

Shooting Process for Getting a Great Photo from Stay Focused

Forward

Stay Focused provides mobile photographers with ultimate control of what is in and out of focus in their photographs. This capability is especially useful on mobile devices since the [aperture](#), which controls the [depth of field](#) on a camera, is fixed on mobile phones. Stay Focused returns control of depth of field to creative mobile photographers.

Stay Focused employs a sophisticated technique, known as automated “[focus stacking](#)” or “[depth of field merging](#),” to combine multiple photographs. Each of the combined photographs is taken with the camera focused at a different distance, and the Stay Focused software can then determine which parts of each photograph are in the sharpest focus and then automatically merge the most in-focused elements together.

We believe that Stay Focused is the first software that supports capture of focus stack projects on a smartphone. Being able to capture focus stacks on a smartphone is a radical innovation.

Capturing focus stacks has historically involved heavy tripods, focus rail systems, DSLR cameras, special macro lenses, external flash systems, special software for controlling focus rails and shooting, and a PC. Not only are these types of setups very complicated and heavy, they are also relatively expensive. Being able to capture focus stacks with a compact mobile device and light tripod represents a significant innovation that puts this technique into reach of many more photographers.



Focus stacking is a more deliberate process than many other types of photography. Patience, and an understanding of the process, will greatly improve results. The technique creates many creative opportunities to capture images that would not otherwise be possible.

The “focus stacking” technique is probably most appropriate to [macro photography](#), but it can be applied to other subjects with good results.



In all cases, Stay Focused is compatible with the use of add-on lenses on your iPhone. Many types of third-party lens attachments are available for mobile devices. The optical quality and capabilities of these lenses vary and will affect the quality of your photographs. If you have specific needs, it may be useful to experiment with several.

Stay Focused can be used for capture of focus stacks for development on your PC with other “focus stacking” software, such as [Adobe Photoshop](#), [Hugin](#), [Zerene](#), and [Helicon](#).

Stay Focused can also provide automated development of your focus stack projects. This is also an innovative feature as developing focus stacks has typically been a manual and somewhat labor intensive process.

Tips for Choosing a Subject

- Stationary subjects will provide the most consistent, best results.
Artistic effects can occur if there is movement in the subject, this is fun to experiment with, e.g. take a look at the grass in the foreground of this [photo](#).
- Subjects where only limited depth of field is needed are likely to work best.
Minor augmentations to the camera's built-in depth of field generally work better than trying to provide infinite depth of field. Non-linear distortions (barrel distortion and vignetting) and other types of issues (focus creep) come into play with longer lens ranges. [This photo](#) is a good example of a composition that has good results over a longer range.

Share Your Results

A [special interest group](#) for Stay Focused has been created on Flickr.

<https://www.flickr.com/groups/2743222@N23/>

Getting Help

Discussions can be held in the interest group on Flickr.

A “[Pro Tips](#)” page is hosted on Catapult’s website.

We also welcome you to contact product support at stayfocused_support@catapultconsulting.net.

Recommended Process for Using Stay Focused

1. Choose a stationary subject.
2. Use a tripod or other means to hold the camera stationary.

3. For vibrant color, photograph in bright light.
4. If shooting a macro photograph, especially through an add-on, third-party lens, zooming the iPhone's lens is probably desirable.
Most third-party party lenses will have more severe optical distortions on the periphery (softer focus, lighting inconsistencies, and blur). Zooming the lens on the iPhone will minimize these effects.
5. Compose the photo so the periphery may be cropped.
Increased blur and other types of distortion may occur on the periphery of the processed photo's frame. Different, third-party lens attachments will have different optical qualities. It may be beneficial to experiment with several if you have specific needs.
6. During composition, "tapping" on the photo will show and hide controls - providing a full view of the composition.
7. Deliberately choose the focus range. To do this, slowly move the near and far focal range boundaries until the near and far areas of interest are in focus.
All photos that are included in the project will be merged during the development process. Photos where nothing is in focus will soften and blur the result. Avoid taking or including photos where nothing is in-focus.
8. Experiment with exposure compensation by moving the exposure compensation slider to brighten or darken the image as-desired.
9. Choose the number of frames. For close (including macro) subjects, more frames are generally desirable. For subjects that are further from the camera, fewer frames are needed. Take an adequate number of slices/frames so there is a continuous transition of focus between images.
A rule of thumb is that something needs to be in-focus in every frame, and ideally there will be components of the image that slowly transition in and out of focus through the stack. This type of scenario improves the software's ability to automatically align the images. It is reasonable to experiment by shooting, inspecting, and re-shooting until this objective is achieved.
10. Shoot.
11. Stay Focused may notify you that some photos were automatically filtered. This filtering is a special feature that may be enabled or disabled in Info->Preferences. Advanced users will probably opt to disable this feature.
Photos being filtered generally indicate one of two things. Either nothing is in-focus in the filtered photo or the contrast in the photo is low. If the issue is the former, you can confirm with the focus slider that the near and far range of focus both have elements in-focus. If the issue is low contrast, brighter light may help. The "focus stacking" software finds edges to decide how

to align the images in your project. Blurry photos or photos with poor contrast provide no distinct edges to assist with the alignment.

12. Having completed shooting, you can review the images in your project. Inspect each image for clarity. Images where nothing is in focus will negatively impact the final image.
13. If you are satisfied with the individual frames, “finalize” the project which will send it to the server for processing if you have automatic project submission enabled in settings.
14. Automated development costs one credit per project, regardless of how many frames are in the project. If the automated development effort fails, the credit is refunded.
15. If you wish, you may export the project for processing with a third-party focus stacking software package (Hugin, Helicon, Zerene, etc.). Stay Focused can be used as a standalone capture system for focus stacks - independently of the automated development services that the app also provides.

It is probably easiest to transfer photos to your PC via “[Air Drop](#).” This sharing capability is an option in the sharing menu when inspecting your project.

Example Photos Taken With Stay Focused



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