

## Setup for Image Capture

- Set light distance at 3-4 times the diameter of the object (or portion of object) being shot
  - Position spheres where they can be easily cropped out. Check for shadows from spheres, sphere stands, tripod legs
- Camera settings
  - Set to never turn off
  - Set camera to Manual mode
  - Set approximate focus using Autofocus
- Final camera adjustments.
  - If using LiveView, leave lens in Autofocus mode for adjustments, then switch to Manual focus just before the capture
  - Otherwise, change to Manual focus and make adjustments using test shots. Use the camera control software to make sure the test images go into a test directory
    - Make sure the reflective spheres are completely within the frame of view
    - Check focus at full resolution - checking the surface you are interested in, and the spheres
    - Check exposure at highest light position (65 degrees) and lowest light position (15 degrees). Check histogram to make sure nothing is burnt out and every image has some usable data.
    - Check histogram in ambient light (shoot without flash or lighting, with shutter and aperture set as for the real sequence). If necessary, use neutral density filters to block ambient light, and recheck lighted exposures with filter.
- Just before starting capture sequence
  - Set camera lens to manual focus if needed
  - Set image quality to raw
  - Set the file name and where to download the files in the capture software
  - Update shooting notes with string length, flash information (type and setting) who is performing the different roles, anything else worth noting.

## Capture Sequence

- Move the light to positions in an arc from 15 degrees to 65 degrees (where 0 is the horizon, and 90 degrees is high noon of your virtual hemisphere)
- Use a string to keep your distance steady (it doesn't have to be perfect, just close)
- Do not touch or move camera, spheres, or subject, or let the string touch them. Do not bump cables.
- If anything other than the light moves, start the sequence over
- If a hand, person, shadow from tripod leg, etc. is in the image, or the flash does not fire, just keep going, and remove the image later. Try to reshoot that light position as appropriate.
- Shoot a gray card if there isn't a piece of one in the image. You may also wish to shoot a color chart.

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