



Long Exposure - Daytime

Mark Law

What scenes work best with long exposures?

Long exposure setup.

How long to make your exposure?

My Method for Photographing long exposures.

Hints to reduce some trial and error time.

Let's give it a try!

**What scenes work
best?**



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A scene that has movement gives the streaking clouds and milky water

- Clouds
 - The faster the better
- Water
 - A light ripple is the best

A scene that has a very small amount of water movement that you want to get rid of.



A scene that has people moving around in it that you don't want.



The kit



- sturdy tripod
- camera with bulb setting
- Cable release or wireless trigger
- Neutral Density filter (10 stop)
- Bulb Blower

Filter holder set



Circular filter + Step down rings



Exposure Time



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Method 1: Manually Calculate

1. Figure out the right exposure for the aperture that you want for the image. Say the right exposure time is $1/10$ sec for your desired aperture.
2. Now take the number of stops your ND filter is and that is the number of times that you double the exposure time. Lets use a 10 stop ND filter for this example.
 - $1/10$ sec doubled 10 times is equal approx 102 secs or 1 minute 42 seconds.
3. Put the ND filter on and make the exposure 102 seconds long.

*One thing to note - don't freak out over the exact seconds. You can see that to make a full stop extra of exposure you need to double the time. So if you expose the sensor for 120 seconds instead of 102 it really isn't going to make much difference.

Method 2: Use an App

1. Figure out the right exposure for the aperture that you want for the image.
 - Say the right exposure time is $1/10\text{sec}$ for f_9
2. Now take the $1/10\text{sec}$ and feed it into an App that figures out the time for the ND filter you are using.
 - 3 inputs into the app
 - i. Exposure time
 - ii. Number of stops for the ND filter

I use ND Filter Calc (DSLR) from the Android Play Store.

*you still don't have to freak out about the exact time :)

Method 3: Experience :)

- Most the time I can just tell if it is going to be a 2 minute or 3 minute or 4 minute exposure.
- Plus if you get it wrong just do it again!
- Most of the time I am shooting in the morning or evening so the amount of light is usually similar.

*your histogram is your friend with these...check if you have clipped the highlights.

My Method



1. Attach your cable release or wireless trigger.
2. Compose your scene and get your exposure settings in full manual mode.
 - Typically I use as low as ISO as possible.
 - Feed these values into your app to get the correct exposure time.
3. Set your focus and then switch to manual focus.
4. Take an image with these settings and check your histogram for any clipping.
5. Make sure your lens and ND filter are clean. I always use a bulb blower before putting the ND filter on...always!
6. Put on your ND filter.
 - Be careful putting the ND filter on. It is possible to cross thread these.
7. Make sure the viewfinder is covered. It is amazing how much light can get in there.
8. Set your shutter to Bulb and start your exposure using the exposure time from your app.
9. Wait...wait....wait. Check your histogram when you are done.

Hints



1. Under exposing is better than over exposing.
2. Try and line up the movement of the clouds in a way that draw the viewer into the scene.
3. Don't be concerned about the exposure time being timed to the exact second.
4. Try not to use much smaller of an aperture than around f16.
 - When you really stop things down any particles on your sensor are going to show in the image.
 - Typically I try and shoot around f9-f11 to avoid all the spot removal.
5. Personally I try and avoid water scenes that have a lot of water moving around rocks. Like if there are small 1 foot waves rolling around rocks on the shore. I find the result of cloudy water around rocks doesn't look clean. That clean look is what I go for, but that is just a style.
 - A small ripple in the water gives you the clean edged results that I have shown here.
6. Have a nice sturdy tripod and a solid place to set it up.
7. If your app tells you that your exposure time is 5 minutes or more you will likely start to see hot pixels show up in your image.
 - Not a huge deal, but you will need to do some spot removal in post
 - Or if you take back to back 4 or 5 minute exposures your sensor can heat up causing hot pixels.

Let's try!



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