

LABORATORY: CNR-ISPC

NAME OF THE INSTRUMENT

Spheric photo/videocamera Insta 360 Pro2

GENERAL DESCRIPTION:

The Insta 360 Pro2 videocamera allows shooting 360° pictures and videos up to 12k resolution, to be suitable in many ways: virtual tours (interactive and non-interactive); spheric photogrammetry survey (allowing to obtain 3d models fastly: a feature particularly feasible for indoor use), and for AR projects (QR code labeled panels); as well as for time lapse immersive videos. They are requested an early stage on field and a second one for data post-processing. The device performs video and picture recording, outputs equirectangular frames in standard res. 8k (12k res. is possible in specific conditions), as well as audio recording with a 4 ways mic. It is possible to output raw files with original colorimetric data, thus allowing advanced editing.

TECHNICAL DESCRIPTION:

Standard resolution 8k.

Max resolution 12k (burst).

Exposition functions: HDR and multi-exp bracketing mode

Monoscopic or stereoscopic output. Video streaming option. remote control through tablet. Time lapse function.

ISO range: 100-6400

Lenses: 6 x 200° F2.4 fisheye

Photo:

Real-time Stitching:

7680 x 7680 (8K 3D)

7680 x 3840 (8K 2D)

Post-processing Stitching:

7680 x 7680 (8K 3D)

7680 x 3840 (8K 2D)

Video:

Post-processing Stitching:

7680 x 3840 @30 FPS HDR (8K 2D)

7680 x 7680 @30 FPS (8K 3D)

7680 x 3840 @60 FPS (8K 2D)

6400 x 6400 @60 FPS (6K 3D/2D)

3840 x 3840 @120 FPS (4K 3D/2D Binning)

Real-time Stitching:

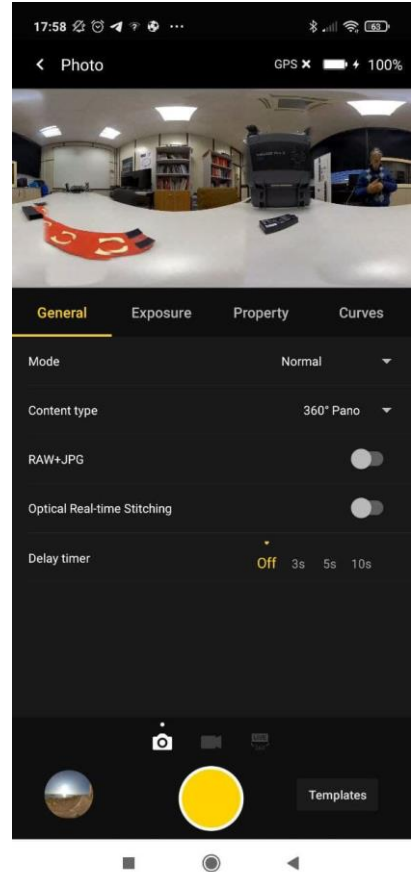
3840x3840@30fps (4K 3D)

3840x1920@30fps (4K 2D)

Output formats: .jpg, .dng, .mp4

Operating conditions: 0°-40°. Not waterproof

Further infos: <https://onlinemanual.insta360.com/pro2/en-us/compare/specification>



Figures: Device detail; Controlling software, examples of device in function on field; examples of equirectangular frame.

FURTHER INFORMATION:

- Palombini A.; D'Annibale E.; Demetrescu E.; Di Nucci A.; Izzo P.; Fanini B.; Pagano A.; Peretto C.; Sala B., 2020, *"I paesaggi del passato virtual tour nel paleolitico di Isernia"* Atti del convegno: Reti Museali e Preistoria, Archeomolise, 35.
- Bevilacqua L.; Fanini B.; Mariniello N.; Palombini A.; Scotto di Carlo V.; Sorgente A.; Vanacore P., (in stampa) "Full immersion in Cultural Heritage environments: a new IDEHA for data managing and displaying", in: atti del convegno ArcheoFOSS 2021. GROMA 2022, Università di Bologna.

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