Scan this QR code to follow along on your own device.

The Basics of Designing 3D Models with Free Autodesk 123D Software

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EASY ACCESS TO ONLINE 3D MODELS

Academic Sources

MORPHO SOURCE

Smithsonian X 3D

Creative Commons Sources

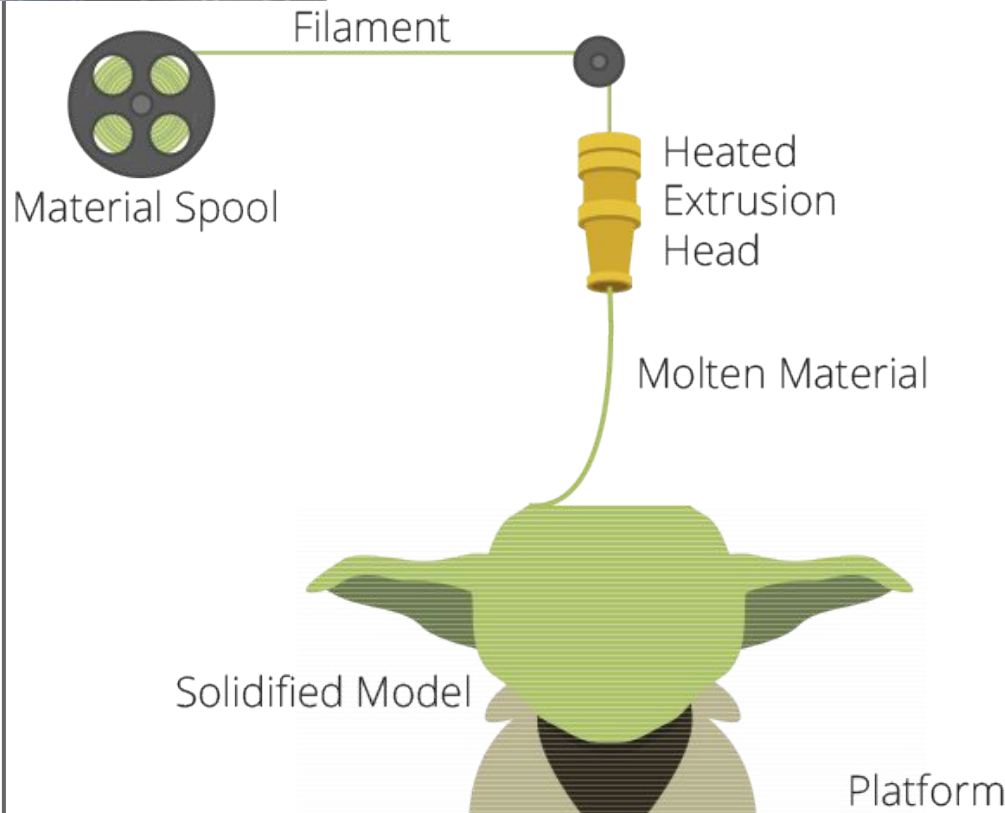AUTODESK 123D GALLERY

MakerBot Thingiverse

3D PRINTING PROCESS

1. VIRTUAL MODEL

Design model in software then format and send to 3D printer or 3D printing service, such as **shapeways**✴ or 🟥 3D HUBS

2. 3D PRINTER

Filament

Material Spool

Heated Extrusion Head

Molten Material

Solidified Model

Platform

3. PHYSICAL MODEL

CREATION

Vs.

Consumption
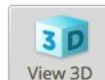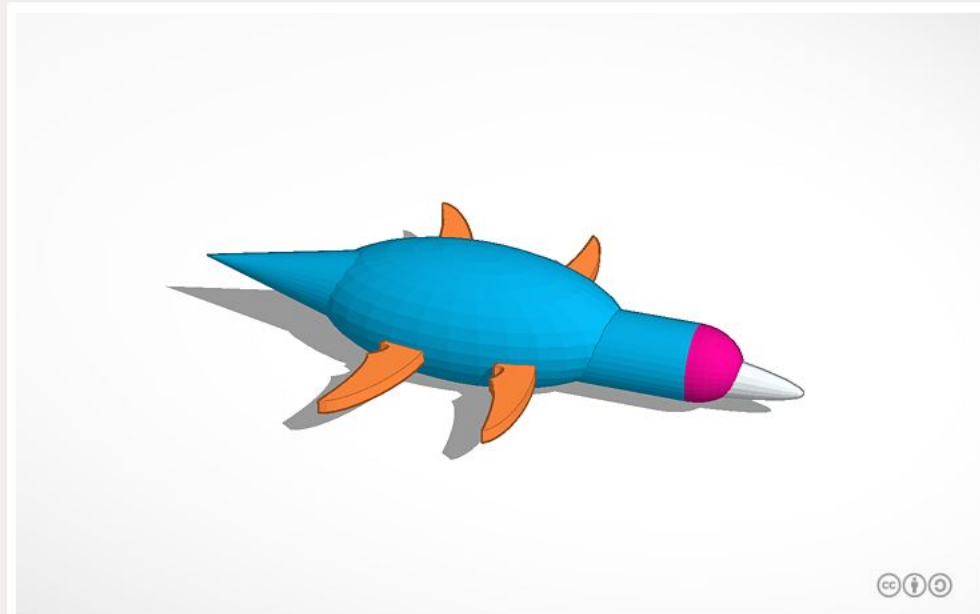
3D Polycotylid Plesiosaur by Christina Byrd

FREE

Autodesk 123D 3D Modeling Apps
One account, multiple tools!

Tinkercad

The easiest way to get started with 3D design online. It's web-based so no downloads are required. Works best in Chrome.
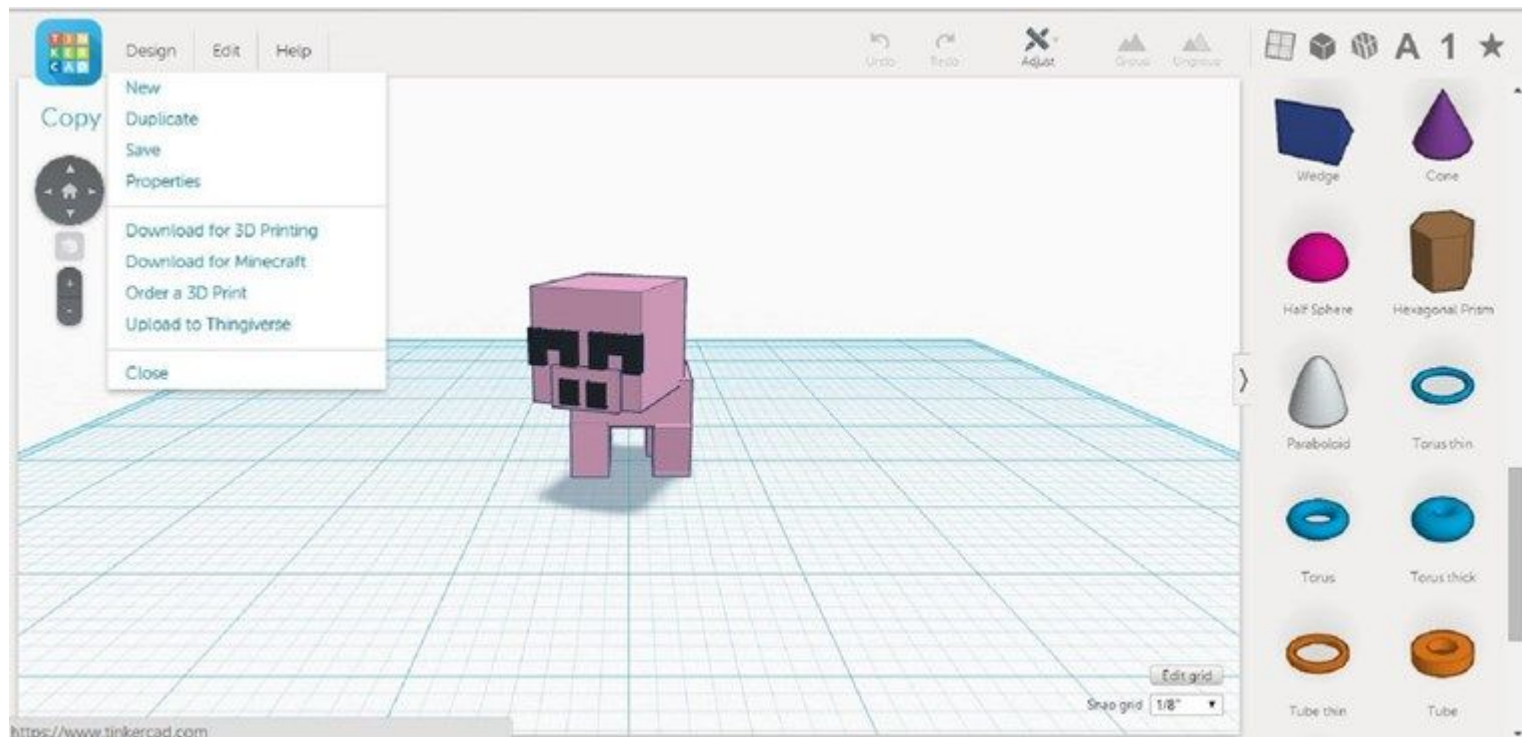

123D Design

Powerful, yet simple 3D creation and editing tool. Download available for iPad, Mac, and PC.

Autodesk 123D Tinkercad

- Free, easy to use 3D modeling software
- Web-based!!! Access in an Internet browser.
- Integrates with Autodesk 123D's other free apps.

Interactive Demo

Hands-on experience with [Tinkercad](#)

Autodesk 123D Tinkercad Resources

- Tinkercad website ([“quest” lessons and video tutorials](#))
- ["3D Printing with Autodesk 123D, TinkerCAD, and Makerbot" by Lydia Sloan Cline"](#)
- [“3D Modeling and Printing with Tinkercad: Create and Print Your Own 3D Models by James Floyd Kelly”](#) *(sample chapter)*

Don't want to use a web-based app? Download Autodesk 123D Design!

- 123D Design website ([QuickStart guide](#), [video tutorials](#), [online support forum](#))
- Shapeways' tutorial YouTube video series ([Beginner 3D Modeling:123D Design](#))
- ["3D Printing with Autodesk 123D, TinkerCAD, and Makerbot" by Lydia Sloan Cline"](#)

More from [Autodesk 123D](#)

Make awesome stuff.

Flat is boring. Capture your world in 3D with free Autodesk 123D apps.

→ Meet the 123D Apps

[Autodesk 123D Catch](#)

123D Catch is a free app that lets you create 3D scans of virtually any object.

Available on:

Example: Shaunna and Nadia's shell

http://www.123dapp.com/catch/Snail-shell-/3061040

[Autodesk 123D Make](#)

123D Make lets you turn 3D models into 2D build plans with animated assembly instructions.

[Autodesk 123D Sculpt](#)

SHAPE YOUR WORLD IN 3D.

Create fantastic 3D sculptures like a pro with Autodesk 123D Sculpt+.

Download on the App Store

GET IT ON Google play

OTHER FREE
3D MODELING SOFTWARE

Downloadable

SketchUp

Meshlab

blender™

3D Creationist

Web-based

3DTin

Brainstorming

How could you integrate 3D modeling?

Q&A

Presentation: http://tinyurl.com/123Dbasics

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