

DAM 110 - Week 14 - How Digital Cameras Work, and Correcting Lens Flare & Glare

Mendocino College - Digital Image Manipulation with Photoshop



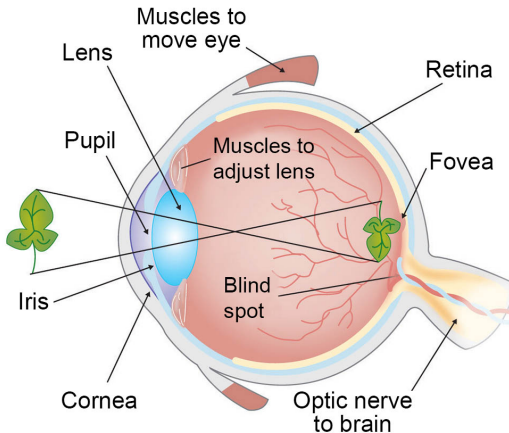
Adobe Photoshop CC

Lecture Topics for the Week

- How Digital Cameras Work
- Correcting for Lens Flare
- Fixing Glare in Glasses

How Human Eyes Work

- Iris
- Lens
- Rods and Cones

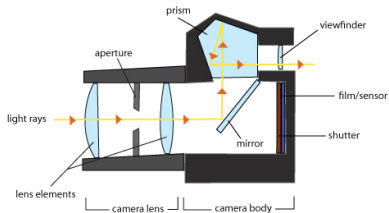


How Film Cameras Work

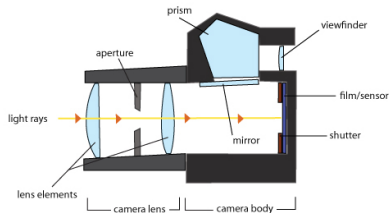
- Lens
- Aperture
- Film ISO speed

How an SLR Camera Works

Viewfinder Mode: mirror down

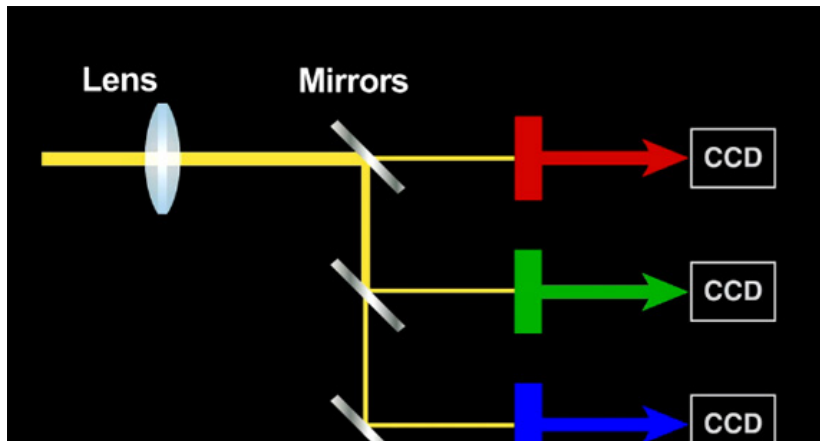


Picture-taking Mode: mirror up



How Digital Cameras Work

- Sensors
- Photosites
- ISO Rating



What is Lens Flare?



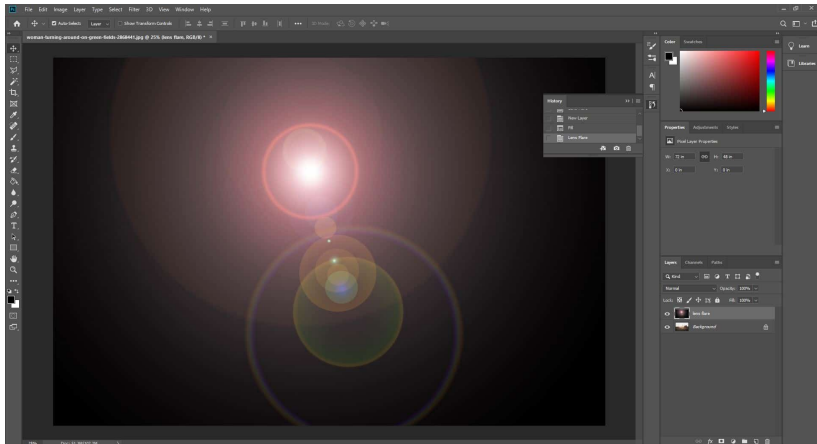
How to Avoid Lens Flare



Using Lens Flare



Adding Lens Flare



What is Glass Glare?



How to fix Glass Glare



Exercises for the Week

- Practice Exercises this week:
 - Fixing Lens Flare
 - Adding Lens Flare
 - Removing Glass Glare
- Make a contact sheet with all of the original photos, with your modified images.
- Submit the Contact Sheet

Assignment

- Two Final Mini-Project Images
 - Explain the changes you made.
 - Add your logo and post them to your portfolio site.
 - Submit the URLs to your images

Articles/Videos

- How Cameras Work
 - By: Tom Harris
 - Pages: 17
 - <https://electronics.howstuffworks.com/camera.htm>
- DIGITAL CAMERA SENSOR SIZES
 - By: Cambridge in Colour
 - Pages: 9
 - <https://www.cambridgeincolour.com/tutorials/digital-camera-sensor-size.htm>
- How do digital cameras work? — James May Q&A — Head Squeeze
 - By: BBC Earth Lab
 - Duration: 4 minutes 34 seconds
 - <https://youtu.be/lc0czeUJrGE>

Research Topics

- Iris (human eye)
- Lens (human eye)
- Cornea (human eye)
- Pupil (human eye)
- Fovea (human eye)
- Retina (human eye)
- Rods (human eye)
- Cones (human eye)
- Light
- Lens (camera)
- Film
- SLR (Single Lens Refractor) Camera's
- DSLR Camera's
- Negative (film)
- Negative (digital)