

Shutter Priority and Shutter Effects

What it is

It probably sounds obvious, but you use shutter-priority mode when you need to control shutter speed and don't care (much) about aperture. You determine the shutter speed you want, and the camera automatically adjusts the aperture to maintain the correct exposure.

Who can use it?

Anybody with a mode dial on their camera (physical or virtual) -- dSLR, interchangeable-lens mirrorless, advanced compact, or even a phone with manual controls.

When to use it?

When should you care most about shutter speed? Some examples:

- When you're trying to stop action, you need to set the shutter speed faster than the subject you're photographing.
- If you want to make moving objects look blurry, you need to set the shutter speed slower than the subject.
- When you're using a telephoto lens without a tripod or if you have shaky hands, you have to set the shutter speed high enough that you won't introduce camera shake.
- While shooting video, a high shutter speed can be used to make the video look jittery, which may or may not be desirable.
- If lighting conditions are changing constantly or the subject is moving erratically, Shutter-priority mode requires the least amount of thought except for Program or Auto mode.



Nikon and Sony use "S" to depict Shutter-priority mode, while Canon and Pentax use "Tv".

How it works

You set the shutter speed; the camera does the rest. However, unlike Program mode, there are no limitations on the range of speed choices, save for the camera's hard limits. Want to use a shutter speed higher than the lens' widest aperture will allow? Go ahead; the camera will do the best it can and usually just produce an underexposed shot, while the aperture value blinks impotently at you in the viewfinder. If you shoot raw, you might be able bring up the exposure in software. If you're constantly frustrated by that aperture limit, you may need a better lens.

How to use it

As confusing as it might sound, some cameras use "S" to designate Shutter priority on the mode dial, while old-fashioned models call it "Tv" (for Time Value). You may need to press a lock button to turn the mode dial; if there's no physical dial, usually more common with ILCs (interchangeable lens cameras) and advanced compacts than dSLRs, then you can usually pull up the mode settings via a quick-menu or function button. If you're not sure, then you'll have to consult the manual.

How to read the settings: "Shutter speed" indicates the amount of time the camera exposes the sensor to light from the scene. Compared to older cameras, most modern cameras now display the speed in a readily apparent way; that is, "1/2" is half a second and "2" is two seconds. If they don't, then the whole seconds are usually displayed in a different colour. You might see a "B" on your mode dial, which stands for "bulb"; in this mode, basically, the camera leaves the shutter open between button presses. Long exposures like that are good for astrophotography, for example.

Changing the speed: On cameras with two dials, usually one on the front and one on the back, different manufacturers use different conventions for the primary adjustment dial. For instance, Canon uses the front dial to adjust shutter speed, while Nikon uses the back dial. Lower-end cameras generally have just one dial, and point-and-shoots sometimes use the navigation buttons.

Choosing a speed: How 'bout we assume, at least for starters, that you don't care so much about effects and just want a good general-purpose setting? I find between 1/80- and 1/125-second work in most cases; I chose 1/80-second as my slowest general setting because I know that's safe for me to hand-hold without shaking. You need to figure out what that setting is for yourself, because you don't want to drop below that point thoughtlessly. By "thoughtlessly," I mean you really have to concentrate to hand-hold effectively as the speeds get slower: control your breathing, brace yourself against something, make sure image-stabilization is enabled, and so on.



The Internet is littered with rules of thumb about selecting shutter speeds depending upon the effect you want. [Google it](#). Those rules were more important in film days, when trial and error was impractical, time consuming and expensive. Today, you can usually figure out within the first few shots what setting produces the image you want. Just remember:

Increasing the shutter speed stops movement.

Decreasing the shutter speed blurs movement.

Most important settings to consider

Once you've set the camera to Shutter priority, you can still use it the same way you use Auto, though...why? Take advantage of the increased flexibility by changing some of the settings that can improve your photos. You don't necessarily need to change them from the defaults, but you might want to if you're still unhappy with the results.

- **Metering and exposure compensation**

Because Shutter-priority mode is designed to determine the settings for what the camera perceives as a correct exposure, if you want something darker or lighter, you'll have to tell the camera. You can do this either by changing the metering mode -- changing the way the camera decides what "correct" means -- or using exposure compensation, which simply increases or decreases the brightness by a specified amount after the camera has made its choice. These settings become important in cases where "correct" is too dark, such as happens with snow scenes or backlit subjects, or too light, when important details of the image may be blown out.

- **Autofocus**

No autofocus system I've used has been able to pick the correct subject to focus on 100 percent of the time; only you know what's important in the frame. Many of the advances in autofocus over the past few years -- most notably face detection -- have been designed to compensate for that fact. So, try to use autofocus options that limit the area, like expanded centre-point autofocus, if it's available, or centre-point autofocus.

- **ISO sensitivity**

Using Auto ISO sensitivity isn't as much of a problem in Shutter-priority mode as it is in automatic modes, because the camera will always choose the lowest available option that matches your chosen shutter speed. However, if you're going to use it, see if your camera has a menu option to set a prescribed range of values it can choose from. That's especially important on the high end, since most consumer cameras don't do very well above ISO 6400, regardless of what their specifications may indicate. You might be better off reducing the shutter speed, for example, than letting the camera rise into mushy-noisy-desaturated image-quality territory.

What are the drawbacks of Shutter-priority mode?

There aren't many issues to worry about. You can get used to it as fast as automatic mode; sometimes faster, since you have control over too-blurry photos and focus area. My one caveat: it's easy to forget to pay attention to the aperture setting or check the exposure indicator, and if you're using a slow lens you can end up with a lot of underexposed shots.

Slow Shutter effects

Use of a tripod is recommended with shutter speeds under 1/60th of a second. Slow shutter effects below 1/15th of a second need to be balanced using both lower ISO and a closed down aperture, or your images will blow out (especially in the middle of the day).

Examples:



High Speed Shutter Effects

The benefit of high-speed shutter (1/200th and faster) is that you can stop action and freeze it clearly without the blur. It is not as popular as slow shutter photography, but it has a definite place in action photography, motorsport, sport, experimental photography and scientific research.

Examples:

