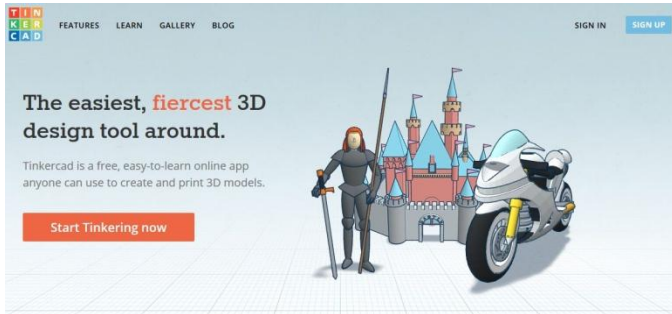


# Creating 3D Files for Printing

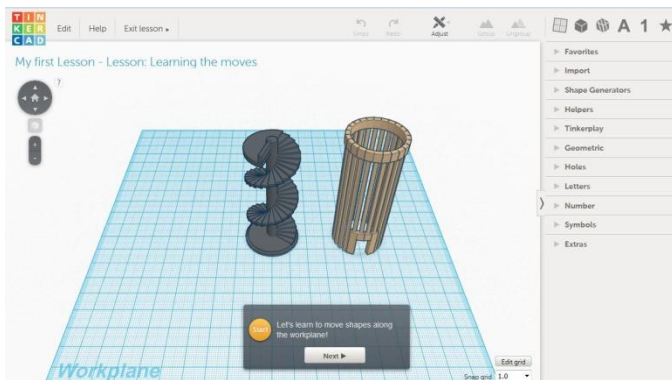
To create files for printing on a 3D printer, you must use a special 3D modeling program. There are different programs available for use online or download, many of which are free.

A great tool to get started is at [www.tinkercad.com](http://www.tinkercad.com).



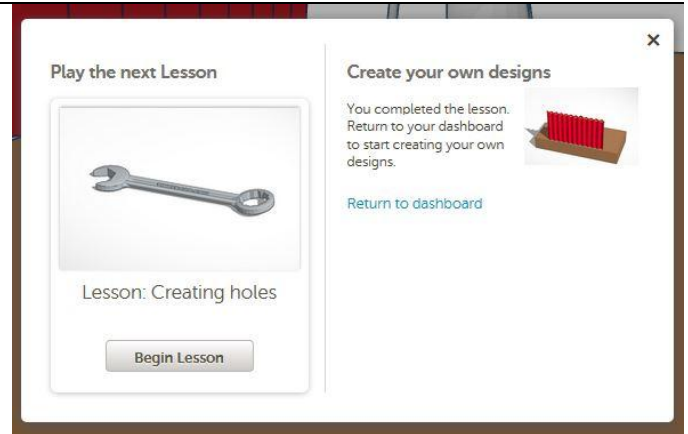
- Visit tinkercad.com
- Click SIGN UP
- Follow steps to create your free account

Once you create an account, Tinkercad will automatically start you on your first lesson.



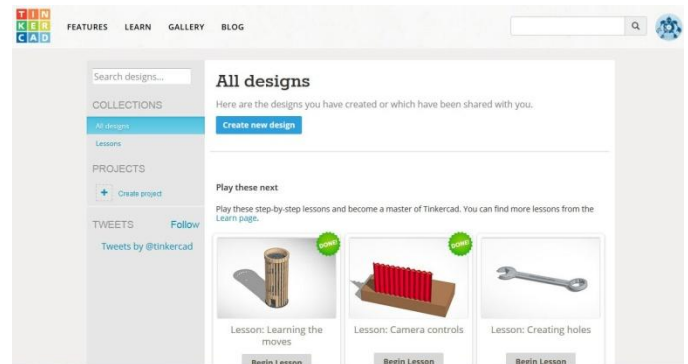
Click NEXT to progress through the steps, completing the instruction in the gray shaded box.

Once you complete a lesson, you can go on to the next one, or RETURN TO THE DASHBOARD.



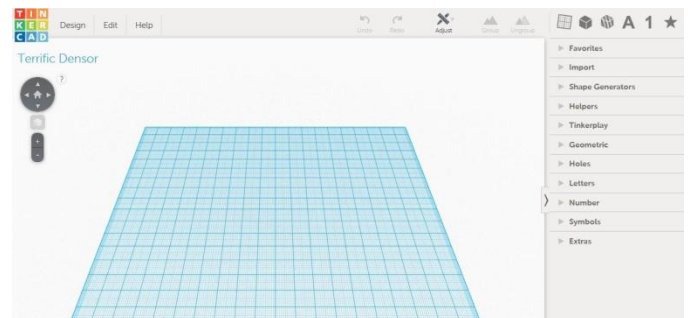
It's a good idea to complete as many lessons as possible, as they will teach you how to place objects, resize, and navigate in Tinkercad.

When you are ready to create your own design, click RETURN TO DASHBOARD.



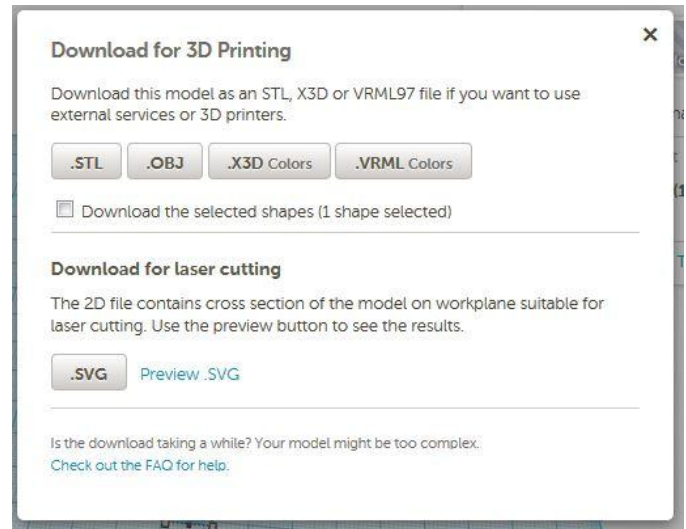
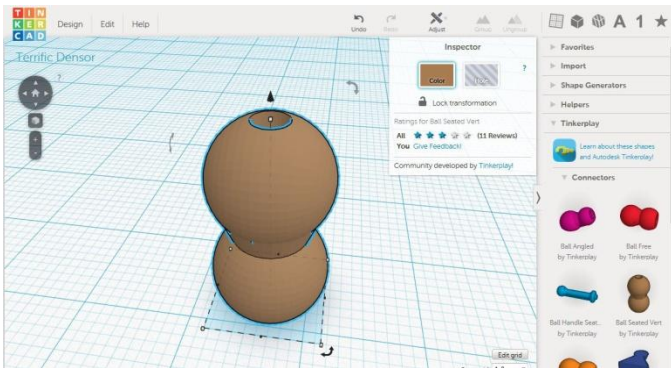
Click CREATE NEW DESIGN to begin working.

Drag objects from menu at right onto workplane. Click the arrow to expand the object menu.



Combine different shapes to create a single solid piece.

- Color of object is not necessarily color that will be printed. Color is determined by the filament that is loaded into the machine, NOT the program file.
- Select an object and click HOLE to make an empty space.
- Select multiple objects and click GROUP to combine them into a single object. If a HOLE is part of the GROUP, it will be cut out of the solid piece.



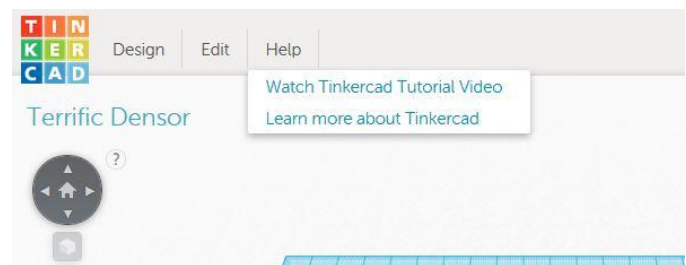
Save file to computer.

You may save it to a flash drive and bring that into the library for printing.

Stop by the Reference desk to let a librarian know that you would like to print a 3D file on the Taz printer.

Or, visit the Youth Services desk to prepare your file for printing on the MakerBot Replicator 2 printer.

For more help with Tinkercad, click HELP.



## Still need help?

- Ask at the Reference desk for a quick answer
- Make a Tech Thursday appointment to work through a more difficult problem
- Come to JBML's next Intro to 3D Printing class. Call the Reference desk or visit [www.blackstonelibrary.org](http://www.blackstonelibrary.org) to see a schedule of our classes.

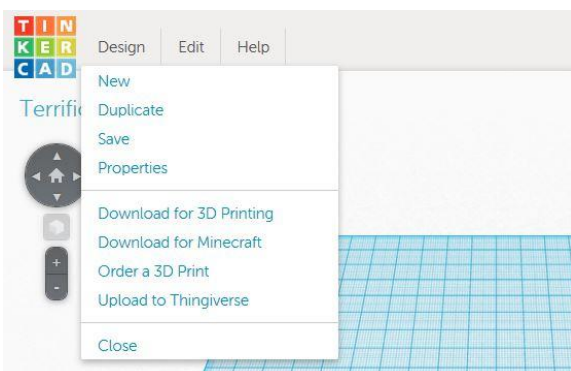
To move or resize, select the object you want:

- The black cone floating over the object allows you to move the object up and down on the plane.
- Curved arrows allow you to rotate object in the direction they indicate.
- White boxes at edges of dotted lines allow you to resize the object.

Copy/paste objects: use CTRL+C / CTRL+V or click EDIT menu, and select COPY / PASTE.

3D files will be automatically saved to Tinkercad's cloud storage as you work. You can log out and back in to continue working on your design or print it out.

When you are finished designing your piece and are ready to print, click DESIGN, at the top, then DOWNLOAD FOR 3D PRINTING.



Choose .STL file type.

