L e e m i n g   L U T   PRO

Camera Setup Guide:	DJI Mini 3 Pro
Based On:	DJI Mini 3 Pro (firmware 01.00.0300)
Colour Space:	Rec709 gamma 2.4
Target Exposure:	ETTR
LUT Version:	Athena III & Pro III
LUT Release Date:	2022.10.04
Guide Version:	2022.10.04

INTRODUCTION

Thank you for purchasing Leeming LUT Pro™, the most accurate and professional Look Up Tables (LUTs) for your camera.

The LUTs have been carefully developed to get the maximum dynamic range and colour accuracy out of the supported profiles, giving you unparalleled Rec709 precision as well as perfect camera matching with other supported cameras in the Leeming LUT Pro™ range. Use them in conjunction with ETTR shooting principles and you will get the highest possible quality images out of the camera every time.

I am confident you will find these the most accurate LUTs for your camera. Anything less and I wouldn't have put my name on them!

Enjoy :)

Paul Leeming
Director / Writer / Cinematographer / Actor
Visceral Psyche Films
www.visceralpsyche.com

LICENCE

You are granted a personal licence to use Leeming LUT Pro™ on two computers. For use with more computers, please contact Visceral Psyche Films for bulk discount pricing. You may not upload the LUTs anywhere, share them with other people or incorporate them into other LUTs for derivative use (i.e. making creative LUTs using Leeming LUT Pro™ as the underlying base), whether they be for sale or not. Please respect the work that has gone into the LUTs and support those supporting you.

COMPATIBILITY

Leeming LUT Pro™ is compatible with any software or hardware device that supports a 33x33x33 cube LUT. For a full list, please see the website.

REQUIREMENTS

1.   DJI Mini 3 Pro drone.
2.   Spectrally neutral white or grey card, for white balancing the camera (eg. the white balance side of an X-Rite Colorchecker Passport is designed for this).
3.   Leeming LUT Pro™ for the DJI Mini 3 Pro.

NOTE: Items highlighted in yellow have an adverse effect on LUT accuracy if changed away from the recommended values in this guide.

QUICK REFERENCE OF IMPORTANT CAMERA SETTINGS

The settings below are recommended for the LUTs to work properly, in conjunction with an accurate white balance and using the ETTR zebras to show where the highlights of an image are clipping.

If you deviate from these settings, your colorimetry and luma curves won't match precisely to Rec709 and you may get other errors in your footage. You can find the details of how to set these in the next section.

	D-Cinelike	Normal
Overexposure Warning (Zebras)	ON	ON

FULL CAMERA SETUP GUIDE

Based on the Mini 3 Pro, using the DJI Fly app interface. Your camera may not have all the same features so adjust as necessary.

1. Plug your phone or tablet into your remote controller and start the DJI Fly app, then press the Connect Aircraft button if it doesn't automatically connect.
2. First tap on the film strip icon above the red Record button on screen on the right hand side, and select Video Mode, then exit.
3. Tap on the three dots top right of screen to enter the Menus.
4. Safety – set your max altitude and distance as well the Auto RTH (Return to Home) Altitude. You can also calibrate your gimbal and compass here, as well as unlocking Geo Zones etc. I recommend setting Signal Lost to Return To Home (make sure your RTH Altitude considers local heights of objects to avoid the drone crashing into them when on autopilot!).
5. Control – Choose your flight mode etc and Units as desired. Set Allow Upward Gimbal Rotation ON to give you more flexibility in shot tilting.
6. Camera – Set Format as desired (MP4 or MOV), Color to D-Cinelike (10bit 4:2:0) or Normal (8bit 4:2:0) and Coding Format as desired (H265 if your computer can handle it). Set Video Subtitles (provides a data stream of camera and drone position etc for post in a separate SRT file next to the movie file) as desired.
7. Turn Overexposure Warning ON. If using Manual Focus, set your Peaking Level as desired.
8. Set White Balance to Manual and adjust to the correct Kelvin value. If you hold a white balance card in front of the drone when switching from Auto to Manual, the first custom value will be very close to neutral, so this is my recommended method for consistency and avoiding any colour shift during flight. You will need to tweak the white balance in post BEFORE applying the LUT, so I recommend shooting a few seconds of your white balance card before takeoff in the light you expect when flying, for best accuracy in post.
9. Set Storage to SD Card and Format it here if needed.
10. You can use Cache When Recording with your selected size, to record a low quality backup to your controller, phone or tablet if desired.
11. Transmission – Set as needed for your region to avoid interference.
12. About – Set your drone's name if needed. You can also check for firmware updates in this screen, to ensure you have the latest versions.
13. Exit the Menus by tapping outside the settings box.

14. Tap on the film strip icon above the Record button to bring up the Camera functions.
15. <mark>Choose Video</mark>, then <mark>Normal mode (this is NOT the Color Mode, this is the type of video recording being shot, eg Normal, Slo-motion etc)</mark>, then choose your desired resolution and framerate. I recommend 4K at 24fps for cinema work, but you can choose for higher framerates and combinations if desired. In post you can then re-time your footage to your project framerate for slomo effects.
16. Tap on the little Auto camera icon bottom right of the screen to switch it to PRO mode (manual adjustment). Here you can set your ISO, white balance, iris and shutter speed manually for greater control over your exposure.

You are now ready to use Leeming LUT Pro™ with the maximum picture quality available. <mark>Be sure to visit the website to read up on how to use ETTR (Expose To The Right) principles</mark> to get the most dynamic range out of your sensor, as well as the associated Leeming LUT Pro™ LUT Installation Manual on how to apply the LUTs to your footage in post-production:

<div align="center">

www.LeemingLUTPro.com

</div>

HARDWARE / SOFTWARE QUIRKS AND BUGS

1. You can tap on a subject on the screen to have the camera focus on that subject. You can also drag a box around a subject to enable Active Track.
2. <mark>The Normal profile is only 8bit whereas D-Cinelike is 10bit</mark>, so I do NOT recommend shooting Normal and only using the associated LUT to fix the image if you shot in that mode by accident. That said, 10bit on this camera seems to still incur banding in flat areas of the image, so I think it's probably pseudo-10bit at best.
3. <mark>For exposure, be sure there's no zebras showing from the Overexposure Warning at all, as the top end of the DJI profile twists the colour more than normal if you overexpose.</mark>

GUIDE CHANGELOG

2022.10.04   Initial release.