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Options for the Mascot Asteroid Lander Camera

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The Marco Polo Surface Scout (MASCOT) lander has been proposed for both the Marco Polo and Hayabusa II asteroid sample return missions [1]. The aims of MASCOT are to define a surface package that would i) accomplish context science (complementing the remote sensing observations from the main spacecraft) and to provide ground truth information for the returned sample, ii) accomplish stand-alone science such as geophysics and iii) serve as a 'scouting' vehicle to guide the sampling site selection for the main spacecraft [1].

In collaboration with the MASCOT study team the MASCOT Camera team are proposing an imager to provide wide field multispectral images of of the MASCOT touch down sites and digital elevation models (DEMs) of the asteroid surface from stereo pairs during the lander's hopping flight. This imager will be based on the teams heritage with the Beagle 2 and ExoMars stereo and panoramic imagers [2,3]. This poster will discuss the scientific objectives, design options and resource impacts of this instrument.

References:
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