

- FRAMING
- CAMERAS

← Start of Photology  
Basics

- Lenses
  - Lens laws
  - Typical lenses
  - Focal lengths
  - Aperture

M, W 4:30-5:30 ECME220

Latte Break 4-4:30 all are welcome

Upgrad needed  
11-12 on Thurs?

# PHOTOGRAPHY FUNDAMENTALS

Minute Paper - What questions do you have about your camera?

- 1) FRAMING
- 2) Camera TYPES
- 3) LENSES
- 4) EXPOSURE CONTROL
- 5) RESOLUTION

RTFM  
Read The  
F  
Manual

## HOMEWORK

## 1) FRAMING

# #1 Rule of Photography

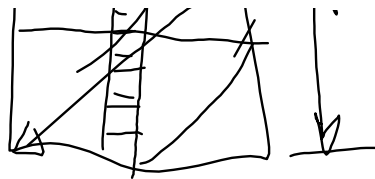
Make the SUBJECT FILL THE FRAME

- Mask off distracting features
  - Keep a scale
- Photograph a ruler

↗ Field of view FOV



Field of view **FOV**  
 "top to bottom x cm"



WORK IT

**POV = Point of View**

Change perspective

Mirror to see back side

change lighting

MANY pictures different realizations  
 Trials

Consider stereo

Video - few seconds or minutes

Consider motion - see whole track  
 Zoom in

TAKE LOTS of images

TWEAK framing **POV & FOV**

## 2) CAMERAS

SLR

VS

Point + Shoot

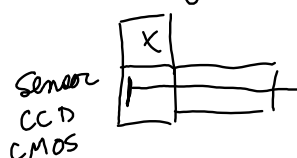
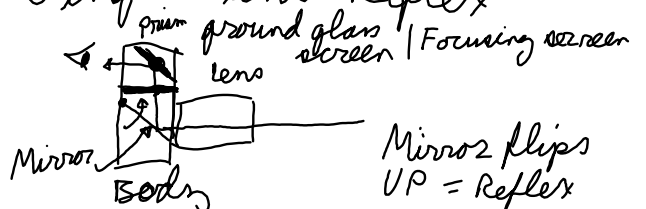
PHD

Push Here Dummy

8

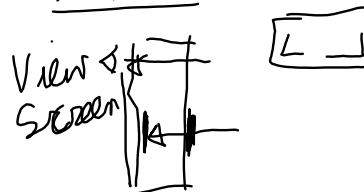
15

Single lens Reflex



Long exposures  
 need to Lock Mirror  
 UP

PHD




SMALL SENSORS

No lens choice


## 3) LENSES

Defined by FOCAL LENGTH & Aperture

5 - 60 mm 1:3.5 - 5.3

W	T	
28-135	3.5-5	Apertures
10.5	f/2.8	Focus info
<u>28-200</u>	 0.45m / 1.5ft	1.35-3.6
5.9-25.9mm	1:3.8 - 4.8	

FOCAL LENGTHS

$f \equiv$  distance from Lens to Sensor 

FOCAL LENGTH  $f \uparrow$

Far objects seem closer

Zoom in  0000

T	W
Tight	Wide
Tele	
LONG	SHORT

ZOOM = Range of focal length  $f$

Next: Lens Laws