Film Making Workshop I: The shoot

Question of methods:
St. John Ambulance vs The Karate Kid

Earning the  

- Workshop 1 (2 hours): Film making technologies and techniques (with shoot)
- Workshop 2 (2 hours): Editing and sound design
- Practical Time (4 hours): Film making project(s) with demonstrated incorporation of workshop learning
  - Video output
  - Short (a paragraph or two) explanation of technologies and techniques employed and lessons learned

Planning a video

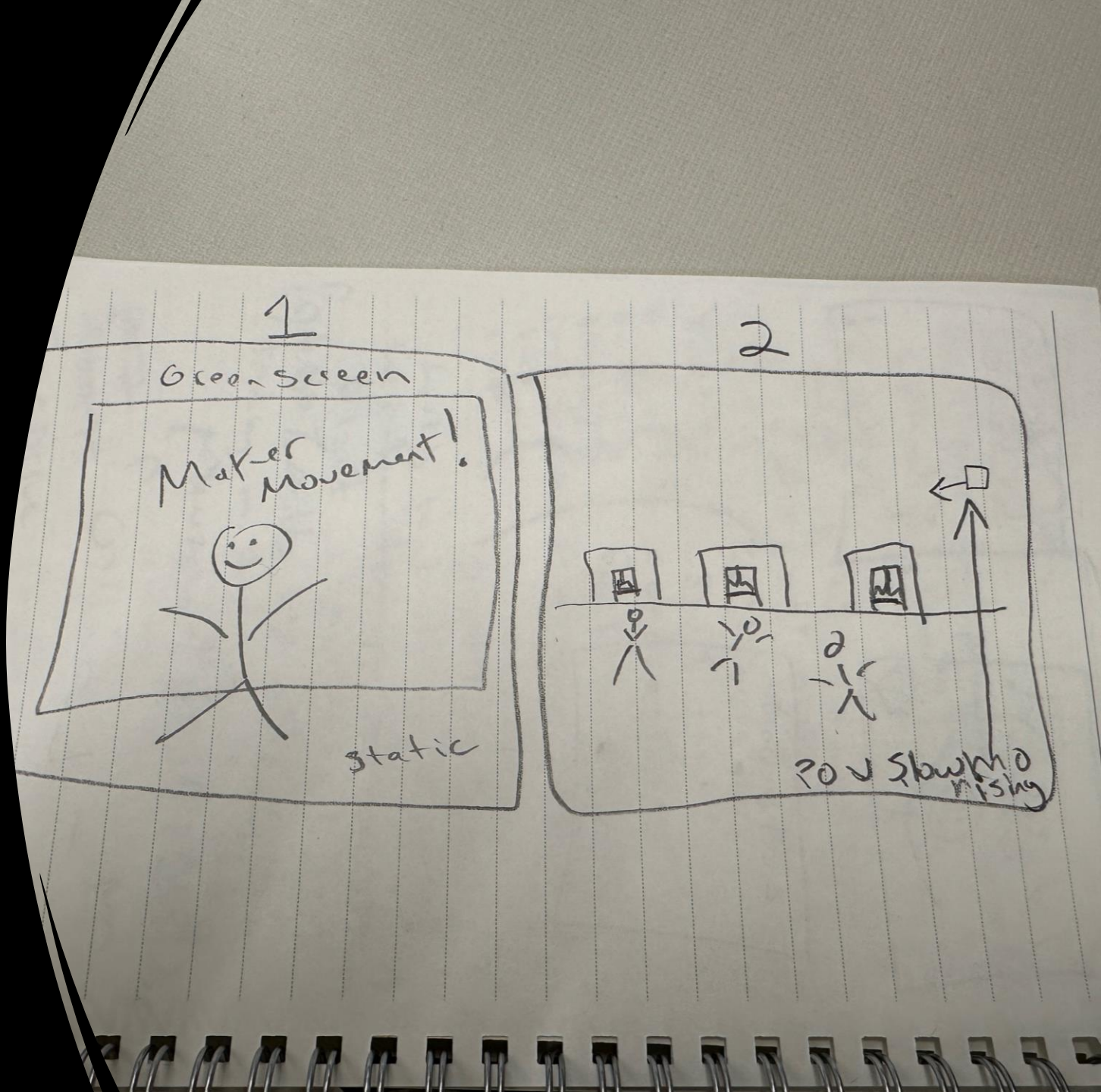
- What stories would you like to tell (purpose) and what resources do you have (means)?
- How will you structure your story – what are the parts, and in what order will they appear? Story board it ----------→
- Will you use narration, subtitles, music?
- Which images will you use?
  - Still? Moving? Fictional representations? Documentary images?
  - Which words/sounds will fit with the images you choose?
- Who will assume which role(s)?

This way home!

- Documenting and promoting a 3D design / printing workshop with confidence and community building objectives
- HD resolution, 30 FPS, landscape orientation
- Audience: students, with a focus on international
- Multi voice narration (overdub)
- An iteration of: https://youtu.be/dzGSczjkxjA?si=bZSFlSNtDOXgawmX

Shot list

- Sequence of video clips to be captured
- Details about composition, movement, perspective
- B-roll is included but some can be looser and spontaneous
- Most efficient order for shooting (vs. following the video's timeline)



WELCOME TO YFC!

Green Screen Static/tripod

“You’ve come from afar full of ambition and hope.”

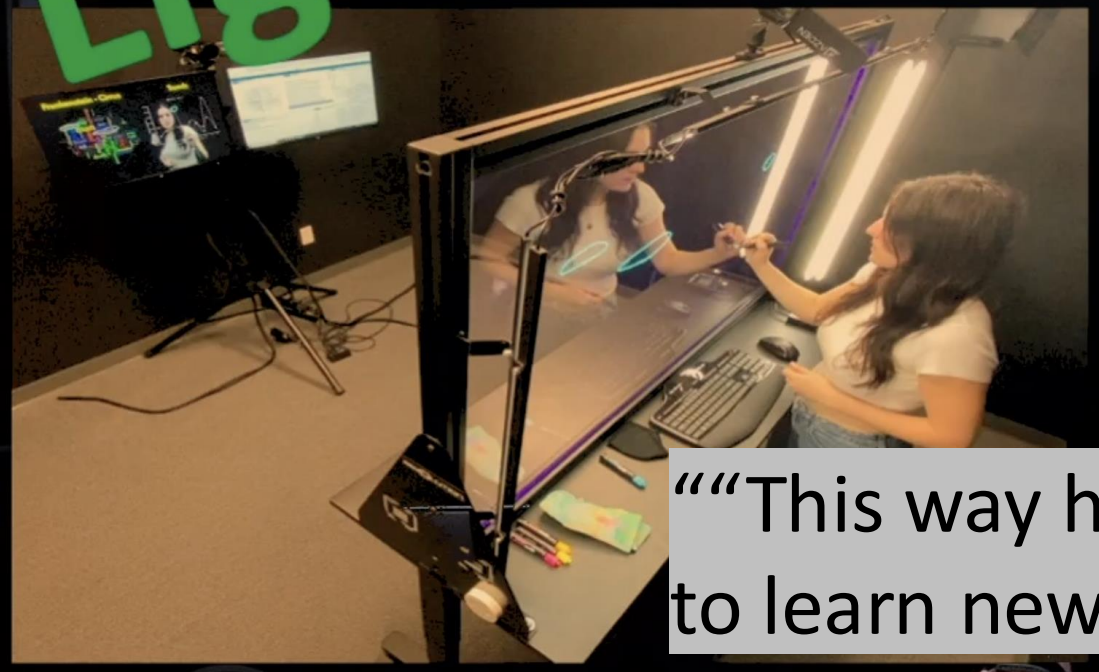
Green Screen Static/tripod

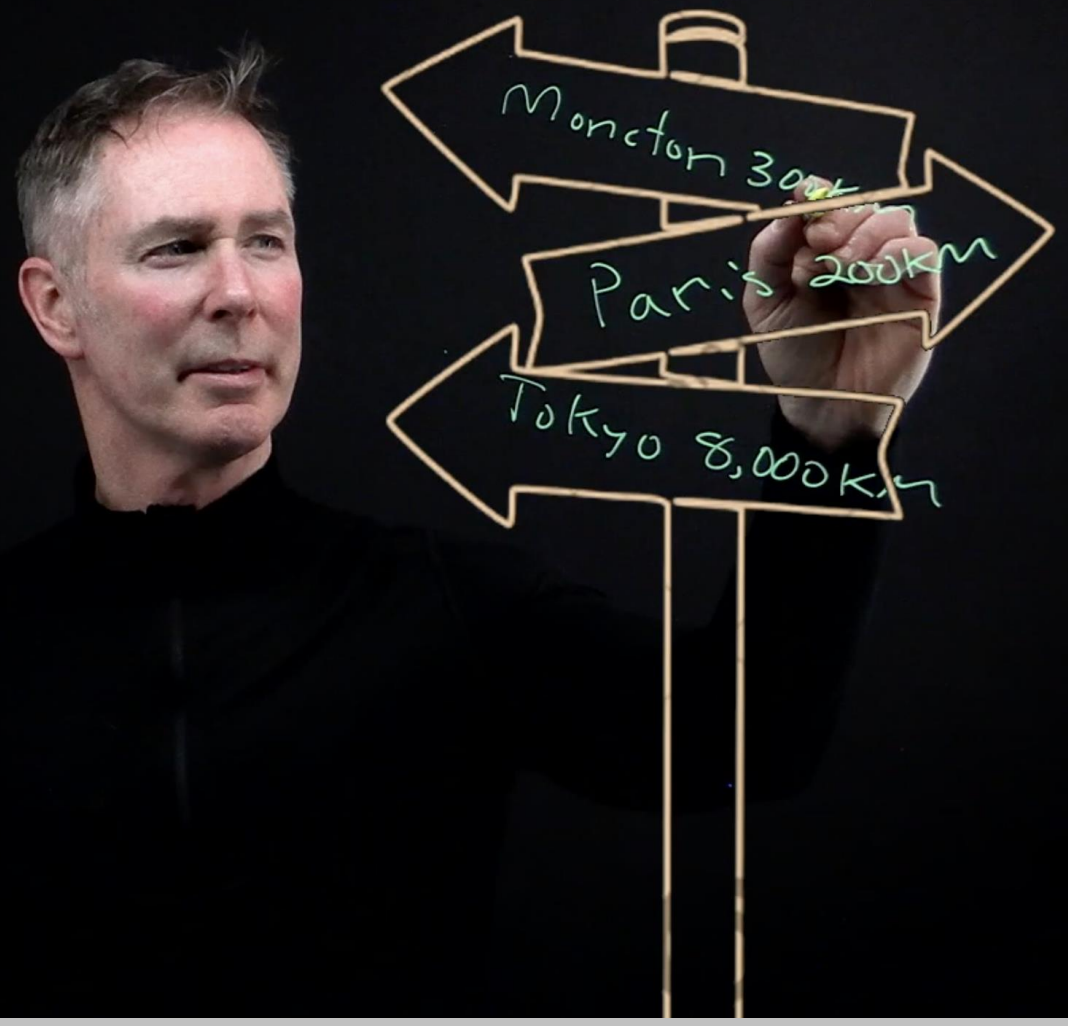
"And like any adventure in New Brunswick, there will be sunshine, and there will be snow."

FilmMaking Studio Green Screen Pull back/gimble

"Thankfully, you won't be alone."

LightBoard



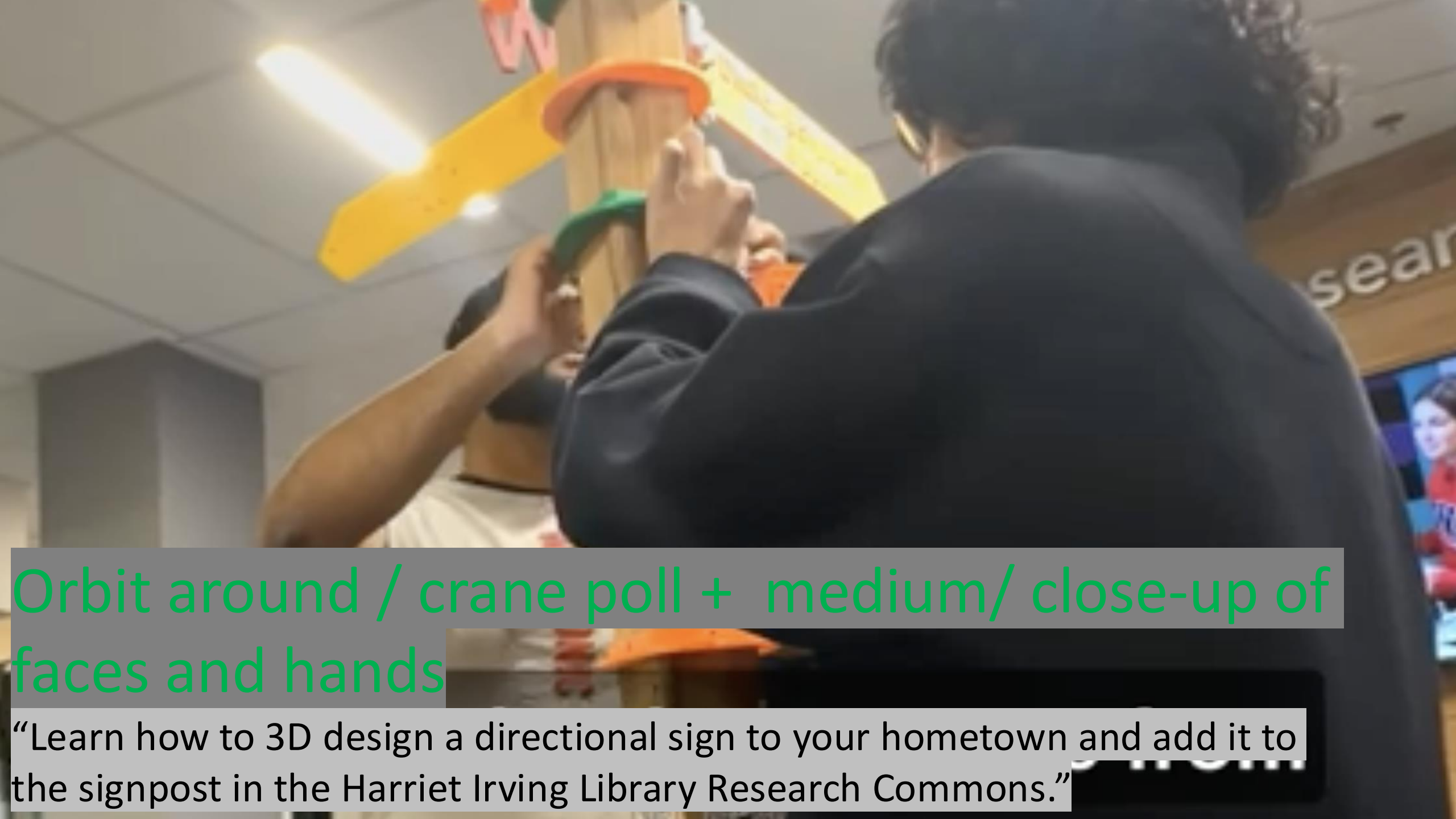


““This way home” was designed to bring us together to learn new skills and share stories.”

Data Visualization Lab

Low orbital + Close up + B-roll

"About where we come from and who we are."



Orbit around / crane poll + medium/ close-up of faces and hands

“Learn how to 3D design a directional sign to your hometown and add it to the signpost in the Harriet Irving Library Research Commons.”

Ensemble finale / pullback

“Because an adventure like this is to be celebrated and shared.”

For each shot today:

- HD (1080p), 30FPS baseline (min. 60FPS for slo-mo), landscape orientation
- Composition (framing, distance, perspective, movement)
- Select the Lens (appropriate to the distance and composition)
- Determine Focus
- Exposure: balanced lighting, low shutter speed (1/60) and just enough ISO
- White balance: auto and lock
- Sound level: mid range gain (external microphone)

Lenses: Perspective and Depth of Field


Shallow DOF
Deep DOF
40 ft
30 ft
20 ft
10 ft
12.2 m
9.1 m
6.1 m
3 m
f/1.8
f/5.6
f/16
Point of optimum focus
Depth of field

Frames Per Second determine motion blur

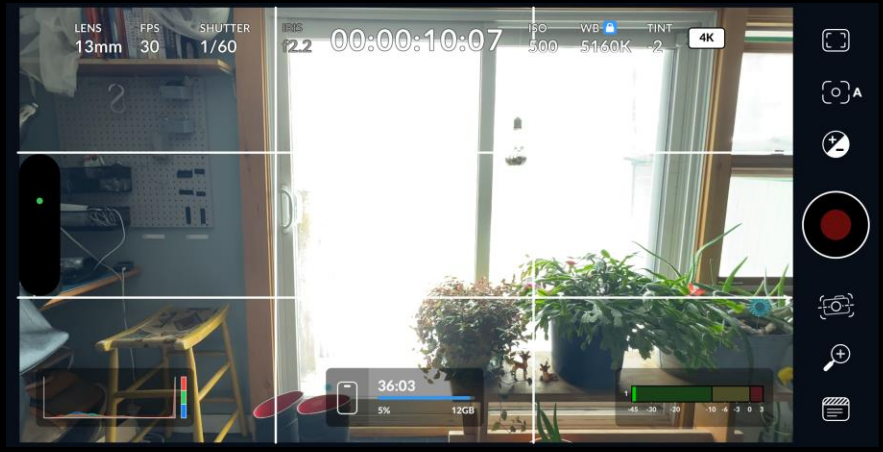
Frames Per Second (frame rate) conventions

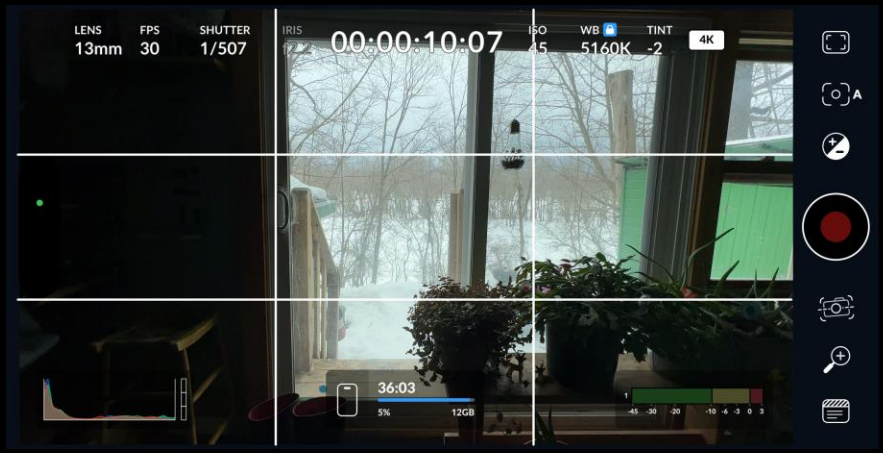
- 24 FPS: Cinematic blur
- 30 FPS: Internet standard
- 60 FPS +: For crisp/jittery action shots OR slow motion (e.g., 120 FPS at ¼ speed slots into your 30 FPS project)

Shutter Speed influences exposure and blur (Recommended 1/2 x FPS)

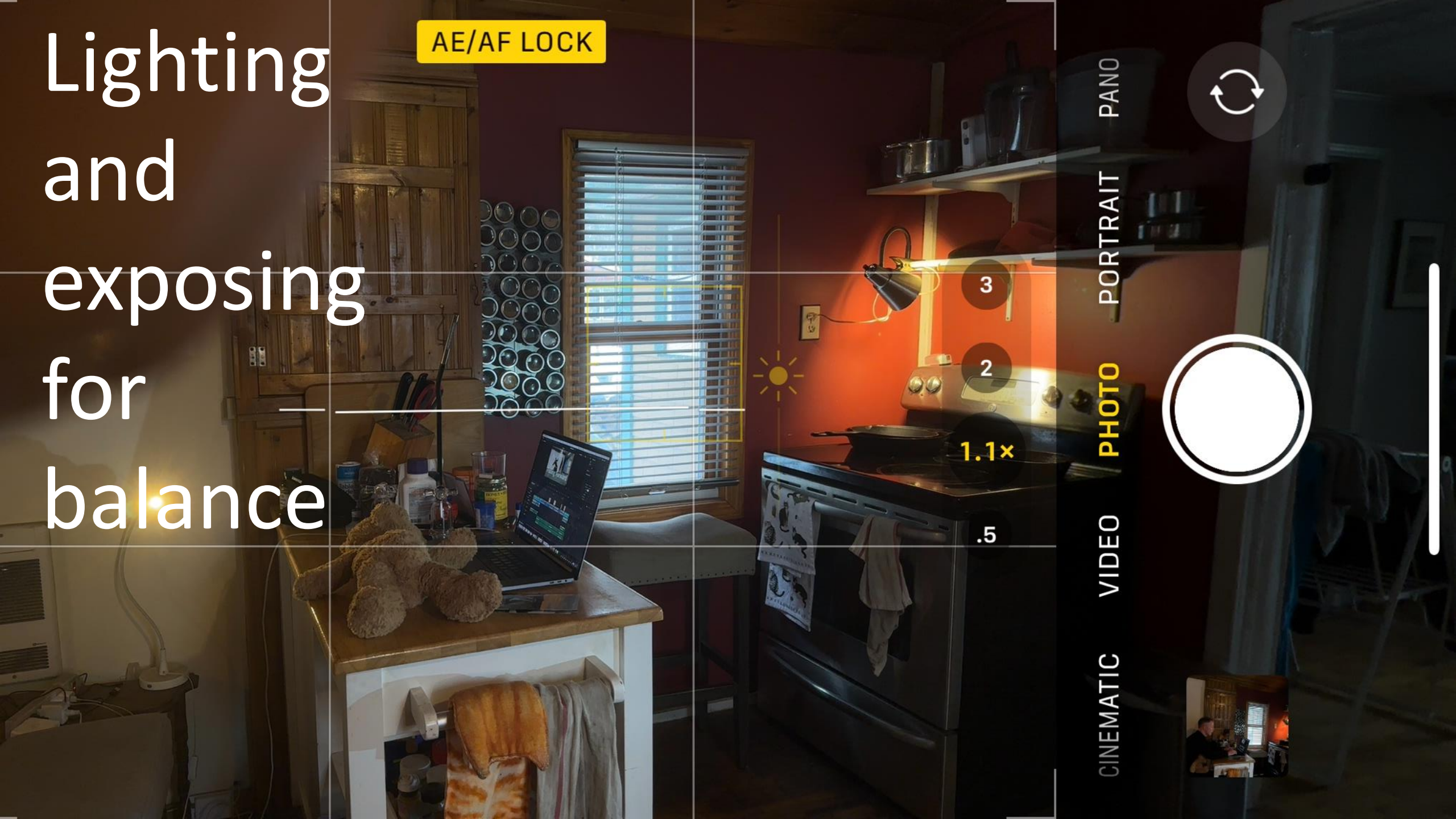
Exposure and Dynamic Range

- Dynamic range:
  - Range of brightness capability/limitations
  - The smaller the lens, the less the dynamic range, resulting in over / under exposure
- Exposure:
  - Amount of light hitting the camera sensor via the lens
  - Controlled by lens size (aperture), shutter speed, and ISO
- Exposure compensate through balanced composition and lighting, or don’t, depending on intention





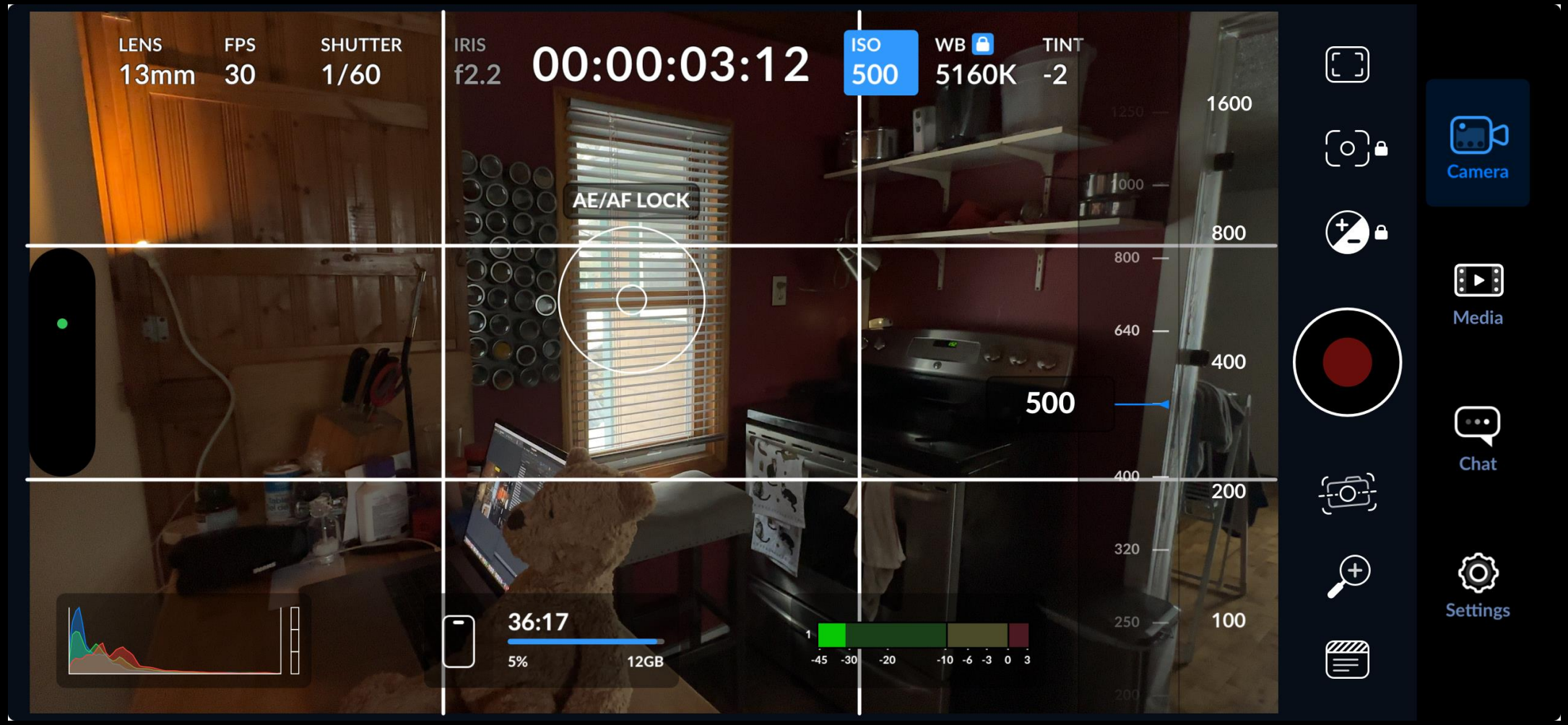
Lighting and exposing for balance

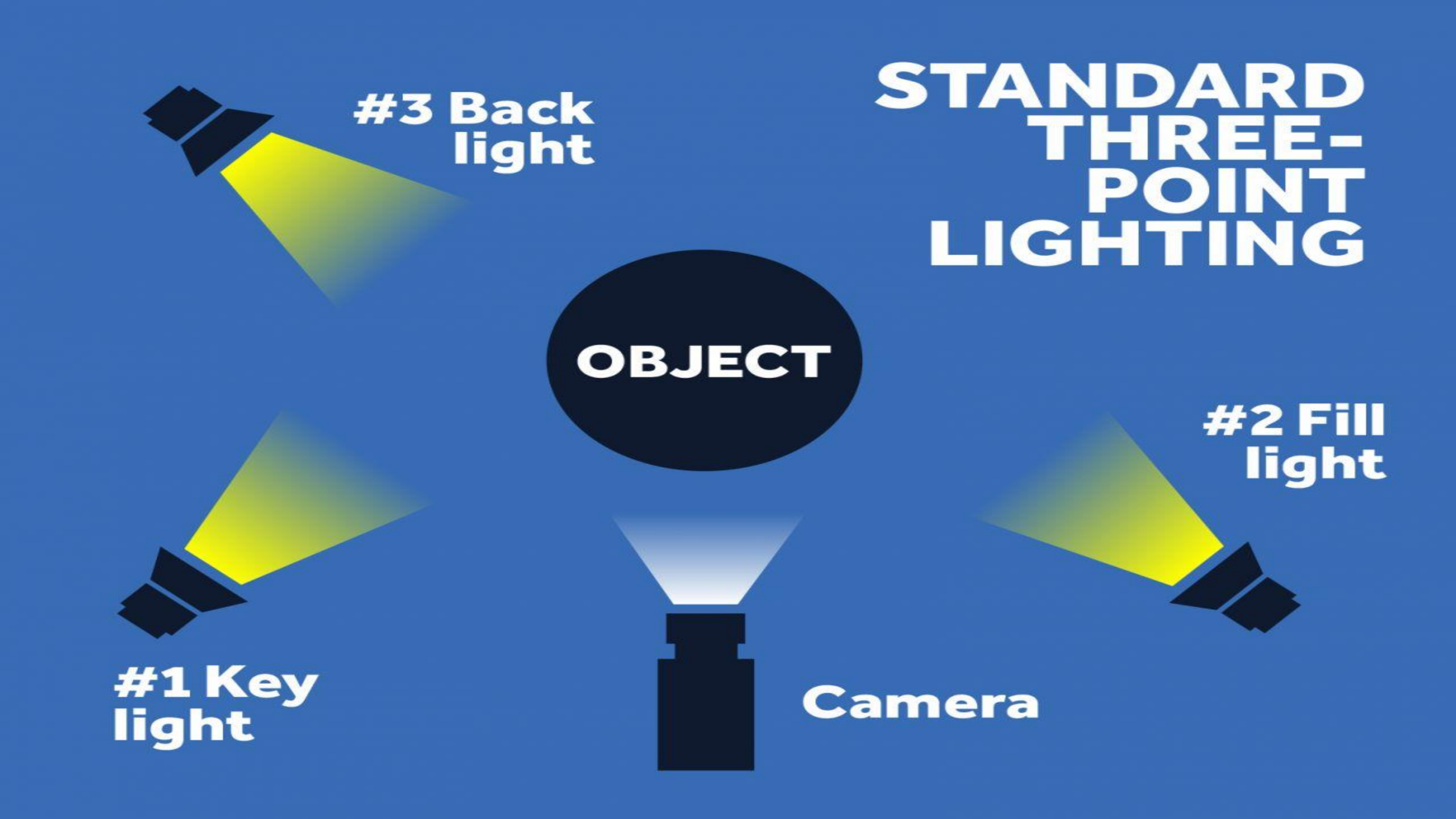


ISO: lens sensitivity to light

Aperture
small aperture
F32
F22
F16
F11
F8
F5,6
F4
F2,8
F2
F1,4
large aperture
Shutter
fast shutter speed
1/1000
1/500
1/250
1/125
1/60
1/30
1/15
1/8
1/4
1/2
slow shutter speed
ISO
low sensitivity
ISO 50
ISO 100
ISO 200
ISO 400
ISO 800
ISO 1600
ISO 3200
ISO 6400
ISO 12800
ISO 25600
high sensitivity
Hamburger Fotospots Cheatcard
hamburger-fotospots.de

Setting and locking exposure to balance lighting



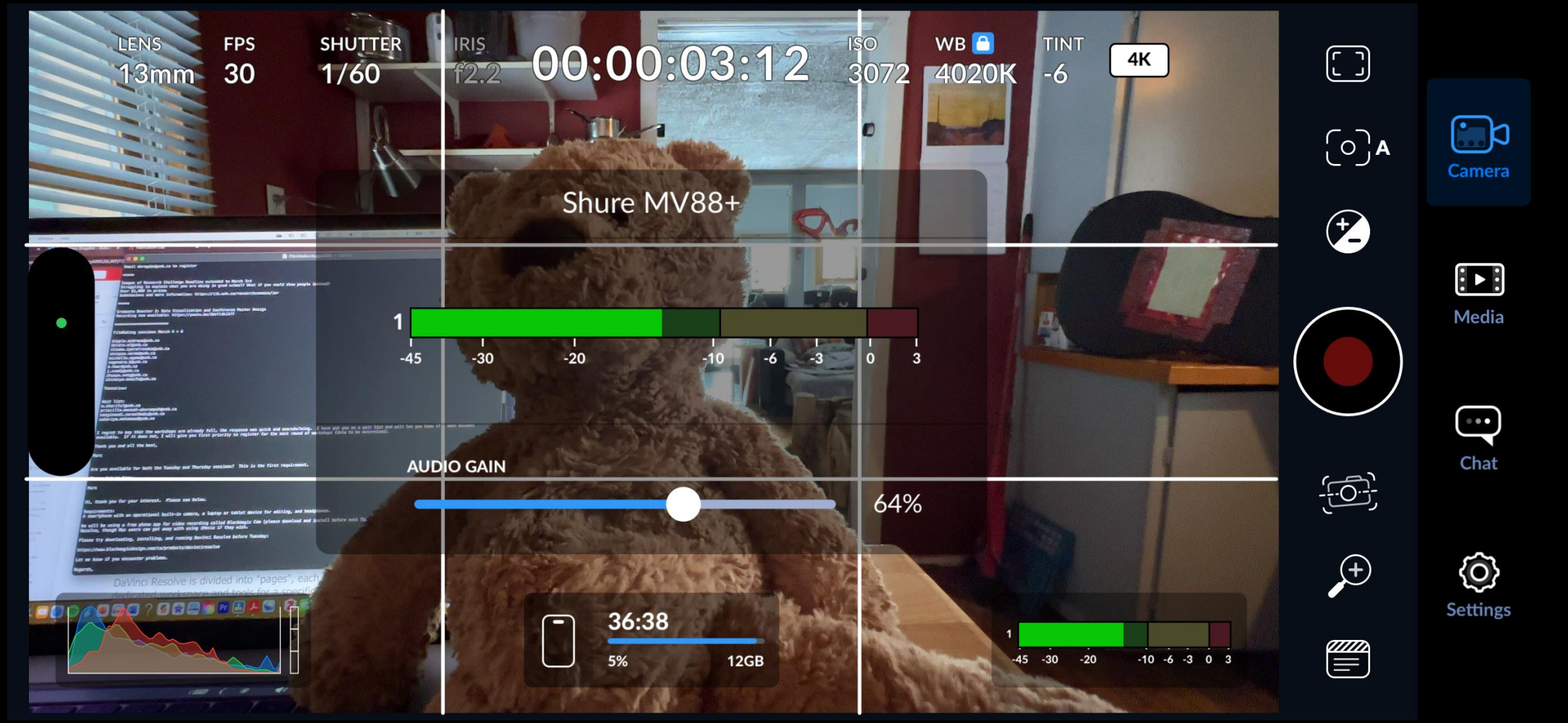

STANDARD THREE-POINT LIGHTING
#3 Back light
OBJECT
#2 Fill light
#1 Key light
Camera

White Balance controls for light/colour cast

White Balance

- All light has a temperature (running from cool/blue to warm/yellow) and is measured in Kelvins (k)
- Adding in a white colour reference to your shot aids in White Balancing (measuring and correcting for light temperature) in camera and editing
- Auto White Balance your shot, then lock it. 

Audio Meter / Gain Control

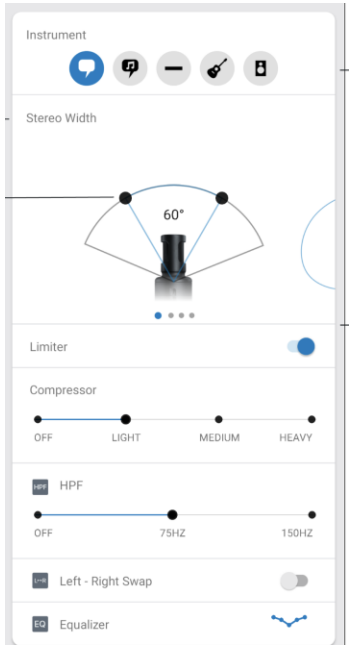


Recording audio

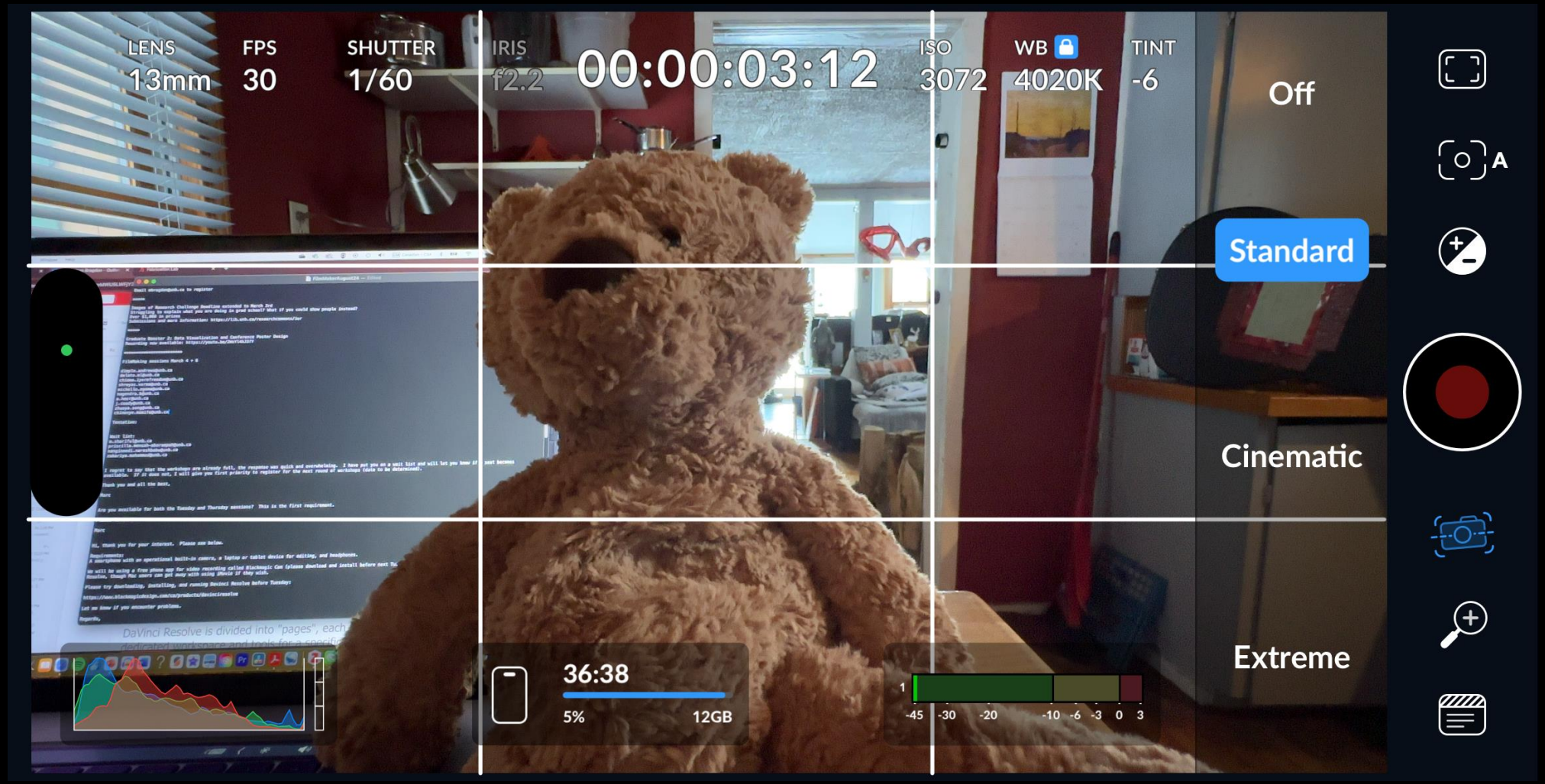
- Measured in decibels, topping out at Zero (above which audio is distorted or “clipped”)
- Gain adjusts microphone sensitivity to either boost a weak signal or reign in loudness.
- Metering or visually monitoring volume helps to set appropriate gain
- Aim for setting the gain slider where the loudest recorded volumes do not rise above -10db
- External microphone highly recommended

Sound recording

- Microphones:
  - Directional: lav. / shotgun: isolates specific sound (e.g., the human voice), either attached to camera or to separate capture device
  - Ambient: optional/advanced, for room sound, attached to separate device
- Use a clapperboard (or just clap!) to assist in later synchronizing audio with video during editing.

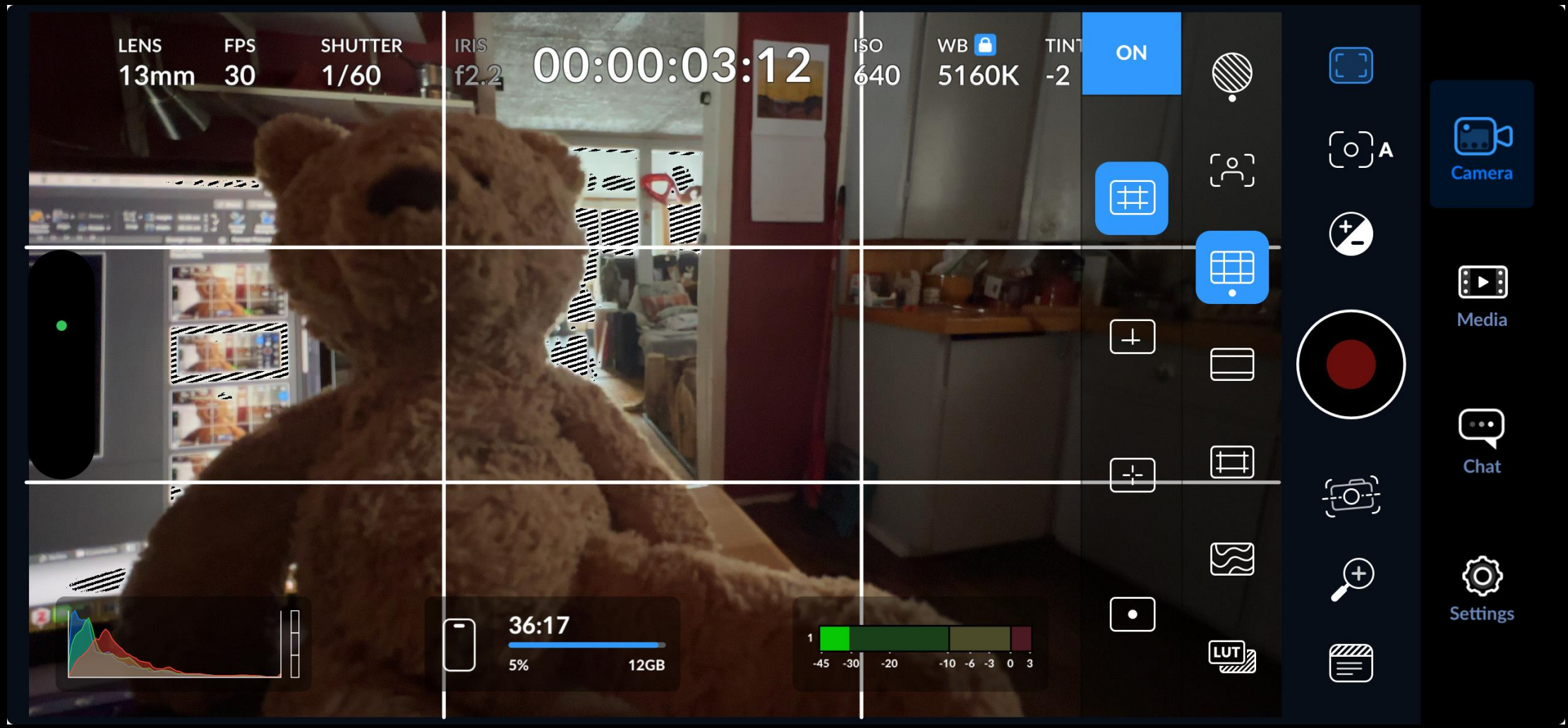


Stabilization to reduce the shakes



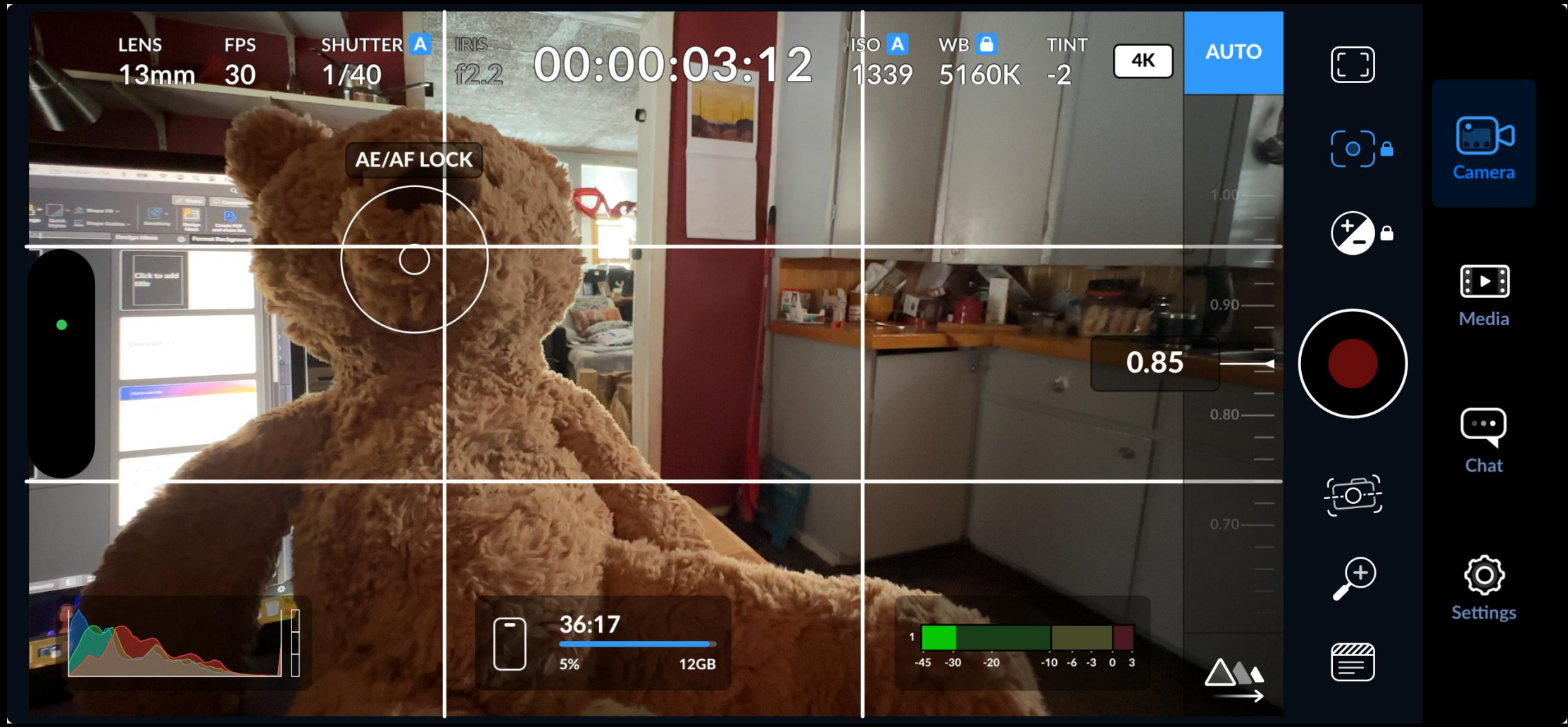
Picture stabilization and camera motion

Activating guides (Rule of thirds grid)



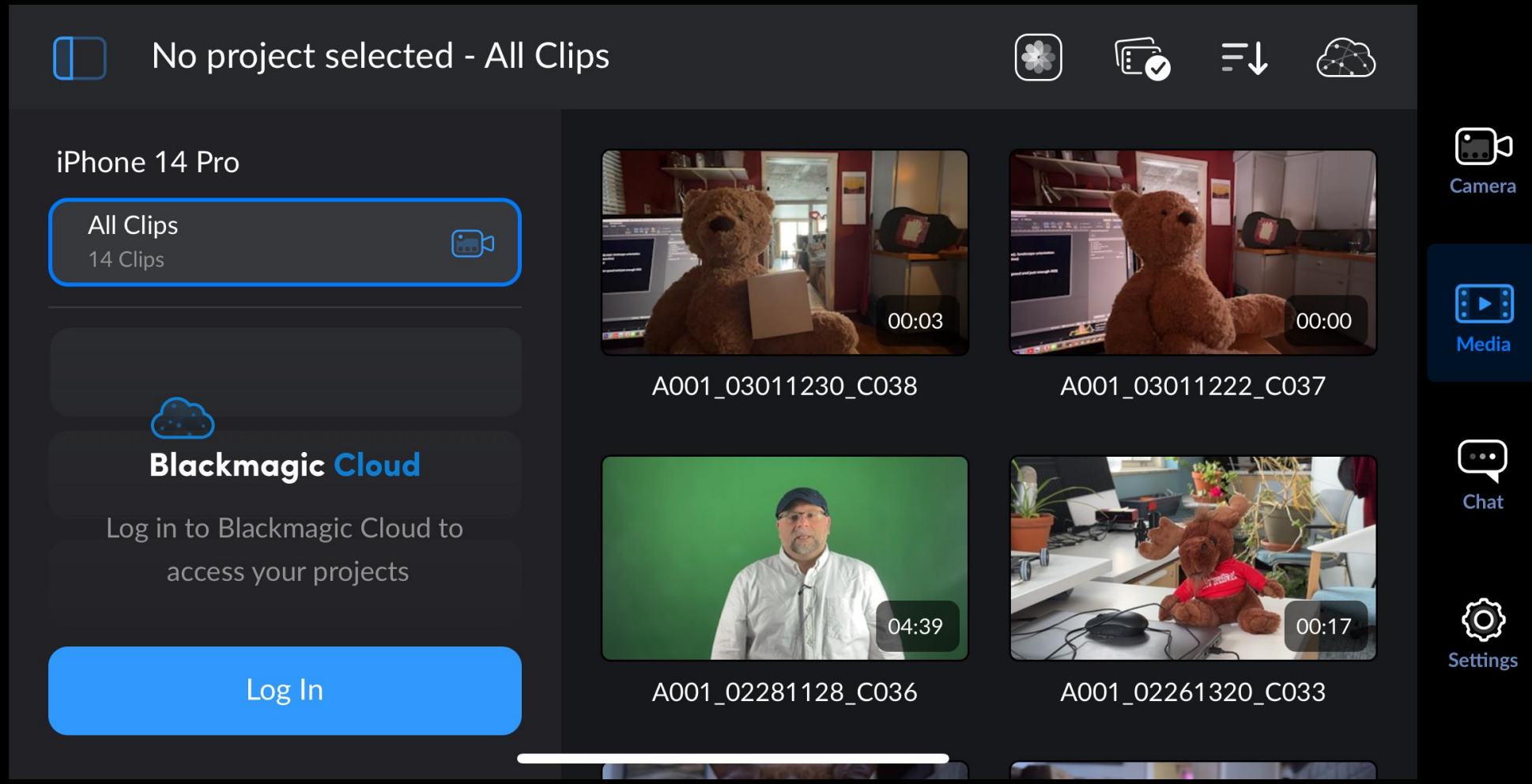

1:10 / 2:57

Setting focus

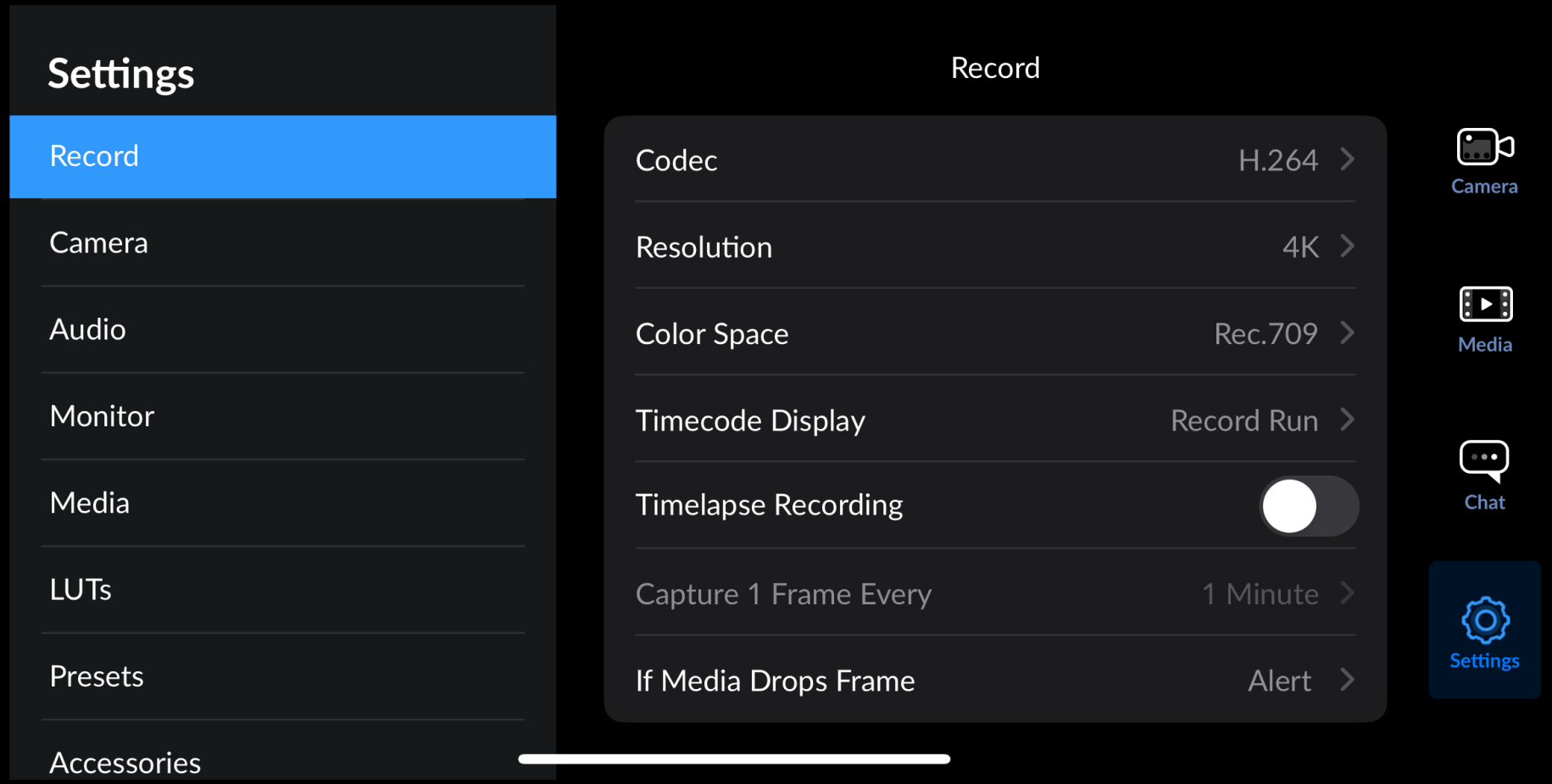


Focal point and Depth of field

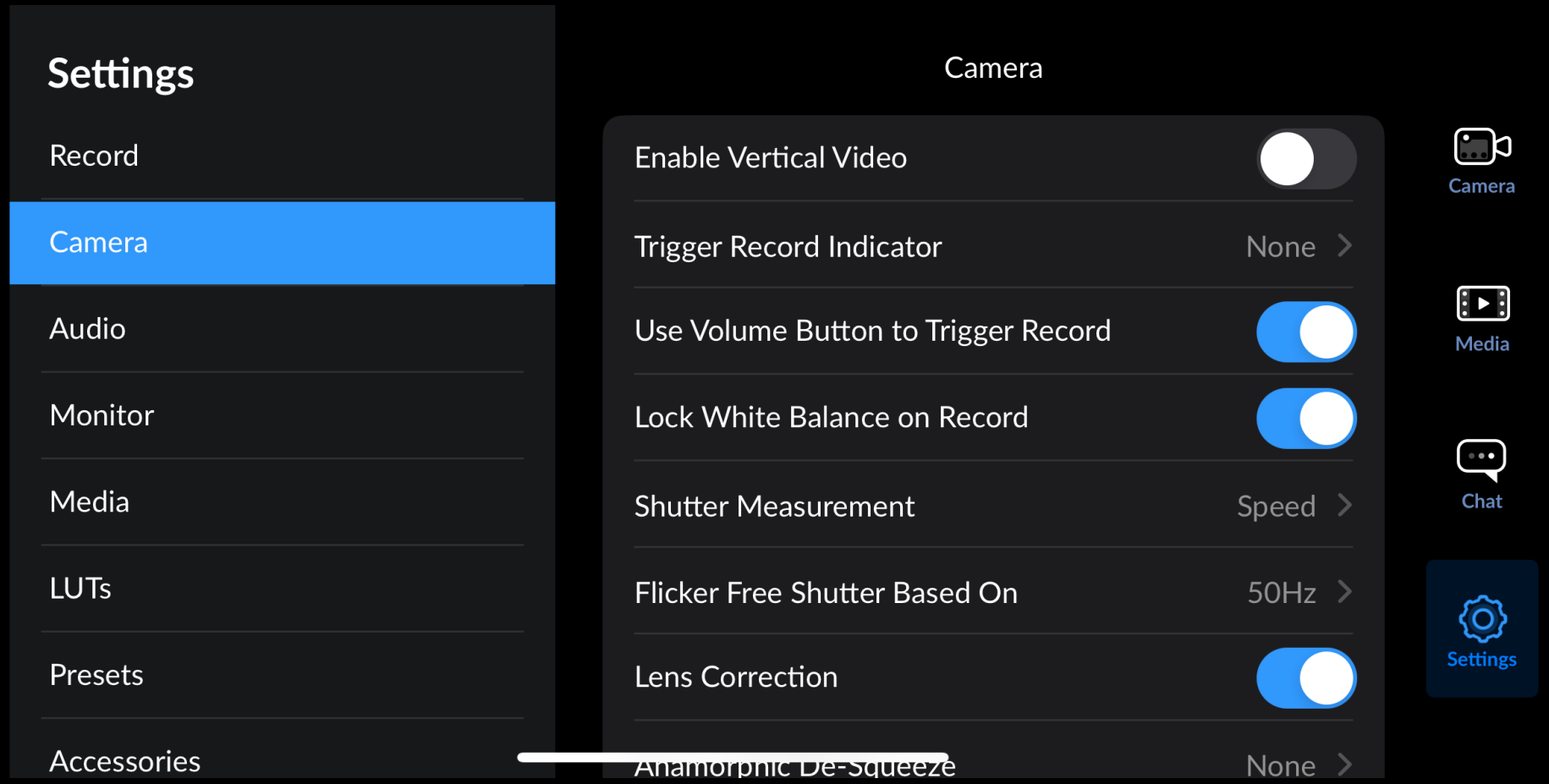
Your media clips



Settings: Codec and Color Space



Settings: Camera



Film Techniques: The Language of Film

Language of film: compositional techniques

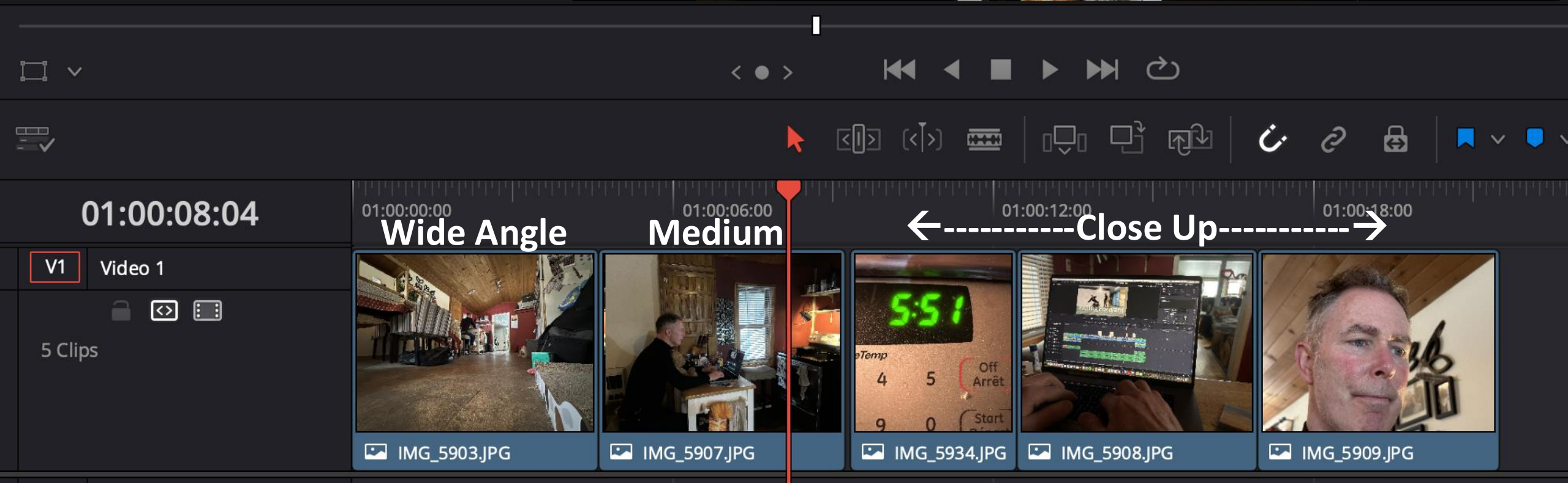
Form follows function

- **Shots** / Frames: Video clips with (hopefully) deliberately chosen perspectives and movements to craft a narrative.
- **Composition** / Blocking: Determining the perspective, position and **movements** of subjects and objects in relation to one another.
- **Representations** / B roll: Shots that are related to the main action of a given scene and can be woven in during editing to serve the narrative.

Crafting a narrative with shot choices

Facets of a story	Shot options
Where (environment)	Establishing (often **Wide Angle**) shot
Who (the subject)	**Close Up** shot
What (drama/actions performed by or on subject)	**Medium** shot
When (time period, at a point in a given story)	-Continuous shot or long take (representing space + time), -**Close Up** of symbolic objects (sun, moon, clock…) or actions (walking feet, reaching for a door knob…) *-see Pacing (cuts)*
Why (internal decisions making of the subject, or emotional effect upon)	**Extreme Close Up**, sequence of other shots explaining back story

Planning shots with story/editing in mind



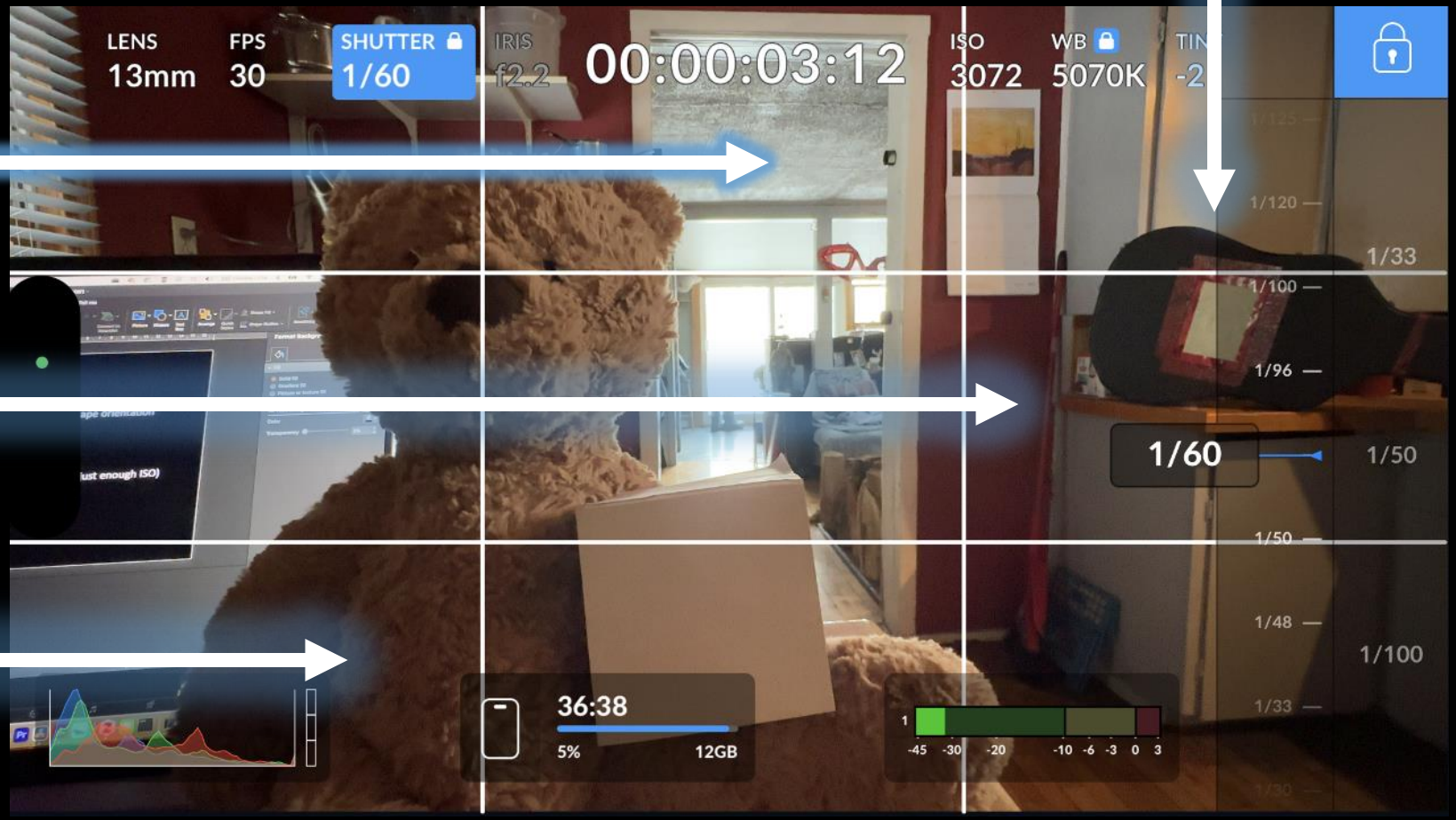
Composing shots for depth

Background

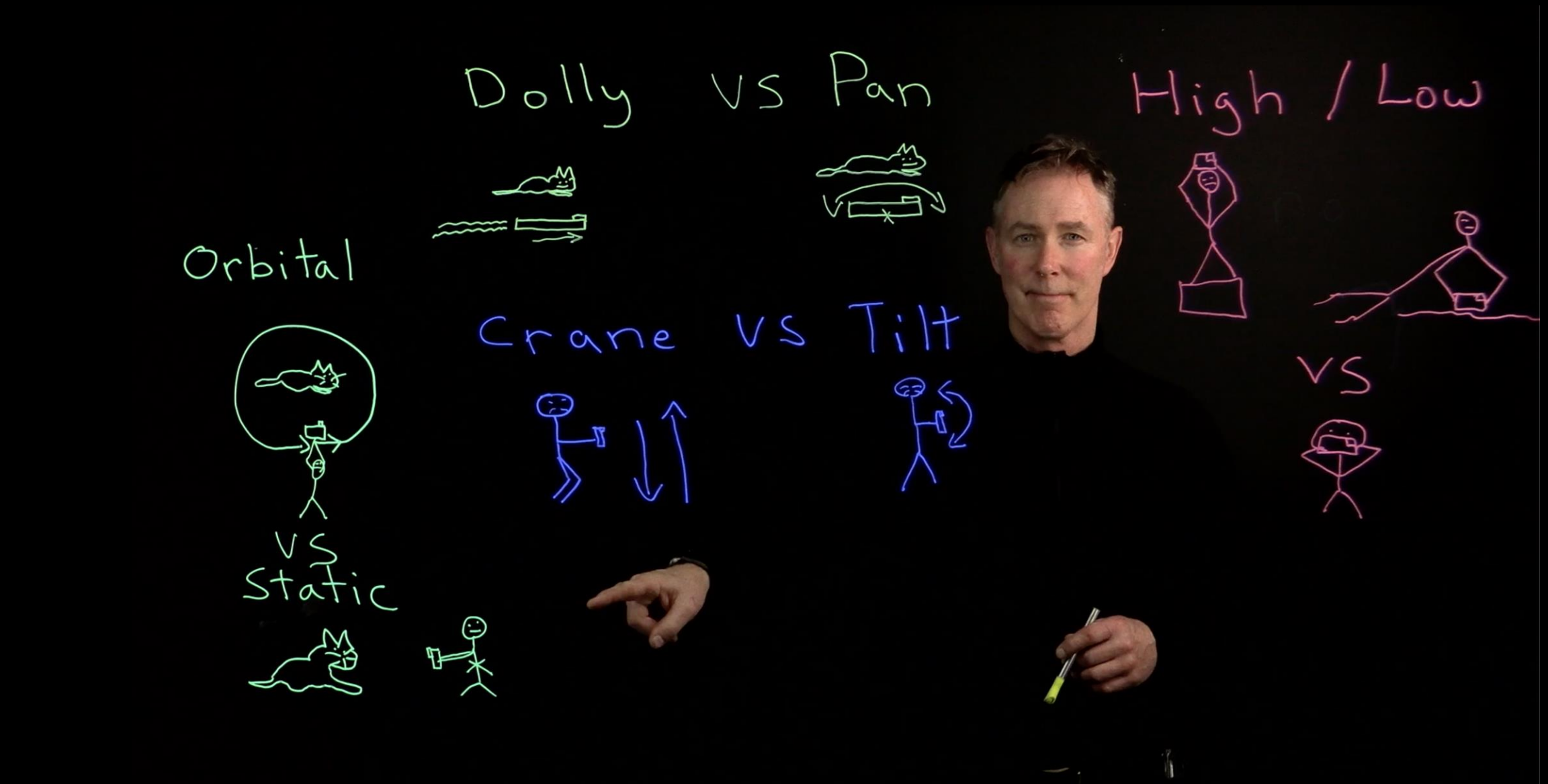
Midground

Foreground

(Bonus: Shot Blocking)



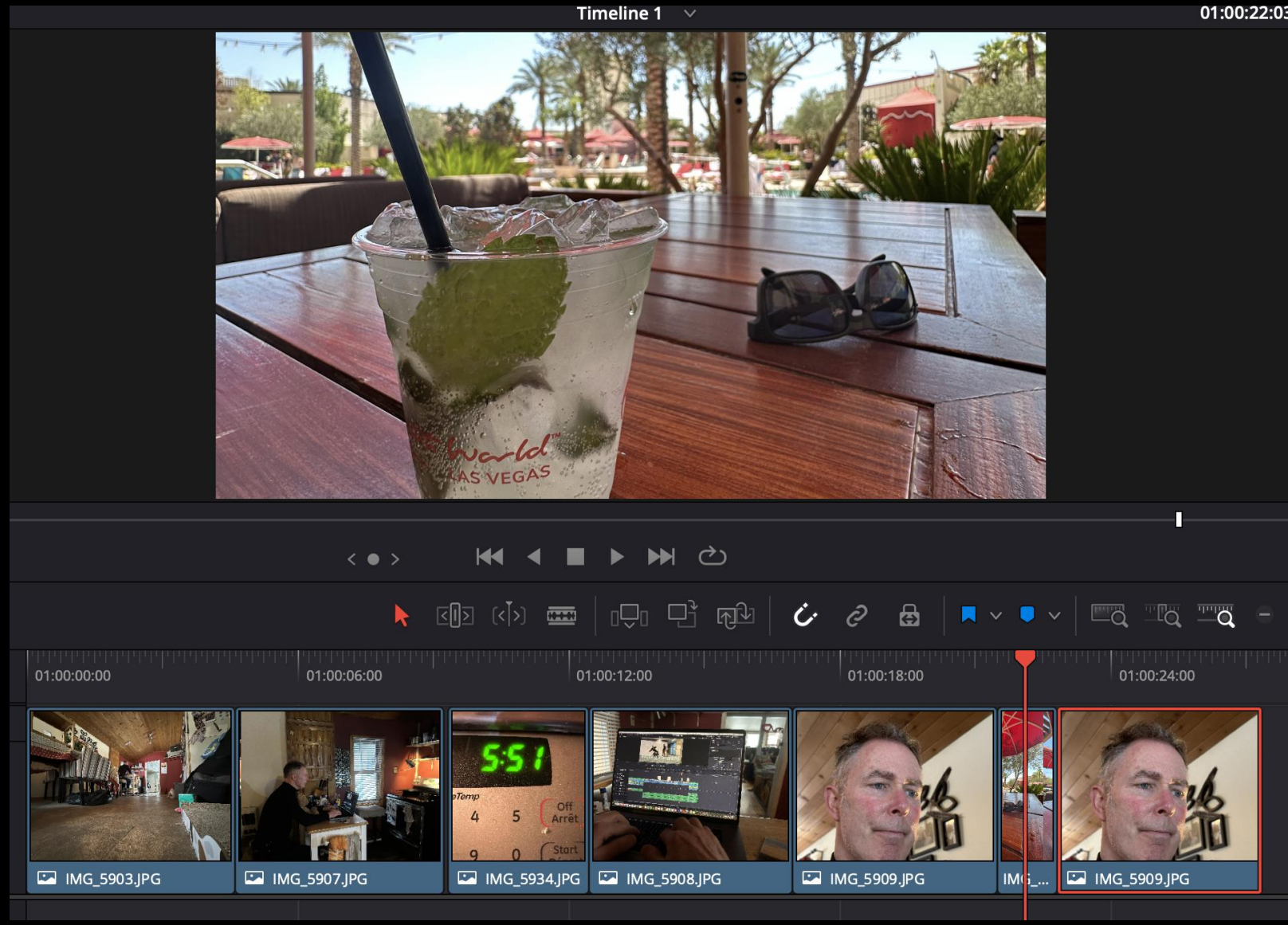
Shot movements / perspectives:
Avoiding the way we usually see everything



Camera Movement and Effect

Movement	Effect
Dolly (vs Pan): Gimbal (Stabilized: following behind, in front, beside)	Expresses flow, propels action
Orbital / circling (vs static)	Explicit emphasis on a subject, stops time
Crane (vs tilt)	Establishes context (often with wide angle)
Handheld (with ninja walk)	Used to create a sense of immediacy, chaos, or realism.
High / low static (vs eye level)	Meet a subject on its own (vs. the viewer's) terms
Move in / Pull out	Focusing in and out of a subject or action
POV (Point of View) – the way we see everything	Subjectivity / eye of the beholder

B-roll footage to fill out narrative (and sometimes cover mistakes)



Green Screen Tips

- Light both your subject and the green screen fully and separately
- Allow for at least 24” or 36” distance between the two
- Consider the compatibility of subject and eventual backdrop in terms of the temperature, colours, brightness, and position of each
  - In Canva, you can often adjust colours and temperature
- Don’t wear green