3D Printing in The Lab
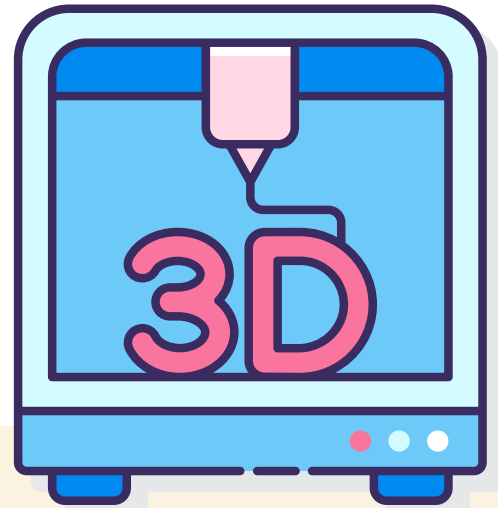
3D Print
Finding designs online

With the rising popularity of 3D printing, many designs have already been created and are available online for free to download and print. We need .stl files for printing. Please note that our maximum print size is 7" x 7" x 7", and prints cannot exceed 10 hours.

It is always best to design the file in its intended final print size. Some designs may not turn out well if they are scaled up or down. If you choose to resize a file, we suggest doing so before sending it to us. This way, you can have complete control over the dimensions and visualize the final outcome. Keep in mind that as you scale a project, the accuracy may decrease.

Create
Start your own 3D designs

Learners of all ages can benefit from TinkerCAD's easy-to-follow walkthroughs that take you from the beginning of moving and manipulating objects to creating projects like custom luggage tags, dice, chess pieces, measuring tools, and more. Visit https://www.tinkercad.com/join to sign up. Ready to move past what TinkerCAD can handle? The Lab also features access to Blender 3.5, Fusion360, and the full Adobe Creative Suite, including Substance 3D.

Filament

We offer black, white, red, blue, yellow, gray, and green PLA filaments.

Ready to print?

Email print@plymouthlibrary.org with a subject line of "3D Print." Please attach your STL file or a link to the online version of the file. Indicate the color of plastic for the object. Be sure to include any other relevant information pertaining to the print.

Cost

Printing costs $0.10 per gram plus $1.00 for every hour of printing. Most objects can be printed in 4 hours and cost less than $10. There is a minimum charge of $1.00.

Additional Resources

https://www.thingiverse.com/ - Explore an extensive collection of over 1.6 million 3D printable designs or showcase your own creations. Discover how others print, remix, and utilize these designs to inspire your own projects.

https://www.3dslash.net/ - Immerse yourself in the world of 3D modeling with 3D Slash software. Experience an intuitive and original approach to modeling, reminiscent of the craftsmanship of a stone-cutter shaping blocks. It's a creative process akin to building in Minecraft, making 3D modeling accessible and enjoyable.

https://www.blockscad3d.com/ - Embrace the power of visualization and design with BlocksCAD, a cloud-based 3D modeling tool. Unleash your creativity while learning math, computational thinking, and coding concepts. Design captivating models that can be brought to life through 3D printing.

https://www.tinkercad.com/ - Dive into the world of 3D design, electronics, and coding with Tinkercad's free online platform. Unleash your imagination and bring your ideas to life using this user-friendly 3D modeling program.

https://www.autodesk.com/products/fusion-360/ - Elevate your Tinkercad designs to the next level with Autodesk Fusion 360. Seamlessly transfer your projects to this professional-grade software for advanced simulation, animation, rendering, and more. Available for free to hobbyists, non-commercial users, and qualifying startups.

https://stephaneginier.com/sculptgl/ - Unleash your sculpting talents with SculptGL, a powerful yet compact sculpting application driven by JavaScript and webGL technology. Create stunning 3D models with ease and precision.

https://www.blender.org/ - Discover the boundless possibilities of Blender, a free and open-source 3D computer graphics software toolkit. From animated films and visual effects to art, 3D-printed models, and virtual reality experiences, Blender empowers you to bring your creative visions to life.

https://www.printables.com/ - Join a vibrant community of 3D printer enthusiasts on this Prusa-run website. Immerse yourself in a world of printable 3D models, featuring thousands of remarkable designs available for free download.

https://www.instructables.com/ - Unleash your creativity with Instructables, a dedicated platform for user-created do-it-yourself projects. Discover a wealth of 3D printing projects and step-by-step instructions to bring your ideas to life.

https://www.myminifactory.com/ - Browse an extensive collection of high-quality 3D printable models on MyMiniFactory. Whether you're into tabletop gaming, toys, or articulated figurines, you'll find a wide range of free and paid models to enhance your printing experience.

https://cults3d.com/en/ - Immerse yourself in the digital marketplace of Cults3D, offering a vast selection of 3D printing and design files.

https://3d.si.edu/ - The 3D Program is an innovative initiative within the Smithsonian Institution's Digitization Program Office, dedicated to providing open access to a wide range of 3D print files. Explore the captivating world of Smithsonian collections, including sports, portraiture, fashion, and outer space, as you bring these extraordinary objects to life through 3D printing.

https://nasa3d.arc.nasa.gov/models/printable/ - Embark on an awe-inspiring journey with NASA's collection of 3D printable files, designed to enhance your educational experience. Delve into the depths of space exploration as you discover rover models, asteroid replicas, landing site models, and more.

https://africanfossils.org/ - Immerse yourself in a captivating virtual lab showcasing a spectacular collection of fossils and artifacts primarily found at Lake Turkana in East Africa. Step into the world of ancient life as you explore an impressive printable digital collection featuring animals, human ancestors, and ancient stone tools.

https://www.toymakr3d.com/ - Unleash your creativity with an expansive collection of both free and paid .stl files for 3D printing toys. Immerse yourself in the world of beloved characters such as Transformers, Megazord, Macross, Voltron, Mazinger, Power Rangers, and more.

https://3dprinteracademy.com/collections/resources/ - Discover a wealth of free and paid .stl files specifically curated for education and learning the principles of 3D design and printing. Enhance your skills and knowledge as you explore a diverse range of resources tailored to various educational levels. From intricate designs to practical applications, these files provide an invaluable resource for aspiring 3D printing enthusiasts and learners.

https://www.stlfinder.com/ - Uncover a vast repository of free 3D models and printable .stl files through this expansive search engine.

https://plymouthlibrary.org/lab/