

UNDERSTANDING SHUTTER SPEED

BLUEPRINT

Simply speaking, shutter speed is the amount of time that the shutter is open.

In film photography, shutter speed is the length of time that the film is exposed to the scene and similarly in digital photography shutter speed is the length of time that the image sensor is exposed to the scene you want to capture.

Shutter speed is measured in seconds and fractions of seconds. This means the bigger the denominator is, the faster the speed is. For instance, 1/1000s is much faster than 1/25s.

Shutter speeds double with each setting. As a result we have the options for shutter speeds such as 1/500s, 1/250s, 1/125s, 1/60s, 1/30s, etc.

When choosing what shutter speed to use in an image you should always ask yourself if anything in your scene is moving and if you want to show the movement (with motion blur) or freeze it.



In most cases you should use shutter speeds of **1/60th of a second** or faster. Anything slower than this is very difficult to use without getting camera shake. If you're using a slow shutter speed (slower than 1/60) you will have to use a **tripod** or some kind of **image stabilization**.



slow shutter speed



fast shutter speed

To **freeze movement** in a photo you need to choose a fast shutter speed and to **let the movement blur** you need to choose a slow shutter speed. The shutter speeds you should choose will depend on the speed of the subject and how much you want it to be blurred.

1 SHUTTER PRIORITY MODE

Almost every modern camera has shutter priority mode (S). In this mode you choose the shutter speed that you wish to shoot at and let the camera make a decision about what aperture to select to give a well-exposed shot.



Many photographers choose to switch to shutter priority mode when they want more control over a moving subject but they don't have enough time or expertise to do it in M mode.

TIP:

Keep in mind that as the camera chooses different apertures in shutter priority mode it will impact the depth of field. The faster shutter speed, the narrower DOF.

2 SLOW SHUTTER SPEED

Slow shutter speeds are measured in seconds (not fractions of seconds!), such as 1s, 10s, 30s, etc.



These shutter speeds are usually used in very low light situations such as shooting without a flash at night or when you're trying to capture a lot of movement - for instance, when you're shooting a waterfall.

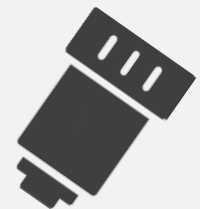
TIP:

Some cameras also give you the option to shoot in 'B' (or 'Bulb') mode. Bulb mode lets you keep the shutter open for as long as you hold it down.

THE 3 ESSENTIALS

3 FOCAL LENGTH & SHUTTER SPEED

One more thing to consider when choosing shutter speed is the focal length of the lens you're using.



Longer focal lengths will accentuate the amount of camera shake you have! A useful strategy is to choose a shutter speed with a denominator that is larger than the focal length of the lens (take crop factor into account if not using a full frame camera).

TIP:

If you have a lens that is 50mm, 1/60s is fine but if you have a 200mm lens you'll need to shoot at around 1/250s.