

ADDITIVE MANUFACTURING

A horizontal bar spanning the width of the slide, divided into four colored segments: dark blue, light blue, green, and orange.

What is Additive Manufacturing

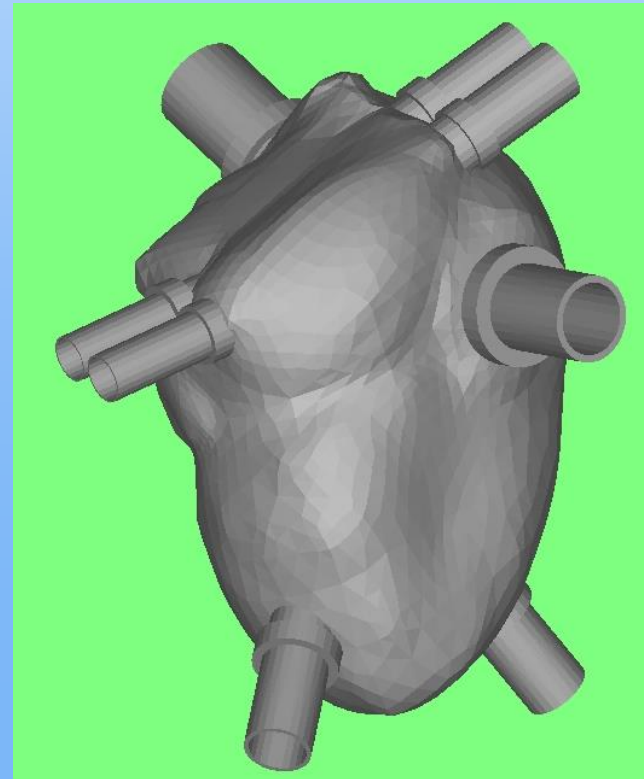
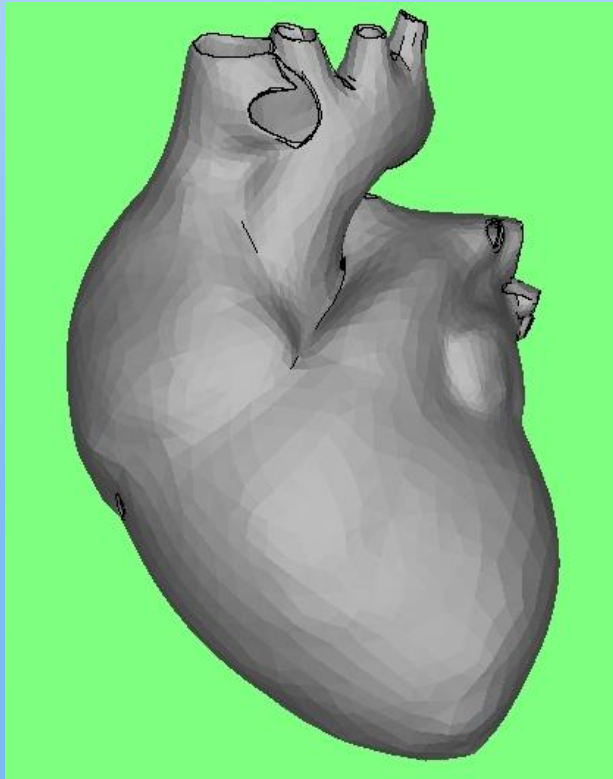
- Additive manufacturing (AM), noun – process of joining materials to make objects from 3D model data, usually layer upon layer, as opposed to subtractive manufacturing methodologies.
 - Synonyms: additive fabrication, additive processes, additive techniques, additive layer manufacturing, layer manufacturing and freeform fabrication.
- Rapid prototyping, noun – additive manufacturing of a design, often iterative, for form, fit or functional testing or combination thereof.

Additive Manufacturing

- ❑ As an Enabling Technology AM is used in a broad spectrum of manufacturing.
- ❑ Some applications of this technology include:

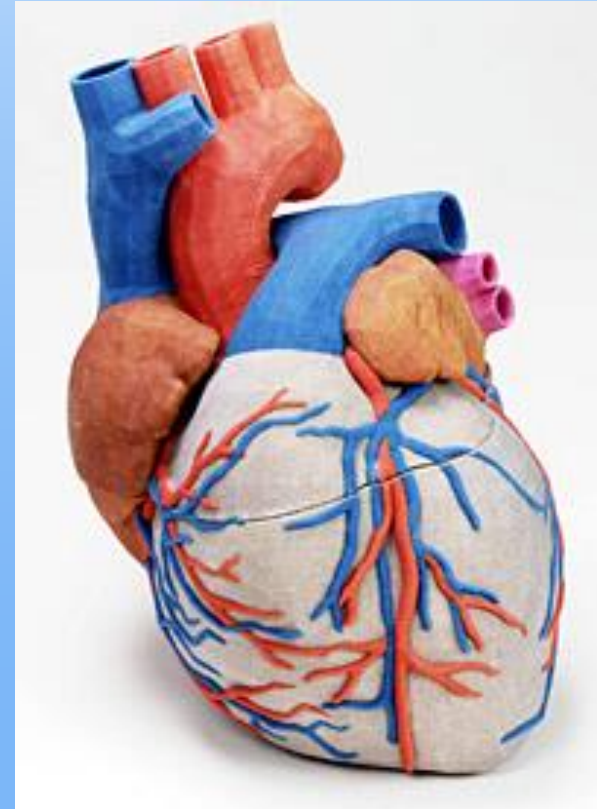
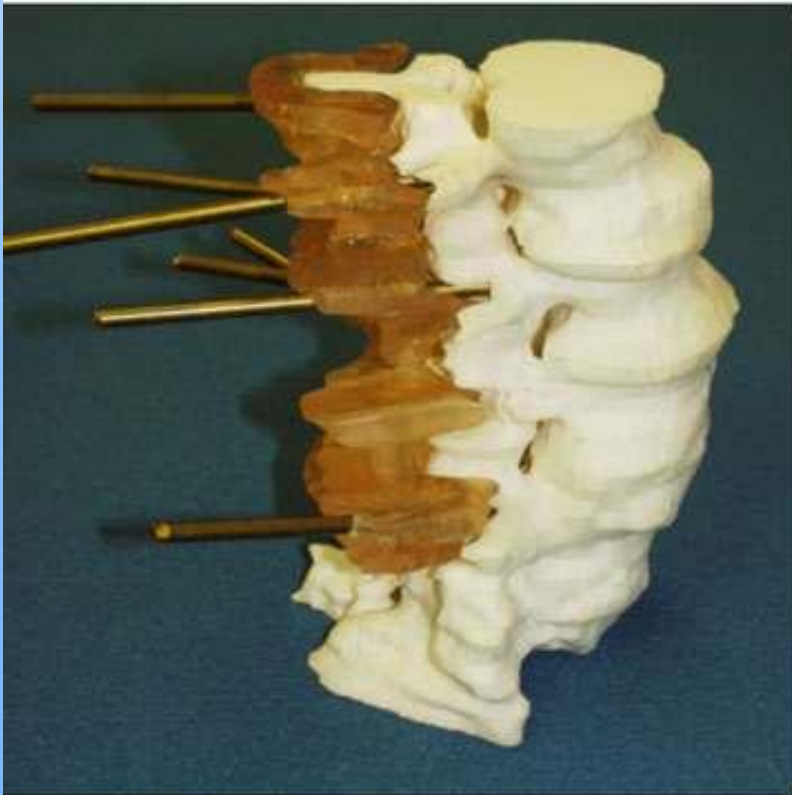
Additive Manufacturing Applications

▣ Medical Diagnostics



Additive Manufacturing Applications

▣ Medical imaging



Additive Manufacturing Applications

▣ Dentistry



Additive Manufacturing Applications

▣ Paleontology

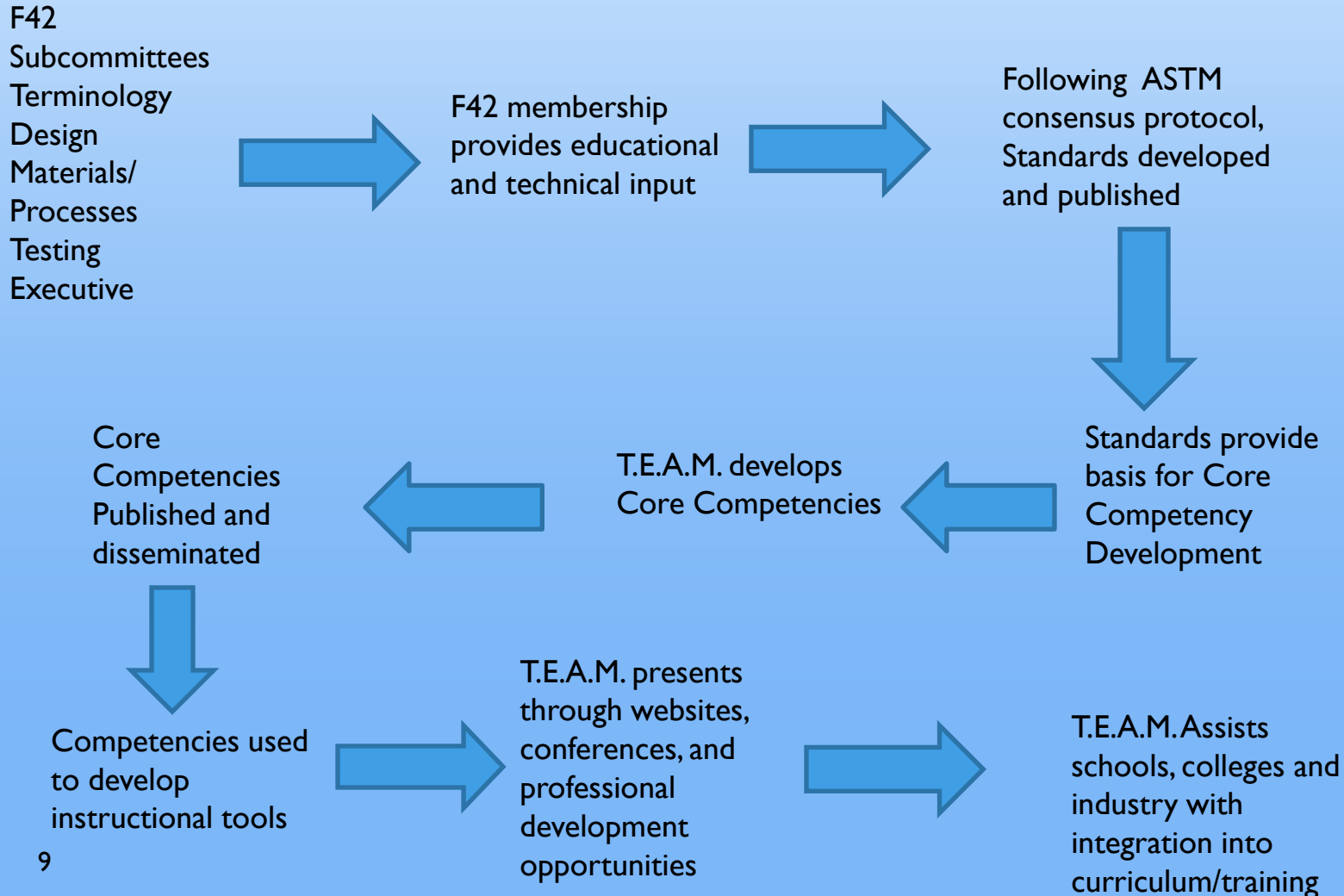


Additive Manufacturing Applications

■ GIS Survey



INTEGRATION OF ASTM F-42/- T.E.A.M. - EDUCATION



AM Applications

- Other Applications:

Can you think of other areas where the use of AM technology would be appropriate?

AM Application Examples

▣ Architecture and Design



AM Application Examples

▣ Architecture and Design



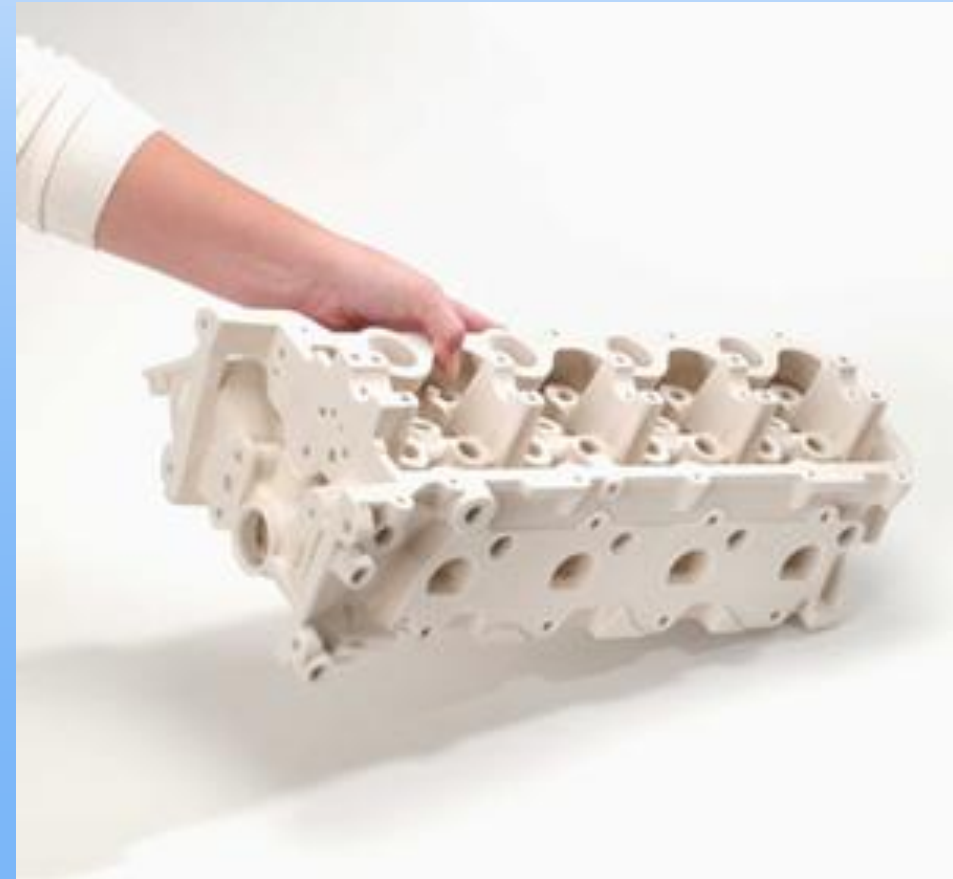
AM Application Examples

■ Entertainment Modeling

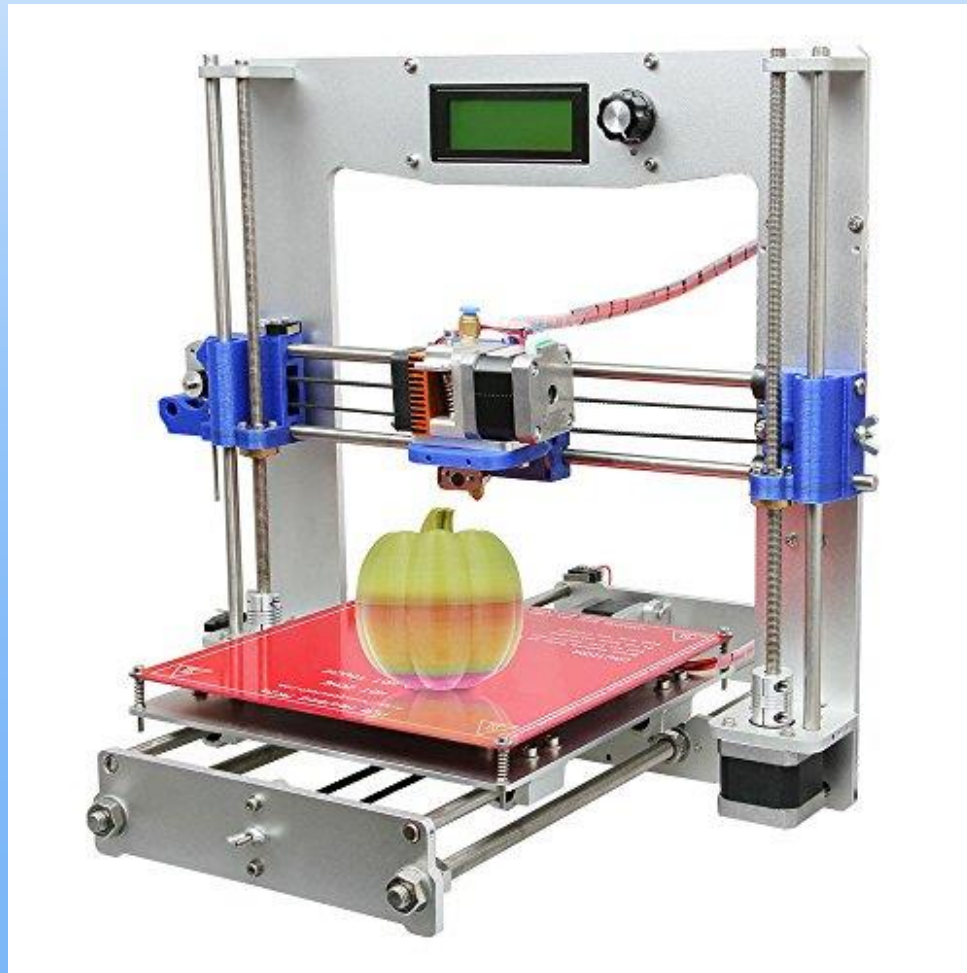


AM Application Examples

■ Automotive



Reprap 3D Printer



3D Printer Introduction

<https://softsolder.files.wordpress.com/2012/05/acm-diy-3d-printing-hardware-and-software3.pdf>