

A Tutorial on Panning the Action

Landscapes and flowers make great photo subjects, but let's talk about action for a bit. It's a beautiful sunny day at the racetrack, and you want to capture a moment that will make your gear-head friends jealous.

Camera in hand, you stop your aperture way down to $f/22$, to capture the full depth-of-field. You carefully time your shutter release for the moment your favorite driver fills the frame. And the results are...well, less than thrilling. The background is sharp, the colors look great, but the subject of your photo is all blurry. What happened? Well, the race car was traveling at 100mph, which means in the $1/100$ of a second your shutter was open, it moved about 18 inches, making it a very elusive target!



100mm, $1/100$ s, $f/32$
ISO 100, EC -2/3

Well, knowing you're sitting way up in the stands, and the cars are pretty small, maybe the aperture isn't so important. Trying again, you switch to shutter-priority, and fix your shutter speed at $1/1000$ of a second. The car won't move more than a couple of inches in that brief time. Your in-camera meter sets the aperture at $f/5.0$, good enough.



225mm, $1/1000$ s, $f/5.0$
ISO 100, EC 0

The results this time? Well, the photo is sharp. You can read the lettering on the driver's helmet. But it looks like the racing red Ferrari is standing still! It still doesn't capture the excitement of really being there. We want to bring out all that speed and motion, but without blurring our subject.

Here's where the technique of panning the action comes in useful. The idea is to capture the same background blur that your eyes see when you turn your head to follow the car whipping by. Imagine that the driver's helmet stays dead-center in your frame, and that the car is level for the 1/100s that the shutter is open. If those things are true, the subject will be sharp as a tack. The trick, then, is to move the camera at a speed relative to the subject, to keep your subject static in the viewfinder.

In this example, the car is coming in from right to left. Long before you release the shutter, start tracking the car in your viewfinder. When the car reaches a spot for that perfect capture, press the shutter, but *keep panning!*

Chances are, your first attempt will look something like this blurry disaster.



280mm, 1/60s , f/22
ISO 100 , EC -2/3

Panning Tips:

- To keep your pan smooth, use your whole upper-body to rotate, in one fluid motion.
- Track the car for long **before, and after** the shutter has been opened.
- Press the shutter gently, so you don't introduce any vertical movement into your pan.
- Practice, practice, practice. This is hard, but worth it!



280mm, 1/125s , f/14
ISO 100 , EC -2/3

With a steady hand, a lot of practice, and a little luck, you can capture a crisp subject, with an exciting blurred background. Notice how in this shot, the writing on the wheels is still blurry, adding to the motion effect. Even though you are panning, anything not moving in the same direction and speed as your lens will be blurred.

With some skill, you can effectively pan down to shutter speeds as slow as 1/10s. And remember, you don't have to limit your pans to just horizontal. You can pan diagonally,

vertically, or around in circles. Anything you can follow with your viewfinder, you can pan. For a challenge, visit a local airshow, and shoot planes flying against a sky of spotted clouds.

Technical Tip :

- Some fancier lenses, such as high-end Canon IS (Image Stabilized) and Nikon “VR” lenses, include features that stabilize the image on either both, or just one axis, so you can concentrate on panning on the other axis. In these race car shots, a lens that helps stabilize the vertical movement would be a big help.