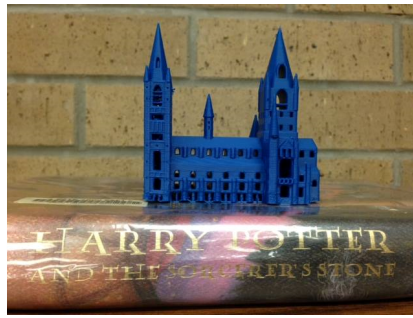


# 3D Printing Programs



## Before You Buy a 3D Printer

- Know the purpose and goals for the 3D printing program
- Determine who will use the 3D printer (Patrons, Staff or Both)
- Assign Tasks: Training Patrons, Maintaining Printer, Ordering Supplies, Schedule Print Job
- Train and Support your 3D Printing Program Staff/Volunteers
- Maintain your 3D Printer
- Know your budget for ongoing costs

## Create Your 3D Printing Program Policies

- Goals for 3D Printing Program
- What can and cannot be printed (Size, time and copyright limitations)?
- Patron vs Staff roles in Printing-- What happens when a patron must leave a during a print
- What is the Cost to Patrons?
- Copyright Protections

Sample Policy: <http://tinyurl.com/hyn8g9h>

## Selecting 3D Printer

**Pay attention to the following characteristics when choosing:**

Printer:

- Already built or ease of assembly, ease of learning, ease of use, and company support
- Quality of printing
- Sturdiness of printer
- Manual vs automated calibration
- Heated platform/print bed
- Build volume/size of printed objects
- Single or dual print heads
- Cost
- Replacement parts, tools

Filament

- Read about the different characteristics of filaments/materials. What type of filament do you want to print?
- Where can you buy filament? Many different companies? Only the printer's company?
- What is the cost of filament?
- Consider ongoing costs of filament.



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# 3D Printing Programs cont...



## Check for Ratings

- <http://www.tomsguide.com/us/best-3d-printers,review-2236.html>
- <https://www.3dhubs.com/best-3d-printer-guide>
- <http://www.pcmag.com/article2/0,2817,2470038,00.asp>
- <https://all3dp.com/best-3d-printer/>
- <http://www.3dprintinggeeks.com/>

## YouTube Videos

- Videos about unboxing printers
  - Lulzbot Mini (Video 17min) [https://youtu.be/-RFGK0\\_ZJ2w](https://youtu.be/-RFGK0_ZJ2w)
  - Lulzbot Taz 6 (Video 10min) [https://youtu.be/m\\_wMoMZD6oQ](https://youtu.be/m_wMoMZD6oQ)
  - Tinkerine (10 Videos) [https://youtu.be/d4r9EADnv\\_w?list=PLM67\\_i2HiikLdwr20KJy-1iOlj\\_E0PG3C](https://youtu.be/d4r9EADnv_w?list=PLM67_i2HiikLdwr20KJy-1iOlj_E0PG3C)
- Videos reviewing and comparing printers
  - Lulzbot Mini
    - Review (video 13 minutes) <http://tinyurl.com/z8vuxfl>
    - Review (Website) <http://tinyurl.com/gqg5lu9>
  - Lulzbot Taz 6
    - Review (22 minutes) <http://tinyurl.com/jhll3s>
    - Review (12.37 minutes) <http://tinyurl.com/gu7hxlx>
    - Review (website) <http://tinyurl.com/hvzg6kf>
  - Tinkerine Ditto Pro
    - Review (website) ( <http://tinyurl.com/hhmkfck> )
    - Review (website) ( <http://tinyurl.com/grrs2e9> )
- Videos showing printing with the computer.
- Keep an eye out for videos about printers not mentioned in the online rating sites.

## Health

The Health Affects of 3D Printing <https://americanlibrariesmagazine.org/2016/10/11/the-health-effects-of-3d-printing/>

## Tips

1. 3D printing is a lot of fun and popular, but this program/service cannot work without at least one reliable staff member(s) or volunteer(s) eager and with time to play, use, maintain, repair, and teach others to use the 3D printer.
2. When buying a 3D printer focus on hardware reliability, ease of use, good online support, and ongoing cost of filament. Buy the extended warranty for at least one year.
3. 3D printers are new technology. The hardware is not as reliable as computers and printers. Expect: Long print times, bad prints requiring starting over. Tool heads clogs requiring replacement with second tool head while the first tool head is unclogged.

## Contact

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Glen Elder Library

<https://www.facebook.com/Glen-Elder-City-Library-340600011810/>

Otis Community Library

<http://otiscommunitylibrary.doodlekit.com/>

Plainville Memorial Library

<http://plainvillepl.blogspot.com/>

Stockton Public Library

<https://www.facebook.com/Stockton-Public-Library-237100596341504/>