

Digital Single Lens Camera

Objectives

- What is it and its advantages
- Who needs/wants it
- Which one to buy

DSLR Characteristics

- Removable lens-wide range of focal lengths available, fixed and zoom
- Compose through the lens
- Larger sensor

DSLR Advantages

- Higher quality pixels
- More control for the photographer
- Wider range of apertures and shutter speeds
- Better continuous shooting modes
- Better manual focus

DSLR Advantages

- Higher build quality
- Wide range of accessories
- No shutter lag
- Instant start-up
- Accepts powerful and smart flashes

Better Pixels

- Larger sensor photo sites and spacing
- Less electronic noise and photo artifacts
- Higher ISO with good images
- Able to get larger, quality prints

Typical Digital Sensors

Camera Type	Sensor Size, inches
35mm, Pro DSLR	1.42 x 0.94
APS-C, Prosumer DSLR	0.94 x 0.63
Prosumer, big zoom lens	0.35 x 0.26
Point and shoot, compact	0.16 x 0.12 0.28 x 0.21

DSLR Choices

- Professional, full frame 35mm size sensor
- Prosumer, APS-C size sensor, crop factor when using standard 35mm lens. New designs for this sensor are more compact

Crop Factor in DSLR

- Determined by sensor size relative to 35mm sensor
- Converts 35mm focal length to actual
- Example Canon 20D: 1.6 crop factor
 - 50mm x 1.6 = 80mm
 - 17mm x 1.6 = 27.2mm
 - 300mm x 1.6 = 480mm

Why should I buy?

- If you want more control
- Better quality image for printing
- Special effects, e.g., best macro, night, fast action, big landscape photos, control depth of field
- If you are a serious photo hobbyist
- Must know your photography style

Which one to buy

- Full frame for highest quality and no crop factor
- APS-C for lower cost, but still high quality pixels
- Talk with owners and go shoot photos with them

Which brand

- Most are good
- Canon and Nikon are the leaders, both are long time camera companies vs. the electronics companies
- Canon and Nikon have the widest selection of lens and accessories and the best menus, manuals, and tech support
- And used by more professionals

When to buy

- Any time, you can't time the market-it's changing too fast. Lowest price when a new model is released.
- Manufacturers see the DSLR as a growing market with better margins and they are producing more models and features to attract buyers

Resources

www.dpreview.com Best camera reviews
www.megapixel.net Articles and Glossary
www.steves-digicams.com Reviews
www.bobatkins.com/photography/ Reviews

See Digital Camera SIG website for Tim Grey link and his 1/19/06 newsletter on Better Pixels

Jim Bilbro
December 4, 2006
Sun City Computer Club Meeting