

Lunar Exploration Accelerator Program

Link:

<https://www.asc-csa.gc.ca/eng/funding-programs/programs/leap/default.asp>

Funding Information:

LEAP has a total budget of \$150 million over five years to support technology development, in-space demonstration and science missions. The program will have a focus on artificial intelligence, robotics and health initiatives.

Other Info: Potentially interested in funding many small projects over a couple large ones (Matt Cross – 2020).

Funding for LEAP has been allocated for five years, up to fiscal year 2023–24.

Where to find Opportunities?

When opportunities are available, they will be posted to the following website:

Link:

<https://www.asc-csa.gc.ca/eng/funding-programs/funding-opportunities/default.asp?filter=lunar>

Canada's Contribution to Moon Exploration:

Canada has officially announced its participation in the exciting next chapter of Moon exploration, which will include:

1. A smart robotic system known as Canadarm3 for the Gateway, a small space station that will orbit the Moon
2. A new program for innovative Canadian science and technology designed for the Moon

Expanding on Canadarm3:

Building on a strong legacy of international collaboration in space exploration, partners in the ISS, including Canada, are planning the development and construction of the Lunar Gateway, which is being led by the United States. The Gateway will serve as a science laboratory, a testbed for new technologies, and a hub for operations and exploration missions to the lunar surface.

Canada's contribution to the Lunar Gateway will be Canadarm3, a smart robotic system which includes a next-generation robotic arm as well as equipment and specialized tools. Using cutting-edge software and advances in artificial intelligence, this highly-autonomous system will be able to:

- maintain, repair and inspect the Gateway
- capture visiting vehicles
- relocate Gateway modules
- help astronauts during spacewalks
- enable science both in lunar orbit and on the surface of the Moon

The ability to perform these tasks without human intervention will be vital as the Gateway will not be crewed continuously, and communications delays caused by its lunar orbit will prevent direct real-time control of the robotic system from Earth.

Expanding On LEAP:

The Canadian Space Agency launched a new initiative known as the Lunar Exploration Accelerator Program (LEAP). This program prepares Canada's space sector for lunar exploration by offering a wide range of opportunities for Canadian science and technology activities in lunar orbit or on the Moon's surface.

LEAP's objectives are to:

- Enable the Canadian space sector to develop and conduct science experiments designed for lunar conditions, to help prepare for robotic and human missions
- Advance and demonstrate innovative technologies in lunar orbit, on the Moon's surface, and beyond
- Begin to develop technologies that will be required as part of future deep-space missions

Space Strategy for Canada (small excerpt):

Initiatives such as the SIF are providing new opportunities for space companies and academia to link to other industrial sectors and develop new partnerships to accelerate technology solutions to broader market applications. Since 2015, the Government has invested over \$45 million in the space sector through the SIF and related programs. Partnering with industry through programs such as the SIF, the STDP and Innovative Solutions Canada helps attract investments, create jobs and scale up firms, and supports cutting-edge R&D. Our plan will also leverage the purchasing power of government to help grow the sector.