



## Castrol joins Massachusetts Institute of Technology's Media Lab to support research on lunar landings

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- Castrol membership supports the AstroAnt Payload Program – a miniature robotic swarm designed to perform tasks on the surfaces of spacecraft, rovers, and landers.

Castrol joins the Massachusetts Institute of Technology's [Media Lab](#) to support the Media Lab's [AstroAnt Payload Program](#).

AstroAnts constitute a miniature robotic swarm designed to perform inspections and diagnostic tasks on the external surfaces of spacecraft, rovers, and landers. Each robot features a modular design; the sensor payloads can be tailored based on different inspection missions, and the data collected from the robots can be used to monitor operations in space. Working with Lunar Outpost, the AstroAnt robot will be sent to the Moon for a technology demonstration test.

Through this research collaboration, Castrol will work closely with the MIT Media Lab's [Space Exploration Initiative](#) and [Responsive Environments](#) research groups to test space-grade lubricants to withstand the extreme environment of the lunar surface enabling the AstroAnt robot's motors to function as it collects thermal data and measurements of the Lunar Outpost MAPP Rover.

“At Castrol, we are moving forward on a pathway of change. We have been involved in the Space industry for over 65 years, including many of the pioneering Apollo missions. The success of autonomous machines like AstroAnt will be critical for remote maintenance, operating in environments where repair or failure is not an option,” said Michelle Jou, CEO, Castrol.

“We are privileged to be working with the MIT Media Lab as a research collaborator, pushing the boundaries of space exploration, leveraging ground-breaking technologies, and driving innovation to unlock the mysteries of the moon and beyond,” says Nicola Buck, CMO Castrol.

[To the Moon to Stay](#) brings together the MIT community and program partners, including Castrol, to reimagine humanity's return to the moon. Payloads will be deployed on a Lunar Outpost MAPP rover to the lunar south pole. The MAPP rover is carried by an Intuitive Machines Nova-C lander, which in turn rides aboard a SpaceX Falcon 9 rocket.

“We are delighted to have this opportunity to send cutting-edge experiments to the surface of the moon on a historic mission and as part of MIT's To the Moon to Stay program,” states Dr Ariel Ekblaw, director of the MIT Media Lab's Space Exploration Initiative, and primary investigator for MIT's lunar

mission with Lunar Outpost. “Our payloads represent core tenets of our research, from autonomous swarm robotics to supporting future VR-mediated exploration by lunar astronauts, to democratizing access to space through the messages we carry with us. This mission, enabled by NASA CLPS, also marks a major milestone for researchers – we can now reach the moon faster and more economically than ever before.”

Find out more at [mitmedialab.info/astroant\\_castrol](https://mitmedialab.info/astroant_castrol).

## Notes to editors

### About Castrol

Castrol, one of the world’s leading lubricant brands, has a proud heritage of innovation and fuelling the dreams of pioneers. Our passion for performance, combined with a philosophy of working in partnership, has enabled Castrol to develop lubricants, coolants, and greases that have been at the heart of numerous technological feats on land, air, sea, and in space for over 100 years.

Castrol is part of the bp group and serves customers and consumers in the automotive, marine, industrial, and energy sectors. Our branded products are recognized globally for innovation and high performance through our commitment to premium quality and cutting-edge technology. bp joined the Consortium lab membership (CLM) in 2016, which has now been extended to Castrol to help play a leading role in fulfilling the MIT Media Lab’s mission to create transformative technologies, experiences and systems that enable people to reimagine and redesign their lives.

For more information about Castrol, visit: [www.castrol.com/forward](https://www.castrol.com/forward).

## Further information

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