



Motion

▼ Blur



There are two basic ways to handle a moving subject photographically: freeze it with a fast shutter speed or blur it with a long exposure. But there's a little more to successful action photography than that.

Capturing great action moments requires skill, luck and timing. Skill comes with practice—using your camera until setting everything properly becomes second nature. Practice the skills of the action photographer—acquiring the subject through the viewfinder (not an easy task when using a long lens) and tracking the subject accurately with the camera. It can be frustrating at first, but you'll become good at it with...

▲ Coming At Camera



▲ Semi-Freezing Motion, Freezing Motion ▲

Control

Practice, Practice, Practice

Luck is a matter of, well, luck—but it's not a coincidence that the more you practice, the more often you'll get lucky. Another thing that will help you get lucky a lot more often is learning all you can about your subjects. If you want to photograph birds, watch them, read about them, listen to birders and bird photographers you encounter, and practice photographing birds in action. If you want to photograph soccer, watch, read, listen and practice. As your knowledge increases, so will your "keeper" percentage.

If something great happens suddenly, you have to shoot it where it is, from where you are, right now. But often you can check out a location before it's time to shoot. Try to find an attractive, even-toned, distraction-free background with clean lighting. It's difficult to properly

expose a subject that's moving rapidly past alternating bright and dark background areas. With TTL metering, you'll need minus exposure compensation as the subject crosses the dark areas and plus exposure compensation as it crosses the bright areas to keep the subject properly exposed, and you just can't change exposure comp that quickly while panning the camera. If you must work with an uneven background, set the exposure for dark or light, then shoot when the subject is passing that portion of the background.

Sharp Or Blurred?

You'll generally want a sharp rendition of a moving subject, but not always. A long exposure time can be more effective than a short one with some subjects. For example, shooting a photo of raging river rapids at a fast shutter speed

ABOVE, LEFT: A long exposure time (0.7 seconds) blurs moving water into interesting forms, while nonmoving portions of the scene are rendered sharply by the tripod-mounted camera.

ABOVE: The shutter speed needed to freeze a given subject can vary, depending on the subject's speed. Here, a shutter speed of $\frac{1}{640}$ sec. pretty well stopped this dragonfly's wings, while a shutter speed of $\frac{1}{500}$ sec. didn't moments later because the critter was beating its wings faster as it hovered.

LEFT: A shutter speed of $\frac{1}{1000}$ sec. froze this approaching red-tailed hawk.



ABOVE: Most pros use flash to photograph hovering hummingbirds because the brief duration freezes the wings and the flash brings out the colors. But you can stop the wings without flash using shutter speeds in the $\frac{1}{1000}$ to $\frac{1}{4000}$ sec. range that are available on SLR cameras ($\frac{1}{4000}$ sec. was used here).

ABOVE, RIGHT: Like people, birds have their little disagreements. These two mallard moms got into it when one's brood infringed on the other's territory. A few moments later, peace was restored; no harm, no fowl. ISO 800, $\frac{1}{320}$ sec. at f/4.5.



Action Panning

A fast shutter speed will freeze the subject, but also the background, and can result in static “action” images. One effective technique for many action subjects is panning—tracking the subject with the camera to keep the subject’s image in one spot in the finder. If you do this accurately (it takes practice), you can get remarkably sharp images of moving subjects at very slow shutter speeds. The benefit here is that those slow shutter speeds will really blur the background as you pan the camera across it while tracking your subject, emphasizing the subject’s motion and eliminating the static look of action shots made at too fast a shutter speed. Of course, if your subject is moving across a plain background, such as a bird against blue sky, you won’t get the blurred-background effect, so use the fastest shutter speed you can.

To learn what exposure times are best for specific action subjects and situations, try different shutter speeds. Digital cameras automatically record the shutter speeds used for each shot; if you shoot film, you have to keep notes. You’ll soon learn how fast a shutter speed you need to sharply record specific subjects and how slow a shutter speed you need to produce a desired amount of blur for blur-effect images.

Continuous AF

Use continuous AF for action subjects. Not only does this mode continuously focus on the moving subject, but it automatically provides predictive AF (also known as focus tracking) when the camera detects a moving subject. The AF system makes successive focus readings and from those calculates the subject’s speed and direction of movement. The camera’s onboard processor then uses this data to predict the subject’s position at the exact instant of exposure

and adjusts focus accordingly, compensating for the distance the subject travels during the short lag between the moment you fully depress the shutter button to make the exposure and the moment the exposure is actually made.

Track the subject through the viewfinder before it reaches the point at which you wish to capture it, pan the camera to follow the subject’s travel, press the shutter button halfway down to activate the AF system, give the system a moment to do its thing, then fully depress the shutter button to make the exposure as the decisive moment arrives. Keep panning the camera with the subject as you depress the shutter button; if you stop panning as you shoot, the subject likely will blur.

If your moving subject will pass a known point, such as a racing car going through a specific corner or a baseball player stealing second base, you can manually prefocus on that point, then shoot as the subject arrives. This assures sharp focus and eliminates the delay of autofocus. Of course, you can’t prefocus with random action, such as soccer, or with subjects that don’t offer a spot to prefocus upon, such as birds in flight.

Final Thoughts

Not every shot will be perfect. In fact, with erratically moving subjects, such as swallows shagging bugs in mid-air, the success percentage can be quite low. So don’t get discouraged if you have more tossers than keepers—all action photographers do. Your percentage will go up with practice, but there will always be unsharp, poorly exposed and badly framed shots. This is one reason why lots of action shooters have gone digital: the cost per shot is much less. **OP**

will “freeze” the water and turn all that action into a static image. Put the camera on a tripod and use a long exposure time, and the water will blur into a much more interesting form, while the non-moving portions of the scene are sharply recorded by the stationary camera.

Freezing Action

When you want a sharp subject, the simplest way to get it is to use a very short exposure time. This will “freeze” the subject’s motion. In order to use a very fast shutter speed, you’ll need a lot of light, a fast lens or a high ISO setting. Lots of light is the best option because fast lenses are costly and high ISOs reduce image quality. If the light level is too low to permit the desired shutter speed, you’ll have to switch to a faster lens (which is what pro sports and wildlife photographers do) or to a faster ISO. If you need more depth of field than your lens’ maximum aperture provides, you’ll have to go to a higher ISO. (If your subject isn’t too far away, you can use the brief duration of a powerful electronic flash unit to freeze the motion—another technique popular with the pros—but we’re going to stick with ambient-light action shooting here.)

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