

Through The Lens

*A guide to digital photography for computer enthusiasts.
After the click of your camera, you're only half done!*

How to photograph moving objects

by Lynda Buske

OPCUG



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There are a variety of ways to use the shutter speed setting on your camera to photograph moving objects. All these methods will depend on the light you have available so you need to think of it in combination with your aperture (size of the opening in the lens) and ISO (sensitivity) settings. For instance, you may need a wide-open aperture (low number) to get a fast shutter speed or you may need a very small aperture (high number) to achieve a slow speed. A high ISO will allow you to use a shorter shutter speed for any given lighting condition and a low ISO will do the opposite.

The most common way we see motion captured is with a “stop action” image. In this case, you are focused on the object and have set your camera to a shutter speed that freezes all motion. This will of course, depend on how much light you have in the scene. Depending on how fast the object is moving (e.g., someone waving) you may not need a shutter speed faster than say 1/200th of a second to freeze the action. But if you want to catch a bird in flight, you may need a shutter speed that is a lot faster than that. My general rule of thumb is at least 1/1500th sec but as you can see from Chris’ hummingbird, he used 1/2000th sec and even at that, there is a small amount of motion in the wing. [Note: In this instance, the background appears blurred not from movement but from a short depth of field.] A heron or a hawk would not require as fast a shutter speed since their wings flap at a much slower pace than a hummingbird!



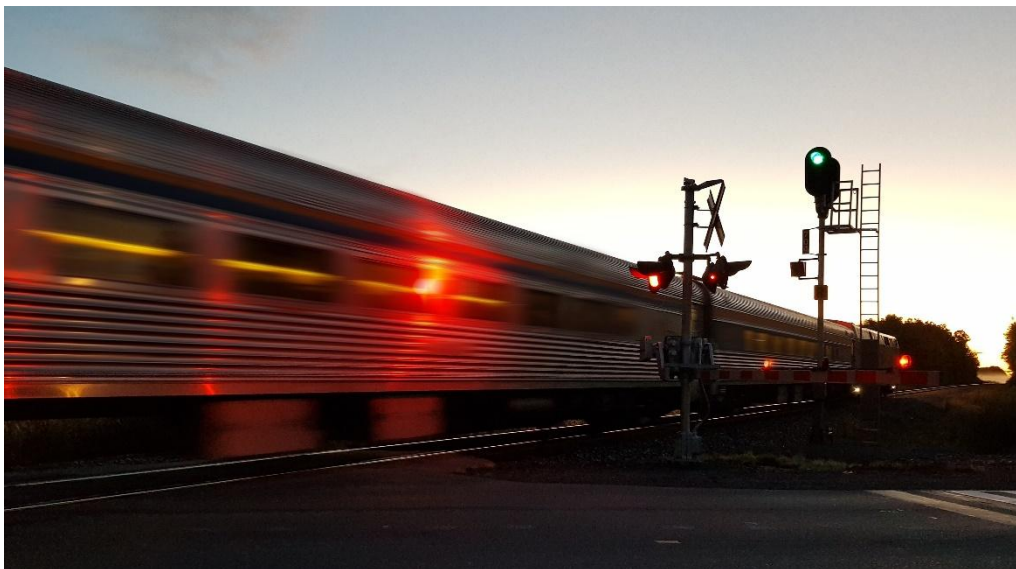
Chris Taylor - OPCUG

The second method is to pan with the object of interest while taking the shot. This means moving your camera along the same path as the object while the shutter is activated. In the example below, the Volkswagen remains in focus while the background appears to be whizzing by. For this type of shot, you need an exposure time that is long enough to achieve the amount of background blur you want. This may mean choosing a third to half of a second. Even with a bright day, a DSLR will probably allow you to get such a shutter speed with a combination of a small aperture and low ISO. If your camera does not have a smaller aperture than f/8, you may have difficulty unless it is an overcast day. You may get an over-exposed photo because your camera has let in too much light at that particular shutter speed. If this happens, try a faster shutter speed like a quarter of a second.



Matthias Meyer - Unsplash

A third method is to depict the action by having the moving object blurred and the background sharp. This is shown in the train photo. Again, you need an exposure long enough that it does not freeze the motion but not so long that the train is completely blurred and unrecognizable. For this photo, I used 1/60th of a second.



Lynda Buske - OPCUG

Depending on the lighting conditions, you may not be able to achieve the shutter speed that gives you the effect you want. Be prepared to experiment with different settings or even think about additional gear such as a neutral density filter that cuts out light and allows for a longer exposure time. You may wish to consider a lens that has a wider range of apertures which would allow for either longer or shorter shutter speed options.

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