St. Joseph County Public Library
Studio 304
304 S. Main Street   South Bend, IN 46601   574.282.4600

Learn to 3D Design and Print

Websites to Know

Thingiverse - Find and download 3D designs that have already been created.
http://www.thingiverse.com/

Tinkercad - Easy 3D design program that allows you to create from scratch or edit existing 3D files. https://www.tinkercad.com/

Using Thingiverse

- Look through the pre-existing categories or enter a word (phone case, Pokémon, cats, etc.) into the search bar. Then hit the Return key on the keyboard.
- Find a file that you want to print.
  o Tip: Look for files that have already been made (below in red) by other people.
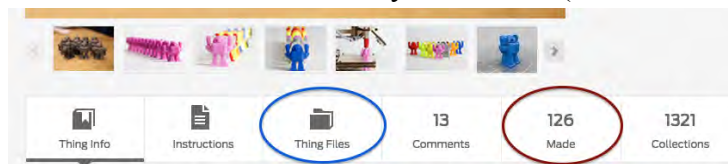
- Select the "Thing Files" box on the item page (above in blue).
- Click on the file that is a .stl file type to download it to the computer.

Using Tinkercad

- Create a free account or sign in using your existing Facebook, Yahoo or Google account.
- Click the "Create new design" button.
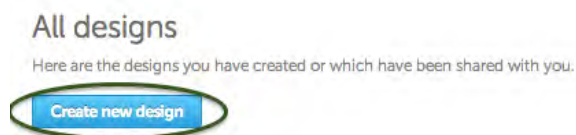
- Click and drag the shapes from the right side of the screen into the center to build your 3D object.
  o Tip: Hold down the right side of your mouse and click around the object to change your view. Sometimes shapes will look connected from one angle but not from another.

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- You can make holes in your object by changing it from a solid to a hole (red circle below).


- You can also change the color of your geometric shapes in Tinkercad (blue circle above), but this will not affect the color of the actual printed object.
- When you are finished, select Design > Download for 3D printing and choose the .stl file type.
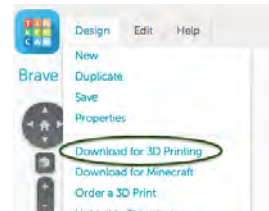
Using MakerBot software

This software converts the original file to a .x3g file. This is the only type of file that our Makerbot Replicator 3D printer can read. You can also preview your print to see an estimate of how long it will take and how much it will weigh.

- Drag and drop your .stl file onto the red "M" icon at the bottom of the screen.
- Click on one of the four icons on the left to change your tool.
  - VIEW: click and drag on the work area to see the object from different angles.
  - MOVE: click and drag the object to a different spot on the build plate.
  - TURN: click and drag on the object to rotate it on the Z-axis.
    - To turn on a different axis, click again on the Turn icon to bring up the menu.
  - SCALE: click and drag the object to make it bigger or smaller.
    - To scale by percentage, click again on the Scale icon to bring up the menu.
- Click on any icon a second time to see more controls:
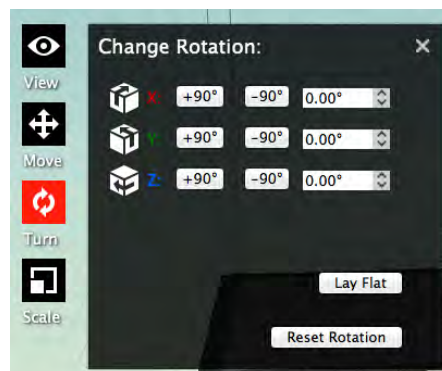
- Click on SETTINGS at the top to change print settings. Then click Save Settings.
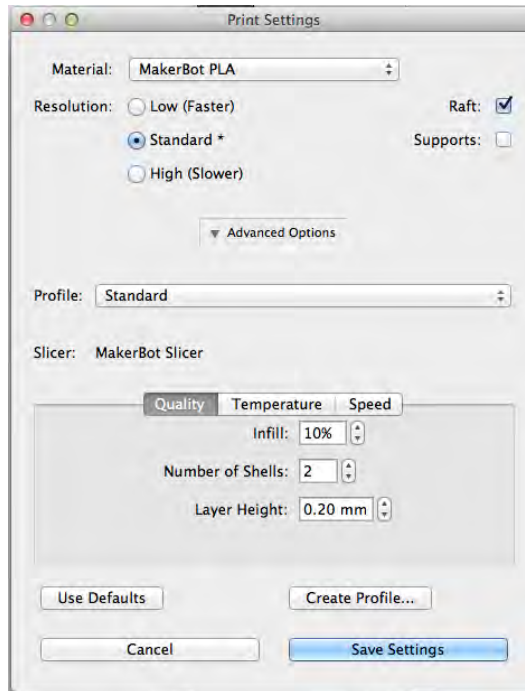
- Click EXPORT PRINT FILE at the top to see estimated print time and filament weight.
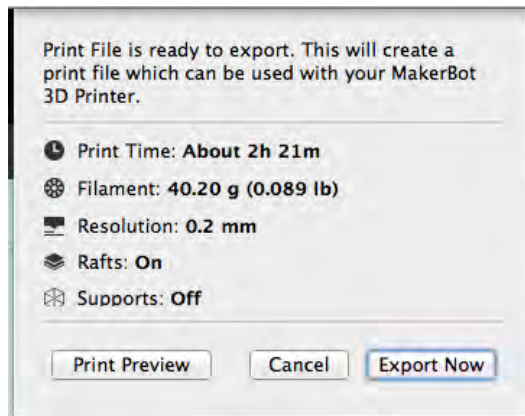
- Click "Export Now" to create the .x3g file.