

Controlling Shutter Speed *Practical Photography Magazine – February 2006*

SHUTTER SPEED SELECTION isn't just about controlling the exposure - it also offers a wealth of creative options. Here's how to use them.

Understanding shutter speed

The length of time the shutter is open works in tandem with the aperture to control the exposure. The shorter the shutter speed the more light needs to come through the lens, meaning you'll need a wider aperture. It's the same whether you use a digital or film SLR, but with a D-SLR you can afford to experiment a bit more.

For stationary subjects, shutter speed makes little difference, but once you start shooting a moving subject, or even move the camera during the exposure, your shutter speed will have a huge effect on results. This opens up many creative uses but one effect is less welcome - camera shake.

As a rule of thumb you need a shutter speed equivalent to 1/lens focal length when handholding. For example, if you're using a 200mm lens you need to use a shutter speed of at least 1/200sec or faster to get sharp results.

To get sharp results at slower shutter speeds, you'll need to steady your camera. A beanbag is useful for low-level shooting, while a tripod will allow you to use your camera at a range of heights.

You'll find your D-SLR's shutter speed settings on the LCD display, along with the aperture setting. This information is also displayed in the viewfinder.

Shutter speeds for sports

When you're shooting sports or action pictures you'll need to use the fastest shutter speeds to record your subject in focus. For most sports you'll need at least 1/500sec. For some shots, a shutter speed of 1/1000sec will be needed to capture a sharp image, for instance, a canoeist racing down a river, especially if you want to capture the water droplets around him.

How do I control shutter speed?

Selecting shutter-priority on the mode dial gives you access to your camera's full range of shutter speeds. Most cameras use an S on the mode dial to indicate this mode, but on Canon EOS models it is accessed in the Tv mode (Time value). Once in shutter-priority you change the setting by using the control dial on the front or back of the handgrip to scroll through the speeds. In this mode, the camera will automatically select the appropriate aperture. But look out for a warning - usually a flashing symbol in either the LCD or viewfinder - to tell you that it's impossible for the camera to synchronize shutter speed and aperture to set the right exposure.

1/1000sec - Image of a Waterfall - Stop Action

Most movement would be frozen but there's still some blur on some droplets. Most D-SLR's offer a fastest shutter speed of around 1/4000sec, but you'll need plenty of

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light to use it. If you take the image of the waterfall in the middle of the day and set the ISO to 800, you will have a good exposure at such a fast shutter speed.

1/125sec - Image of a Waterfall - "Middle-of-the-Road" Shutter Speed

This "middle-of-the-road" shutter speed is great for general picture taking. Although it will not manage to absolutely freeze the movement of fast-flowing water, it's fast enough to capture most subjects and also keep camera shake at bay on the majority of standard lenses.

1/15sec - Image of a Waterfall - *Blurred Water*

At this speed you're starting to get into tripod territory, as camera shake will be an issue. It's about the slowest speed you'll be able to get away with using a beanbag or handy wall or rock to steady the camera though, so give it a try if you've left the tripod at home. This shutter speed will give you plenty of blur on fast-moving subjects. Most waterfall images are more desirable with this amount of blur.

1 second - Image of a Waterfall - *Creative Technique*

For recording moving objects as a blur you'll need to use shutter speeds in the region of 1 second. You'll see this used a lot in landscapes and seascapes to add a sense of calm, although use it on a stormy sea and the effect can be dramatic swirls of movement. To use this shutter speed you'll need to secure your camera to a tripod and use either a cable release or the self-timer.

3 seconds - Image of a Waterfall - *Very Creative*

At this shutter speed, almost any movement will be recorded as a blur. The lengthy exposure has ensured the water has been completely softened and although you'll never see water like this in reality, the effect gives you the opportunity to add an extra dimension to your images.

So go out and try different shutter speeds on the same subject. Be creative and have some fun!

You will enjoy the results and learn how to control shutter speed all at the same time.