# Article information:

Thermal imaging for assessment of electron-beam freeform fabrication (EBF3) additive manufacturing deposits  
<https://www.spiedigitallibrary.org/conference-proceedings-of-spie/8705/87050M/Thermal-imaging-for-assessment-of-electron-beam-freeform-fabrication-EBF3/10.1117/12.2018233.short>

# Article summary:

1. NASA’s electron beam freeform fabrication (EBF3) technology is being evaluated to manufacture metallic parts in a space environment.

2. A near infrared (NIR) camera is used to image the melt pool and solidification areas to ensure a quality deposit.

3. This paper describes the calibration and application of a NIR camera for temperature measurement, as well as image processing techniques for deposit assessment metrics.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy, as it provides detailed information about the EBF3 technology and its components, as well as the use of NIR cameras for temperature measurement and image processing techniques for deposit assessment metrics. The authors provide evidence to support their claims, such as citing relevant research papers and providing technical details about the EBF3 system.

However, there are some potential biases in the article that should be noted. For example, the authors do not explore any counterarguments or alternative solutions to using NIR cameras for temperature measurement or image processing techniques for deposit assessment metrics. Additionally, they do not discuss any possible risks associated with using this technology in a space environment or any potential drawbacks of using NIR cameras instead of other methods of temperature measurement. Furthermore, they do not present both sides equally when discussing the benefits of EBF3 technology; instead they focus solely on its advantages without mentioning any potential disadvantages or limitations.

# Topics for further research:

* Alternative solutions for temperature measurement
* Risks associated with using NIR cameras in space
* Drawbacks of using NIR cameras for temperature measurement
* Advantages and disadvantages of EBF3 technology
* Image processing techniques for deposit assessment
* Counterarguments to using NIR cameras for temperature measurement

# Report location:

<https://www.fullpicture.app/item/6c7b7dc8f0c68e80e712a377c6f7bffe>