## Lemur IIa Capabilities

Kevin Nickels, Brett Kennedy, Hrand Aghazarian, Curtis Collins, Mike Garrett, Lee Magnone, Avi Okon, and Julie Townsend

## Jet Propulsion Laboratory \* Jet Propulsion Laboratory and Trinity University

## Abstract

Lemur IIa, the second-generation Limbed Excursion Mechanical Utility Robot, is a six-limbed walking robot developed at NASA's Jet Propulsion Laboratory. Lemur is distinct in part because each limb was designed be used for *both* walking *and* manipulation. It is intended to be a prototype of a dexterous, operationally flexible robot for on-orbit assembly, inspection, and maintenance.

This video illustrates some of the current capabilities of this platform. Demonstrations included are omnidirectional walking without rotating the robot, body pose control from a fixed stance, visually guided docking with a recharging station, and manipulation and inspection with multiple tools (on multiple limbs).

These capabilities represent a sample of the current tasks Lemur is performing. Please see www-robotics.jpl.nasa.gov for more information and demonstrations about Lemur.