

IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)  
Future Space Transportation Systems Verification and In-Flight Experimentation (6)

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## SPACE COBOT FOR IN-ORBIT REPAIR

**Abstract**

During IAC 2019, Dassault Aviation proposed using a space Cobot in order to inspect the Space Rider vehicle in orbit. Current architecture was based on a 6U CubeSat.

In addition to the inspection function, possibility of repairing small damage(s) is now taken into account, in order to keep the Space Rider structure integrity before the re-entry phase. As inspections and repairs are far from being the main functions of Space Rider vehicle, Cobot has to be kept as small as possible, while being efficient. The paper will present:

- Damages able to be dealt with,
- Repair concept of operations (ConOps),
- Grip solutions,
- Tools to be used,
- Updated architecture.