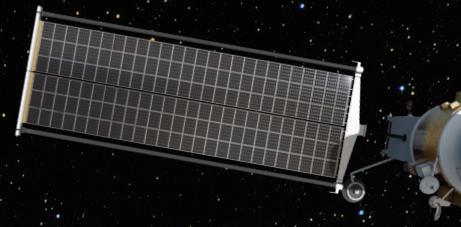




ROSA (Roll-Out Solar Array)



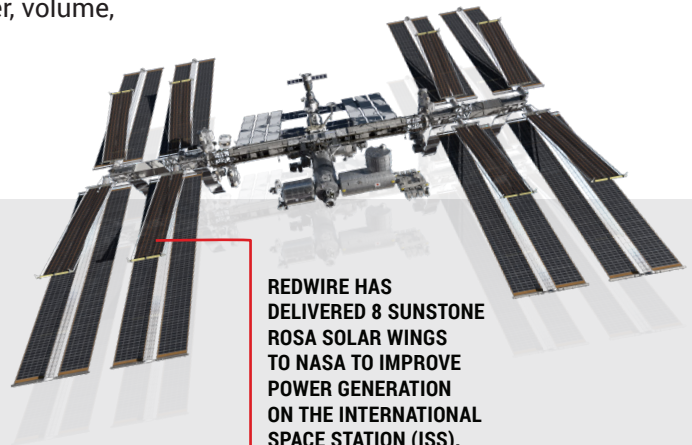
> Scalable. Powerful. State-of-the-art.

Redwire's Roll Out Solar Array (ROSA) is a scalable, high-power solution with compact stowed volume to due to its unique rollable configuration. With heritage on LEO, GEO, and deep space missions alike, ROSA is the ideal solar array for missions with the most demanding power, volume, and mass requirements.

- + Standard and custom configurations to support multiple mission profiles
- + Flight heritage on key NASA programs, including DART and ISS

SPECIFICATION TABLE

Solar Array Wing Configuration	Deployed Length (m)	Mass (kg)	BOL Power (kW)	Stowed Width (m)
DIAMOND	8.6	36	3.3	2.32
OPAL	12.6	42.7	5.3	2.67
SAPPHIRE	21.2	160	12.9	3.35
TANZANITE	24.8	180	17.6	4.15
SUNSTONE	19.4	331	28	3.1
PHENACITE	18.5	521	37	4.94



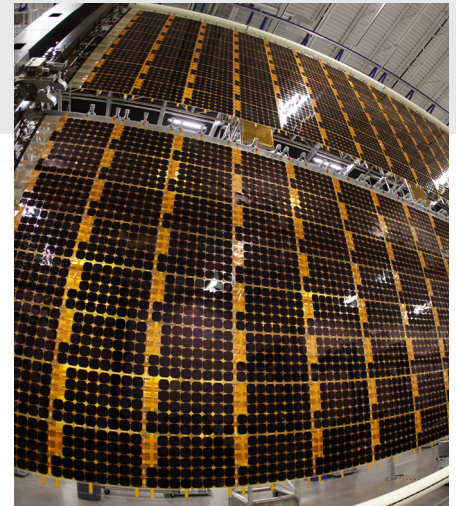
REDWIRE HAS DELIVERED 8 SUNSTONE ROSA SOLAR WINGS TO NASA TO IMPROVE POWER GENERATION ON THE INTERNATIONAL SPACE STATION (ISS).

Photo Credit: NASA

PRODUCT CAPABILITIES

ROSA is a next-generation solar power solution engineered for high performance, scalability, and simplicity. Utilizing strain energy for deployment, a proprietary roll-up stowed configuration, and an integrated modular photovoltaic blanket assembly eliminates the need for motors or complex mechanisms, offering a compact, lightweight, and modular design optimized for a wide range of space missions.

- + Innovative Composite Booms utilize strain energy to produce significant deployment force; no motors or complex mechanisms are required. The Booms transform into the Solar Array's primary structure with high deployed strength and stiffness upon deployment.
- + The Integrated Modular Photovoltaic Blanket Assembly (IMBA), crafted with highly manufacturable Solar Power Modules (SPM), is designed to accommodate all types and sizes of photovoltaic cells, as well as flexible concentrators. Its rolled configuration offers exceptional durability against launch-induced forces and vibrations.
- + High stowed power density (~40kW/m³)
- + High strength and stiffness when deployed
- + Can operate from 12V to >300V
- + Optional retractable solar wings



PHENACITE ROSA SOLAR WING DEPLOYMENT TEST AT REDWIRE'S STATE-OF-THE-ART FACILITY IN GOLETA, CALIFORNIA

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