

# 3D Print Studio at Student Mega Lab FAQ's

## How is my 3D print made?

**3D printing** or additive manufacturing is a process of making three dimensional solid objects from a digital file. The creation of a **3D printed** object is achieved using additive processes. In an additive process an object is created by laying down successive layers of material until the object is created. The material that is called filament is extruded in layers onto the build plate to make your creation come to life.

#### What exactly is filament?

**3D printing filament** is the <u>thermoplastic feedstock</u> for <u>fused deposition modeling 3D printers</u>. There are many types of filament available with different properties, requiring different temperatures to print.<sup>[1]</sup>

## What filament does the Student Mega Lab 3D Print Studio use?

We use PLA filament. PLA or poly lactic acid is a bio-degradable type of plastic that is manufactured out of plant-based resources such as corn starch or sugar cane.

## Can I print with my own filament?

We have found that some filament brands lead to frequent jams, and therefore we only permit the of the filament we provide.

## Is support material removed for me or do I remove it from the model?

Typically, we remove the support material for you at no extra charge. However, some models with fragile parts may have support material left on.

#### How do I get started ?

First you will need a model. You can build one yourself from a 3d modeling software or you can find one on a shared open source space such as thingiverse. If you would like to get started with modeling your own things you can find an article about a few of the free programs on this site: <a href="https://blog.capterra.com/5-popular-free-3d-modeling-software-options/">https://blog.capterra.com/5-popular-free-3d-modeling-software-options/</a>

#### How do I submit a job for printing?

You will need to visit the Mega Lab and receive a quote for the project. Once you accept the quote the Mega Lab staff you will direct you to pay in "Alamo Market Place Mall" 3D Print Studio Store. Follow the instructions on the screens and make your payment. The Mega Lab will receive an email notifying them the project has been paid. The project will then be printed.

#### What type of 3D printers do your use?

The 3D Print Studio has 2 Makerbot Replicator+ printer and one Prusa i3 MK3 printer.

#### How large can printer print an project?

Largest MakerBot Design is 9.9" x 7.8 x 5.9" (W x L x H) Largest Prusa Design is 9.84" x 8.3" x 8.3" (W x L x H



ALAMO COLLEGES DISTRICT San Antonio College

## How do I find out how much my project will cost to print?

Lab Staff will load the file into the Slicer software to determine the estimated weight in grams so that an invoice can be generated. (Core color filaments will be \$.14 per gram. Custom color filaments will be \$.21 per gram.)

## How do I pay for my project?

Student will then be shown how to go into Alamo Market Place Mall and pay for the print job.

## Will I be charged for a failed print job?

The client will not be charged if the error is a result of equipment failure such as a filament jam. If error is due to a design flaw or not enough backfill or support, the client will be charged.

## Do I need to be a current student or employee of San Antonio College?

Must be a currently enrolled student or employee at San Antonio College.