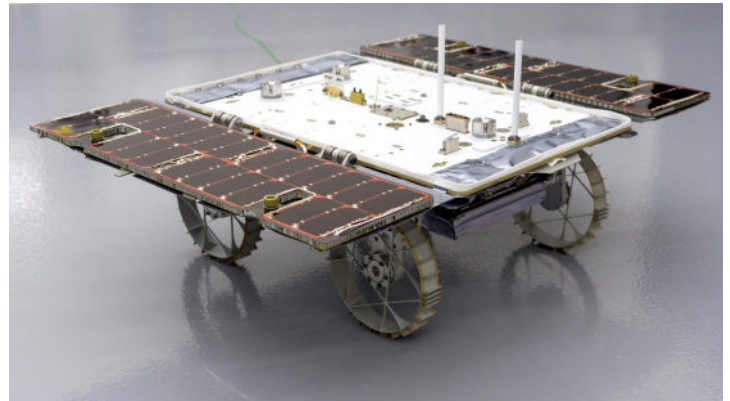


## Autonomous Rover for Lunar Exploration

In collaboration with the Jet Propulsion Laboratory, Motiv Space Systems aided in the development of the Cooperative Autonomous Distributed Robotic Exploration rovers. These rovers can work independently or collectively to explore and interact with the lunar surface. Motiv is able to offer this flight-qualified, flexible lunar mobility system on a commercial basis. CADRE rovers can be customized as needed to suit a wide range of payloads and applications.

CADRE's first mission is scheduled to fly as part of a Commercial Lunar Payload Services (CLPS) mission. The mission will demonstrate a small team of rovers communicating through a mesh network exploring the terrain autonomously while creating a 3D map of the surface and taking subsurface measurements with a multi-static ground penetrating radar.

For requests or questions send to: [info@motivss.com](mailto:info@motivss.com)



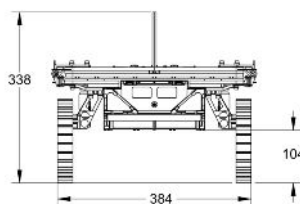
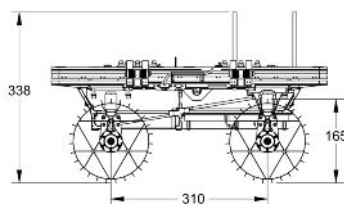
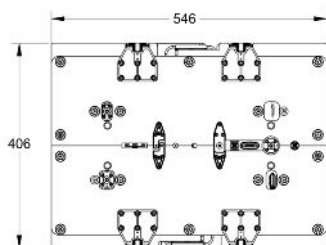
A flight CADRE Rover in its deployed state  
(Image Credit: NASA/JPL-Caltech)

|                        |                                            |
|------------------------|--------------------------------------------|
| Rover Mass             | 5.6 kg*                                    |
| Payload Volume         | 185mm x 205mm x 32mm **                    |
| Payload Mass           | 1 kg**                                     |
| Payload Power          | 12V, 1A**                                  |
| Max Traversable Slope  | 45° in any orientation                     |
| Traverse Speed         | ~3.5 cm/s                                  |
| Navigation Instruments | Stereo cameras, IMU, UWB, and a Sun Sensor |
| Communication System   | Ultra Wide Band Radio***                   |

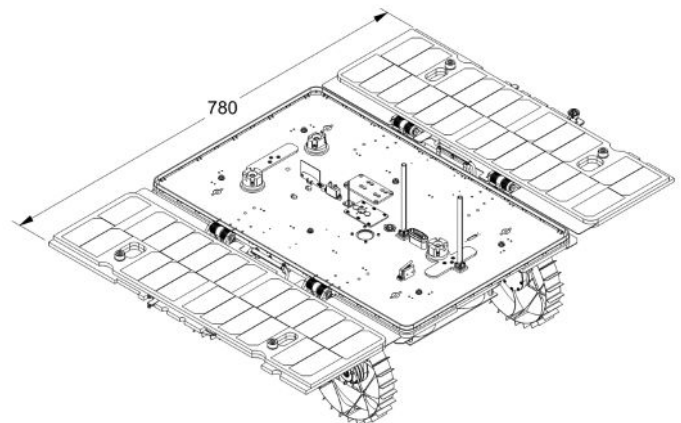
\* Rover Mass includes single rover. Deployment system (not shown) is 2.9kg.

\*\* Standard payload accommodations. Alternatives available upon request.

\*\*\* A CADRE Base Station can be included to facilitate communication from the lander if needed.



Rover dimensions (mm) in stowed state



Rover dimensions (mm) with solar panels deployed