Modular Robotic Assets and Technologies for Future Onorbit Applications

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Abstract

Existing commercial satellites and space platforms are traditionally the result of a highly customized monolithic design with very limited or no capability of servicing and maintenance. To offer those capabilities while remaining cost effective, high performing, reliable, scalable and flexible, key technologies need to be developed. Within EU MOSAR and ESA MIRROR-SA projects, Space Applications is developing such technologies for demonstrations, in particular modular robotic systems involving manipulators and HOTDOCK standard interfaces, required to enable this fundamental shift of paradigm in designing and deploying satellites and spacecraft. This talk deals with the development of such systems for future on-orbit applications, especially servicing and large assemblies.

