# Frisco Library Activities at Home

# 3D Printing

One of the most popular ways to get started 3D printing is checking out the sites that allow users to share 3D designs, download the .stl file of a design you like, and submit it for 3D printing with the library!

# 3D Printing at the Library

Once you have your 3D model as an .stl file you can submit it to be 3D printed by the library online!

Submit Online Here: <a href="https://friscolibrary.com/3dprinting/">https://friscolibrary.com/3dprinting/</a>

Lots of help below on how to discover free 3D models and how to design your own. Most users find the <u>Tinkercad.com</u> design web application (free) the fastest and easiest to use. Easy enough for many elementary students, yet powerful enough for basic business prototyping.

# 1. Discover Objects and Download Files

#### Thingiverse.com

Users share designs and 3D models and 2D designs. Free to download the .stl files for 3D printing.

#### Pinshape.com

Users share designs and 3D models. Free to download the .stl files for 3D printing.

#### NASA.gov

NASA has made available 3D designs of iconic space equipment such as the Apollo Lunar Module, Cubesats, and more.

# 2. Learn 3D Design

**Learning Tinkercad [Library Card Required to Register]** 

https://www.lynda.com/Tinkercad-tutorials/Learning-Tinkercad/641564-2.html?org=friscolibrary.com

A beginner level video course on Tinkercad.com (free online app) that makes it easy for anyone to get started in 3D design and CAD. Join Kacie Hultgren as she walks through the basics of 3D modeling.

# Tinkercad: Designing Replacement Parts [Library Card Required to Register]

https://www.lynda.com/Tinkercad-tutorials/3D-Printing-Project-Designing-Replacement-Part/164026-2.html?org=friscolibrary.com

This course is for those with some basic Tinkercad.com experience. Learn about creating replacement parts for household appliances and furniture (like a broken oven knob or draw pull) is a great use of desktop 3D printers. In this short project course, author Kacie Hultgren takes us through the four steps needed to design and ultimately print a replacement part.

# Fusion 360: Design for Additive Manufacturing [Library Card Required to Register]

https://www.lynda.com/Fusion-360-tutorials/Design-Additive-Manufacturing-FDM/609006-2.html?org=friscolibrary.com

An intermediate level design video course for those with some experience with Fusion 360 on Fused Deposition Modeling (FDM), also known as fused filament fabrication (FFF), is a common type of 3D printing and the one used at the Frisco Public Library. Whether you are using FDM for prototyping or producing end-use parts, a design for manufacturing process will ensure your parts are easy to manufacture on FDM printers.

#### Fusion 360: Designing for Plastics [Library Card Required to Register]

https://www.lynda.com/Fusion-360-tutorials/Fusion-360-Designing-Plastics-REVISION/2825677-2.html?org=friscolibrary.com

In this intermediate level design course for Fusion 360 beginners, learn how to design parts for additive manufacturing (3D printing) in plastic using Autodesk Fusion 360—the affordable cloud-powered CAD and CAM tool that works like more expensive, industry-focused tools.

# 4. Books and Maker Kits at Frisco Public Library

Click the link to request the books. Maker Kits are equipment checkout that allows you to learn new skills at home to make new creations.

Book: 3D Printing for Dummies by Richard Horne

Book: Fabricated: The New World of 3D Printing by Hod Lipson

Maker Kit: <u>iPad 3D Scanner</u>

Maker Kit: PC 3D Scanner

Maker Kit: PC/Mac 3D Scanner