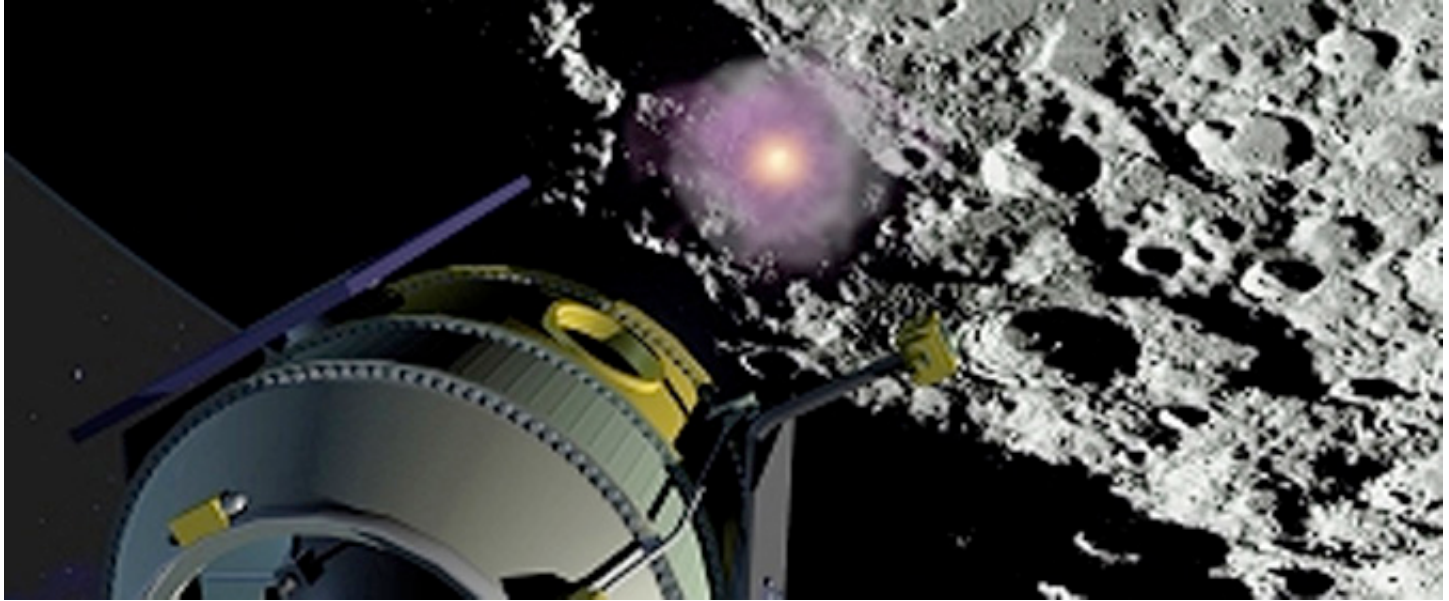


## Nasa blasts Moon in search for water

By Katie Scott  | 18 August 2009 | Categories: [Technology](#)



When the Beagle landing craft was presumed to have crashed into the surface of Mars, it marked the failure of the project. If Nasa's new spacecraft collides head-on with the Moon, the mission will be deemed a success.

The Lunar Crater Observation and Sensing Satellite (LCROSS) will end up embedded in the surface of the Moon as part of a mission to look for water there.

Before it crash-lands, LCROSS will fire two large projectiles into a permanently shadowed crater at one of the lunar poles. The resulting crater within a crater is expected to be the size of a football pitch and between 15 and 20 metres deep.

The impact will create a plume of lunar material that will be analysed for the presence of water.

One crucial piece of equipment will be an ultra-rugged thermal imaging camera built by [Thermoteknix Systems](#) in Cambridge. This will be used to monitor temperature variations at the impact and in the plume.





The camera will be on board the LCROSS, which will head towards the Moon four minutes after a section of the craft called the Centaur crashes into its surface. Once LCROSS has sent its images and data back to Nasa, it too will crash.

Dr Richard Salisbury, the managing director of Thermoteknix Systems, explains that if there is water present in the debris, it will split into hydrogen and oxygen after impact. If the equipment on LCROSS fails to pick up traces of these gases, they will be detected by another Nasa craft, the Lunar Reconnaissance Orbiter, which will remain in orbit after LCROSS (shown below) has detached.



The mission is part of a Nasa programme to renew exploration of the Moon. The main aim is to find out if there is water under the surface, which could support the existence of life. It would also aid further exploration of space, as the Moon could be used as a refuelling station for rockets and astronauts.

The impact is expected to take place in early October.

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