15 Tips for Cinematic Drone Video

https://www.youtube.com/watch?v=XCu1HKVckrA

Shot Techniques and Maneuvers

1. Go Slow

My first recommendation to anyone filming with a drone is to go slow. Slow is more cinematic, and it gives the viewer the impression you are shooting from a larger platform, such as a helicopter. This subconsciously increases the production value and makes the shot appear more controlled and crafted.

Make sure you also go easy on the RC control sticks on the remote. Use gradual movements and remember to accelerate and decelerate slowly; otherwise you will shake the camera around with the quicker movements, increasing your odds of having distortions or 'jello effects' on your footage.

Pre-plan and visualize as many of your aerial shots as you can. I recommend scouting your filming location before your shoot so you can factor in limitations of the area. Knowing what you'll need ahead of time will also help you optimize your drone's battery life, so you don't run into a situation where you miss the shot you truly need because your batteries are out of power.

One of the most cinematic drone shots is a slow reveal of the landscape.

2. Use Two Axes of Movement

Imitate big-budget shots you see in movies, which are typically going to have two axes of movement at the same time. An example would be flying backwards and downwards at the same time, at a smooth, steady rate.

3. Strafe

Strafing or sideways movements also work quite well for showing landscapes from a different perspective. Since most landscapes are shown on aerial videos with the drone moving only forwards or backwards, a strafing shot can stand out. It can also be an effective way to reveal cool features in the landscape.

4. Orbit

Orbits can be achieved by having your drone strafe to the right or left, and also pulling the yaw stick in the opposing direction. (The yaw control is typically the control stick on the left side of the controller that controls the drone's rotation.) It is crucial to go easy on the yaw control, or you'll end up spinning too quickly and spoiling the effect.

5. Fly-Through Shots

Fly-through shots can be quite cinematic, but they are going to be the most risky since you'll likely be relying only on your controller screen (FPV) in order to navigate your drone. I wouldn't attempt these unless you are confident in your piloting skills. I'm personally not the biggest fan of these shots, because when I see them it is a tell-tale sign that the shot was filmed with a drone; this may distract your audience, making them think more about the risk of the shot, instead of noticing the cinematography.

6. Gimbal Movements

You can also try gimbal movements combined with drone movements to add another dimension to your shots. Doing this can give you up to three axes of combined movement. One of my favorites is flying forward and tilting the gimbal upwards to reveal the landscape.

Moving your camera can create pleasing effects.

7. Parallax

Add depth to your aerial scenes by taking advantage of extreme parallax effects, often with trees or structures closer to the drone, which helps provide a visual aid to the viewer for how large the surrounding landscape actually is.

8. 360 Pan

I don't recommend just rotating on the yaw axis, or basically a 360 pan. This is because drones typically have a hard time being precise with this movement, and it can give the footage a whip-pan effect if you're not careful.

Weather and the Time of Day

When it comes to the weather, you are pretty much at the mercy of Mother Nature. You'll typically just want to fly on clear or cloudy days, and you'll want to avoid any rain, misting or heavy fog. This is particularly true on colder days, since condensation can develop on the drone and the props, which can freeze at higher altitudes. (I've seen this happen!)

9. Watch Out for Wind

The wind is the biggest enemy when it comes to the dreaded ‘jello’ effect on footage. Avoid trying to get any of your drone shots on a windy day; I typically don’t fly when the winds are over 20 mph or if there are frequent heavy gusts. Most drones are rated to fly in up to 25–35 mph winds, but the footage you record at these higher wind speeds will likely not be worth your time.

I don’t recommend relying too heavily on programs like After Effects to remove the jello effect from your footage either. Although After Effects can do a good job at reducing these distortions, I’ve yet to see footage that has been completely restored using its Warp Stabilization setting.

10. Sunrise and Sunset

Just like with ground-based cinematography, filming during the golden hours of the day—at sunrise and sunset—will really help your footage stand out. Shadows will be highly visible, which will help define terrain features that aren’t as visible during the afternoon. Fewer people film at these times, particularly sunrise, so by just doing this one step you are already differentiating yourself from the surplus of aerial footage out there.

Camera Settings

11. Use a Flat Image Profile

Camera settings will also play a big role in how cinematic your shots appear. Make sure you film in the flattest camera profile possible, which should give you the most dynamic range from your aerial camera. Filming this way helps to prevent the sky and clouds from blowing out, while also retaining detail in the darkest points of the ground.

12. Set Your Shutter Speed

Lower shutter speed if possible, especially on shots close to the ground, to avoid the strobing effect. Anything under 100th to 250th of a second is my recommendation, and use an ND filter if needed to keep your shutter speed down. Shooting at 500th or 100th of a second, which is common among drone cameras, will give you sharper frames, but it can give the footage some heavy strobing.

Post-Processing

Let's go over some post-processing techniques I use in After Effects to get better-looking results from my aerial shots.

13. Correct Distortion

The first step is to remove any distortion from the footage, which is mainly going to be done if you filmed with a GoPro camera. You'll get much better results if you shoot in 4K and are outputting the footage at 1080p; this gives you more pixel density in a 1080p composition and will help preserve image quality.

I add my footage to a 1080p composition and then add the effect **Optics Compensation**. Check the box that says **Reverse Lens Distortion**, and for a GoPro I typically put the field of view between 70 and 80.

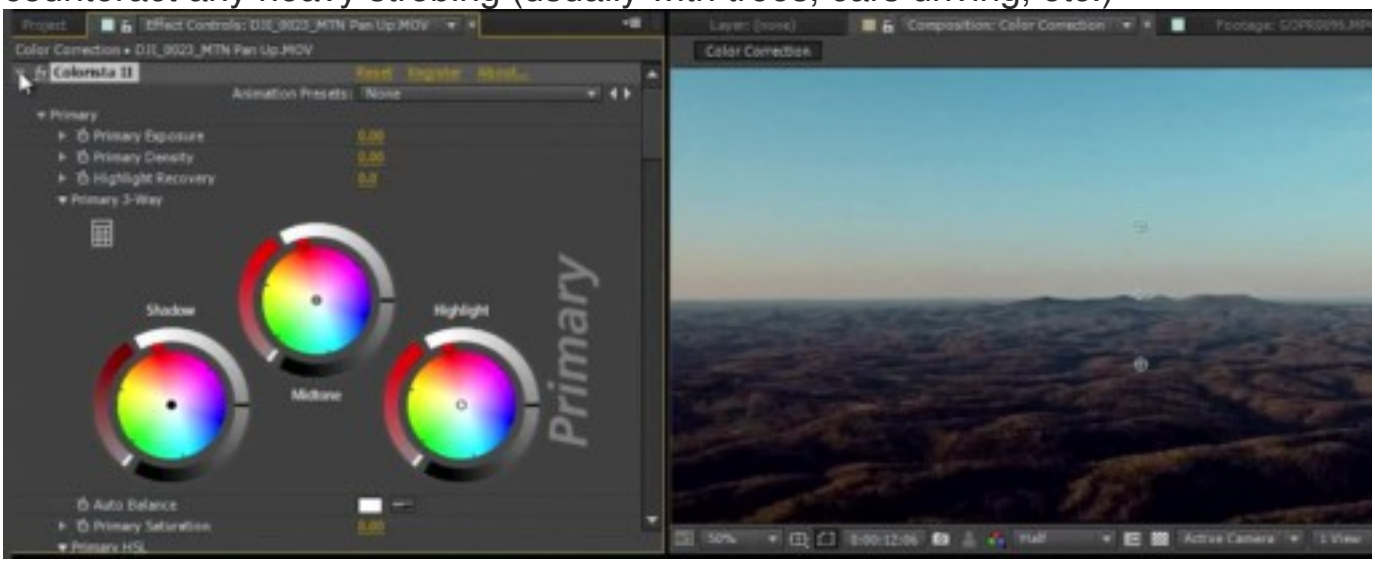
If you want an even wider shot, you can check the box that says **Optimize Pixels**. This will widen up the shot back to the original width, but you'll need to add black bars at the top and bottom, essentially converting this shot to a 2:35 aspect ratio.

14. Add Motion Blur

If you had to film at a higher shutter speed, or if you are using a GoPro camera and don't have control over shutter speed, you'll probably want to add a motion blur effect to your footage in After Effects to make it look more natural.

Use an effect like **Pixel Motion Blur** or the third-party plug-in Reel Smart Motion Blur. This will help add natural motion blur to your shot and will

counteract any heavy strobing (usually with trees, cars driving, etc.)



Vimeo

15. Color Grade Your Footage

Finally, the two best color grading plug-ins I recommend for aerial footage are Red Giant Colorista and Film Convert.

Colorista is by far the best color corrector in After Effects and can also be used for color grading footage. It has a lot of options and versatility, especially in regards to tweaking the hue and saturation of specific colors in your scene.

Film Convert is a film emulation plug-in that really can help differentiate your footage and give it a cinematic feel by adding a true film aesthetic. You can select from different film stocks and do some minor color correction. The film stocks help add cinematic value to your footage and help pull them away from the standard ‘drone video’ look.

TOP CAMERA DRONES

Model Name	Estimated Price (USD)	Price Check	Type
DJI Mavic Pro	$999	Check today's pricing	camera drone
DJI Phantom 4	$1399	Check today's pricing	camera drone
DJI Phantom 3	$499	Check today's pricing	camera drone
DJI Inspire 2	$2999	Check today's pricing	camera drone
Yuneec Q500 4K	$929	Check today's pricing	camera drone
Yuneec Typhoon H 4k	$1199	Check today's pricing	camera drone
3DR Solo	$999	Check today's pricing	camera drone
Parrot Bebop	$399	Check today's pricing	camera drone

https://www.pond5.com/collections/1245847-aerial-and-drone-highlights

5 Essential Drone Cinematography Techniques

By Avtandil Chachibaia

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5 COMMENTS
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Drones are getting less expensive by the day, allowing filmmakers and aerial videography enthusiasts to really get creative with new products. As a beginner drone pilot, I've been following the industry for the past few years, and wanted to share a few basic cinematography techniques that will be helpful to anyone interested in being a drone

pilot/videographer. (Note: If you're in the United States and interested in flying outdoors, you are legally required to register your drone with the FAA if it meets certain requirements, which you can do here).

To start off with some inspiration, here's a reel we put together to show the true power of aerial videography. Check it out and read on for the techniques you can get started with.

1. Aerial Pan Shot

Pan shots are typically captured while the camera is mounted on a tripod. In the case of drones, the tripod is replaced by the gimbal, in addition to the moving drone, away from your position. It's quite a bit more complicated than a simple pan obviously, but the visual effect you can achieve is that much better. I prefer to do a pan left or a pan right while actually moving the drone forward or backward to add some sophistication to my shots, but many artists prefer to stay in "hover mode" while panning to maintain the stability of the shot. It's a matter of taste and

what effect you're trying to achieve, so keep that in mind. Simply rotate your drone across the landscape or your subject, and you're golden!

Boston Aerial by BenLynn

2. Tracking Shot

Usually used while moving parallel with the subject, tracking shots are choreographed in synchrony. The whole essence of this technique is matching the speed and being able to maintain focus on your subject at the needed composition point. We see these types of shots in motion pictures all the time, as well as at sports events and in car commercials. The trick here is to coordinate and rehearse as many times as needed. The easy way is to strafe your drone with the controls, with the camera at the same height, distance, and focal length, but you can add more movement if you feel comfortable or if it's necessary.

Ferrari on Racetrack, Tracking Shot by BigPicture

3. Pedestal Shot

This is a type of shot where the drone is flying up or down without moving the camera/gimbal at all, and it's strictly relying on flying. This technique of camera movement can be also achieved through a crane or jib arm, but obviously the range we can get through drones for how far up or down we can go is tremendous, and gives us way more freedom. Pedestal shots are used a lot to show statues, monuments, and even views above the clouds. This can be as easy as adjusting your altitude control and going straight up and down, without having to worry about camera movement or focal distance.

Aerial – Rising Through the Clouds by Airman

4. Fly Over

We see these shots all the time, everywhere from commercials to music videos to TV shows — you name it. An easy way to go about filming a good fly-over shot is to choose one object or specific landscape and focus the whole camera movement around that one subject, while the drone is continuously flying and covering the distance until it passes the object from above. Fly-over shots are used for various purposes, but you can mainly think of it as a type of shot that helps you place the subject in a geographical perspective and show the scale of it.

Flying Over and Looking Down at Soccer Field by VIAFilms

5. Reveal Shot

A reveal shot pretty much does exactly what the name suggests. It serves as a technique to reveal the point of our interest or what we want the audience to focus on. It's probably my favorite aerial technique to create big "WOW" effects and show a specific time of the day, as well as serving as an intro and outro for a specific scene. Start your drone in a spot that's out of view of your subject, then move it until your subject is in view — it's as easy as that! Some classic motion pictures employed a reveal shot to create memorable scenes, such as the opening sequence of Stanley Kubrick's *The Shining*, which uses these type of shots to introduce us to the infamous Overlook Hotel.

Aerial Shot Along Mountain Ridges by OUTDOORLife

I hope these techniques come in handy when you're getting your feet wet with aerial cinematography. Don't forget to register your drone if you're in the United States and you're planning on flying your drone outdoors to avoid any legal trouble. Be safe, responsible, and ALWAYS use caution when you're flying, especially in public space.

Explore the clips used in our aerial highlight reel in the aerial and drone footage collection below.