




# solar arrays


Developped with support of





**HEMERIA designs and produces solar arrays systems for new generation of operational space systems, used for science, commercial and defence small satellites platform.**

 Solar array product from substrate, PVA, HDRM and hinges mecanisms

 From 30 to 1 KWatt

 Application for LEO, GEO, and Exploration.

 A reliable solution fully designed, qualified, manufactured and integrated in-house.

 Fast delivery

 Fast repair process

**8 years in orbit lifetime**

### heritage

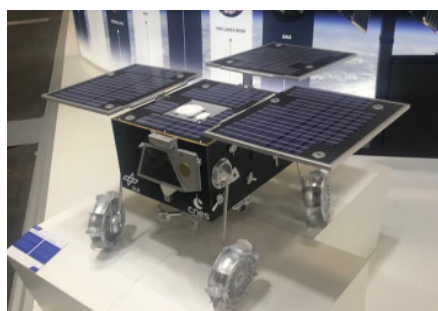
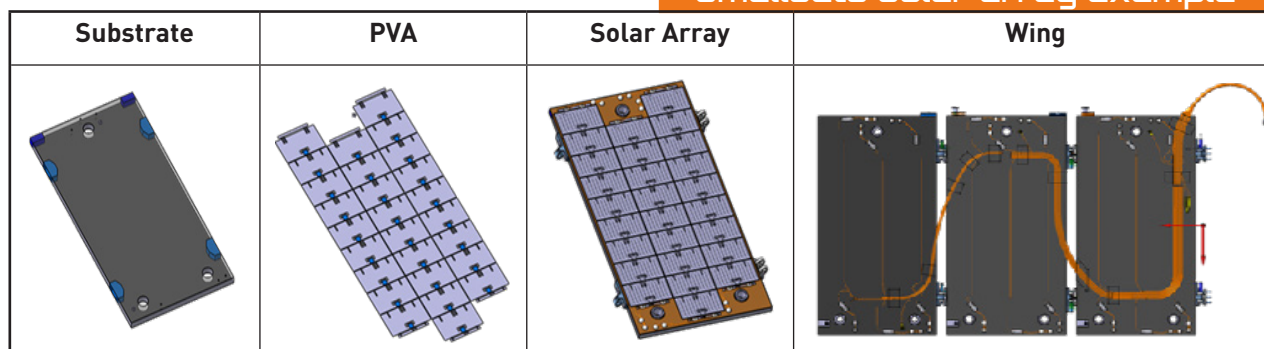
- 180 SOLAR ARRAYS FOR IOT CONSTELLATION OF 25 NANOSATELLITES KINEIS
- MARTIAN MOONS EXPLORATION ROVER SOLAR ARRAYS



## general specifications

<b>Number of panels</b>	<ul style="list-style-type: none"> <li>• 1-3 panels per wing</li> </ul>
<b>Range</b>	<ul style="list-style-type: none"> <li>• 30 to 1 KWatt</li> <li>• Highly scalable to customer power needs</li> </ul>
<b>Cells</b>	<ul style="list-style-type: none"> <li>• Azurspace AZUR 3G30A / Spectrolab XTE CIC</li> </ul>
<b>Lifetime</b>	<ul style="list-style-type: none"> <li>• Qualified for 8 years in LEO, Qualification for 3 years in GEO under progress</li> </ul>
<b>Electrical I/F</b>	<ul style="list-style-type: none"> <li>• Sub D connector or flying leads</li> </ul>
<b>Orbit</b>	<ul style="list-style-type: none"> <li>• LEO, GEO, MEO, Exploration</li> </ul>
<b>Lead Time</b>	<ul style="list-style-type: none"> <li>• Design / qualification (if required) : 2 to 3 months</li> <li>• Production and acceptance tests 6 to 9 months</li> </ul>
<b>Substrate</b>	<ul style="list-style-type: none"> <li>• CFRP skin with aluminum honeycomb panel</li> </ul>
<b>Mechanisms</b>	<ul style="list-style-type: none"> <li>• Fitting SADM (information on demand)</li> <li>• HEMERIA own development for mechanisms (HRM, Hinges) or accommodation to customer request</li> </ul>
<b>Repair</b>	<ul style="list-style-type: none"> <li>• Qualified repair processes</li> </ul>
<b>Stowed frequencies</b>	<ul style="list-style-type: none"> <li>• &gt; 100Hz</li> </ul>
<b>Mass</b>	<ul style="list-style-type: none"> <li>• Mechanisms 0,5Kg for a wing of 3 panels</li> <li>• Panel + PVA : 3,4Kg/m<sup>2</sup></li> </ul>
<b>Loads</b>	<ul style="list-style-type: none"> <li>• &gt;15g quasi static design load</li> <li>• &gt;15grms random vibration</li> </ul>

## smallsats solar array example



## martian moons exploration rover

- Fast track schedule development qualification and production in less the 1 year.
- High radiation level environment
- Flexibility to adapt to customer requirements → Built to print or built to spec
- Adapted to customer deployment mechanisms

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