

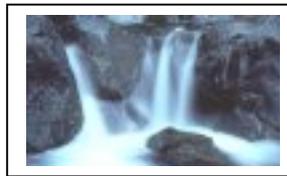
## ACTION AND MOTION PHOTOGRAPHY

There are several basic techniques for photographing motion and action. The method you choose depends on your subject matter and your personal preferences. The results can be realistic or can be an image that can't be seen by the naked eye. Subjects can include sports, quickly moving objects, or natural occurrences such as moving water and wind. Techniques include stopping action, blurring the subject, and blurring the background.

1. Stop action – Use a fast film and the fastest shutter speed you can so that the length of exposure is reduced. A tripod helps.



2. Blur the subject



Use a slow film and the slowest shutter speed you can to lengthen the exposure time. A tripod is very important.

3. Blur the background – Use a slow film and the slowest shutter speed you can to lengthen the exposure time. Follow the subject with the camera during the exposure; a technique called panning. A tripod may help but it is sometimes easier to pan when the camera is hand held or set loosely on the tripod.



Equipment considerations:

1. Filters. You can slow your shutter speed by adding a neutral density filter or a polarizing filter to your lens to reduce the amount of light passing through.
2. Autofocus can make you miss your shot of a fast moving object by delaying the exposure while the camera is trying to focus on a moving target. On the other hand, there are cameras with continuous focus that do a pretty good job. Others have predictive autofocus that allows you to focus on a spot away from the action and take the picture automatically when the moving object arrives. If you are having trouble with autofocus, switch to manual and try to pre-focus on the area where you expect to take the picture or try to follow the action as you focus.
3. Many newer cameras usually function on Program mode. To gain control of your shutter speed, you need to be able to exit from Program mode or, if that is not possible, select a function that increases or decreases your shutter speed. For example, some cameras have a "Sports" mode that automatically selects a fast shutter speed so you can freeze the action. Refer to the owner's manual for your camera.

4. Panned photos are one area where a SLR camera may not be the best kind of equipment. The mirror blocks the viewfinder during the long exposure, so you need to anticipate the action as the subject moves.

Other Ideas:

1. Try to show a sequence with a series of photos of a moving object instead of a single photo. This may help tell a story.
2. You can even make a stationary object look like it is moving by panning at night to create streaks of light.
3. Create star trails by putting the camera on a tripod and locking your shutter open on the B setting while pointing at the sky on a clear moonless night. The earth’s movement will record starlight on the film as curving streaks of light. You will probably need a special cable release and a camera that doesn’t light up in the dark. Older mechanical cameras are great for this. Use fast Kodak film (Fuji tends to turn green during long exposures), a medium length lens, and an exposure from a few minutes to several hours.



Definitions:

1. “Fast” and “slow” film – The higher the ISO number, the “faster” the film is. Fast ISO 400 film is better for stopping action, and “slower” ISO 100 film is better for blurring motion.
2. “Fast” and “slow” shutter speed – Your shutter speed dial may look like this:

Bulb	Whole Seconds				Fractions of Seconds										
B	8	4	2	1	2	4	8	15	30	60	125	250	500	1000	2000

Generally, the higher the shutter speed number, the “faster” the shutter speed. A shutter speed of 2000 means the exposure will last just 1/2000<sup>th</sup> of a second which will freeze movement, and a shutter speed of 2 will last 1/2 of a second and blur movement. However, numbers from 1 second and below are whole seconds, not fractions, and will blur movement even more. B is the setting for flashbulbs (remember them?) and the shutter will stay open as long as the shutter release is held down.