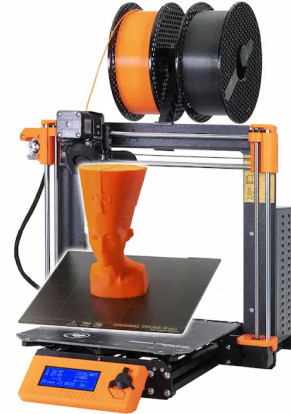


3D Printing

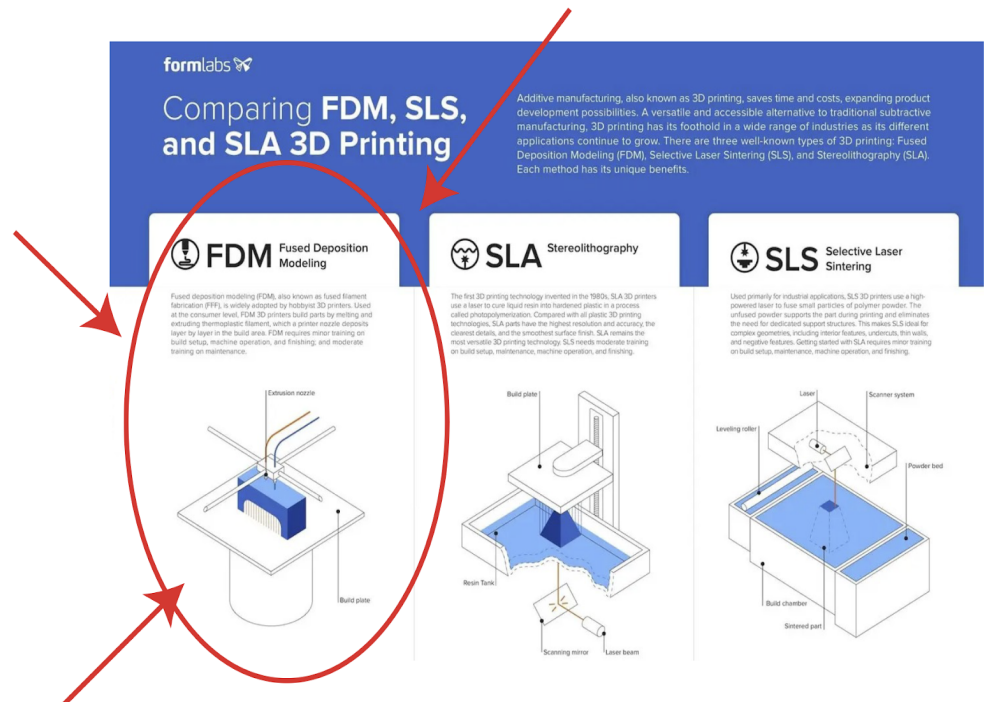
What is 3D printing and what kind of printing does the Digital Fabrication Lab within the Studios for Art and Design Research offer?

Fused Deposition Modeling (FDM) 3D printing is a transformative technology that has revolutionized the world of art and design. **FDM** involves the creation of three-dimensional objects by layering and **bonding molten thermoplastic materials**, such as **ABS** or **PLA**, according to a digital model. This process allows artists and designers to bring their imaginative concepts to life, bridging the gap between virtual design and tangible reality.



In the realm of art, FDM 3D printing opens up a world of possibilities for artists to materialize intricate sculptures, installations, and interactive artworks. It empowers artists to explore unconventional shapes, geometries, and textures that were once unattainable through traditional artistic methods. The **layer-by-layer nature of FDM printing enables artists to create complex structures with precise details, providing a new dimension to their creative expression.**

In the field of design, FDM 3D printing has become an indispensable tool for prototyping and product development. Designers can quickly iterate and refine their ideas by rapidly fabricating physical models. This allows for a more efficient and cost-effective design process, as designers can test form, fit, and

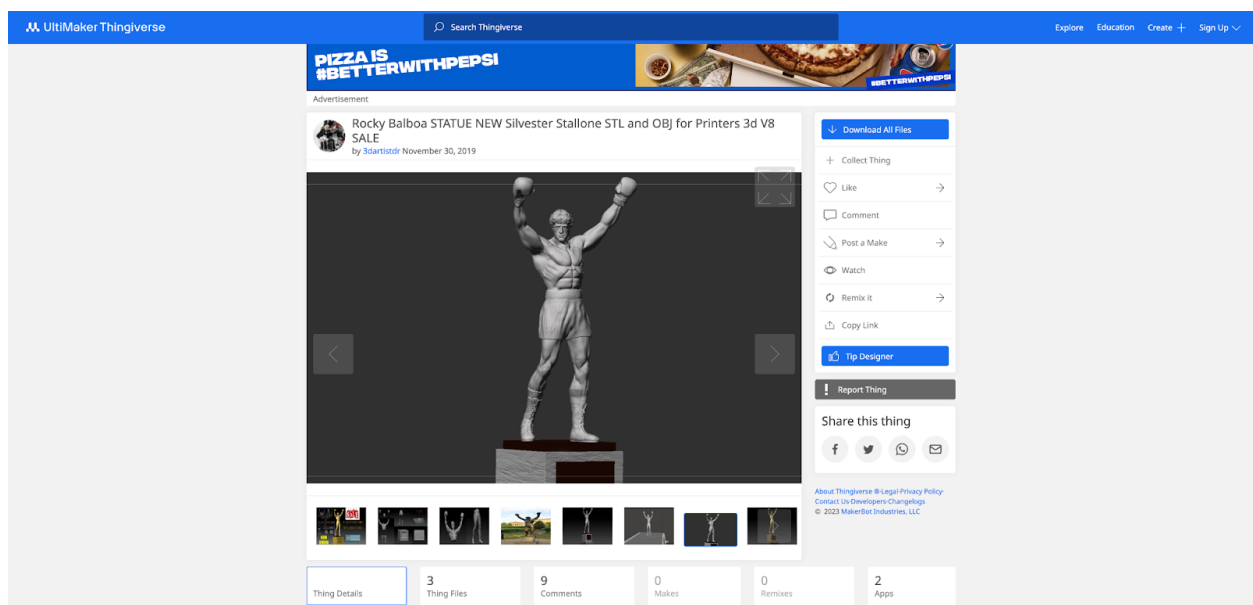


function before committing to large-scale production. FDM technology also promotes customization, as designers can easily modify and adapt their designs to meet specific requirements or individual preferences.

Furthermore, FDM 3D printing democratizes access to artistic and design capabilities. It empowers individuals to become creators, encouraging a culture of innovation and self-expression. Artists and designers can leverage FDM printers as a medium for experimentation, blurring the boundaries between traditional art forms and cutting-edge technology. This fusion of art and technology not only challenges conventional practices but also stimulates new avenues for creativity and collaboration within the art and design community.

Process

Make or acquire a model using 3D modeling software like Fusion 360. You can also collect objects from websites like [Thingiverse.com](https://www.thingiverse.com).



Schedule time to consult with a manager about the viability of your object using FDM 3D printing methods. Log into the [Bookings site](#) to make an appointment. This will be a good opportunity for you to receive guidance on preparing your 3D files. *Keep in mind, managers and techs on staff are not able to make your models for you.*

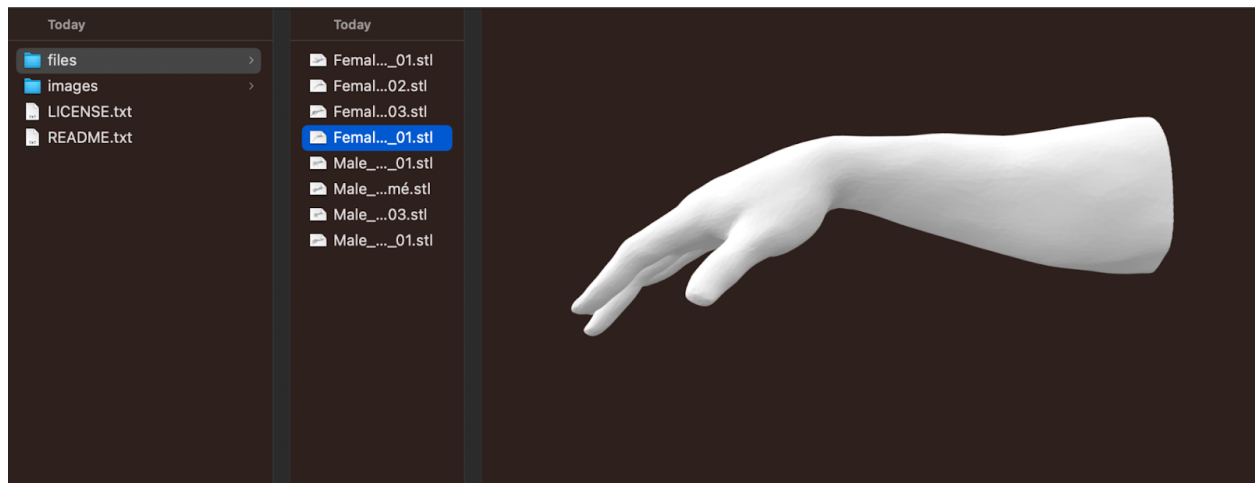
You will need:

1. **Your computer**
2. **Your file - Emailed or on a Zip Drive**

Please expect 3D prints to take approximately **1-3 days for completion**. All printers operate on a first-come, first-serve basis, so there might be a queue ahead of you, which could extend the waiting time for your print. If you have a project that necessitates 3D printing, it's crucial to plan ahead and schedule your time as soon as possible.

Keep in mind that 3D prints typically require many hours to complete and may not always be flawless, often requiring additional steps like sanding or finishing. Achieving optimal results might involve cutting your object into sections. By being well-prepared and proactive, you can make the most of our 3D printing resources and ensure successful outcomes for your projects.

Be able to send your file in **.STL**, **.OBJ**, or **F3M** file format.



You will be given an amount that your object weighs along with a cost that coincides with that weight. We offer PLA filament at cost - we do not profit from sales of PLA. This is a service to help benefit you while navigating the sometimes tricky process of acquiring materials.

How to pay for your print

You will need to pay for your 3D print using this [link](#).

<https://art.osu.edu/printcost>

Prints are valued at the weight of filament used based on the price spent by the university. No profit is made. This is a service that supplies greater access to resources.

When your print is finished, you will receive an email notifying you of it's completion along with the cost of filament.

Before taking your print home, you must email the receipt from payment to the Digital Fabrication Lab Email Address (digitalfablab@osu.edu)

DEPARTMENT OF ART THE OHIO STATE UNIVERSITY COLLEGE OF ARTS AND SCIENCES

ABOUT PROSPECTIVE STUDENTS AREAS OF STUDY COURSES PEOPLE RESOURCES UNDERGRADUATE STUDENTS GRADUATE STUDENTS

Home / Printing Cost Calculation

Printing Cost Calculation

PAY FOR PRINTING/MATERIALS

Trained Epson Inkjet Printing
This type of printing is for those who have been properly trained and are using their own paper. Please do not purchase your ink usage until after your print(s) is completed.

The cost is \$2.50 per square foot of printing done, rounded up, and you provide your own paper.
To calculate how much printing you need to pay for, use the following formula to get your square footage total.
$$((\text{Height} \times \text{Width} / 144) \times \text{Number of Prints})$$

Once you have your square foot total, multiply that by \$2.50 to get your final cost.

Assisted Epson Inkjet Printing
This is intended to be used by those printing in Hopkins Hall Digital Print Lab 380A. Please do not purchase an Inkjet Print before your file has been printed.

Each inkjet print costs \$3.00 per squarefoot due to ink and paper usage.
Take your square foot total, multiply that by \$3.00 to get your final cost.
If you have not received the square footage of your print from the Print Lab Manager please stop in to Hopkins 380A or 366 and see one managers.

Type A Machines PLA 3D Prints
This cost calculation is intended to be used by Students currently enrolled in an Art or Design Course for the current semester. Please do not purchase a 3D print before you have printed your file in the Studios for Art & Design Research Digital Fabrication Lab.

Each print costs \$0.06 per gram of printed material.
Take the weight of your print and multiply by .06 to get the final cost.
If you have not received the weight of your print from the Studios please stop in to Hopkins 172 and see the Manager or Assistant Manager of the studios.

Online Payment Portal

Required fields are marked with an *

Payment Amount

Order Description: 3D Printing

First name: Brad

Last name: Gobright

Calculating printing cost: Visit our website for [details on calculating your printing cost.](#)

Payment Amount*: 4.35

Total Amount: 4.35

Payment Method*: Credit Card

Continue **Cancel**