



# Scientific Working Group on Digital Evidence

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## SWGDE General Photography Guidelines for the Documentation of Evidence Items in the Laboratory

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## 1. Purpose

The purpose of this document is to provide guidelines on general photography of items in a laboratory to document the condition before, during, and/or after the analysis of evidence items. The information in this document is intended for photographs that are for general documentation purposes; not comparative analysis.

## 2. Scope

General documentation photographs are those that help demonstrate what the item looks like, capture some attribute or feature of the item that may be relevant, or assist others in understanding the item. General documentation photographs typically fall under notes or work product and generally are not considered evidence or used for analysis, but each organization, municipality, or state may consider them evidence.

## 3. Equipment Recommendations

- Digital camera
  - Point and Shoot
  - Mirrorless camera with interchangeable lens
  - Digital Single-Lens Reflex (DSLR)
- Sturdy tripod or copy stand (optional)
- Flat measurement scales of various sizes
- Digital storage media
  - If using removable media, it should be formatted in the camera prior to each use.
  - If capturing directly to a computer or server, there should be a unique folder (e.g., case number) location where the images are being saved.
- Light sources (e.g., flood lights, flashlights, external flash)



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## 4. Considerations

### 4.1 Number and Type of Photos

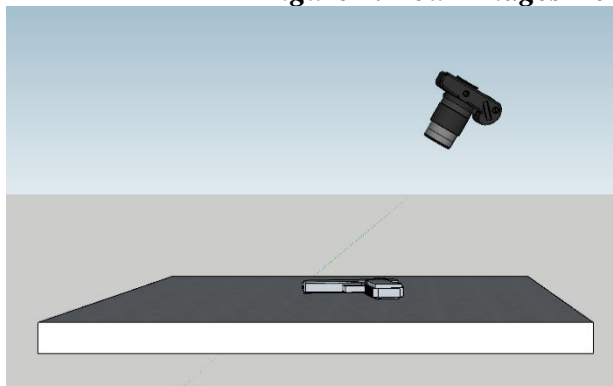
Many items can be documented appropriately with one photograph. Some items will require multiple photographs to capture all the relevant details. This may require taking a systematic series of photographs that start with an overall photograph of the evidence item and progress to mid-range and/or close-up photos, as needed.

### 4.2 Camera Position

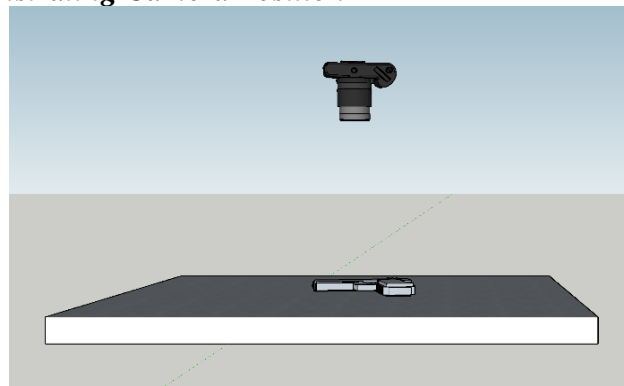
The position of the camera is critical to best portray the item.

Usually, the best position for the camera is directly over the top of an item with the camera perpendicular to the item being photographed. The use of a tripod or copy stand with integrated lighting may be necessary. In some circumstances, the item being photographed will require the camera to be in a different position. An example of this would be a container of liquid that may leak if placed on its side. In that example, positioning the camera so it is perpendicular to the side of the container would be preferred over a top-down image.

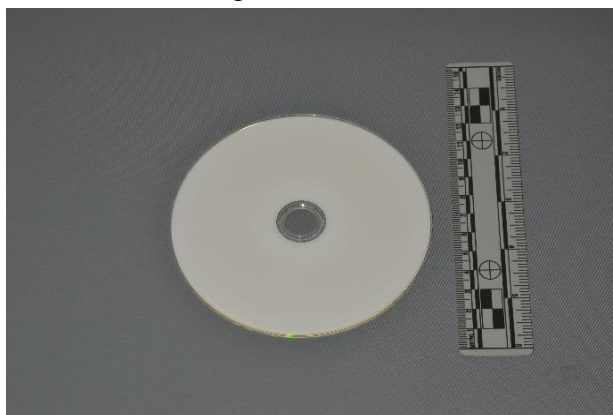
*Figure 1. Four Images Demonstrating Camera Position*



(A) Incorrect angle



(B) Correct angle



(C) Photo taken at incorrect angle



(D) Photo taken at proper angle





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## 4.3 Measurement Scales

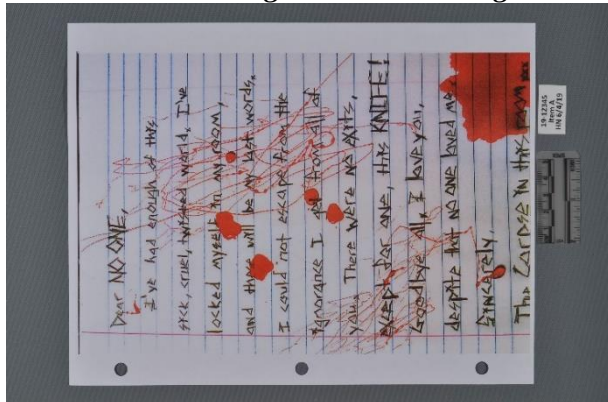
For general evidence photography, the use of scales may not always be necessary; however, when used they provide a way to document the relative, physical size.

The scale should be appropriate for the evidence being photographed (Figures 2A and 2B) and placed on the same plane. If not, the item may appear larger or smaller than physical size (Figures 2C and 2D).

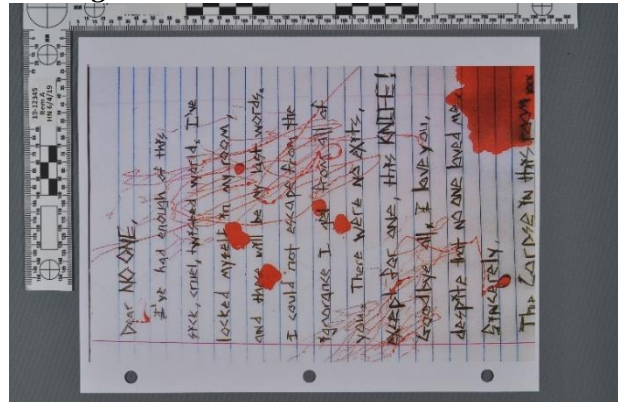
If other features are present (e.g., blood stains, bullet defects, etc.), other scales can be placed on the item to illustrate their size.

The scale should be placed as close to the item as possible without obstructing details. It can be placed on the item itself, as long as the scale does not obscure any pertinent details. If the scale is going to be placed on the item, photograph it first without a scale. Care should be taken not to alter any potential evidence (e.g., latent prints or DNA).

*Figure 2. Four Images Demonstrating Measurement Scales*



(A) Scale is too small.



(B) Proper sized scale.



(C) Scale is at a lower plane than the item (appears smaller than actual size).



(D) Scale is in the same plane as the item (actual size).



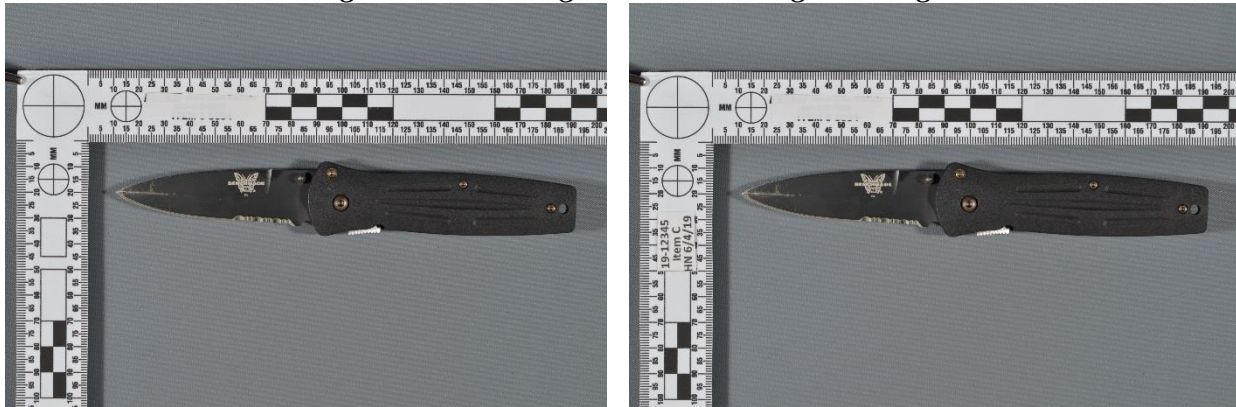
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## 4.4 Labeling and Descriptors

The image should contain descriptors that allow the item to be readily identifiable. Case number, item number, date, initials of photographer, etc. should be included. Labeling the item itself may be an option, but this information can also be placed on a placard within the frame of the photograph. Care should be taken not to alter any potential evidence (e.g., latent prints or DNA).

*Note:* A photo log documenting all of the information above versus within the image is another option to identify the item in the image.

*Figure 3. Two Images Demonstrating Labeling*



(A) No item information in photo, no placard.

(B) Photo with proper item information.



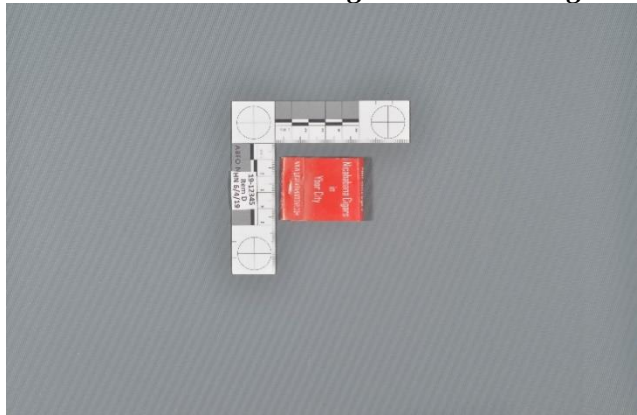
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## 4.5 Framing - Image Composition

The item being photographed should fill the usable area of the viewfinder or image (i.e., filling the frame). By filling the frame, it is maximizing the amount of detail captured by using as much of the camera sensor as possible. The item should be placed on a neutral background of contrasting color. The entire scale does not need to be captured; only enough of the scale needs to be shown to be able to determine the type of units being displayed.

**Note:** Leaving a little space around the edges of the item and the frame will allow for incidental cropping of the image that may occur at capture.

**Figure 4. Two Images Demonstrating Framing**



(A) Frame 25% filled.



(B) Properly filled frame.





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## 4.6 Focus

Having a properly focused image is critical to ensure all of the necessary details are captured. The camera may focus automatically or manually depending on what mode the camera is in. Manual focus is often the most reliable way to ensure there is good focus from top to bottom and from side to side. The focus should be checked either through the viewfinder or the live projection on a screen (computer or camera) prior to capturing the image.

*Figure 5. Two Images Demonstrating Focus*



(A) Out of focus.



(B) Properly focused

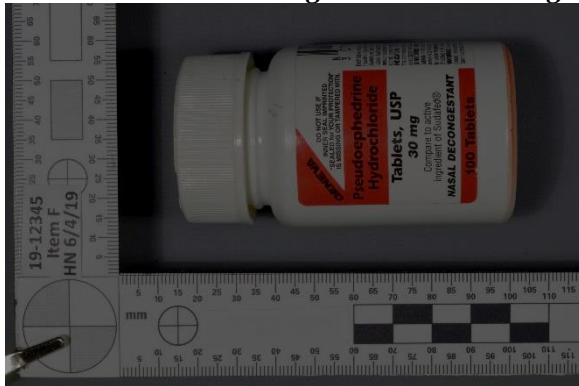


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## 4.7 Exposure

Ensure the item is properly exposed to show all of the details of the object. This can be accomplished in several ways, including the use of a flash, external light sources, or adjusting camera settings.

*Figure 6. Three Images Demonstrating Exposure*



(A) Under-exposed



(B) Correctly exposed



(C) Over-exposed



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## 5. Example of a General Photographic Documentation Procedure

1. Ensure that the camera's settings are appropriate. This includes the camera's time/date, white balance, image file format, image size, shutter speed, ISO, and aperture.
2. Place the item on a flat surface with a neutral background.
3. Place camera perpendicular to the item being photographed.  
*Note:* There may be instances where a different perspective is important and does not allow for the camera to be perpendicular to the item being photographed.
4. Place appropriate measurement scale(s) in the same plane and next to the item.
5. Place a label or descriptor that provides a unique identifier in the field of view for the item being photographed or use photo log.
6. Fill the camera frame and ensure the item is in focus.
7. Ensure the object is evenly illuminated to show detail in the object without distracting or harsh shadows, glare or reflections.
8. Capture and evaluate the image to determine if it is of sufficient quality.
9. Repeat steps as necessary, with appropriate adjustments.
10. Save or delete images in accordance to agency policy.



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### History

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1.0 DRAFT	2018-07-09	All	Initial draft created and distributed for SWGDE voting.
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1.0 DRAFT	2018-11-20	--	Formatted and released as a Draft for Public Comment.
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