer and thinner glass), the quality of the anti-reflective and color coatings and retaining ring (better filters have brass rings instead of aluminum).
- Polarizing filters reduce or eliminate distracting reflections from the surface of glass, water, and other polished surfaces, darken skies, make clouds pop from their surroundings and saturate color by reducing stray ambient glare.
- Polarizing filters are also available combined with warming filters, enhancing filters, and diffusion filters. Weather-resistant Kaeseman Polarizers are also available for use in extreme, damp climates.
- Neutral density (ND)filters block varying degrees of light from striking the imaging sensor (or film) in order to shoot at wider apertures under bright lighting conditions, blur moving objects in the frame regardless of ambient light levels and allow for better exposure control when shooting video or film.
- ND and Color Graduated filters darken or tint the top or bottom (or left and right) portion of the frame while leaving the opposite side untouched. They are useful for equalizing exposures of scenes containing extreme lighting variables on opposing sides of the frame, as well as adding an element of drama to an otherwise good, but not great, image.
- Enhancing and Intensifying filters are useful for intensifying the color-saturation levels of reds and other earth tones, making them desirable for landscape and foliage photography.
- CC filters allow you to incrementally adjust the color levels of your cyan, magenta, yellow, red, green, and blue channels.
- Although most photographers rely on conventional glass screw-in filters, lens filters are also available as square and rectangular filters made out of polyester, gelatin, and resin. These filters, some of which are optically purer than glass filters, require holders and extra levels of care when handled.
- If you plan on using one filter on several lenses, you should purchase a slim or thin version to better ensure it won't vignette the corners of the frame when used on a wide-angle lens.
 - https://www.bhphotovideo.com/explora/photography/buying-guide/a-guide-to-filters-for-lenses

Flash Photography Camera Settings for Beginners

By Matt Gavin



A three flash setup, two on the house and one on the couple to camera right with a MagMod Sphere Modifier.

Strap on that speedlight and follow me!!

FLash photography is an awesome way to make a step change improvement to your photography. For me, flash photography was a technique that really improved my images almost instantly, whereas learning other aspects of photography yielded more incremental improvements. Flash is a great way to add drama to your images and really add a pop to them. It's also a lot of fun!!

But where do you start?

For the beginner (and even for the more experienced flash photographers amongst us) set your camera up using the following settings as a starting point....

- Manual Mode
- Aperture f8
- Shutter Speed − 1/200
- ISO 200

Flash power -1/16

Then take the shot, you can easily adjust the exposure based on the feedback from that first image (yes, chimping your LCD screen is ok and don't let anyone tell you otherwise). If the ambient light looks too dark, then slow the shutter or widen the aperture. If the subject looks too bright then drop the flash power. Any combinations of setting tweaks can lead to a different looking shot. Experiment and have fun with it.

Step 1: Put your Camera in Manual Mode

I find that when using flash the camera can often get confused with the exposure and give you a result that you didn't really want. You are also far more in control of the situation in manual mode and can tweak the Aperture, Shutter Speed and ISO easily to get the look you are going for and adjust for the conditions. With flash, you add a 4th element to the exposure triangle, flash power, that needs to be balanced with the other 3 to get the best possible image. You also need to ensure you balance your flash lighting with the ambient lighting. In manual mode, you have far more control over the overall shot and you will be

able to be much more creative with your flash photography.

Don't let the dreaded 'M' mode scare you though if you are not used to it. Give it a go. You will find that with flash you are more in control in M and actually understand whats going on easier than when shooting in natural light. It sounds crazy, I know, but just try it. If you are not used to shooting in manual mode then check this article out on mastering the cameras shooting modes. This is not as difficult as it first seems and I am confident you will soon get to grips with it.

Select the shooting mode by using this dial on the top of your DSLR

Step 2: Set your Aperture to f8

As a starting point, f8 is always a good aperture to select to begin with. It means you have a larger depth of field so you won't have to worry about getting your image sharp in most cases, leaving you to focus on the composition and lighting. You can always tweak the aperture when you know what kind of shot you are getting. Very often when using flash, a wide open aperture will overexpose your image because you are limited on shutter speed (see next tip for why this is the case).

Using an aperture of f8 will also ensure that your shutter does not need to exceed 1/200 in order to avoid overexposure, more on this in step 3.

Step 3: Set your Shutter Speed to 1/200

1/200 of a second is a good starting shutter speed. On a lot of cameras, this is the shutter speed which correlates to the flash sync speed, meaning using a faster shutter speed will result in a black band across the image where the light from the flash hasn't exposed correctly. Some cameras this speed limit is set to 1/250 of a second so you will need to determine what this is in order to remain within it. To enable faster shutter speeds, you will need flash units that are capable of high-speed sync, but this is a subject on its own so is not covered in this article. For the time being, look to stay below the sync speed limit.

With a shutter speed of 1/200, you are likely to have a speed fast enough to ensure sharp images of fairly motionless subjects, such as portraits. Combined with the depth of field achieved with an aperture of f8, you shouldn't have too many issues with sharp images (don't forget good technique and quality glass play a part here too, as do other things).

Step 4: Set your ISO to 200

ISO 200 is a good place to start. This will ensure you get a really clean image but will give you an extra stop of light to play with from ISO 100. The advantage of flash photography is you can get into much cleaner ISO ranges for your camera. This really helps give you a nice sharp image without a lot of noise and all modern cameras are excellent at these low ISO ranges. Even entry levels do really well here. Its the really High ISO levels that set the professional full frames bodies apart from the entry level. You can negate that to some extent if you master flash.

Step 5: Set your Flash Power to 1/16

To start with you don't was to have too much flash firing at your subject. You are best to start with a lower power and increase from there if you need to. You will be surprised at how little power you will need and its good to start with a power that won't eat too much battery power and won't take any time to recharge the flash. 1/16 would be a good place to start.

Step 6: Bounce Flash vs Off-Camera Flash

As a starting point, using bounce flash will get the best results in the shortest amount of time. This is where you bounce your flash off of a large surface such as the ceiling or a large wall. White walls work best as darker walls will tend to swallow your flash power and also has the potential to create a colour cast on your image. By bouncing flash it's more simple to get a even light on your subject and you have more chance of avoiding flash photography pitfalls, some of which are discussed later in this article. Using bounce flash you can quickly light a subject with the convenience of the speedlight mounted in your hot shoe. The downsides to bounce flash is that it's quite difficult to create mood and directional light to create shadows and depth. This can make the images less dramatic as the effect is that of bringing up the ambient light in the room. Another difficulty with this method is that there isn't always a white ceiling or wall close by to bounce light off. The ceilings may be high or covered with beams. They could be painted a dark colour. The walls may be painted a dark colour. In these situations, you may choose to mount your flash off camera.



Bounce flash is a great way to quickly

and conveniently light a subject or group of subjects, but you will get fairly even lighting. Great for when you need to quickly capture those candid moments!

With off-camera flash, it is easy to get more creative. You can easily change the angle of the light source relative to your subject and create an unlimited range of looks and moods which helps to give your images the wow factor. Off camera flash gives you the opportunity to deliver more directional light and is not as daunting as it looks.

Off Camera Flash can really add to the wow factor of an image and create much more interest and drama – even on bright sunny days. Shot with 2 off camera speedlights, one hair light and a key light with Magmod Sphere modifier. Using flash can really get your creative juices flowing, in this image I blended ambient and flash lighting to light the subject and also expose correctly for the bright sunset. This is taken with one speedlight with a MagMod Sphere modifier to camera right.

So your settings are dialled in, now what??

With these starting settings in place, compose and take your shot. Have a look at the exposure on the LCD screen, if it looks underexposed, you just do the things you would do in natural light. you can either slow your shutter speed, open your aperture or boost your ISO. Using speedlights gives you a fourth option which is to increase flash power. You can do the opposite to this if your image is overexposed. It is worth having a reminder at this point that increased shutter speed to reduce the overall exposure is limited to the flash sync speed. Also, shutter speed has little effect on the flash and more on the overall ambient light.

There are a few little bits it's worth knowing to help you get your perfect exposure more quickly. Check the surrounding ambient exposure of your image. Does this look ok or is it under or overexposed? If your ambient exposure looks about right but your subject is not, then alter the exposure with flash power changes. The other settings would change the ambient light and may under/overexpose those when you change setting for the exposure of your subject. Check for any hotspots on the image, are these in the background or on the subject. Dial down your camera settings to reduce hot spots in the background, and dial down flash power for hot spots on your subject.

Note – The Inverse Square Law and Flash Photography

It is worth noting the inverse square rule with flash at this point in relation to the distance between your subject and the background. As the distance from your flash to the subject increases, the flash power will reduce by the inverse square of the distance. Clear as mud I know but it is a useful concept to understand. To explain this another way, if the distance between your flash and you subject doubles (2 times the distance), the flash power will reduce by the inverse square of this distance. 2 squared is 4 so the power will reduce by 1/4 (not a half like many people think).

Why is this important I hear you ask? Well, in relation to increasing flash power, you need to be aware of the distance to your subject as the light reaching the subject will be much less. it is also worth noting the distance to the background. if the background is relatively far away from the flash compared to the subject, then you don't need to worry about your increased flash power really affecting your background.

Flash Photography Equipment you will need

• You need a camera with a hot shoe

You need a speedlight – Forget the little pop-up flash built into your camera body. I have no idea why they still put these in. That small flash is going to give horrible harsh light and smash your subject directly

in the face, leading to very poor lighting and unattractive portraits. This is what leads to deep shadows, red-eye and other basic photography mistakes so just don't use it. You will need a speedlight but you do not need an expensive one. Improve Photography recommend the Yongnuo YN-560 from Amazon. Also I would check KEH camera for a used Youngnuo Speedlite. This inexpensive speedlight will give you everything you need to get started. Even more experienced flash photographers, such as myself, still use these. I personally have 4 of these speedlights and they perfectly serve my flash photography needs. They do not include clever features such as TTL, but I don't recommend using this anyway. Manually controlling your flash is much more straightforward to understand. This flash can stand in your cameras hot shoe or be operated off camera (preferable) with the aid of a Yongnuo TX trigger, which is another inexpensive, extremely effective device.

• That's it!!!! – you heard, to get started this is all you need. Below of some optional extras that will propel your photography even further but I stress that these are not needed to get going.

A cheap light stand and speedlight bracket – you will certainly progress in flash photography quickly, and before too long you will want to try to experiment with off-camera flash. Therefore, it is worth investing in a cheap light stand and bracket for your speedlight. When I say 'cheap' I mean it. To get started you don't need to outlay much at all for this. I went for years on the cheapest light stands and bracket I could find, and they served me well for a long time. I used a combination of this Mountdog light stand and Anwenk speedlight bracket from Amazon.

A cheap modifier – I will not go too much into why modifying your light is important, in short, it provides a softer light source which leads to more flattering lighting. This will serve you well, especially with an off camera flash set up. You can pick up cheap white, shoot through umbrella and it is totally worth it. You can get great images with this setup. This 2 Pack of umbrellas from Neewer on Amazon is my favorite.

This photo was taken using a single off-camera flash on a really cheap stand with a really cheap shoot through umbrella but the light is soft and makes the image pop!! Shot at 1/200 at f6.3, ISO 100, Flash power 1/16.

Flash Photography Quick Tips and Tricks

Below are some quick tips and things to look out for, with flash photography, I learnt some of these the hard way:

- Always have spare batteries, and spares for your spares
- Start with a lower flash power to start with, increase if necessary. This will increase battery life and flash recycle time
- Watch those hotspot highlights
- Keep an eye on the background exposure
- Watch out for creating shadows across the subject, especially in group shots
- Modify your light, make it big (and hence soft)
- You don't need expensive speedlights
- You don't need expensive light stands or modifiers

Don't fire your light straight at the subject, bounce it or get it off camera

Check Out Lighting in a Flash and Other IP Resources

There are some great resources on Improve Photography so go ahead and search for more detail on some of the topics in this article.

Conclusion

Flash photography is not as difficult as it first seems. There are challenges no doubt, and when you first start there is a little bit of theory to learn and remember but much of it can be figured out through a trial and error approach. The results can be amazing and will contribute to a significant improvement in your photography. It's also a lot of fun experimenting with different camera settings, flash settings, light positions and the number of speedlights. You can really stretch your creativity and experiment with endless combinations. Have fun with it and let it take you on a new photographic journey.

Elements of Composition in Photography

By Nicholas Goodden.

I have decided to publish a series of articles through which I'd cover important aspects / elements of composition in photography.

Think of it as a "back to basics" in order to advance better.

Strong foundations, just like in building construction, are key to further your photography and take it to the next level.

To begin with, I always tell people to look at "rules" as guidelines rather than anything too serious. Rules should NEVER stop you experimenting and exploring beyond them.

Too many rules kill creativity.

Photography composition can be broadly described as how everything in a photograph is "balanced", how things flow, how every element fits and interacts with the rest in terms of colour, textures, lines, focus, contrast...

Good composition will result in a good photo provided the chosen subject and concept behind the image are good too.

This is a fairly wide subject which also has slight variations depending on the genre of photography you shoot. I say variation because in fact there are still many similarities in how a photographer composes a studio portrait and how a landscape photographer will capture a Scottish landscape.

There are recurring themes such as the rule of thirds in photography, leading lines, the use of negative space, symmetry...

I don't have the ultimate answer to good photography, what I can do is share my decade-long experience hoping it will help you.

You then decide to apply as much or as little as you want in your own photography.

Each element of composition I cover is fully illustrated with examples from my portfolio / archive, just follow each individual link to read more:

RULE OF THIRDS IN PHOTOGRAPHY

The rule of thirds in photography is a simple yet effective principle, perhaps the first a photography enthusiast will come across, it is sometimes displayed as a grid on camera screens. Applying it, often brings balance to photographs.

With time it often becomes an unconscious habit for experienced photographers. Something they do without giving much thought.





LEADING LINES IN PHOTOGRAPHY

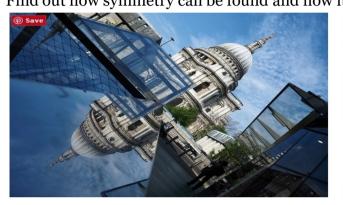
Leading lines in photography draw the viewer's eye effortlessly towards the main subject. Conflicting, messy lines can negatively affect the viewing experience while leading lines will make it more enjoyable.

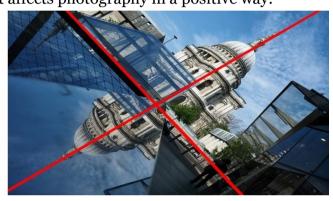




SYMMETRY PHOTOGRAPHY EXAMPLES

In the natural world symmetry is an integral part of the evolution of species. It allows birds to fly, humans to walk and plants to grow straight. By observing nature, humans invented and produced more efficient designs in planes, architecture and most areas of modern life. Find out how symmetry can be found and how it affects photography in a positive way.





NEGATIVE SPACE IN PHOTOGRAPHY

Negative space in photography represents any empty space surrounding the main subject in the photograph. I have made it my speciality to provide ample amounts of that in my photography, it allows the eye of the viewer to rest as opposed to overly busy shots.



LOW ANGLE PHOTOGRAPHY

Shooting at low angle is an easy and effective way to change perspective, to surprise the viewer and to add dynamism to your photography.



THE IMPORTANCE OF BACKGROUND IN PHOTOGRAPHY COMPOSITION

In this separate article I discuss the importance of background in photography composition and through clear examples within my photography show you how a strong background makes all the difference. The background is what sets the scene, it can help focus on the subject when used properly (photo below) but it can also detract from it when too busy and cluttered.



I hope you will delve into these articles and find inspiration for your own photography, to shoot your own perspective on the world, place and time you live in.

Here's a breakdown of the A-series paper sizes:

- A0: 841 mm x 1189 mm (33.1 in x 46.8 in)
- A1: 594 mm x 841 mm (23.4 in x 33.1 in)
- A2: 420 mm x 594 mm (16.5 in x 23.4 in)
- A3: 297 mm x 420 mm (11.7 in x 16.5 in)
- A4: 210 mm x 297 mm (8.3 in x 11.7 in)
- A5: 148 mm x 210 mm (5.8 in x 8.3 in)
- A6: 105 mm x 148 mm (4.1 in x 5.8 in)
- A7: 74 mm x 105 mm (2.9 in x 4.1 in)
- A8: 52 mm x 74 mm (2.0 in x 2.9 in)
- A9: 37 mm x 52 mm (1.5 in x 2.0 in)
- A10: 26 mm x 37 mm (1.0 in x 1.5 in)

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