

# How to Take Forced Perspective Photos

An explanation of forced perspective and how to use it creatively

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Forced perspective is a photographic optical illusion generally used to make two or more objects appear closer or further away, or of a different size than reality.

Forced perspective in photography is made possible by the single lens of the camera. Unlike your eyes, which work in tandem to create depth perception, the camera only has one eye. As such, the camera has no depth perception and sees things as flat and two-dimensional.

Photographs in which one subject seems to merge with another, and those seeming to depict things or people defying gravity are technically part of this genre of photography as well, though they rely more on orientation and point of view than a true visual compression due to the single eye of the lens.

Indeed, even the "carried away by balloons" illusion technically falls into forced perspective as the angle of view under the subject's feet is compressed by the camera to create the illusion of more height.

## Types of Forced Perspective

Forced Perspective generally falls into a few main categories:

- Making a subject larger
- Making a subject smaller
- Merging subjects
- Defying gravity

## Common Forced Perspective Photos

While the opportunities for forced perspective are nearly limitless, there are some "standard" photos that have become familiar and because of how often these specific types of photos have been copied.

You've likely seen some of these around the internet or on a friend's Facebook or Twitter page:

- Holding or propping up a landmark
  - Holding or eating the sun or moon
  - Holding another person in one hand
  - A toy that larger than a person or pet
  - People hanging from the top of a photo
  - A person stepping on another person
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- An older photograph or a sketch merged over a scene

### How to Take a Forced Perspective Photo

The process for taking a forced perspective picture varies depending on the type of forced perspective image you want to create. As such, I've broken down the instructions below by type of image.

#### Size-Changing Forced Perspective Photo

Depth of field, distance and line of sight are the three main ingredients in a size-changing forced perspective photo. This is the same technique used in the movies for decades before computer graphics came along. *Darby O'Gill and the Little People* is a great example of a movie made using forced perspective.

When creating this type of photo, the subject you want to appear smaller should be further from the camera than the subject you want to appear larger. Distance depends on the size difference you want to achieve. To shrink a pet you might only need 6 or 8 feet. To shrink a mountain you might need a mile or more. The larger the size difference between the actual size and desired appearance, the more space needed.

Most of these photos will be made with a wide angle lens (35mm or less) and a large F-Stop setting. The exact F-Stop required will depend on the distance between the two subjects.

Use whatever setting is needed to put both subjects in focus. If you do not have manual focus control on your camera you can set the autofocus  $\frac{1}{3}$  behind your closest subject because depth of field (DOF) falls  $\frac{1}{3}$  in front of the focal point and  $\frac{2}{3}$  behind the focal point.

Once you have determined the focus for your photo, you'll need to set up the alignment. If the subjects are not touching in the photo, the alignment of the shot is not as critical as it is when the subjects appear to touch.

If you are setting up a photo where the subjects appear to touch, such as one person appearing to stand in another person's hand, you may need a tripod to get the stability you need for fine adjustment to the line of sight so that you don't have gaps and overlaps of subjects in the wrong spots.

### Merged Subject Forced Perspective Photo

To merge subjects, such as the current trend of old photographs held in front of current versions of the same scene, you'll follow the same process as the size change forced perspective photos only instead of emphasizing size differences you'll make the old photo/sketch match the size of the current scene.

Because you'll be holding the old photo/sketch (relatively close to the camera), the large F-Stop (small aperture) and wide angle lens will be especially important to get both items in focus.

### Gravity Defying Forced Perspective Photo

Defying gravity in a photo is one of the easiest forced perspective photographs to create. The basics of a gravity defying photo is to turn the photo upside down or on its side. Subjects will lie down on the ground with their feet on a wall as though they were sitting against the wall, multiple subjects can lie down on the ground at various locations to appear to be flying, or subjects can lean out of doorways to give the illusion of hanging.

Don't be afraid to experiment with your poses to find one that works best. Finding a location that works for this type of shot is the difficult part.

To find a location, look for a spot where a subject can lie down on the ground in such a way that you look like you are sitting against a wall and the camera can be positioned where the wall looks like the floor.

Other good choices for location:

- Piers where reflections mirror the background also work well.
- Long hallways with doors or columns on either side allow subjects to lean into the hallway to suggest hanging or climbing out of the ceiling/floor once the photo is turned.

When you turn the photo's orientation to create the gravity illusion, remember that a straight horizon is very important so that you don't shatter the illusion.

Also, pay attention to the subject's clothing and hair positioning. Hair and fabric that hangs differently than the apparent reality of the photo will quickly shatter the illusion.