INDUSTRIALIZING SPACE FOR INNOVATION, EXPLORATION, & DEFENSE

IN-SPACE ROBOTIC MANUFACTURING
- Extended Structure Manufacturing
- Autonomous Robotic Assembly & Integration
- Functional Space Structures from ESPA-class to Space Stations

SPACE-ENABLED MANUFACTURING
- Microgravity Commodity Products for Terrestrial Use
- Exotic Optical Fiber Production
- High-Grade Metals, Ceramics, and Industrial Crystals

EXPLORATION MANUFACTURING
- Manufacturing at Point-of-Use for Space Exploration
- Precision Metal, Polymer, & Electronics Manufacturing
- On-Orbit Recycling
• **Privately-funded Exploratory Payload**
  - ZBLAN Manufacturing in Microgravity
  - Focused on stepwise experiments to perfect industrial processes & payload automation
  - Flown to ISS 4x in 16 months through ISS National Lab as an internal R&D (IRAD) project

• **Next Steps**
  - Currently building scalable production facility
  - Based on lessons learned from IRAD efforts
• **INDUSTRIAL CRYSTALLIZATION FACILITY**
  • High-value single crystal materials in microgravity

• **SUPERALLOY CASTING MACHINE**
  • High-temperature alloy processing and casting in microgravity

• **CERAMIC MANUFACTURING MACHINE**
  • Uniform stereolithography of pre-ceramic resins
VULCAN Phase II SBIR (NASA)
• Hybrid automated metal & polymer precision manufacturing in microgravity

MELD Phase I SBIR (NASA)
• Automated on-orbit welding tool development

AULE Phase II SBIR (DLA) & Horizon Phase I SBIR (US Air Force)
• Automated part certification and in-situ V&V tools

EMMA Development (Space Florida)
• Completed ground prototype for printed circuit board production
# Key Points of Contact

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Role</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nathan O’Konek</td>
<td><a href="mailto:Nathan.okonek@madeinspace.us">Nathan.okonek@madeinspace.us</a></td>
<td>EVP, Development &amp; General Counsel</td>
<td>Investment Opportunities &amp; Strategic Partnerships</td>
</tr>
<tr>
<td>Justin Kugler</td>
<td><a href="mailto:Justin@madeinspace.us">Justin@madeinspace.us</a></td>
<td>VP, Advanced Programs</td>
<td>New Business &amp; Technology</td>
</tr>
<tr>
<td>Kevin DiMarzio</td>
<td><a href="mailto:Kevin@madeinspace.us">Kevin@madeinspace.us</a></td>
<td>VP, Business Development</td>
<td>Technology &amp; Services Sales</td>
</tr>
<tr>
<td>Juli Lawless</td>
<td><a href="mailto:Juli.lawless@madeinspace.us">Juli.lawless@madeinspace.us</a></td>
<td>BD Director, National Defense</td>
<td>Defense Applications and Services</td>
</tr>
</tbody>
</table>