Slow Shutter Speeds

In this lesson, we'll be taking a look at
Slow Shutter Speeds.

Estimated Completion Time: **18 minutes.**

Slow Shutter Speeds

The shutter speed used by a camera when taking photographs refers to how long the camera shutter is held open. In general use, this will range from about 1/20 of a second, through to around 1/500 of a second, when automatic settings are used.

Many cameras these days allow the shutter to be held open for many seconds, or only for times as quick as 1/2000 of a second, or even quicker.

*Most cameras allow you to select a shutter speed. Rather than setting the camera into a completely manual mode, you may have a mode called **Shutter Priority** - you select a shutter speed, and the camera selects all other settings to match.*

Slow Shutter Speeds

Slow shutter speeds can also mean blurry photos - because any camera movement is exaggerated. So slow shutter speeds *almost* always require a tripod.

The slow shutter speed was selected in a deliberate attempt to blur the flowing water.

Slow Shutter Speeds

There are several ways to stabilize the camera to reduce camera blur. First and foremost - use a **tripod.** There is no better way to get a stable shot.

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Here is another tip when using a tripod. When using a slow shutter speed, and even with a tripod, the act of pressing the shutter on the camera can cause some camera shake.

Try this to get around camera shake. Set the camera on the tripod, or anywhere stable, and set the camera self-timer to 2 seconds (or 10 seconds if that is all that is available). Then press the shutter. Because the photo is not taken immediately, and is taken without your touch, camera shake is removed.

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If a tripod is not available, then you can always attempt to stabilize yourself by leaning against a tree, or a building, or something else stable while taking the shot. Of course, hold that camera as still as you can!

In this shot, we leaned against a car to help stabilize the camera.

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Some cameras have **digital image stabilization.** This can help to reduce camera shake issues, but can reduce image quality. In fact, because of the way **digital image stabilization** (also called anti-shake, or stabilizer) technology works, some camera manuals will suggest turning it off when using a tripod - or when you do not think it is necessary.

Digital image stabilization will allow you to take photos in lower light, or with slower shutter speeds. But try some photos with and without this feature on - each camera may have a greater effect on image quality.

Optical image stabilization is generally much better, but is generally only found on more expensive cameras or detachable lenses. **Optical image stabilization** is better because the camera, or the lens, will contain a gyroscope, and related hardware, that physically reduce camera movement - so no manipulation of the digital image is performed, as it is with **digital image stabilization.**

Slow Shutter Speeds

Blurry photos are not logical. We are told blurry photos are not good. Well, this can be right, but it can also be very wrong. Photographs you have blurred on purpose can be different, and they can be brilliant. Nothing portrays the feeling of movement, or immediacy, like a strategically blurred photograph.

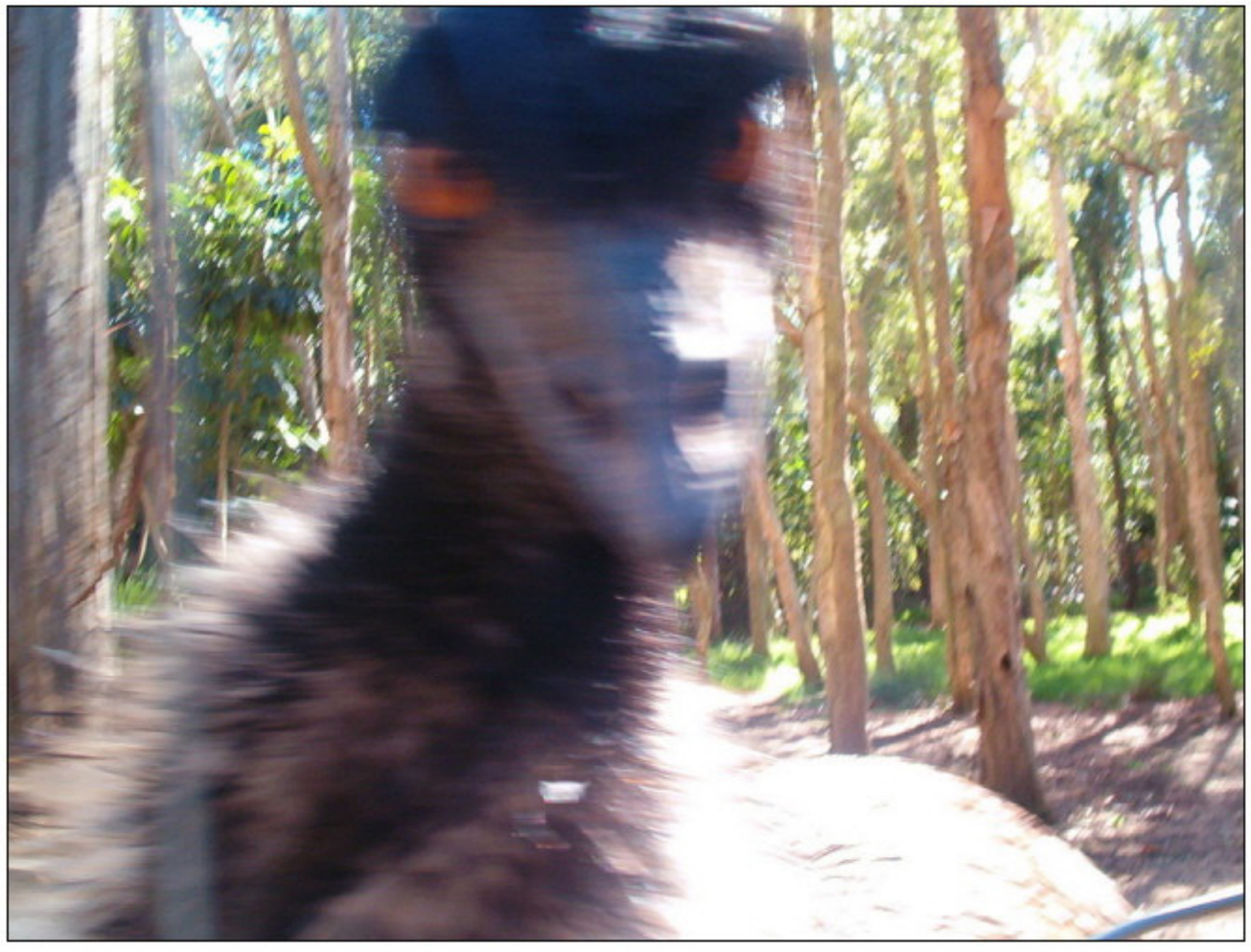
Don't be afraid of blur.

Slow Shutter Speeds

Slow shutter speeds can be used to create movement and immediacy in a photograph. Below, and on the following steps, you'll find some examples.

Here, we've selected a shutter speed of 1/40 of a second, and moved the camera deliberately as the photo was taken. The result illustrates movement.

Slow Shutter Speeds



A shutter speed of 1/30 of a second, and some movement by the subject, gives a wonderfully eerie effect...

Slow Shutter Speeds

Software can also be used to apply a **Motion Blur** effect to an image. Below, we've used **Corel Paint Shop Pro** to create a motion blur effect.

Slow Shutter Speeds

1/160 of a second

1/15 of a second

Have a closer look at each image. On the left, 1/160 of a second is fast enough to 'freeze' the flowing water. On the right, 1/15 of a second is slow enough to allow the water to appear as though it is flowing, and give the feeling of movement. ***A tripod is essential for shots like this.***

If your camera has aperture control, setting the aperture to a high setting (f20 odd) will also allow you to get longer captures by reducing the amount of light entering the camera.

If you have a DSLR, you can also get what is called a ***neutral density*** *filter, designed to darken the image, and allow you to use longer time exposures outdoors.*

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Here, we've selected a shutter speed of 1/13 of a second, and moved the camera deliberately as the photo was taken. The result, once again, illustrates movement. But by following the subject as the photo was taken, the subject itself remains slightly more in focus, and the background is blurred, to further enhance the feeling of movement.

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A relatively slow shutter speed (1/90 of a second) allows us to follow the bird with the camera - and get this effect - blurred background, bird's head in focus.

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Here the shutter speed is 10 seconds, and the ISO to 200. An interesting effect.

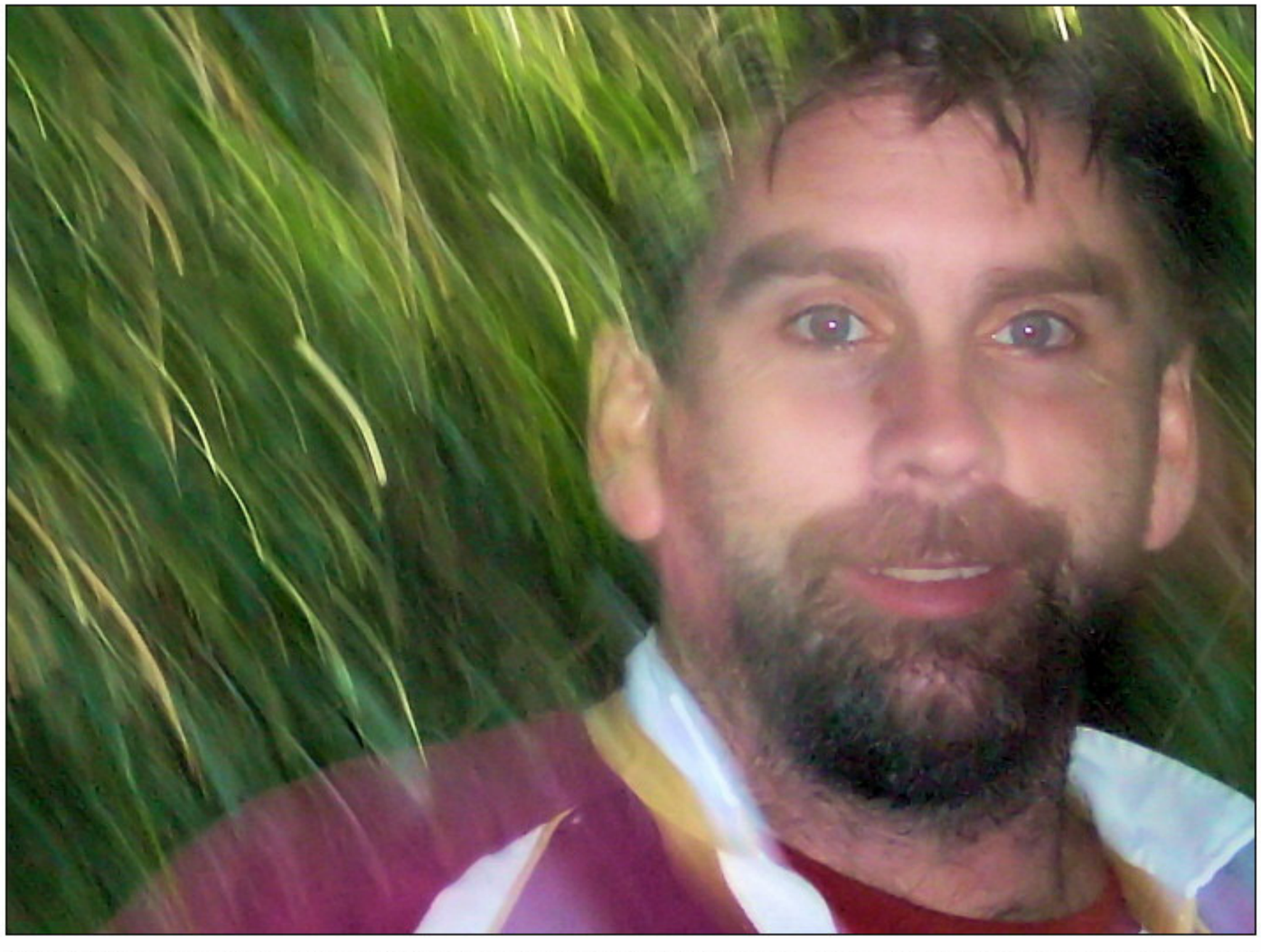
Slow Shutter Speeds

Here the shutter speed is 6 seconds, so the movement of the sparkler is captured. To use a shutter speed like this, it has to be fairly dark to start with...and a tripod will also help.

Slow Shutter Speeds

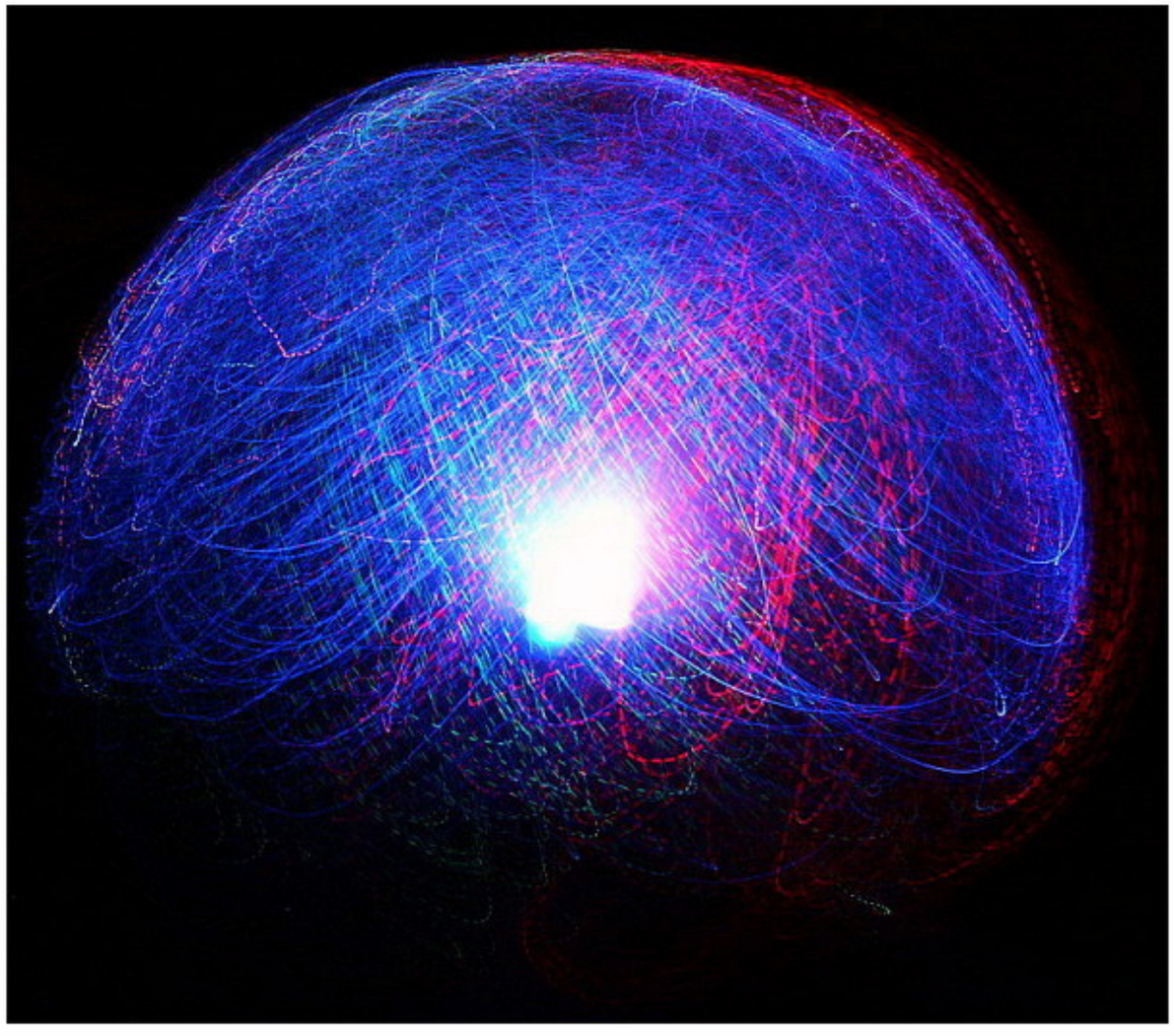
A shutter speed of 1/10 of a second is slow enough to give us an interesting view of this trampoline action.

Slow Shutter Speeds



Even at 1/60 of a second, a bit of a camera movement can give you that slightly different effect.

Slow Shutter Speeds



An exposure time of 2 seconds, a fibre optic lamp jiggled, and you get this effect.

Slow Shutter Speeds

1/60 of a second, night time, and no flash. A great photo, even with the blurred fire.

Slow Shutter Speeds

Here, a setting of 30 seconds (ISO 400), and a tripod, gives us stars and some clouds...

Slow Shutter Speeds

A shutter speed of 30 seconds (ISO 800), a tripod, and a country sky...

Slow Shutter Speeds

A shutter speed of 30 seconds (ISO 400, F/22), gives us some headlight trails.

Slow Shutter Speeds

Lightning can be particularly hard to get. First of all, there has to be a storm, and you have to have a good view of it! Set the aperture to a high setting - this will help ensure the lightning is in focus. Set the shutter speed to a large setting - 10 seconds or more, and get prepared to take a lot of shots.

If your camera has a bulb setting, and you have a shutter release, use the bulb setting until lightning strikes, then release the shutter.

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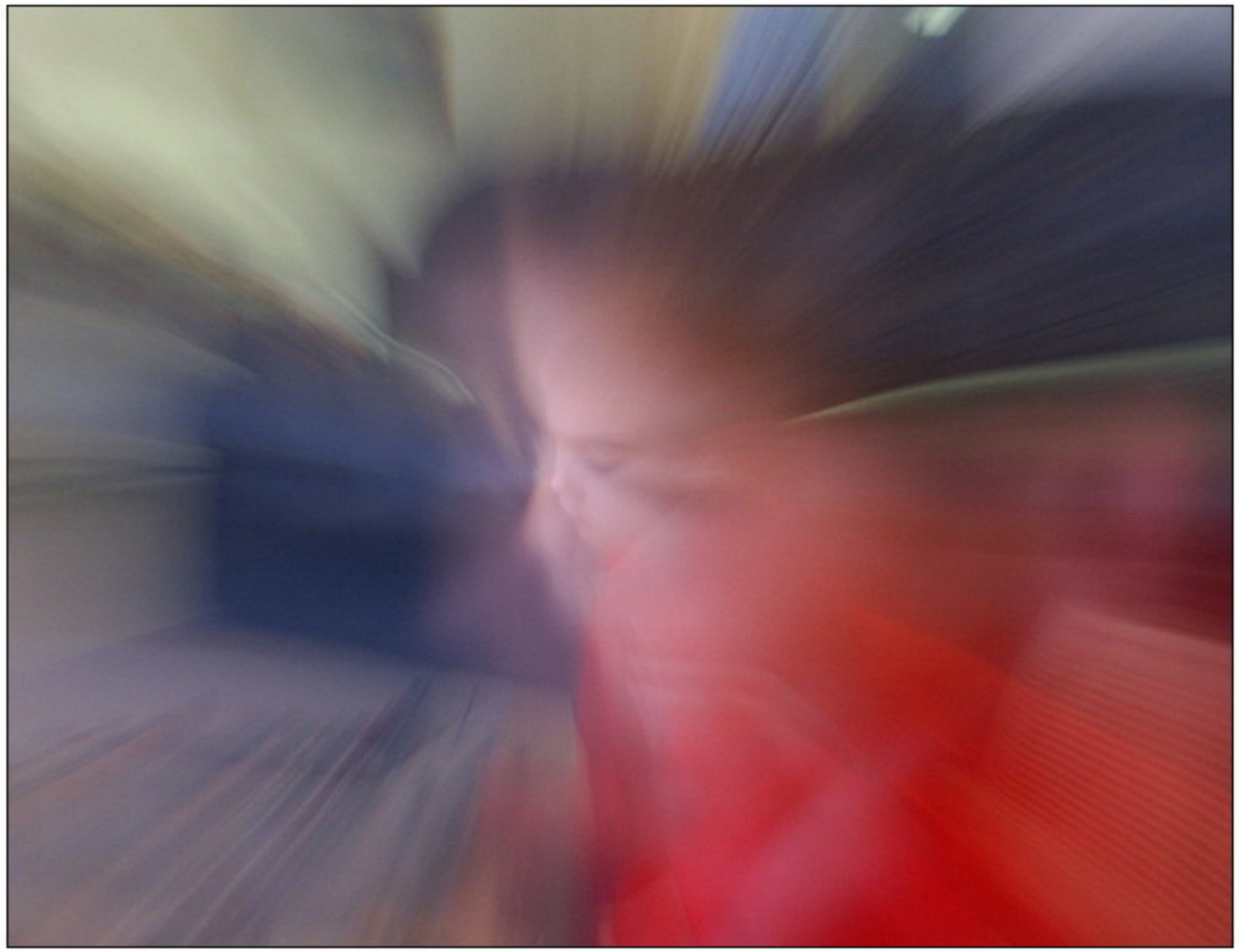
A 15 second shutter (ISO 100), and a tripod, leaves the headlights of a motorbike etched on the frame...

Slow Shutter Speeds

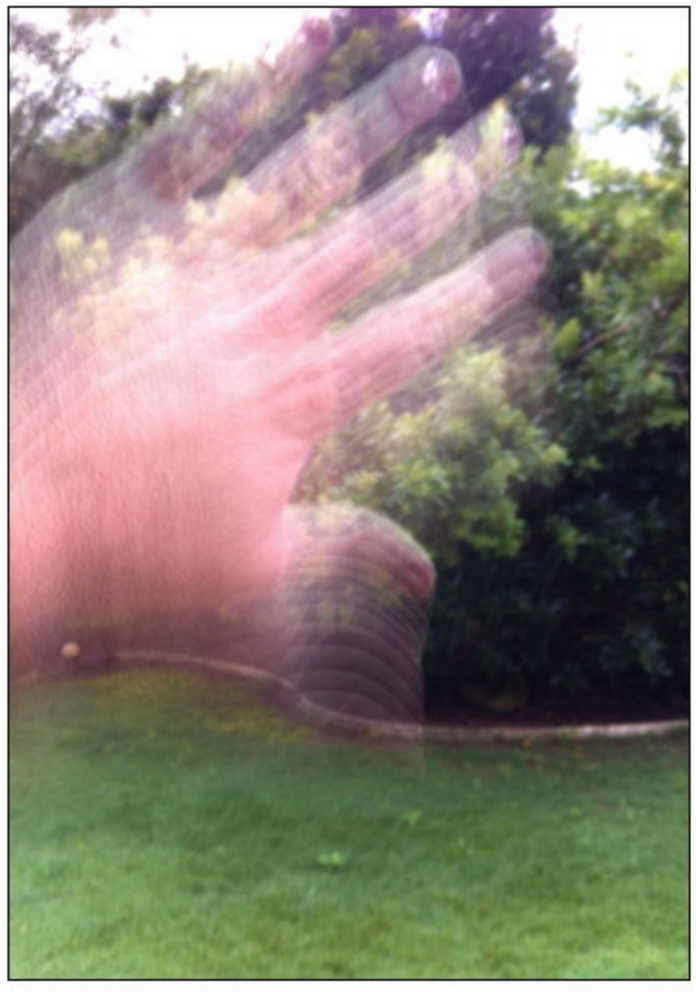
A shutter speed of 1/6 of a second gives a great feeling of movement.

Slow Shutter Speeds



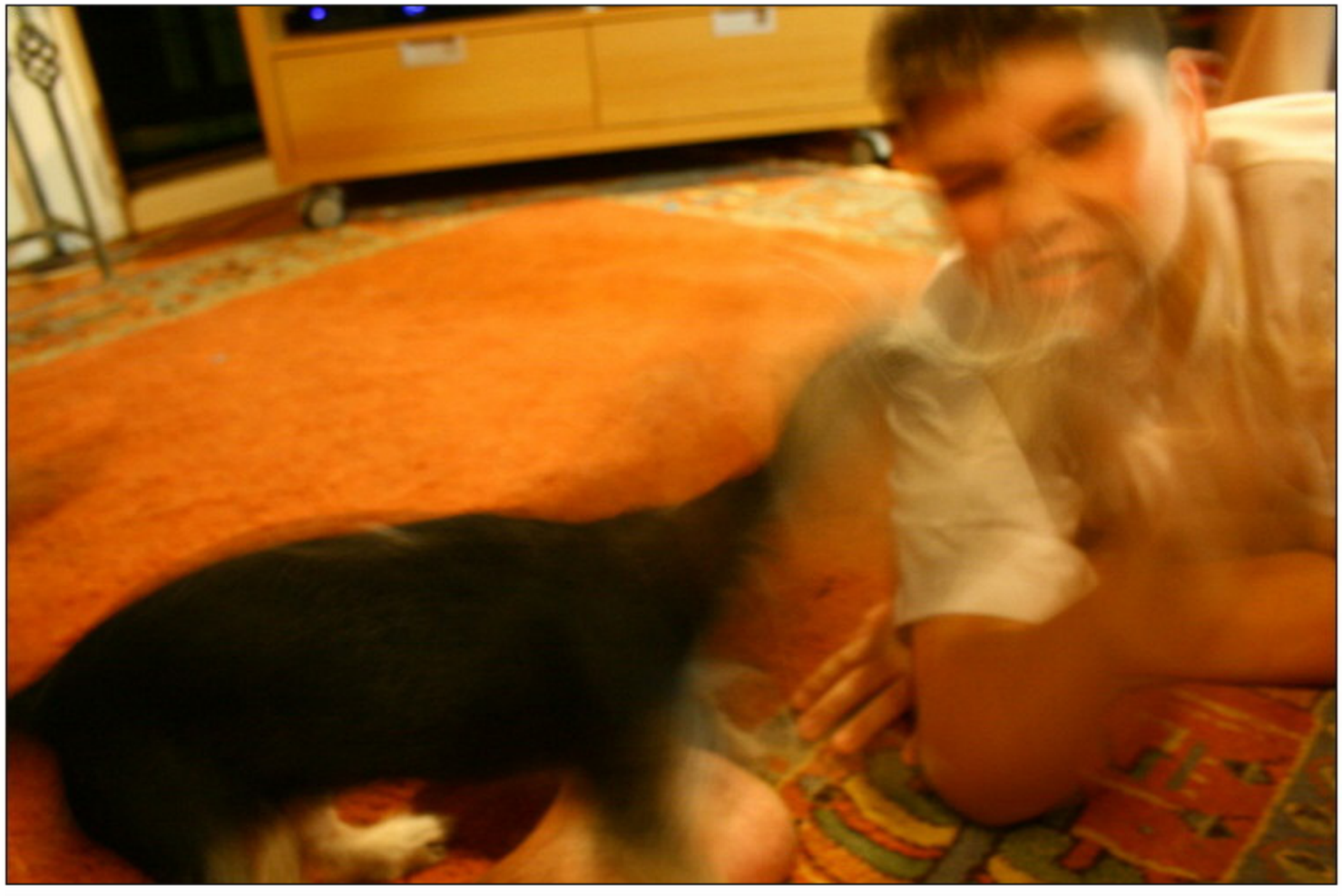
A shutter speed of .67 of a second. Here - we zoomed in as the photo was being taken to get this effect.

Slow Shutter Speeds



*Here, we've used the iPhone app **SlowShutter** to simulate a 2 second shutter speed. We move the hand around, and get this special effect.*

Slow Shutter Speeds



If you are experimenting with slow shutter speeds - don't be surprised or disappointed when most shots turn out weird, or unusable - like this one. Just take more!

Slow Shutter Speeds

You've now completed this lesson.

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