

# Macro Photography

Purist - Images that are at least life-size on the sensor or film (1:1)

Government workers - at least about half-size on the sensor or film (1:2)

Especially challenging / rewarding

Apertures control depth-of-field (DoF) (which can be very limited)

Shutter Speed controls movement (Subject &/or camera) (magnified)

Special Macro lenses really help:

- Closer focusing capability

- Optimized for close-up sharpness (no zooms)

- Flat focusing design (good for copy work)

- “Fast” apertures (e.g.  $f/2.0-2.8$ )

- Normal to short telephoto focal length (e.g. 50-100mm, 33-67mm-APS)

24  
mm  
or  
~1”



36mm or ~1 1/2”

Special attachments can substitute for a macro lens:

- Extension tubes (lose focusing at infinity)

- Teleconverters (1.4X, 2X) magnify, but same distance

- Close-up “filters” are like cheater glasses for your lens

- Reversing ring turns your lens around for closer focusing



Flashes on hot shoes don't work

- Dedicated macro flash with 2 units or ring around lens

- If a strong light source is available, use a reflector



Use a multi-position tripod for low angle shots (+knee pads)

- Fixed center columns are a problem



Use Depth-of-field preview or zoom on the LCD to check sharpness

The reward is displaying scenes most people don't see 😊😊😊😊😊😊

50mm (100mm equivalent) at f/2.0 from  $9 \frac{3}{8}'' = 1:1$  (equivalent) macro ratio. Note how limited the DoF is, the ruler and surface are out-of-focus, about the thickness of a dime.

