STRETCHLEARN · WORKBOOK

Drone Cinematography — Workbook

This workbook turns the course into reps. You will build a pre-flight habit, drill the seven cinematic moves, lock your exposure and ND choices, get your certification plan on paper, and assemble aerial B-roll into a real edit. Work through one section per module, and use the templates to track your flights, shots, and client deliverables like a professional.

From Hover to Cinematic Control

Internalize stick control, flight modes, and a repeatable pre-flight routine before you chase cinematic shots.

Exercise: The Slow Hover and Feather Drill

In a wide-open, legal area with a full GPS lock, set the drone to Cine mode and practice feathered single-axis moves at 2 to 5 meters altitude. Do each move five times, easing the stick in and out so there is no visible jerk on start or stop. Note where your inputs were too abrupt.

• Which axis (throttle, yaw, pitch, roll) felt hardest to feather smoothly, and why?

• How did Cine mode change the feel compared to Normal mode on the same input?

• At what battery percentage did you decide to land, and did you stick to it?

Worksheet: My Drone and Settings Baseline

Fill in the specifications and default settings for your specific drone so you fly from known numbers, not guesses. Pull values from the manufacturer spec sheet.

Drone model and takeoff weight (grams)

Sensor size and maximum video resolution / frame rate

Maximum wind resistance rating (m/s)

Rated flight time (minutes) and my real-world flight time

Available color profiles (D-Log M / HLG / D-Cinelike / Normal)

My default RTH altitude for typical locations (meters)

Number of satellites I wait for before takeoff

Checklist: Every-Flight Pre-Flight Checklist

[ ] Checked wind below 70 percent of max rating and confirmed no precipitation
[ ] Inspected props, removed gimbal clamp, cleaned lens, latched battery
[ ] Updated firmware and inserted a formatted card with free space
[ ] Waited for full satellite lock (10+) before takeoff
[ ] Calibrated compass only if prompted, away from metal and vehicles
[ ] Set RTH altitude above local obstacles and confirmed Home Point
[ ] Hovered at 2 meters for 10 seconds to confirm stable behavior

The Cinematic Move Library

Drill the seven foundational moves, combine them, and attach a story purpose to every shot you fly.

Exercise: One Move Per Session Mastery

Pick a single move from the seven (reveal, fly-through, orbit, dronie, top-down, tracking, push-in) and fly only that move for an entire battery, varying speed and framing. Repeat across sessions until you have clean takes of all seven. Review the footage and grade each take pass or reshoot.

• Which move produced your most usable footage on the first try, and which needs the most practice?

• For your orbit, did manual yaw-plus-roll or the automated POI mode give a smoother circle?

• Where did acceleration or a hard stop ruin an otherwise good take?

Exercise: Compound Move Coordination

Practice three two-input compound moves: reveal-plus-tilt-up, orbit-plus-climb, and push-in-plus-descend. The goal is to make both inputs start and stop at the same instant so the move reads as one gesture. Fly each at least eight times.

• Did your aircraft input and gimbal-wheel input start and stop together, or did one lag?

• Which compound move felt most cinematic in playback, and why?

• What would you change about your timing to make the move feel more designed?

Worksheet: Move-to-Story Mapping

For an upcoming or imagined project, map each shot to a move and a clear emotional or narrative purpose before you fly. Fill one row per planned shot.

Subject / location

Move name (reveal, orbit, dronie, top-down, tracking, fly-through, push-in)

Purpose (establish, transition, scale, energy, closing)

Intended viewer feeling in one word

Cine / Normal / Sport mode for this shot

Estimated number of takes to bank

Checklist: Shot-List Readiness Check

[ ] Every shot has a named move and a one-sentence purpose
[ ] I have an establishing shot planned for the opening
[ ] I have at least one transition shot with consistent directional motion
[ ] Fast or tight moves are planned only for open, obstacle-free airspace
[ ] I have planned extra B-roll takes beyond the minimum

Exposure, ND Filters, and Camera Settings

Lock the 180-degree shutter, choose ND by light condition, and configure a grade-ready capture pipeline.

Exercise: ND Swap and Exposure Lock Drill

Set your frame rate to 24 fps, shutter to 1/50, and ISO to 100. Starting with ND32, fly a short clip, judge the exposure, and swap ND strength up or down until the image is correctly exposed without touching shutter or ISO. Record which ND matched the light.

• Which ND filter correctly exposed the scene at 1/50 and ISO 100?

• How did the footage motion blur change when you (deliberately) tried 1/1000 with no ND?

• If a cloud passed and the light dropped, how did you adjust while keeping the cinematic shutter?

Worksheet: Manual Capture Settings Card

Define and record your manual capture settings for a real shoot so nothing is left on auto. Complete one card per lighting condition you expect.

Lighting condition (overcast, hazy, bright sun, snow/water)

Frame rate (24 / 30 / 60 fps)

Shutter speed for 180-degree rule (e.g., 1/50 at 24 fps)

ISO (base, typically 100)

ND filter strength selected (ND8 / ND16 / ND32 / ND64)

White balance in Kelvin (e.g., 5600K)

Color profile (D-Log M / HLG / D-Cinelike)

Resolution and bitrate/codec

Checklist: Pre-Roll Camera Lock Checklist

[ ] Shutter set to roughly double the frame rate (180-degree rule)
[ ] ISO set to base (100) and locked, not auto
[ ] Correct ND filter mounted for current light and clean of smudges
[ ] White balance set to a manual Kelvin value, not auto
[ ] Color profile chosen to match my grading comfort
[ ] Recording 4K at the highest sustainable bitrate

Legal Flight and Editing Aerials Into Story

Build your certification plan, pre-clear airspace, and cut aerials into a story or commercial deliverable.

Worksheet: My Certification Roadmap

Lay out the exact certification and registration steps for your country so the path to legal, paid flight is concrete. Fill the fields that apply to you.

Country and applicable framework (FAA Part 107 / Transport Canada RPAS)

Operation category I need (US Part 107 / Canada Basic or Advanced)

Exam(s) required and passing score

Target exam date and study hours budgeted

Exam fee and registration fee

Drone registration number once issued

Recurrent training / renewal date

Exercise: Airspace and Authorization Dry Run

Pick a real location you would like to film. Using an airspace app (Aloft/B4UFLY in the US or NAV Drone in Canada), determine the airspace class, any restrictions, and whether authorization is required. Walk through requesting it without actually flying.

- What airspace class is your location, and is authorization required?
- What ceiling would LAANC or NAV Drone grant, and how does that affect your shots?
- Do you also need property-owner or location-manager permission here? From whom?

Exercise: Cut the Aerial Sequence

Take your banked aerials and build a 30 to 60 second sequence in your editor. Use an establishing reveal up front, cut on motion, match screen direction, and apply a LUT so the aerials match your ground footage. Keep each establishing aerial to 3 to 5 seconds.

- Which aerial earned the opening slot, and why does it set up the piece?
- Where did cutting on motion or matching direction make a transition feel seamless?
- After grading, do your aerials look like they belong in the same world as the ground footage?

Checklist: Commercial Delivery Checklist

- [ ] Aerials used as establishing shots, transitions, and punctuation, not wall-to-wall
- [ ] Each establishing aerial held to roughly 3 to 5 seconds
- [ ] Footage stabilized and reframed in post where needed
- [ ] Aerials color-matched to ground footage with a LUT or grade
- [ ] Delivered in the brief's resolution, aspect ratio, and length
- [ ] Extra usable B-roll handed over, labeled by move and location

Your Action Plan

1. Confirm your drone's weight, wind rating, real flight time, and color profiles, and write down your default RTH altitude.
2. Run the every-flight pre-flight checklist on your next three flights until it is automatic.
3. Drill one cinematic move per session in Cine mode until you have clean takes of all seven foundational moves.
4. Add three two-input compound moves and practice starting and stopping both inputs together.
5. Buy or confirm an ND8 to ND64 filter set and run the ND-swap drill at 1/50, ISO 100, until selection is fast.
6. Lock a full-manual capture pipeline (shutter, ISO, white balance, ND, color profile, 4K high bitrate) and shoot a test.
7. Build your certification roadmap and schedule the FAA Part 107 or Transport Canada exam with study hours budgeted.
8. Do an airspace and authorization dry run for a real location using Aloft/B4UFLY or NAV Drone.
9. Shoot a small project against a written shot list mapping each move to a story purpose.
10. Edit a 30 to 60 second graded sequence and deliver it to brief, then save the extra B-roll labeled and organized.