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The Panoramic Camera for the Pasteur exobiology payload of the ExoMars rover

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The recently approved ExoMars rover is the first element of the ESA Aurora programme and will deliver the Pasteur exobiology payload to Mars in 2013. The 0.7 kg Panoramic Camera will provide multispectral stereo images with 65° field-of-view (1.1 mrad/pixel) and high resolution (59.7 μ rad/pixel) monoscopic "zoom" images with 3.5° field-of-view.

The Panoramic Camera instrument is designed to fulfil the digital terrain mapping requirements of the mission as well as providing multispectral geological imaging, colour and stereo panoramic imaging and water vapour abundance and dust optical depth measurements. It can also be used for high resolution imaging of inaccessible locations on crater walls and to observe retrieved subsurface samples before ingestion into the rest of the Pasteur payload. Although not required in the baseline design it is planned to investigate the feasibility of detecting fluorescence of biological pigments under UV illumination.