Additive Manufacturing Infrared Inspection

**Project Manager(s)/Lead(s)**
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**Sponsoring Program(s)**
Human Exploration and Operations Mission Directorate
Space Launch System Advanced Development

**Project Description**
The Additive Manufacturing Infrared Inspection Task started the development of a real-time dimensional inspection technique and digital quality record for the additive manufacturing process using infrared camera imaging and processing techniques. This project will benefit additive manufacturing by providing real-time inspection of internal geometry that is not currently possible and reduce the time and cost of additive manufactured parts with automated real-time dimensional inspections which deletes post-production inspections.

**Notable Accomplishments**
The task successfully proved the feasibility of infrared hardware detecting an additive manufacturing process and developed custom software which created 3D geometry files of the additive manufactured part.

**References**

**Orion Delta 3D printer and manufactured part.**