

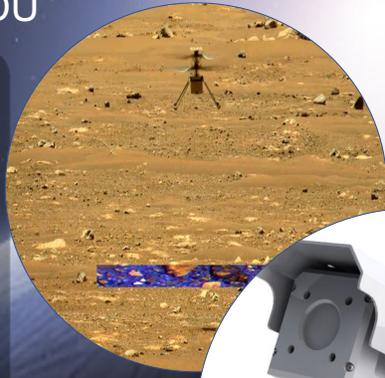
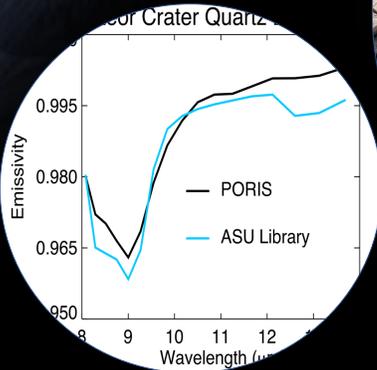
PORIS: An Ultra Light Weight Thermal Hyperspectral Imager

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What PORIS is

PORIS is a thermal IR hyperspectral imager with 300g mass operating from 3-14 microns. It provides extremely high precision thermal imaging (<10 mK sensitivity) and high performance spectral imaging

PORIS was invented at the University of Hawaii and supported by DARPA to place the power of hyperspectral imaging in the hands of every soldier



What PORIS NEEDS

PORIS needs space qualified microbolometers

For planetary landers, PORIS needs a **low mass pan/tilt** system. At 2 kg, our current pan/tilt is almost ten times the mass of the PORIS spectrometer. **We need a pan/tilt < 1 kg for lunar landings.**

For Mars helicopters, lunar drones or helmet mounts PORIS needs extremely lightweight computing. Our current high performance computer with cabling is 700 g, **we need a 200g computer** that can handle our processing requirements.

For orbital missions, PORIS is a high data volume instrument, **we need optical communication** to break the bottleneck.

What PORIS OFFERS

For NASA PORIS provides state of the art thermal HSI for any resource constrained platform, Cubesat, Helicopter or a helmet mount for an astronaut.