

LANGLEY CAMERA CLUB



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Theme: Long Exposure



Long Exposure Photography

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Step-by-step Guide to Long Exposure Photography

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In the past few years, thanks to the diffusion of [useful accessories](#) and [photographic filters](#) with good quality and low prices, the technique of long exposure has become increasingly popular among photography enthusiasts. Even if this technique can be used both in studio and in a urban environment, the perfect playground of long exposures is [landscape photography](#).

Unfortunately often it happens that the result we get is far from our expectations, and we end up classifying the long exposure as a demoniacal technique. However, following this step-by-step guide to long exposure photography, you'll see how easy it is to get a good result on the first attempt (or almost).



Step One: study the weather

A day with a cloudless sky is a good day to drink a beer with friends, not to make long exposures. Likewise it cannot rain forever, so do not resign yourself to an afternoon with your PlayStation. You should study satellite images rather than the meteorological sites, trying to figure out if there is an incoming storm, or if the downpour is about to end.

Step Two: visit the location well in advance

[Scout the location ahead of time](#), as you need a lot of time to find the perfect composition, or at least more than the time needed for a "short exposure". In fact in a long exposure the world is completely different from how you see it with your own eyes. You have to try to see it with your mind, looking for a harmonious composition that includes moving subjects, trying to predict the direction of the clouds or the force of the sea. Try not to put the sun into the composition because its movement will ruin the shot and it will create area of overexposure that is not recoverable. If you cannot avoid the sun, wait for it to hide behind a cloud.



Step Three: use a tripod

Mount your [camera on a tripod](#) and install all the accessories such as the remote shutter release and the filter holder (if you are using drop-in filters). However, wait to actually install the filters. Very important!

Step Four: compose the image and lock focus

Refine your composition, focus on the subject and lock the focus. If you are using manual focus, just do it. If you are using the autofocus mode, you should focus by half-pressing the shutter button, and once the focus has been made, while still holding down the shutter button halfway, push the lever from Auto Focus to Manual. In this way, your camera will maintain the focus (or alternately you could [use back-button focus](#)).



Step Five: set the exposure

Now set your camera to [Manual \(M\) mode](#) or Aperture Priority (A/Av) mode. Then set the aperture to an appropriate value for the scene (for landscapes I suggest between $f/8$ and $f/11$) and take a “Test Shot”. The test is complete when you get a correct exposure. To determine if the exposure is correct, [check the histogram](#) (do not trust your display, it is too bright). It is true, there is no universally correct histogram, but there are histograms that are universally incorrect, namely moved completely to the right or left side (the image is respectively overexposed or underexposed). Once the test shot is successful, write down the shutter speed you used for that shot.

Step Six: add your filter

Now add your [Neutral Density \(ND\) filter](#). If the filter is very strong, for example 10 stops, you will not be able to see through the viewfinder or the Live View. Do not worry, because if you have followed the guide up to this point you will notice that we have already made the composition and the focus too. You are blind, but your camera will see everything perfectly.



Step Seven: change to Bulb mode

Set the shooting mode to Bulb (B) in order to take over the thirty second limit of the camera. Do not change any of the other settings (ISO and aperture) used in the test shot.

Step Eight: take your long exposure shot

It is finally time to take our long exposure shot. But how long will you to leave the shutter open? It is less difficult than you might expect. First of all, recollect the shutter speed that you noted down from the “Test Shot” you did in Step Five above. Now you must compensate by the number of stops introduced by the filter. For example, if your test shot was 1/15th of a second, adding 10 stops will get a shutter speed of approximately 60 seconds. There you have your shutter speed. No need to be stuck in the mathematics: on the internet you can easily find [conversion tables](#) and [applications for your smartphone](#) that will do the conversion for you.



Step Nine: check the histogram again

Once you’ve taken the shot with the calculated shutter speed, check the histogram. If the new histogram is approximately equal to the one of the test shot, mission accomplished. If it is shifted too far to the right or to the left, repeat the shot again correcting the shutter speed.

Other Websites For Further Reading:

The Ultimate Guide To Neutral Density Filters:

<https://www.redbubble.com/people/peterh111/journal/4421304-the-ultimate-easy-guide-to-neutral-density-filters>

Using a 10 Stop ND Filter:

<http://www.thorninger.com/eng/nd%20filter.html>

BW Vision - Complete Guide To Long Exposure Photography

<http://www.bwvision.com/complete-guide-long-exposure-photography-2016-edition/>

YouTube Sites For Tutorials:

Long Exposure Photography Tutorial:

<https://www.youtube.com/watch?v=f21MwF8icmM>

The Art Of Long Exposure

<https://www.youtube.com/watch?v=mgGwRqpGaNc>

How To Shoot Long Exposure With No ND Filter

<https://www.youtube.com/watch?v=camWIvVZlBU>

Neutral Density Filter Guide

ND Filter:	3 stops	6 stops	9 stops	10 stops	13 stops	16 stops	20 stops
Exposure with no Filter:							
1/1000s	1/125s	1/15s	1/2s	1s	8s	1m	16m
1/500s	1/60s	1/8s	1s	2s	16s	2m	32m
1/250s	1/30s	1/4s	2s	4s	32s	4m	1h
1/125s	1/15s	1/2s	4s	8s	1m	8m	2h
1/60s	1/8s	1s	8s	16s	2m	16m	4h
1/30s	1/4s	2s	16s	32s	4m	32m	8h
1/15s	1/2s	4s	32s	1m	8m	1h	16h
1/8s	1s	8s	1m	2m	16m	2h	32h
1/4s	2s	16s	2m	4m	32m	4h	64h
1/2s	4s	32s	4m	8m	1h	8h	128h
1s	8s	1m	8m	16m	2h	16h	256h