# Additive Manufacturing Infrared Inspection

## Project Manager(s)/Lead(s)

<table>
<thead>
<tr>
<th>Darrell Gaddy/ER43</th>
</tr>
</thead>
<tbody>
<tr>
<td>(256) 544–0198</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mindy Nettles/XP50</th>
</tr>
</thead>
<tbody>
<tr>
<td>(256) 544–1569</td>
</tr>
</tbody>
</table>

## 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.*