

SPYROS HENIADIS
GET OUT THERE AND TAKE SOME DAMN PHOTOS!
SELFHELPHOTOGRAPHER.COM

Shallow Depth Of Field Guide



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What is Shallow Depth of Field?

Shallow depth of field is the technical term for this:



The green background in this photo is a row of pine trees

As a new photographer, you've probably had this happen in your photos before. However, you've probably also struggled to make this happen on purpose. Fortunately, as photographers this is something we can control. In this book, I'm going to show you exactly how to do it. Before we get started, just a couple of notes.

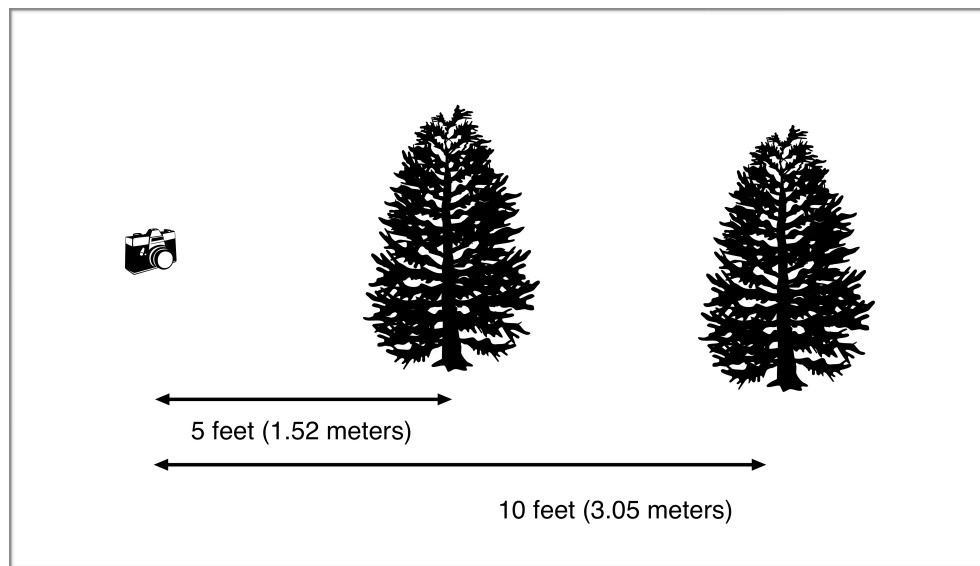
1. This technique works with any camera that has a Manual mode option available on it, but generally speaking, it works best with DSLRs and Mirrorless cameras.
2. Due to the physics of photography, this technique does not work very well with smartphones and point and shoot cameras. Depending on the situation, the effect can be achieved to some degree, but it's much more limited than it is with a DSLR or similar type of camera.
3. Have your camera with you while you read this book so you can follow along with the examples and see how everything works.

Let's get started!

Before we get into the technique itself, it's helpful to understand what Depth of Field is so that we understand what we're controlling.

Depth of Field is the distance between the nearest and farthest objects in your photo that are in sharp and in focus.

When we take a photo, we're taking a photo of a three dimensional scene. That means that the different objects in the scene being photographed are potentially at different distances from the camera.

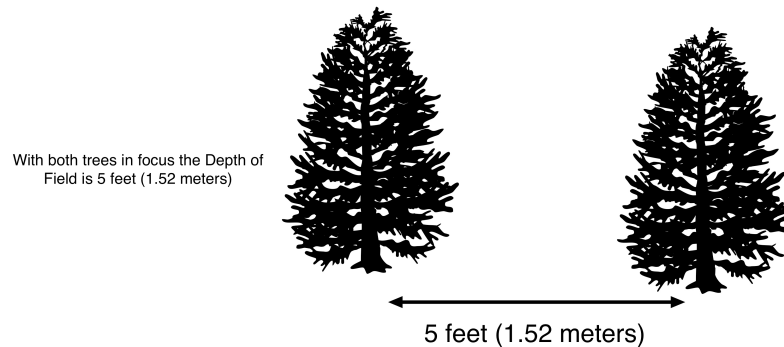


In this example, the first tree is 5 feet (1.52 meters) from the camera, and the second tree is 10 feet (3.05 meters) from the camera. (We're using made up numbers for these examples.)

If you take a photo of this scene and both trees are in focus, it would look something like this:



With both of the trees in focus, the distance between the trees is the distance between the nearest and farthest objects that are in focus, so the Depth of Field for this photo is 5 feet (1.52 meters).

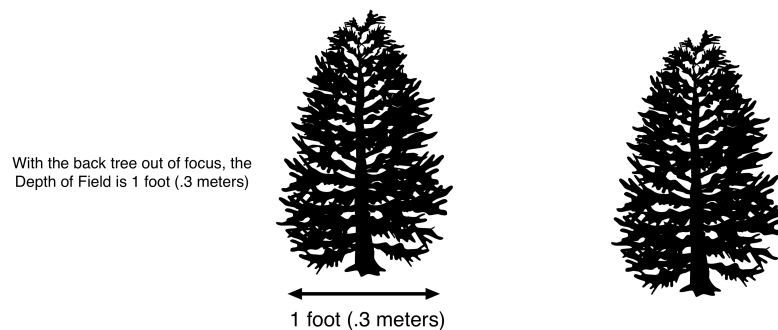


Now if the photo were to look like this, with the front tree being the only tree in focus, we'd have a different Depth of Field.

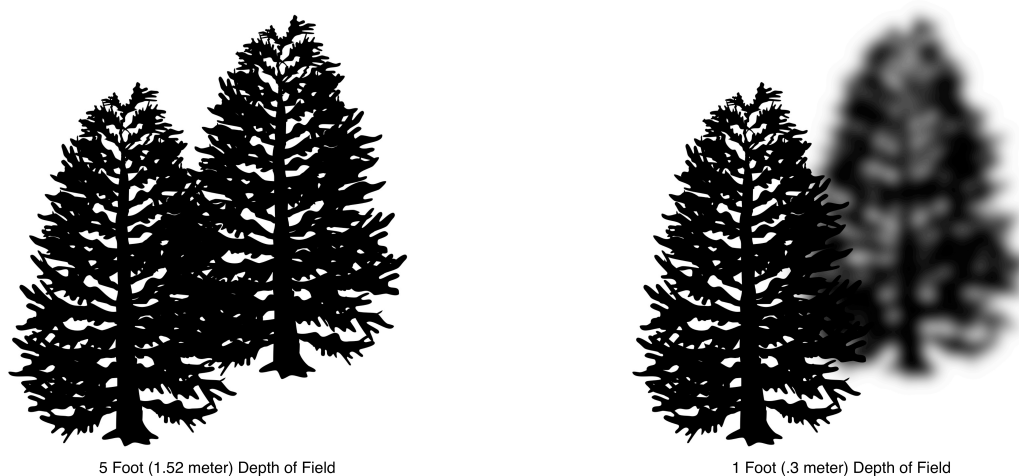


In this photo, the front of the front tree is the nearest object in focus, and the back of the front tree is the farthest thing in focus. If the distance from the front to the back of the tree is 1 foot (.3 meters), then we have a Depth of Field of 1 foot (.3 meters).

With the back tree out of focus, the Depth of Field is 1 foot (.3 meters).



If we compare the Depth of Field for the two photos, the difference is pretty clear.



With a shorter Depth of Field distance, the subject is sharp and in focus while the other objects are out of focus.

This is called Shallow Depth of Field. By the time you finish this book, you'll be able to achieve this effect on purpose anytime you want it.

With a longer Depth of Field distance, the subject and some (or all) of the objects behind the subject are in focus.

This is called Great Depth of Field. By knowing how to achieve the Shallow Depth of Field effect, you'll also be able to achieve Great Depth of Field whenever you want it.

What I'm going to show you is how to manipulate the Depth of Field so that when you focus on your subject everything in the background is out of focus. This will result in beautiful photos that look like these:



WHAT AFFECTS DEPTH OF FIELD?

There are a number of factors that impact what the Depth of Field will be in a photo.
The size of the camera Aperture

1. The distances between the camera and the subject, and the subject and the background
2. The focal length of the lens
3. We'll start with the size of the camera Aperture.

APERTURE AND DEPTH OF FIELD

The Aperture is an opening inside your camera's lens that can change size. If your camera has a Manual mode, then you can control the size of the Aperture.

If you don't know how to change your Aperture or shoot in Manual mode, you can learn how with my Guide to Shooting in Manual Mode Video Course.

[Click here to learn about The Guide to Shooting in Manual Mode](#)

The easiest way to take control of the Aperture on your camera is to put the camera in Aperture Priority mode. This mode lets you control the size of the Aperture while still letting the camera set the other settings for you.

So put your camera in Aperture Priority mode by switching the mode dial to the "Av" or "A" setting. (If you're comfortable shooting in Manual mode, that's fine too. The main thing here is to make sure you have control of the Aperture.)

With the camera in this setting, you now have control over the size of the Aperture in the lens.

To change that Aperture, you just spin your camera's control dial.

On a DSLR, that dial is typically on the top of the camera near the shutter button.

When you spin that dial, you should see a number on the back of your camera changing. *(You can also see the number change in the viewfinder. If you have a top LCD screen, you can see it there too.)*

If you're spinning that dial and nothing's happening, just press your shutter button halfway down to wake up the camera. In order to preserve the battery, the camera will go into a sleep mode and won't respond to certain controls until you wake it up again.

In order to achieve Shallow Depth of Field with your Aperture, you want the Aperture setting on the camera to be the smallest number possible.

The smallest number available to you will vary, so I can't tell you what number to set it to, just that you want to set it to the smallest number possible.

See, when you set it to the smallest number possible that makes the opening in the lens as big as it can possibly be.

The larger that opening is, the shallower your Depth of Field will be, increasing your ability to have your main subject nice and in focus with the background beautifully out of focus.

To test this, here's what I want you to do. If you haven't already done this, grab your camera, turn it on, take off the lens cap, put it into Aperture Priority mode, and set your Aperture setting to the smallest number possible.

Now grab a couple of small objects, like a couple of coffee cups or knick-knacks. It doesn't matter what it is. Just grab whatever is handy.

Set the first object on your desk or table (or the floor!) and then set the second object about 6 inches (15.24 cm) behind the first one and slightly to the side. Make sure that the first object isn't blocking the second one.

Your setup should look something like this (shot from above).



Now set the camera down in front of the objects on the desk/table/floor and take a picture of them. Make sure the camera is focusing on the first object.

The resulting photo should look something like the image below, with the front object in focus and the back object out of focus.



How out of focus your rear object is will vary as compared to this example, but it should be out of focus as compared to the front object.

Now, **WITHOUT MOVING THE CAMERA**, spin that control dial to change the Aperture setting.

Set it to 18 (or f18 since sometimes the number has an “f” in front of it) and then take another picture. When you press the shutter button, be careful not to move the camera or the photo could turn out blurry.

The photo might be blurry because you changed the Aperture and made it smaller. That not only makes the Depth of Field greater, but it also restricts how much light can get into the camera. In The Guide to Shooting in Manual Mode, I explain what you can do to keep the photo from getting blurry.

[Click here to learn about The Guide to Shooting in Manual Mode](#)

The resulting photo should look something like this:



The back guy isn't perfectly sharp, but he's much more in focus at f18 than he was at f5.6.

Again, how in or out of focus the rear object is in your photo will be different than mine, but the rear object should be more in focus in this photo.

This tells us that setting the Aperture to the smallest possible Aperture number will maximize your ability to get the shallowest Depth of Field possible, with just the subject in focus and the background out of focus, like this:



This works because the size of the opening in the lens changes how the lens is able to focus the light coming through it for the photo.

With a larger opening, the lens is less able to focus the light from subjects that are farther away from the point the camera is focused on. As a result, subjects that are farther back are less focused, creating Shallow Depth of Field.

Logically, when the opening in the lens is smaller, the lens is more likely to be able to focus the light from subjects that are farther away from the point of focus, rendering objects in the scene behind your subject in focus, giving you Great Depth of Field.

The Aperture is just the first of three things we can use to control the Depth of Field. What that means is that we can increase the likelihood of getting Shallow Depth of Field by using the smallest Aperture number but, depending on the shooting conditions, this will not guarantee it.

This is where many photographers get lost when trying to achieve this look. To really be able to control your Depth of Field, you need to understand all the factors that impact it. That brings us to Distance.

DISTANCE AND DEPTH OF FIELD

After Aperture, distance has the greatest impact on how great or how shallow your Depth of Field is.

With distance, we're considering two things. The first is the distance between the camera and the subject.

There's not much to explain about distance, just how it impacts the Depth of Field, and it works like this:

The closer the camera is to the subject, the shallower the Depth of Field will be.

The farther the camera is from the subject, the greater the Depth of Field will be.

Let's see this in action. If you don't still have them set up, grab your two objects and set them up like we did before. Again, set the second object about 6 inches (15.24 cm) behind the first one and slightly to the side. Make sure that the first object isn't blocking the second one.

Make sure your camera is on and in Aperture Priority mode. Make sure your lens cap is off and set your Aperture to 8. ***(We're using a smaller opening in the lens in this exercise to isolate the impact that distance has on Depth of Field).***

Now set the camera (on the table/desk/floor) so that it's about 2 feet (.6 meters) from the front object. Focus the camera on the front object and take a photo. It should look something like this:



Now move the camera so that it's 1 foot (.3 meters) away from the front subject. Again, focus on the front subject and take a photo.

It should look something like this:



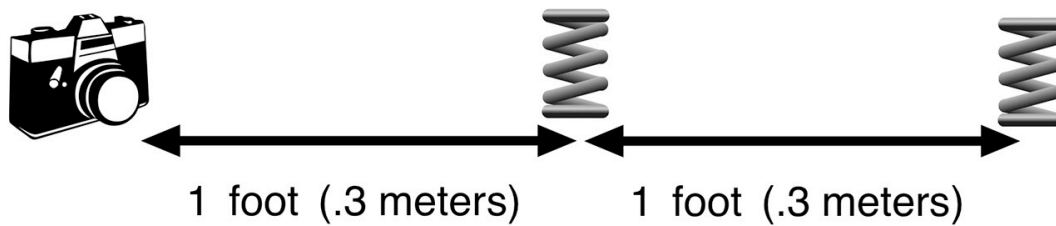
Notice how much more out of focus the rear army guy is in this shot as compared to the previous photo.

What you should see here is that where the camera is positioned in relation to the subject has a dramatic impact on Depth of Field. In fact, I find that the distance between the camera and the subject has a greater impact on Depth of Field than the size of the Aperture does.

So, to get the shallowest Depth of Field possible, position the camera as close to the subject as is possible for the photo.

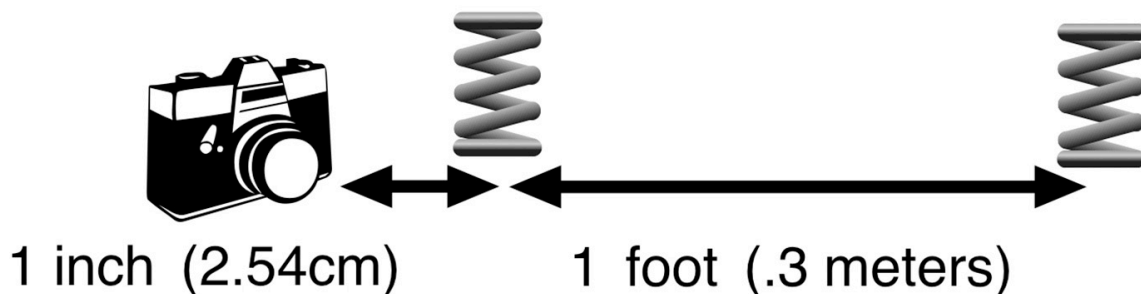
This works by changing the relative distances. The closer the camera is to the subject, the more extreme the distances between the subject and the background become.

For example, if the camera is 1 foot from the front subject and the second subject is 1 foot behind the front subject, the distance between the two subjects is not that great from the camera's perspective.



The camera is already 1 foot from the front subject, so one more foot isn't really that much farther away from the camera. As a result, the camera can focus the light from that back subject pretty easily.

Now, if the camera is 1 inch from the front subject and the back subject is still one foot from the front subject, the distance from the camera to the first subject is very short. That magnifies the distance between the front and the back subjects, making it much more difficult for the lens to focus both subjects.



Using distance to control Depth of Field is highly effective. As I mentioned above, it is sometimes more effective than changing the size of the Aperture. But what's even MORE effective is combining these things which brings me to an important point.

You can stack these control points to make the Depth of Field even shallower.

It works like this. If using the smallest Aperture number possible gives you Shallow Depth of Field, and positioning the camera closer to the subject gives you Shallow Depth of Field, then using the smallest Aperture possible AND positioning the camera closer to the subject will give you even shallower Depth of Field!

Now one other point about distance before moving on to Focal Length.

If you can change the position of your subject as it relates to the background, there's no reason not to.

Here's what I mean. Let's say you want to take a portrait of a person and you want a nice, Shallow Depth of Field background like we've been talking about.

You're shooting outdoors and there's a nice big line of green, leafy trees you're using as your backdrop, which you want nice and out of focus.

If you position the person you're photographing right in front of the trees (say a foot away), it's going to be challenging to get the trees out of focus for that super Shallow Depth of Field look. If you bring the camera super close to your subject and use the smallest Aperture number possible, it's possible you'll get a nice out of focus look.

But if you move the subject forward 5, 10, 15, or even 20 feet from the trees, you've moved the background MUCH farther away from the subject. Doing that AND then positioning the camera in the same spot and using the smallest Aperture number will give you MUCH shallower Depth of Field.

The point is that, in addition to bringing the camera closer to the subject, you can move the subject farther away from the background to get shallower Depth of Field.

Want to see what I mean? Move the back object so that it's about a half inch or so away from the subject and take another photo. The setup should look like this:



And the resulting photo should look something like this:



The settings haven't changed from the last photo we took when the rear guy was out of focus, but now because he's much closer, he's in the Depth of Field area so he's in focus.

As a photographer, you are creating the shot. If you can manipulate something within the environment to make the shot look the way you want it to, you should!

FOCAL LENGTH AND DEPTH OF FIELD

The last thing that allows us to control the Depth of Field is the focal length of the lens.

Zoom lenses allow us to change the composition of a photo by optically changing what the camera can see.

When you have a zoom lens set to a wider focal length, the camera's view is pulled back and you see more stuff in the entire scene. When you set the lens to a narrower focal length, the camera's view is tighter, bringing things that were farther away in the scene into closer view.

So when you zoom your lens out to a narrower focal length, you are optically bringing the camera closer to the subject.

We just learned that moving the camera physically closer to the subject makes the Depth of Field shallower, and the exact same thing happens when you bring the camera and subject closer optically by changing the focal length of your lens.

Note: If you have a prime (non zooming) lens, then obviously this will not work. However, if you have two prime lenses of different focal lengths, it will. If you keep the camera in the same position and change the lenses, you should see a difference in the Depth of Field.

Go ahead and try it. Put the rear subject back away from the front one again, and then zoom your lens (if you have a zoom lens) to the widest angle and take a picture.

Then, without moving the camera, zoom the lens all the way to the narrowest angle and take the picture and compare them. You'll get a result similar to the test we did when you actually moved the camera.



Zoomed wide



Zoomed narrow

And this is stackable too! So if using the smallest Aperture setting and putting the camera closer to the subject (and moving the subject away from the background if possible) all stack to make the Depth of Field shallower, then zooming your lens all the way to add that to the stack will make the Depth of Field even shallower!

PUTTING IT INTO ACTION

We now know the factors that impact Depth of Field and how to control them to give us Shallow Depth of Field so we can get photos that look like this...



...anytime we want.

Now it's time to put these pieces together. We have three main control points for Depth of Field: Aperture, distance, and focal length.

We know that we can stack these for maximum effect, and to that end I have a simple, three step process that will guarantee you Shallow Depth of Field every single time you want it.

THREE STEPS TO SHALLOW DEPTH

1. Set your Aperture to the smallest possible Aperture number.
2. Zoom the lens to the narrowest focal length.
3. Position the camera as close to the subject as possible for the photo (and if appropriate move the subject away from the background).

That's it! You're ready to shoot!

(I put this section on it's own page so you can easily print it out and put it in your camera bag for reference)

CONCLUSION

Following these steps will guarantee that the photo you're taking will have the shallowest Depth of Field that you can possibly get. Knowing how to do this gives you the control to create the photos you want when you want them, but there's one thing to be aware of.

Putting the camera close to the subject and/or zooming the lens both change the composition of your photo. This is something that I don't consider to be a problem because, generally speaking, the closer you get to your subject, the better your photo will be. By getting closer, you're eliminating potentially distracting elements from your photo, putting the focus on your subject which is where it belongs.

That being said, sometimes you need to shoot wider and farther away from your subject to achieve the composition you want. If that's the case, shoot the wider shot for the composition you need. Just realize that in those situations achieving Shallow Depth of field will be limited.

In that situation, you can use the smallest Aperture setting possible and, depending on the scene, you can position your subject farther away from the background. However, outside of that, you're dealing with the limitations of physics, and physics is physics. There's not much we can do about that.

So when you find yourself in those situations, you want to make extra sure that your composition is spot on and that everything you're including in your composition adds to the photo you are trying to create.

Beyond that, you now have the knowledge and control to go out and deliberately create photos with beautiful Shallow Depth of Field whenever you want to. I encourage you to get out there and practice this technique as much as possible.

The more you shoot and use this technique to create Shallow Depth of Field, the better and easier it will be for you to create the photos you want to create.

Now this is just one of the MANY amazing ways to create stunning photographs. Using this technique will help you create photos that will make your friends stop and say, "WOW!"

But if you really want to take your photography to the next level, learning the foundation of photography and how cameras work will give you the real knowledge you need.

What we've done here is given you the ability to take some control away from the camera and exercise it yourself.

When you shoot in Auto, the camera makes all of the decisions about settings for you. By putting the camera into one of the Manual modes and learning how to control Depth of Field, you've taken some of the control from the camera to yourself.

If you'd like to learn how to take full control over your camera and use it with confidence while creating amazing photos, my Guide to Shooting in Manual Mode Video Course can help you do just that.

[Click Here To Get The Guide To Shooting In Manual Mode...](#)

...and then...

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