

# Method and Associated Apparatus for Capturing, Servicing and De-Orbiting Earth Satellites Using Robotics

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## DESCRIPTION

This invention is a robotic system for servicing free-flying spacecraft. The system has a multi-axis manipulating grapple arm including an end effector on one end. A dexterous arm has two ends, where one of the two ends includes an interface for servicing the spacecraft. End effector of the grapple arm connects to the other end of the dexterous arm. An interface services the spacecraft that includes a vision system for providing visual monitoring capabilities to the operator.

## FEATURES AND BENEFITS

- The system is autonomously controlled by commands which are subject to manual override by the operator in telecommunication with the robotic system, thus autonomously servicing Hubble space telescope (HST) and other free-flying satellites during flight using robotics.

## APPLICATIONS

- Robotics
- Communications
- Weather
- Earth Remote Sensing
- Defense

## FOR MORE INFORMATION

If you are interested in more information or want to pursue transfer of this technology, GSC-15002-5, please contact:

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