

# assignment: Focus Stacking

## Focus Stacking

Multiple photos shot at the same exposure, but at different focal lengths

This technique is used to expand the depth of field.

1. Focal length. Essentially the longer your lens, the more shallow your depth of field is.
2. Distance to subject. The nearer you are to your subject, the shallower your depth of field is and it very much applies to macro lens.
3. Aperture settings. The more you open up the aperture of your lens, the resulting image has a shallower depth of field.

The gear you will need to create photos that are good for focus stacking comprise of:

- Digital camera
- Macro lens (well maybe, depending on your shot)
- Tripod

*Matte focusing screen (optional, this is most helpful in macro photography)*

[http://www.learn.usa.canon.com/app/pdfs/quickguides/CDLC\\_FocusingScreens\\_QuickGuide.pdf](http://www.learn.usa.canon.com/app/pdfs/quickguides/CDLC_FocusingScreens_QuickGuide.pdf)

<http://www.focusingScreen.com/privacy.php>

## Shooting the stack

- Start at the far/distant end of the subject and work towards you(does it matter?), ending in 4-8 photos depending on the total size of the piece/object/location you are photographing. Shooting several frames at different focus distances
- Shoot in Manual Exposure and Manual White balance
- Shooting your camera in tethered mode will help you view the sharpness and help you focus on the desired point.*

*Another technique requires you to move the camera to change the focus for macro work.*

You will want to set your camera lens to manual focus and leave the focus ring set to the closest focusing point. On a dedicate macro lens, this would generally mean 1:1 lifesize magnification. From this point forward, you won't be changing your focus by the lens, but rather moving the entire camera forward or backward to get your subject in focus.

## Computer Work

- Load all of your photos into one file, keeping the layers in proper alignment in the order they were shot.

One way to do this -After placing the files in a folder - On the "File" menu, go to "Automate" and then choose "Photomerge." This gets all of our images open and into the same document in Photoshop. Choose "Auto" for Layout, make sure boxes at the bottom of the dialog box are not checked. click OK

- After the layers are aligned, go to Edit > Auto Blend Layers.

Choose "Stack Images" for the Blend Method, Click OK

- Because of the blending, the sides of the final image are often slightly blurry, a simple crop eliminate this. keep this in mind when making your initial composition.

Adorama Photography TV Presents Take & Make Great Photos with Gavin Hoey  
<http://youtu.be/yqAXR94X0T8>

Focus Stacking in Product Photography

Shooting the Stack info here.

Focus Stacking – a macro photography technique, Peter Bargh  
[http://youtu.be/JC3ZmfUnA\\_E](http://youtu.be/JC3ZmfUnA_E)

macro photography

<http://youtu.be/fJiEw4VCcYU>

How To Save Money With Your Macro Photography! (Episode 1)

<https://www.youtube.com/watch?v=UiPzTMUAWs8>

(episode 2)

<http://youtu.be/9J3UQH8TIXo>

Everything you wanted to know about focus

<https://www.youtube.com/watch?v=ar85EOXD9PU>

### **Turn in 3 focus stacked images**

-3 digital focus stacked files on a flash drive

-Files that made up the stack, in a folder titled *work images*

-The 3 images printed on 8.5×11 inch paper or larger

-Type up and print your thoughts/conclusions on your image successes and failures.