

HOW TO USE A 'POINT AND SHOOT' DIGITAL CAMERA TO PHOTOGRAPH YOUR 3D PACKAGE

In a point-and-shoot camera, by default, the flash is set to go off. For product shots this is not desirable because it reduces detail, so disable the flash.

Approximate file sizes

- 6M = 2832 x 2128
- 3M = 2048 x 1536
- 1M = 1280 x 960

Image Quality (in camera)

- High Note that .jpg compression makes file sizes smaller by throwing away color information
- Medium
- Low The quality decreases the lower you go

Minimal Focal Distance

If you get in closer than three feet, the image will likely be out of focus, so use the close-up icon (on most cameras the close-up icon looks like a little tulip). This allows you to get from approximately 3" to 2 1/2' of your work.

Problem!!! If you hold the camera back 3' and zoom the exposure will probably be lengthy (especially under artificial lighting and you're likely to shake the camera, so if you have a tripod, use it!!!!

ISO setting

- The ISO is a sensitivity setting (this is kin to film speeds for film-based cameras).
- Under low light you can set sensitivity to faster shutter speed, but be careful...you may end up with more visual "noise."
- i.e. 1600 ISO will allow you to take a photograph under candlelight but the quality will be very poor.
- Rule of thumb is to use a setting of 400.

Check the three following settings

- size of image
- focus (be aware of *minimal focal distance*; take some test shots to find where is sharp focus)
- sensitivity (this is equivalent to ISO; with increased sensitivity you can use less light). Take the camera's meter reading, then bracket (take three shots: the first, one shutter speed up from meter reading; the second shot at meter reading and the third shot one reading down from meter reading)

Lighting

- The goal is to emphasize the product; the best lighting is outdoors in open shade (i.e. north side of a building in a shadow (this is actually what you're attempting to produce in a studio).

RAINING? Then stay outdoors, but go under a porch roof. This is better than indoors!

BE AWARE!!! Under artificial lighting the color balance may be very poor. Room light often appears fine to us, because our eyes acclimate quickly. Don't be fooled!!!! THE BEST LIGHTING IS OUTDOOR LIGHTING!!! Outdoors the depth of field increases (depth of field is the zone that's in focus). AVOID PHOTOGRAPHING LATE IN THE DAY, such as around sunset.

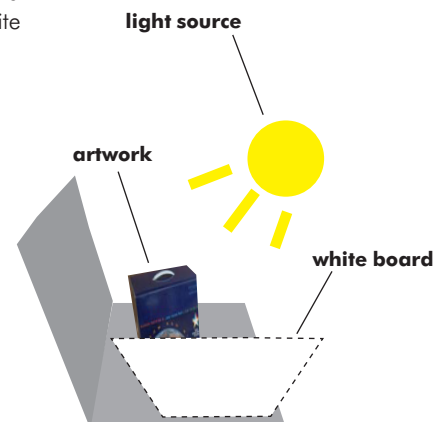
STUCK INDOORS? Then use a room with a skylight, or set up next to a big window (but watch out—never in direct sunlight or you'll significantly lose detail and lose highlights).

Light Source and vantage point

- A soft, diffused reading light, approx 60 watts (not brighter or you'll overexpose and lose highlights).
- Inexpensive metal clamp lights from a hardware store work really well!
- Turn off all room lights. Position the light source at a 45° angle towards the subject; off to the right or left and high (to simulate the sun) and slightly in front of the artwork. Place each light at equal distance from the artwork. Make sure that the lights are pointing correctly
- If you have only one light source, put a piece of white mat board (or wrangled tin foil, crumpled then re-flattened) on the opposite side from the light (see diagram)

Surface

- Set up a NEUTRAL area around the artwork (see diagram)
Black or white or grey DULL mat board is great (don't use a glossy surface). Dull black mat board is the ideal; it helps to eliminate shadows.
- For a seamless look, try a piece of paper to 'drape' behind and under the package.



Camera

- Shutter Speed: no less than 1/30 second (anything less and you may shake). Check the shutter speed when you zoom in. You may need to zoom out a bit to increase shutter speed to eliminate camera shake. OR...use a tripod or something firm upon which to set your camera.

Resolution for photographs of your packages

- *Never, ever, ever, never enlarge your image in Photoshop!!!!*
- Remember!!! 150ppi (inkjet printer)
300 ppi (somewhat better than inkjet)
72 ppi (awful prints)
- Remember!! There is a correlation between image size and resolution!
In Photoshop 2CS, image quality may be enhanced with
Image > Adjustments > Exposure
> Photo Filter
> Shadow/Highlights

Example

3M = 2048 x 1536.

2048 – 150 ~13.6

so @ 3M (2048 x 1536) ~ 13.6" x 10" at 150ppi will be the maximum size for a good-quality print.

To test your print for best ppi...

1. Take a photograph, i.e. of a person's face (a face has a value range from lights to darks)
2. Scan the photograph at the same size but different resolutions
 - i.e. 3" x 4" @ 72, 150, 200, 300
3. Save the photographs as .psp and .tiff
4. Print the .tiff images, mark them to keep track of ppi, and compare for quality

(Notes taken from 20 July and 23 Nov 2005 presentations by guest lecturer Gary Stanton)