

CREATIVE EXPOSURE USING SHUTTER SPEED

GOAL



Capture photographs by varying shutter speeds to understand how it affects the exposure and movement.

SUMMARY

Aperture is one of the three factors that controls exposure in a photograph as it controls the amount of light entering the camera through the lens and falling on the sensor. It also controls the depth of field in a photo which means the area or depth that will be in focus in the scene. In this project, we will learn how to use aperture to creatively control exposure and depth of field in a photo.



Shutter speed is one of the most important factors in photography that decides how an image will look like, for example static or dynamic. It has greater control over how a photograph can be made with creativity in mind. Understanding how shutter speed works will allow the photographer to capture interesting photographs depending on their visual perception and in this project, we will discuss how to use shutter speed for creative exposures in photography. Shutter speed is the length of time the shutter is open in your camera when the shutter button is released. The longer it is open, the more light that is let into the camera to fall on the sensor.



Photo by Ashan Avi

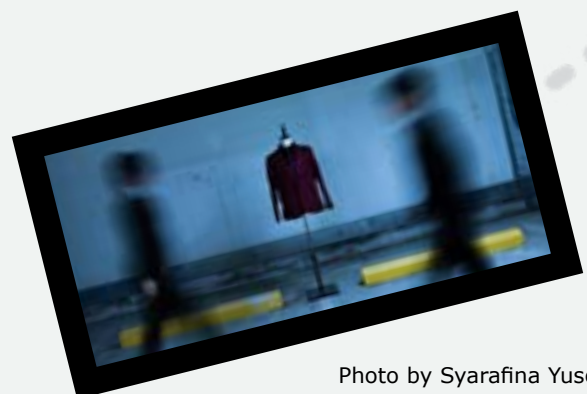


Photo by Syarafina Yusof

THINGS TO REMEMBER:

1. CLEAR IDEA



Shutter speeds need to be intentional and the movements in the frame intentional as well. Otherwise the resulting image can be a messy and unappealing one.

4. OVERCAST



When working with slower shutter speeds, you will need to work during the blue hour or on overcast days. Otherwise, you will need to make use of an ND filter to slow down the shutter speeds to get the desired exposure.

2. CREATIVITY



Panning, motion blur, long exposures are all creative ways to make use of shutter speed capturing creative photographs.

5. MOVEMENT



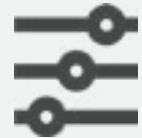
Longer exposure times means more movements and less details of the moving subject. Based on your creative vision, you will need to control the shutter speed to capture the desired amount of movement in the image.

3. STABILIZATION



When hand holding cameras, make use of the image stabilisation features in cameras and lenses to avoid camera shake. You also need to have the shutter speed greater than $1/\text{focal length}$.

6. MODE



If you are sure of your shutter speed for a given scenario, then you can shoot using shutter priority mode, and let the camera choose the aperture value and shutter speeds.



Photo via Wikimedia

TIPS AND TRICKS:

1. SETTING UP



Photo by Julian Steenberg

Choose a scene or a subject. In manual mode, set a shutter speed of your choice depending on the light and the subject you are photographing. Let us consider that at a shutter speed of $1/1000$ of a second, aperture $f/4$ and iso 400 you get the exposure right. Now consider the two following scenarios.

3. FAST SHUTTER SPEED



Photo by Salem Ochidi

Use a faster shutter speed of about $1/2000$ of a second and leave the aperture and iso values the same as the original values. You will see an underexposed image because the amount of time light was allowed to enter the camera was reduced by half. To compensate for this, you will need to widen the aperture value or increase the iso or both to get the desired exposure.

2. SLOW SHUTTER SPEED



Photo by Mike Lewis

Slow down the shutter speed to about $1/640$ or $1/400$ of a second and leave the aperture and iso at the same value (aperture $f/4$ and iso 400). Capture the same scene or subject in the same location. The image will look overexposed because light was allowed to enter the camera for a longer period of time. In order to compensate for the slow shutter speed, you will need to narrow the aperture or lower the iso.

4. FUNCTION



Photo by Rowan Freeman

Shorter or faster shutter speeds are used to freeze actions whereas slower shutter speeds are used to capture movements and in low light used to gather as much light from faint light sources like stars in the night sky. Shutter speeds are denoted in seconds and depending on your camera, the fastest shutter speed can be either $1/4000$ or $1/8000$ of a second.

MORE TIPS:

1. BULB MODE



Photo by Amir Kalhor

Also depending on the make and model of your camera, there may be a bulb mode that will allow you to set shutter speeds greater than 30 seconds to many minutes. This can be very useful in night time and astrophotography.

3. PRACTICE II



Photo via Lucia Macedo

Now slow down the shutter speed to about 1/500 of a second and set the exposure by adjusting aperture value or iso or both. Capture the same moving subject or elements in the scene. Slow down the shutter speed further to 1/100s, then 1/20s, then 1/2 second, each time changing the aperture value or iso or both to get the desired exposure.

2. PRACTICE I



Photo by Anthony Duran

Choose a subject that is moving. This could be moving water, a flying bird, a moving vehicle or person, swaying trees or grass, etc. Set the shutter speed to about 1/2000 of a second and depending on the subject, set the aperture value to about f/3.5 or f/4 or f/5.6. Adjust the iso to get the desired exposure. The lower the better. Capture the photograph and analyse it.

4. EVALUATION



Photo by Alex Quezada

You may need a tripod for very slow shutter speeds. Observe the images. You will notice that slower shutter speeds capture movements in the frame. This movement can be used to capture creative effects and also bring in a dynamic mood to the image.

CONCLUSION:

From the first project "Fundamentals of Exposure" you would have gained a good understanding of how the aperture value, shutter speed and iso work together to get the exposure right. Always take test shots to see which settings work best for the image you are trying to capture, especially in images where you capture movements.

Photo by Shahzin Shajid



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