

Close Up and Macro Photography

Macro vs Close Up

A close up photograph could refer to a wide range of shooting distances, depending on the context or the subject. Most head and shoulder portrait shots could be described as close up photography but hardly qualifies as a macro shot.

True macro photography captures the subject at life size or larger. In other words the ratio between the subject and the image on the CCD must be 1:1 or higher. The defining characteristic of a successful macro shot is razor sharp focus.

Macro capabilities on prosumer and compact models vary widely, with some capable of distances of 1-2cm and others a minimum length of 10cm. While this does not necessarily preclude good results it does pose some limitations. (Check your manual for your minimum distance)

Digital SLR cameras are capable of using a wide selection of macro lenses with a range in focal length of generally 50mm up to 200mm. Choosing a lens depends on your camera model, the subjects you are most likely to shoot and your budget. Each type of lens has benefits and drawbacks that need to be considered.



FOCUS

Depth of field is a major challenge for macro and close up work. The obvious answer is to make your aperture as small as possible to maximise depth of field however then you have issues with the amount of light available to the sensor greatly decreased. One answer is to use the narrow depth of field to your advantage by throwing the background out of focus which has the benefit of allowing the main subject to become more visually striking and preventing background clutter.

To have greater control of depth of field, a tripod to allow for slower shutter speeds caused by reducing the aperture, and plenty of good light, is essential to retain focus. It is crucial that the camera and the subject is as still as possible to avoid unwanted blur. Even the tiniest movements can ruin an image. A sturdy tripod should help to keep the camera secure, consider using a remote or cable release if possible or you could use the self timer so that depressing the shutter button will not cause unintentional shake. Some DSLR models also have a mirror lock function that while not usually essential may further eliminate the chances of blur as it may cause a tiny amount of vibration, newer models have a delay so that the mechanism doesn't interfere with the shot.

To help with focus, compose your shot so that the camera body is parallel to the length of the subject. This ensures all areas are of equal distance to the lens.

If photographing subjects outdoors, use windbreaks to help protect the subject from movement.

For compact and prosumer models, switch to Macro mode (usually denoted by a small flower symbol) and use your LCD screen to compose. If you have the option use the DOF view to view and consider the composition before taking the shot. Check the result by using the zoom function after the image has been taken and adjust accordingly. If using a DSLR, use a macro lens for best results. Alternatives include extension tubes and tele-converters. Hoya produces a range of filters designed to reduce reflections and increase light transmission.



COMPOSITION

Fill the frame with your subject to capture detail and think carefully about composition and the area you wish to have the sharpest focus. Consider what elements of the image you wish to give importance - texture, colour, shape for example and how you can compose for the best result.

While flowers and insects are commonly the subject of macro work, extraordinary images can be found in a variety of ordinary everyday subjects. Look for abstract appeal in objects, interesting patterns, textures and colour combinations and contrasts.

Consider the background carefully and ensure it complements the main subject.

Avoid cliché's by varying angles for creative shots.

LIGHTING

Good lighting is crucial for macro and close up photography.

The direction of lighting has a huge impact on macro and close up subjects. A bright but slightly overcast day is generally ideal for outdoor shooting, clouds naturally diffuse the light and reduce shadows. With the sun behind you the image will have increased colour saturation however textural detail is likely to be lost. Backlighting will result in more dramatic images with texture and contrast. Side lighting will emphasise texture but the uneven light will have to be carefully handled. Cameras may struggle with exposure contrasts. Natural lighting may also be effectively combined with artificial lighting.

Reflectors and diffusers are an essential tool for macro photographers, allowing some control over the light outdoors and to give effective direction to light indoors.

Flash (particularly on-board flash) needs to be used with skill to avoid bleaching or glare, consider dialling down the flash strength or using a diffuser to soften the light. In a studio type set up, combining natural with artificial lighting is likely to give you the best results. A ring flash is popular with many macro photographers as it provides even lighting across the subject. A twin head flash is also popular as it provides even lighting while generally preserving the vibrancy of the subject. A budget method includes angled lights (like desk lamps) that can be manipulated to provide even lighting.

HOME STUDIO

Few of us have access to professional equipment, one of the great attractions of macro and close up photography is that it actually relies on very little of the latest gadgets and equipment.

A table top studio can be set up at home for just a few dollars. The most crucial element is the lighting. Use a table or space near a source of natural light and supplement with artificial lighting such as desk lamps for example. Ensure the camera has a sturdy position on a tripod or even a stack

of books to eliminate camera shake. To provide a back drop, use card or well ironed fabric propped so it curves for a seamless background. Use something as simple as tin foil to act as a reflector to help get rid of unwanted shadows.

The Cardboard light box project costs only a few dollars and provides an excellent home studio set up



EDITING

Macro and close up work does have its downside - any tiny imperfections in a subject or image are magnified. Post editing work can help improve a macro shot by removing imperfections such as damaged flower petals, scratches or dust.

Sometimes vibrancy is sacrificed for detail. Using your program to enhance the color and saturation can give the image added impact.

Careful sharpening, or selective blurring in post editing can improve the appeal of the image.

Using RAW for shooting macro and close up gives the photographer more control over the final result given this type of photography relies on detail and a precise combination of technical elements.

RESOURCES

Macro Photography for Beginners

<http://digital-photography-school.com/macro-photography-for-beginners-part-1>

Creative Close Up photography by Bryan Peterson (video)

<http://www.youtube.com/watch?v=KqBVWlrHqG8>

<http://www.macrophotography.org/>

http://www.nikonians.org/html/resources/nikon_articles/other/close-up_macro/macro_0.html

http://www.shutterbug.com/refreshercourse/lens_tips/172/

* all images from flickr.com