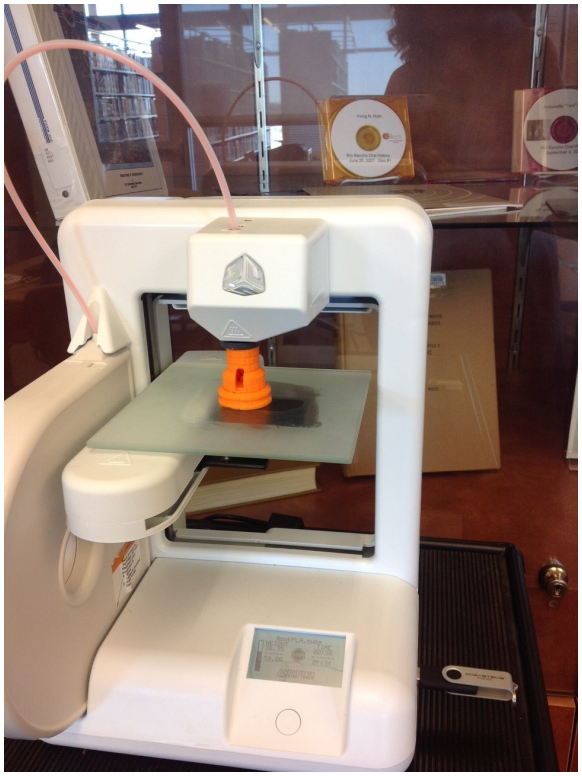
3D printing, Scanning, and Design Resources

Rio Rancho Public Libraries were privileged to borrow a Cube 3D Printer, NextEngine 3D Scanner, and other "maker" equipment from the New Mexico State Library from Sept 17 2013—January 6, 2014. The following resources were compiled by Rio Rancho Youth Services Librarian Janet Phillips during the process of learning about the technology. Business websites included are not endorsed by the library and are included solely as examples of services available.



Specific to the Cube 3D printer:

http://cubifyfans.blogspot.com/ best blog I've found for advice on using the Cube… also check out Tom Meek's videos on YouTube found under YouthQuest Academy http://www.youtube.com/user/YouthQuestAcademy

A well written blog by an techie on his first try at printing using a Cube printer:

http://christopherjcoleman.wordpress.com/2013/05/13/cube-3d-2nd-generation-printer-review-tips/

Another blog…

http://chronicle.com/blogs/profhacker/5-first-impressions-of-3d-printing/51923

3D Printing can be done several ways:

- **Via a printer available for your use** at a school, library, or other organization you belong to (ask around in your community—you may be surprised to find printer owners nearby).

- **Via purchasing a 3D printer—** be sure to check for reliable reviews of products, blogs, and perhaps talk with someone who owns the printer your considering before you buy.

  Some resources to try for reviews: Make Magazine, PC Magazine, Wired Magazine, Consumer Reports

- **Via a service—** the number of online and local services is growing as 3D printing gains popularity… here are some examples of services::

  New Mexico

  http://parachutefactory.org/ Las Cruces maker space official Hacker Scouts site

  http://quelab.net/wordpress/ Albuquerque maker space (non-profit)

  http://www.meetup.com/Hacker-and-Maker-community-group/ Quelabs meet-up group

  http://www.3dhubs.com/albuquerque a group that encourages individuals to list their printers, then a local hub is created and individuals can provide printing service for a fee via the website.

  http://3dprovensystems.com/ for printing on a larger scale, Albuquerque

  Online

  http://i.materialise.com/ envision the future… it's here. This is a service offered online - located in Belgium

  http://www.shapeways.com/?ca=gp - in NY - design/print/sell your product on this site

Rio Rancho Library & Information Services

3D Scanning options continue to grow...

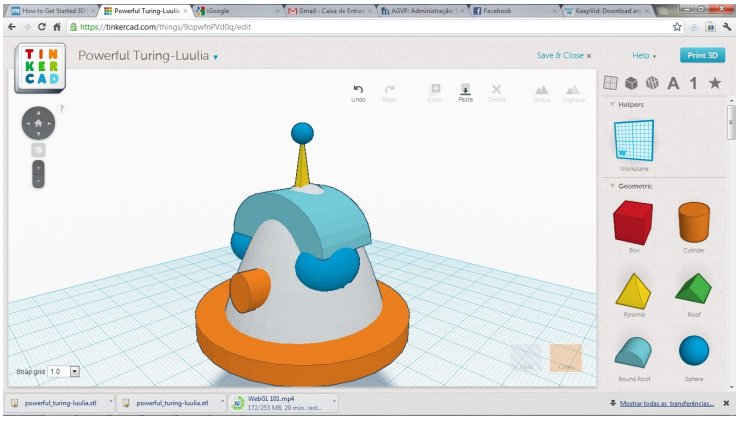
Always search for the most recent options as there may be something new and improved!

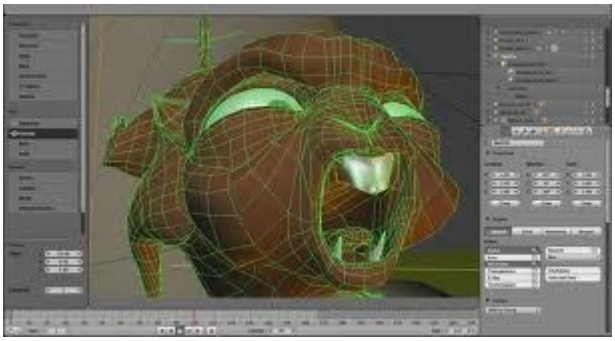
- **Via a device you already own**
  - **X-box Kinect** Use the X-box Kinect camera from your gaming system in conjunction with software to scan and create an electronic 3D image. Software is changing constantly… try "reconstruct me" from Australia, or a new one called Skanect. Search "3D scan x -box kinnect" on youtube for tutorials
  - **Ipad or iphone Apps**
    - 123DCatch
    - http://www.trimensional.com/
  - **Android phone Apps**
    - Objectify
- **Via a system available for your use** at a school, library, or other organization you belong to (some of the organizations involved in 3D printing may also have scanning equipment available).
- **Via a service** search the internet for services online or in your area such as:
  - http://fablababq.com/
  - **http://cubify.com/products/capture/getting_started.aspx**
- **Via purchasing a 3D scanner—** Right now purchasing options for 3D scanners for home use are not within the realm of affordability for most families—this is likely to change as technology progresses.

  Some resources to try for reviews: Make Magazine, PC Magazine, Wired Magazine, Consumer Reports

NextEngine 3D Scanner on loan from NMSL

is a museum quality 3D Scanner which comes with software, a rotating stand, and laser scanning device which work in conjunction to create high quality 3D images. The NextEngine website tutorials are all we have used with this device so far.





3D Design:

You can create your own 3D designs using free or fee-based software.

Some free online or downloadable software :

TinkerCAD—a good basic design program

3DTin—easy to add shapes to this one

SketchUp Google product

Sculptris—this program seems most useful for complex artistic designs

Blender—this is a fairly complex program, frequently used by animators

3D Design Specific to Cube:

The Cube 3D Printer comes with proprietary software used to communicate designs to the printer. Designs from those systems listed above are easily imported into the Cube system via the software.

Cubify.com also has several free online design tools, and some fee-based options:

http://cubify.com/apps/index.aspx?tb_create_apps