

# ARCHINAUT ONE: HIGH POWERED SMALL SATELLITE

IN-SPACE MANUFACTURING & ASSEMBLY SYSTEM ENABLING HIGH POWERED SMALL SATELLITES



Made In Space, Inc. (MIS) develops state-of-the-art space manufacturing technology to support exploration, national security, and industrialization of the space environment. MIS has worked with NASA, DoD, and various commercial entities on space-related projects.

## ARCHINAUT OVERVIEW



Archinaut One

One, creates 20 m<sup>2</sup> (5.2 kW) of solar arrays from an ESPA-class bus by manufacturing 10 m booms on-orbit.

Archinaut can be utilized to provide solar array systems for ESPA-class satellites, large satellites, and other spacecraft.

By improving the packed volumetric efficiency by an order of magnitude and eliminating mass from deployment mechanisms, Archinaut can be utilized to provide solar array systems for ESPA-class satellites, large satellites, and other spacecraft.

## FUTURE MISSION POSSIBILITIES:

Earth observation and exquisite mapping payloads. Platforms with multiple low/medium power hosted payloads. Host for payloads that require stronger signal strength and data processing capabilities.

Developing technologies that enable on-orbit manufacturing and assembly including the ability to 3D print in microgravity and in thermal vacuum, and robotic arm capabilities.

The first Archinaut mission, Archinaut

## VALUE OF ARCHINAUT ENABLED SMALL SATELLITES:

- + Increased volume availability allows for large or additional payloads with 50 kg of payload space available.
- + Increased power generation enables small satellites to:
  - + Generate significantly more on-satellite computing power and data processing for radar, constellation operations, and other process heavy applications
  - + Host high-powered instrumentation
  - + Enable rapid prototype testing of high-powered instruments
  - + Serve as a platform for multiple low/medium power payloads
  - + Utilize electric propulsion and other high-powered applications on-orbit
- + Increased power and volume availability allows some missions to migrate from larger to smaller buses creating a 70-75% savings in launch costs.