

## SLOW SHUTTER SPEED LESSON

Here are a few reasons you might want to take photos with a slow shutter speed (long exposure):

1. Intentional blur.
2. Low light and night photos.
3. Smooth out movement, such as water.

What camera settings should be used?

1. Select a slow shutter speed in shutter priority mode (S or Tv) or a small aperture in aperture priority mode (A or Av) which will compensate for the loss of light with a slower shutter speed.
2. Select a low ISO, such as 100, which will make it easier to select a slow shutter speed.
3. Image stabilization (vibration reduction, anti-shake) should be ON for hand-held shots, but OFF if the camera is on a tripod.
4. If the camera is on a tripod, most cameras can select a two second delay which allows time for the camera to stop moving after the shutter release is pressed. Some cameras will automatically turn off image stabilization when set to a two second delay.



**½ second**

Helpful gear:

1. Use a tripod for exposures too long for you to hold steady with image stabilization on. This will vary according to focal length and individual ability. Experiment to find out what works for you.
2. You can use a cable release or a remote release when the camera is on a tripod. Some cameras allow you to use your phone as a remote release when wi-fi is available.
3. A neutral density filter will reduce the amount of light reaching the sensor, allowing for longer exposures. They are available in densities from +1 to +10. The higher the density, the less light passes through. A polarizer filter will also reduce light by about 2 f-stops.



**2 seconds**

Here are examples of situations where you could try a slow shutter speed:

1. Moving water and wind.
2. Low light landscapes.
3. Urban night photos such as car lights, signs, carnivals, etc.
4. Intentional blur. Some techniques are intentional camera movement (ICM), zoom, and panning.
5. Storms and lightning.
6. Astrophotography such as comets, star trails, and the milky way.

More tips:

1. Longer shutter speeds may have more digital noise, reducing picture quality.
2. Check your histogram for proper exposure.
3. Watch for burned out highlights and dark areas with no detail and adjust exposure if needed.



**1/3 second**



**1.3 seconds**