

# UA Bierce Library 3D Printing & 3D Scanning

The 3D printer and scanning services are made available by Student Technology Fees, and as such, are available to University of Akron faculty, staff and students only.

Printing is done on a first-come, first-served basis via the website request for printing form. Priority will be given to Academic projects, please allow 3-5 business days for these prints. If an academic print is needed by a deadline, we require submission 3-5 business days prior to the date. This information must be included on the submission form, it is not allowed after the submission is in our print queue.

If you are printing personal projects, the wait time is varied based on the current queue status. To check the status of a print, please email us ([3dprinting@uakron.edu](mailto:3dprinting@uakron.edu)) or stop by the MakerStudio in Bierce Library.

## **3D Printing**

- **3D Print Requests Restrictions:**
  - *Personal Prints:* Limited to 10 prints or 30 print-hours per person, per semester.
  - *Academic Prints:* Includes class assignments, design projects and active research projects. Academic jobs are not limited, but are subject to review by MakerStudio staff.
    - All submissions must be submitted 3-5 business days before due-date.
    - All submission must provide course or organization name, instructor or faculty advisor associated with the project, project information, class number or student organizations, and the overall dimensions in mm (x,y,z).
  - *File Format:* stl, .obj, or .thing files
  - 1 request at a time. Please wait until you've picked up your finished print before submitting a new request.
  - You will be contacted if you are approaching the printing limits and we will work with you if your new print exceeds the limits.
- **Print Submission:**
  - Fill out the 3D Printing Request Form
    - Answer all of the fields within the form and if there is special instructions for the objects, please include that in the specifications box at the bottom.
    - Attach .stl, .obj or .thing files
  - If you have multiple objects to submit DO NOT complete separate forms, ONLY submit one submission form for each project. A total of 5 file uploads is allowed, with a combined size less than 20mb. If your submission exceeds 20mb or 5 files, you will need to combine all files into a .zip folder.

- If you are printing a design project for a class or team, please include the class, project or team the print is for and if there is a completion timeframe.
- Submission Received:
  - If any additional information is needed, a member of the MakerStudio team will email you about the submission.
  - Print times vary based on size and complexity of your objects, please allow time for completion. It is important to know there is a queue and that times vary based on the amount of academic and personal submissions in our queue.
- Pick Up:
  - You will be notified via email when your print job is ready for pick up
  - Please bring your confirmation number and Zip Card (ONLY)
  - Completed prints are available for pickup in the MakerStudio located on the ground floor in Bierce Library.

Printed objects will be kept up to three weeks. After three weeks, objects will become the property of the MakerStudio and may be disposed of at that time. After the submission has been printed and the print has been picked up or the three week time limit to pick up the object is over, the submitted file will be deleted.

### **Terms of Use**

University of Akron – The MakerStudio 3D printers will not print models that may result in legal action against the University, it's employees, and/or students. The MakerStudio 3D printers may be used only for lawful purposes. University of Akron MakerStudio staff reserve the right to refuse or deny any 3D print and scanning request for any reason.

The MakerStudio's 3D printers and scanners may be used only for lawful purposes and may not be used to create files or objects that are:

1. Prohibited by local, state or federal law
2. Unsafe, harmful, dangerous or poses an immediate threat to the well-being of others
3. The production of weapons, facsimiles of weapons or replicas of weapons is prohibited. This includes parts of weapons, ammunition, toys, mounts, holders, accessories, and defensive as well as offensive weapons.
4. Obscene or otherwise inappropriate for the library environment
5. Pornographic
6. In violation of another's intellectual property rights. For example, reproduction of material subjects to copyright, patent or trademark protection
7. Commercial printing (no items intended for sale)
8. Likely to fail or print incorrectly or cause damage to 3D printer or scanner

Per University of Akron policies, any weapon or object intended for harm will be reported to the judicial affairs. If you have any questions regarding whether your object may breach this policy, please contact us.

Bierce Library is not responsible for any damage, loss, or security of data arising from the use of its computer or networks, nor for the functionality or quality of content produced on the 3D printer or scanner.

All submissions are subject to approval based on scheduling and availability. There may be times that the printer is malfunctioning, being repaired, or is being used for an event or a course. During such times, the 3D printer may be unavailable for use and there will be a delay in approving submissions and printing objects. Any significant lapses in printing time will be noted on the MakerStudio Website.

## **Quality**

### *3D Printing*

Users may see slight imperfections in their 3D prints. Small bumps, holes, or rough edges on the object might occur when objects are 3D printed. You can clean up some of the perfection with fine sand paper or other tools. There may be instances where objects with multiple pieces or movable parts do not precisely fit together.

The printer builds objects from the ground up. There are instances when certain parts will require supports, all of our objects are printed on a raft to ensure proper printing. Supports are often needed if the design has overhangs or parts suspend in mid-air. These parts are easily removable by the user. Staff is not responsible for removing any supports for the user, however the staff will remove the raft if time permits.

### *3D Scanning*

Users may see slight imperfections or inaccurate objects when 3D scanning. Holes, incomplete object images, overlapping scanned images, images may not appear on the screen, or images may appear out of shape when objects are 3D scanned. To successfully scan an image users should consider the image color, surrounding background, lighting and surrounding environment when scanning.

## **IP & Copyright Policy**

Those utilizing the library's 3D printers and scanners must do so for lawful purposes. Users must abide by all applicable laws and policies as stated above, while respecting the health and safety of the University community.

Computers and the Library network may not be used to illegally upload, download, or copy copyrighted materials including software, music, videos and graphics. This includes the use of online services that facilitate the unlicensed sharing of media files.

## **NOTICE WARNING CONCERNING COPYRIGHT AND OTHER LEGAL RESTRICTIONS**

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This institution reserves the right to refuse to make available or provide access to photocopy or other reproducing equipment if, in its judgment, use of such equipment would involve violation of copyright, patent or other laws. By submitting content or objects, the customer agrees to assume all responsibility for, and shall hold the library harmless in, all matters related to patented, trademarked, or copyrighted materials.