

- The eye gathers patterns of reflected light which the brain translates into images we see
- Still Film Cameras record light patterns on film coated with light sensitive chemicals
- Convex lenses (curved outwards) invert images
- The brain and cameras turn images right side up again



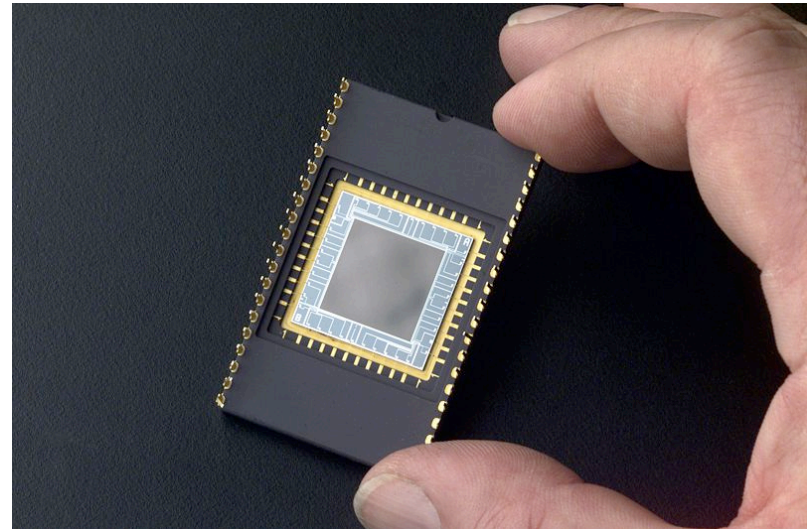
- Record images in the same way as still film cameras they just do it more often
- Eight mm: 18 fps
- 16 and 35mm cameras take 24 fps
- When pictures are projected onscreen they give the illusion of continuous motion



- The viewer's mind fills in the gaps between the individual frames due to this physiological phenomenon



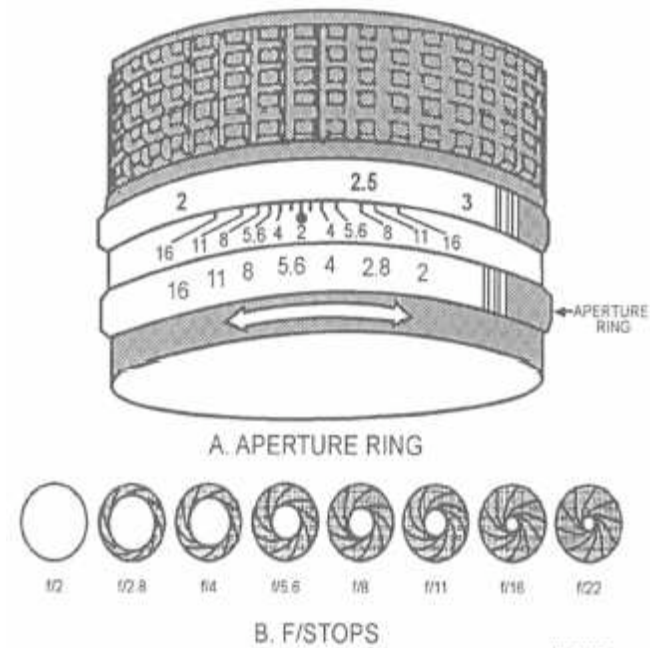
- Lens focuses light patterns onto a light-sensitive surface made up of small flat chips called CCDs
- Each CCD contains thousands of tiny light-sensitive areas (pixels) which change according to the color and intensity of the light hitting them



- Images are electronically collected off the chip at the rate of 25-30 fps
- At the viewfinder or TV set the process is reversed to recreate the original image
- Persistence of vision causes the viewer to perceive the separate pictures or frames as continuous movement.



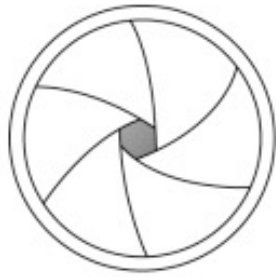
- Amount of light that comes through the lens and hits the film or CCD chip
- The hole in the center of the lens that the light travels through is the aperture
- F 2 means that the aperture is 1/2 as big across as the lens is long--16 is 1/16
- 1 stop lets in twice as much or 1/2 the light



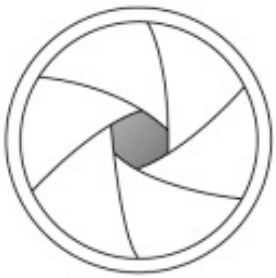
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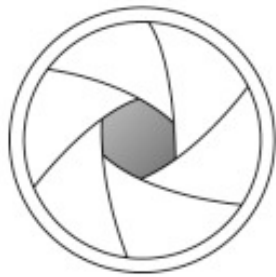
f/16



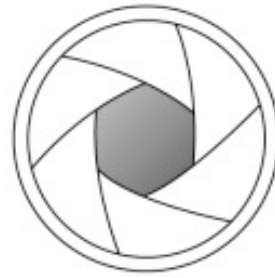
f/11



f/8



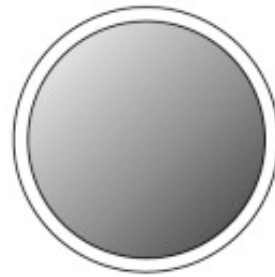
f/5.6



f/4



f/2.8



f/2

Three Factors that Determine Depth of

- Lens Type (Focal Length)
- Distance from Subject
- Aperture

Lens Type



f/ 2.8



Shallow Depth of Field



COLOR TEMPERATURE

- COLOR FILMS AND CCD CHIPS CAN ONLY HANDLE ONLY ONE COLOR OF LIGHT
- COLOR FILTERS ARE USED TO CONVERT THE EXISTING LIGHT TO THE COLOR TEMPERATURE REQUIRED



- Color films and ccd chips can only handle only one color of light

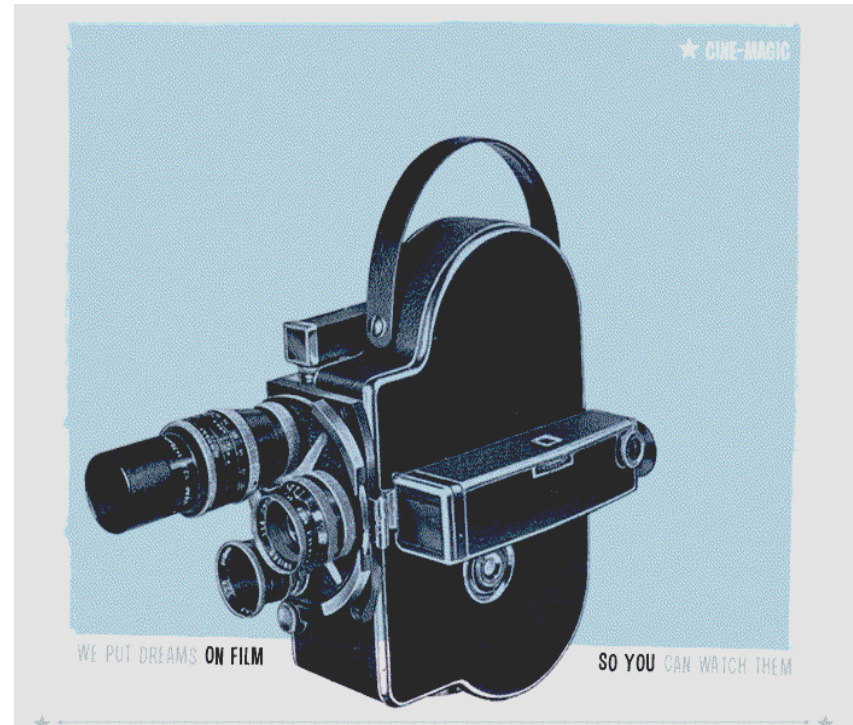
- Color filters are used to convert the existing light to the color temperature required



- **ENABLES AN “APPALLING LACK OF DISCIPLINE” ON THE PART OF THE SHOOTER.**

- **NOT ENOUGH FINANCIAL PENALTY FOR SHOOTING POORLY**

- **THE EXPENSIVE 16MM DOCUMENTARY HAS GONE**

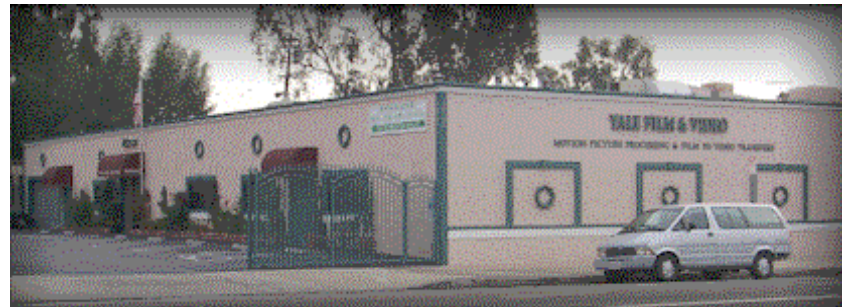


- **F-STOPS**
- **SHUTTER SPEEDS**
- **FILM EMULSIONS**
- **INCIDENT VS REFLECTED**
- **NOW YOU HAVE TO DO IT ALL!**
- **AND NOT FOR MUCH MONEY!**

- **NEED TO TELL A COMPELLING VISUAL STORY**
- **ADEQUATE COVERAGE: “THE RANGE OF SHOTS NECESSARY TO ASSEMBLE A FINISHED SHOW”**
- **A SUCCESSFUL SHOOTER EDITS AS SHE/HE IS SHOOTING**
- **OTHER WISE THERE WILL BE**

■ [HTTP://
WWW.YALEFILMANDVIDEO.CO
M/](http://www.yalefilmandvideo.com/)

■ **100' = ABOUT 3 MINUTES**





EXCLUDE

EVERY ELEMENT OF COMPOSITION IS THERE FOR A REASON
EXCLUDE IRRELEVANT STORY ELEMENTS

- Every Element of Composition is there for a reason
- Exclude irrelevant story elements

