Dremel 3D Printer 4000 Orientation Guidelines
A guide to introducing 3D Printing

What is 3d Printing?

3D printing is the process of making a three dimensional object from a digital file. The object is created by laying down successive layers of plastic material on top of each other until the print is created.

You begin by creating a virtual design on a computer or using a 3D scanner to replicate an existing object. Software is then used to slice the designed object into hundreds of horizontal layers. The design is sent to the 3D printer where hot plastic is passed through a super-heated nozzle and laid down layer by layer via a robotic arm. The plastic cools off within a few seconds, so the finished object can be used right away.

1. Guidelines:The Dremel will be handled by the person on staff. Please do not touch any part of the Dremel or tools, materials used with it or the touch screen
2. Visit thingiverse.com and other sites to show the wide variety of printable objects.
3. Thingaverse has a lot of designs that one may deem offensive or inappropriate.
4. Learn how to download a file from the Thingaverse.com as well as another alternative site
5. You will be using the Dremel software and how to make an object increase and decrease in scale.
6. Demonstrate how to slice a file and save it to a removable drive into a usable file (.stl,gcode) and save it to a removable drive to be handed to a makerspace worker. Files may also be sent to maker@myespl.org.

7. The 3D printer may be used for lawful purposes only. Patrons are not permitted to use the printer to create objects that are:
   a. *Prohibited by local, state or federal law.*
   b. *Subject to copyright, patent or trademark protection.*
   c. *Unsafe, harmful, dangerous or pose an immediate threat to the wellbeing of others; for example, guns, knives or other possibly lethal weapons.*
   d. *Items that are obscene or are deemed inappropriate for the library environment.*

e.   *Objects larger than 5"x5"x5".*Patrons are not permitted to use the printer to create objects that are: Prohibited by local, state or federal law. Subject to copyright, patent or trademark protection.   .

9. .   Files may be deemed too large to print. must be submitted as .stl files. We cannot print a file over 6 hours long. In regard to proportions, the design must be able to fit on the 3D printer's platform, so it must be under 5 inches high, 5 inches wide, and 5 inches long for our printers.   The 3D Printing service we offer is experimental and geared toward instructional learning.

10. We can only accept one file per week per patron, our service cannot accommodate mass manufacturing or large projects the policy signed policy

Choose something flat and solid to print for an example. Guitar picks, key tags, and other items that take only 10 minutes. Also show them the menagerie of things printed including all the practical, artistic, fun items

Name: Date:

Signature

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