

## Illustrated Reference Guide to Using a Digital Camera as a “Size” Gathering Tool

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**PROCEDURE** while taking a picture to measure the size of specific objects:

- 1) **Maximize the optical zoom available on your camera.**
  - Minimizes distortion of objects at different distances from the camera lens.



Compare the size of the nose to the head in the “zoomed in” picture on the top and the wide angle photo on the bottom.

- 2) **Keep the camera lens parallel to the object(s) that will be measured.**
- Minimizes distortion of objects at different distances from the camera lens.



Which picture is useful for making a measurement of the length of the nose? Which is useful in measuring the area of the snout?

3) Fill the picture frame with the object of interest.

- The more pixels used to represent the object allows more details to be seen.



Which picture would be easier to measure the length of the belt buckle?

4) Put a scale of known length in the same plane as the picture.

- To make more precise measurements, use a scale that is comparable in size to the object of interest. For example, if you were taking a picture of a tree to measure its height, you might use a 2 m pole rather than a 20 cm ruler.

- Put the ruler *parallel* and *in the same plane* as the objects you are interested in measuring. Notice what 1 inch represents on the pig in both pictures below.



5) If possible, place a simple colored background behind the object of interest to make measuring easier.

- It will be easier to see the edges.



#### TIPS:

- Use a resolution between 800 x 600 (about one half megapixel) to 2 megapixels since the analysis software with some older computers or those with limited memory, at this time, cannot process larger images larger.
- Take 3 pictures of each situation.
  - Maximizes chance that at least one photograph will be in sharp focus.
- Use a tripod.
- If taking images of similar objects, be as consistent as possible:
  - Try to keep camera the same distance from each object.
  - Try to use the same lighting conditions.
  - Don't change the camera settings for different pictures.
- Take detailed notes of each picture.
  - Time of day, sky conditions, direction camera is pointing, camera settings.
  - Consider creating a template of data to be written down and print many copies before going into the field.
- Put a label of the object in the picture - makes organizing pictures easier.

## Quick Reference Guide to Taking Digital Photos for Size Measurements

- 1) Maximize the optical zoom available on your camera.
- 2) Keep the camera lens parallel to the object(s) that will be measured.
- 3) Fill the picture frame with the object of interest.
- 4) Put a scale of known length in the same plane as the picture.
  - Use a scale that is comparable in size to the object of interest
  - Put the ruler *parallel* and *in the same plane* as the objects you are interested in measuring
- 5) If possible, place a simple colored background behind the object of interest to make measuring easier.

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