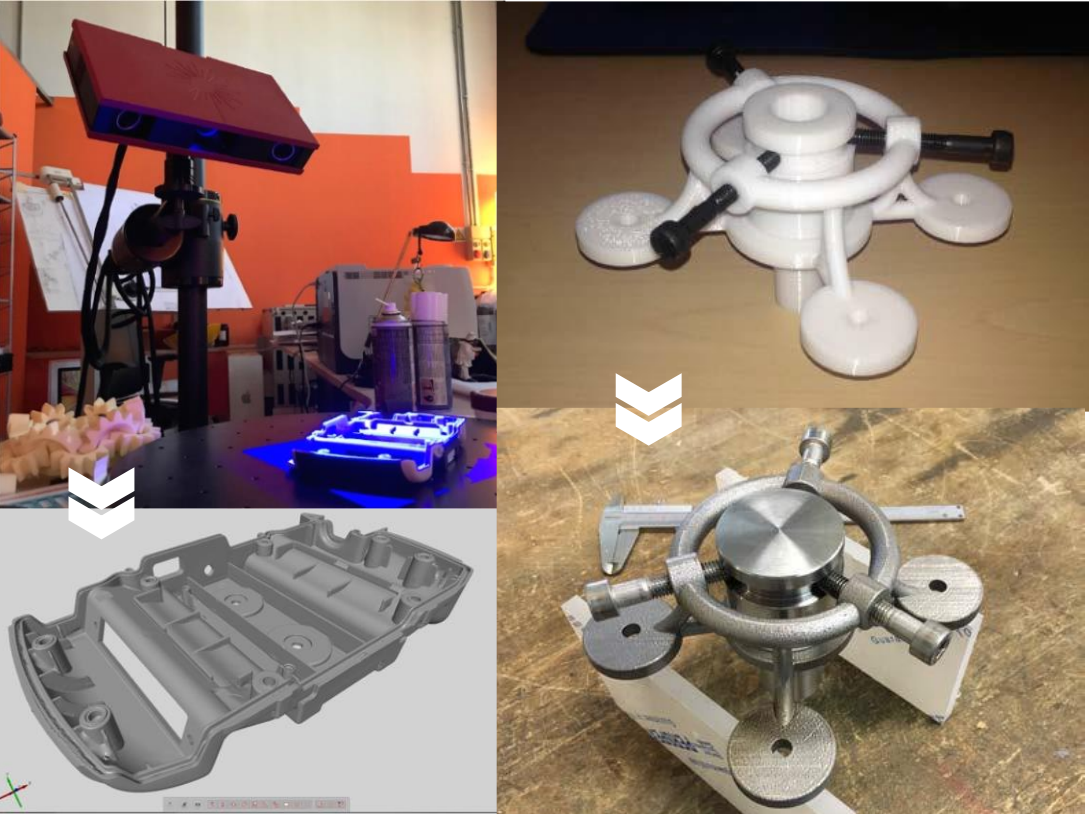


HAMMER: ADDITIVE MANUFACTURING&MATERIALS FACILITY



KEYWORDS:

Additive Manufacturing
Reverse Engineering
Material Screening



HAMMER, the Hub for Additive Manufacturing Materials Engineering and Research, is focused on design and Hi-Res complex devices manufacturing for both nuclear/astro-particle physics research and industrial technology transfer and services.



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DESCRIPTION :

Lots of industrial activities find many advantages in Additive Manufacturing techniques. AM overcomes the main drawbacks of the most common subtractive methods, e.g. high material waste, also giving a chance of making tools that are either impossible to machine using traditional techniques or extremely expensive. In the INFNs context, HAMMER poses itself as a network for AM prototyping, quality check and chemical analysis. Tools are mainly made of polymeric plastics, but also metal products have been manufactured through an expert service providers. Intense activities, often in collaboration with industries, are ongoing in this field: from the realization of lightweight components for space applications, to industrial design and complex geometry components construction usable in different sectors such as aerospace, automotive, biomedical etc.



ADVANTAGES:

- Stereoscopic Hi-Res 3D scanning & Reverse Engineering
- Hi-Res Manufacturing of plastic and metal components
- Control of chemical composition of the processed materials

APPLICATIONS:

- Realization of complex tools with novel geometries
- Repairing parts and legacy components
- Prototyping new devices
- Industrial design
- Reverse engineering
- Quality analysis