



# Using Shutter Speed to control motion

Fast Shutter Speed  
Frozen Motion  
"The Decisive Moment"

Henri Cartier Bresson



Slow shutter speed  
Exaggerated motion - blur  
"Go Fish"

Paul Pearce

**The goal of this assignment is to understand and master the use of shutter speed to control how movement looks within the photograph.**

**You will need a tripod to do this assignment. Use a moderately lit subject, not too dark and *definitely not in sunlight.***

Use the "Equivalent Exposure" wheel to help check your changes in shutter speed and aperture.



**Start (3 exposures)** see how steady you can hold the camera by hand holding the camera and shooting at different shutter speeds. Find a subject that is **not moving** in the shade or indoors. The subject should have strong contrast (strong lines or text) to make focusing easy. Make 4 exposures; Start at 1/30 sec then, 1/15 sec, and finally 1/8 sec. Remember to compensate for the change in shutter speed with the appropriate change in lens opening.

**Next make a series of photos of 3 different moving subjects**

- 1) Find a subject that is moving in moderate light. **Direct sunlight is too bright** to allow slow shutter speeds. If the light is too dim, you won't be able to freeze the motion with a fast shutter speed. Cloudy or shady outdoor light and bright indoor light should work best. The light in our classroom is just about right. Your subject should be predictable and consistent. When starting out you should simplify what you shoot. Pick something that won't stop or move away as you set up to shoot. The lighting should also be consistent.
- 2) Set up your tripod and compose your photograph, framing to concentrate on the motion and eliminate distracting elements. **You will make multiple exposures at different shutter speeds without moving the camera.**
- 3) Use your light meter to determine the proper exposure. Remember, for each photo there is only one proper exposure but there are many combinations of f/stop and shutter speed to choose from.
- 4) Adjust your lens opening (f/stop) to the smallest opening (highest number) like f/16. This will require a long shutter speed to give you the proper exposure.
- 5) Check your meter and adjust the shutter speed to get the correct exposure. Make your first exposure and record your settings.
- 6) Change your lens opening to the largest opening (lowest number) like f/2 or f2.8 and change your shutter speed to get the proper exposure. Your shutter speed should be much faster. Make your second exposure and record your settings.  
**If the lighting is not optimal, you might not be able to use the largest and smallest lens openings.**
- 7) Shoot 2 more exposures that fall between exposures # 1 and # 2 and record your settings- this gives you four shots per subject.

**Now repeat this sequence with 2 more subjects, try for variety.**

**Finish the roll** by experimenting with different shutter speeds and moving objects. Shoot to freeze motion with a sunlit subject and try long exposures in dim light or at night. Develop the roll and be ready to make a contact sheet.

**You will turn in a pair of prints (half sheet size) of the same subject (camera doesn't move ~ only change in shutter speed and aperture) showing the effects of a change in shutter speed.**