

SAINT LOUIS UNIVERSITY **Center for Additive** Manufacturing

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The mission of the SLU Center for Additive Manufacturing (SLU-CAM) is to provide high-end additive manufacturing capabilities and 3D object design consulting for SLU researchers, as well as support external and community users in clinical, research, and commercial endeavors. The capabilities and expertise of the Center are far ranging, encompassing builds from clinical to chemical and art to engineering. Coincident with the greater University mission, SLU-CAM also aims to help educate the next generation of users on the latest trends in additive manufacturing and 3D design.

Free quotes and discussion for any design...just e-mail us at slu.cam.edu.



Stratasys J735 (PolyJet)

Materials: Agilus (rubber-like) Vero (hard plastic) UltraClear Full color SUP706 (soluble support)

Capabilities:

Build Volume:

13.8 x 13.8 x 7.9"

(350 x 350 x 200mm)

- Multi-color & durometer
- Fast build times Smooth, detailed
- prints
- Product realism

Applications: • Rapid prototyping

- Concept models
- Medical models
- Jigs & fixtures

Applications:

• Functional Production

Higher temperature

• Rapid Prototyping

• Rigid Mechanical Parts

Rigid Assemblies with

Quality Parts

applications

Moving Parts

Colored models



Fortus 450mc (FDM)

Materials: ABS-M30, ABS-M30i, 800NA, ASA, PC-ISO, PC, PC-ABS, FDM Nylon 12,

Build Volume: 16 x 14 x 16" (406 x 356 x 406mm)

Capabilities:

- ±0.005" (0.127mm) accuracy
- 0.005-0.013" (0.127-0.330mm) slice height

Applications:

- Low-cost Rapid Prototyping
- Art Replicas
- High-detail prints
- Tooling (casting and molding)

Material Resins: General Purpose Multi-color Clear High-strength Wax-like (for casting)

Photocentric LC Opus (SLA) and others **Build Volume:** 12 x 7 x 8" (310 x 174 x 220mm)

> Specifications: • 0.012 - 0.1mm layer height

ABS-ESD7, Antero

FDM Nylon 12CF, ST-130, ULTEM™ 9085 resin, ULTEM[™] 1010 resin



Objet Eden 260v (PolyJet)

Materials: MED610 Biocompatible SUP705 Build Volume: 10 x 9.9 x 7.9" (255 x 252 x 200mm) Capabilities:

• Fast build times

- Smooth, detailed prints
- Product realism

Applications:

- Rapid prototyping
- Concept models
- Medical models
- Jigs & fixtures
- Colored textures

Fortus 250mc (FDM)

Materials: ABS Plus SR-30 Soluble Support

Build Volume:

10 x 10 x 12" (254 x 254 x 305mm)

- Capabilities: • ±0.0095" (0.241 mm) Accuracy • 0.007-0.013"
 - (0.178--0.330 mm) Slice Height

Applications:

- Functional Production Quality Parts
- Rapid Prototyping
- Rigid Mechanical Parts
- Rigid Assemblies with Moving Parts



Go!Scan 3D Portable 3D Scanner

Function: Creates color 3D surface model of an object, suitable for 3D printing or further CAD processing

Specifications:

- Up to 0.05 mm Accuracy
- 0.10 mm Resolution
 10 cm to 3 m

Object Size

Applications:

Creating a 3D model of objects that do not have a CAD model.



Standard CAD Platforms

- Solidworks and Autodesk
- CAD drawings NOT REQUIRED. We can take a sketch and create a CAD drawing.



Mimics (Medical Imaging to CAD)

- **Capabilities:** Medical image processing/slicing; formation of 3D model from medical image scans based on X-ray attenuation; export of models to .STL file format
- Main Application: Conversion of a medical image (such as a CT scan) of an object

















