[](http://crossmark.crossref.org/dialog/?doi=10.33153/dewaruci.v17i2.4147&domain=pdf)Vertical Vistas: Technical Limitations of Drones in Capturing Natural Landscape Videos for Instagram Reels

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| ABSTRACT |  |  |
| This article examines the technical limitations of drones in creating vertical videos of natural landscapes for Instagram Reels, focusing on resolution, stability, and framing challenges. Our research involved experimental tests and surveys with 20 professional landscape videographers. Findings revealed that vertical videos often suffer from reduced resolution and sharpness due to necessary cropping of horizontal footage, leading to pixel density loss and upscaling issues. Stability problems were prevalent, as current gimbal systems are optimized for horizontal shooting, resulting in jittery footage when capturing vertical frames. Additionally, the narrower field of view in vertical videos limited landscape expansiveness, complicating effective framing and composition. Survey feedback corroborated these findings, highlighting significant stabilization issues, reduced resolution, and framing challenges, and emphasizing the labor-intensive nature of post-production for vertical formats. To address these limitations, advancements in drone technology and post-production software are essential. Proposed solutions include developing gimbals designed for vertical orientation, equipping drones with higher resolution sensors, introducing native vertical shooting modes, and utilizing AI-driven software tools to automate cropping, re-framing, and stabilization processes. These innovations would enhance video quality, streamline workflows, and expand creative possibilities, ultimately improving the production and engagement of vertical video content on social media platforms.  [https://licensebuttons.net/l/by-sa/3.0/88x31.png](http://creativecommons.org/licenses/by-sa/4.0/)This is an open-access article under the [CC–BY-SA](http://creativecommons.org/licenses/by-sa/4.0/) license |  | Article History  Received …  Revised …  Accepted …  Keywords  Vertical video  Drone videography  Instagram reels  Drone limitation  New media |