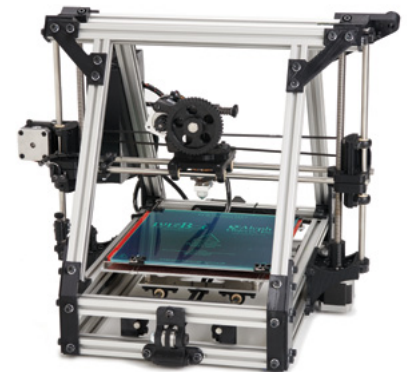# LulzBot AO-101 Desktop 3D Printer

Imagine turning your ideas into real 3D objects you can hold in your hand. LulzBot™ delivers the ultimate desktop 3D printer, empowering business innovators and inventors to conceive, create, and manufacture prototypes and products more quickly and efficiently than ever.

AO-101

INVENT IT. CREATE IT. PRODUCE IT.

If a picture is worth a thousand words, a 3D printed object tells the entire story.

Like moveable type transformed and democratized communication, 3D printing is transforming innovation and industry. The LulzBot AO-101 from Aleph Objects, Inc., is transforming the desktop 3D printer industry. A few short years ago, creating a three-dimensional prototype or short-run production required tens of thousands of dollars and months of time, making efficient innovation difficult for most and prohibitively expensive for many.

Our technology allows you to design and print with ease and speed, whether that's short-run manufacturing or rapid proto-typing. Designed for innovators, prototypers, manufacturers, hobbyists, engineers, universities, architects, or medical practices—as a community we are advancing the world of 3D printing.

The LulzBot AO-101 is quieter, faster, and prints higher resolution than other 3D printers on the market.

Buy today. Print tomorrow.

The LulzBot AO-101 is the best quality machine on the market, fully assembled, robust, and ready to ship next day. Complete with a toolkit, plastic for printing, and a step-by-step manual, the AO-101 arrives at your doorstep ready to roll. Our manufacturing process produces rock-solid, durable printers that allow you to repeat projects time and time again with fewer errors.

The AO-101 is a Respects Your Freedom certified product by the Free Software Foundation. LulzBot printers are the first hardware products in FSF's 27-year history to achieve RYF certification.
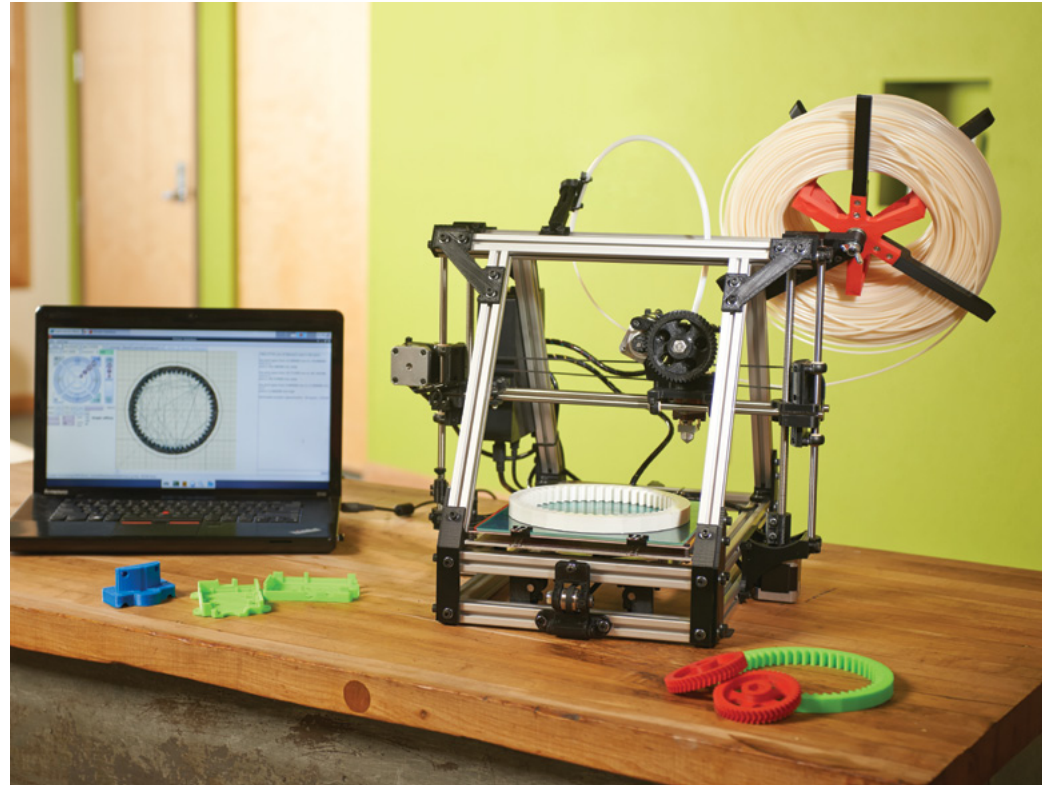
OPEN. FOR BUSINESS.

With all the desktop 3D printers on the market, why buy a LulzBot?

Our philosophy of *Libre Hardware* is built into everything we do. It means we believe you should be free to use, learn from, and improve the hardware and software you use. Since technology advances much more rapidly in an open environment, *Libre Hardware* means that when you own and operate a LulzBot, you benefit from the collective ingenuity of the entire open community. It's good for industry, and it's just good business.

Libre Hardware means that when you buy a LulzBot, your hardware and software will not be locked down and become obsolete or require licensed upgrades as the industry advances. We will continue to improve and advance the open desktop 3D printer world, and we encourage and empower our customers to be a part of that ongoing conversation. That's Libre Innovation.

Rest assured, as part of the LulzBot community, you'll be able to render your vision in three dimensions now and well into the future.

Libre Hardware. Libre Innovation.

THE WORKHORSE OF THE 3D PRINTING INDUSTRY.

We not only stand behind our product, we stand on it.

At LulzBot, we're inventors. And as every inventor knows: you build it, then you try to break it in order to make it better. In our years of research and development, we've stood on our printer, strapped it in the back of a truck and printed while driving on dirt roads in the mountains, and strapped it upside down to see if it would still print—and it did.

Now, you won't likely need to operate your LulzBot under these conditions, but it's reassuring to know you could.

"I bought my LulzBot on a Tuesday and was printing useful parts within a day. I love this printer, and it's already been worth its weight in gold."

—Landon Cox, CEO, Twin Dolphin Timing

With the AO-101, we set out to build the strongest, most reliable, finely tuned desktop 3D printer in the world.

- Comes fully-assembled and ready to print
- 7.9" x 7.5" x 3.9" heated print bed
- Quiet operation makes the AO-101 office, home, and studio friendly
- Built for speed and accuracy so you can print more iterations faster —this printer prints itself
- Improved pulley system means precision printing and no skipping

Seth Sinnema
Chief Technology Officer
6'2", 220 pounds

Buy printers, parts, and plastics at **LulzBot.com**

CUSTOMIZE FOR YOUR NEEDS.

Don't like to be boxed in? Neither do we. That's why we allow you to customize your LulzBot AO-101 to meet your needs and the project at hand. The open build allows you to modify easily for printing a variety of materials, parts, and pieces. Need to print quickly? The LulzBot is ready to print upon delivery. The AO-101 comes with 0.25mm, 0.35mm, and 0.5mm nozzles, and additional optional 0.15mm and 0.75mm nozzles are available. Simple customizations allow the AO-101 to print with polycarbonate and other custom materials.

Wood, polystyrene, plastic? Fantastic.

The LulzBot AO-101 is one of the few desktop 3D printers on the market that can print with ABS and PLA plastics. With some simple adjustments, you can print with a wide array of experimental materials like wood filament, nylon, polycarbonate, polystyrene, and glow-in-the-dark materials.

We're constantly pushing the boundaries of what our printers can do and we'll share the results with you at LulzBot.com.

- Layer height: 75 to 500 microns (750 microns with optional .75mm nozzle)
- Thin accumulative layers showcase the essence of your design
- Prints professional quality prototypes and finished products
- Print ABS and PLA plastics and more: wood, translucent, glow-in-the-dark, polycarbonate, and other speciality materials
- No-maintenance Budaschnozzle hot end is the best in the industry

ASSEMBLED AND READY TO PRINT, OUT OF THE BOX.

We are busy people and know you are as well. While we allow the flexibility to tweak our products, we also know there's work to get done—and quickly! That's why every LulzBot printer ships fully assembled, calibrated, and ready to print. **Time is money, and we dramatically reduce the product development cycle so you can design and print functional 3D prototypes, models, and products from the moment your printer arrives.**
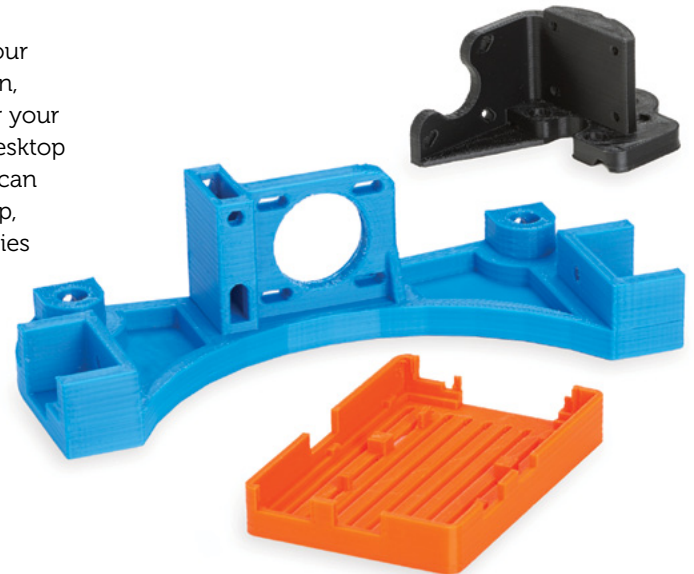
- One of the most reliable desktop 3D printers on the market
- Stable and robust—print your own replacement parts and customizations
- Publicly available free software allows for immediate upgrades

Built for speed and performance

Instant gratification is intensely satisfying. Why wait? We believe that faster is better and speed can be a reality without sacrificing quality. The LulzBot desktop 3D printer is intentionally engineered with speed and quality in mind. Improve your 3D print production in a shorter amount of time than you ever imagined possible. With a 150mm print speed, you can kick back and let the printer do the work—tight deadlines are a thing of the past. Now isn't that gratifying?

Order today. Print tomorrow.

Ask and you shall receive. With our advanced and flexible supply chain, there's no need to wait around for your LulzBot 3D printer. Unlike other desktop 3D printers on the market, which can take weeks or even months to ship, we've bypassed logistic complexities and ship products efficiently and on time. Reduce your downtime waiting for packages to arrive and start creating.

Long Live Libre.

LulzBot AO-101 Desktop 3D Printer

Finally, quick and cost-effective rapid prototyping and low-volume production is available for your business or office. The AO-101 is perfect for product development in research and development organizations and for those companies looking to reduce the manufacturing costs of their low-volume products.

The AO-101 is the perfect alternative to the high-dollar additive manufacturing systems on the market today and is designed specifically for business innovators and inventors. Reliability, ease of use, compact size, large print area, preassembled and calibrated, low maintenance, exceptional print quality, industry leading print speed, 90-day warranty — **the AO-101 gets the job done**.

Specifications:

Printing

Usable Print Area: 200mm x 190mm x 100mm (7.9in x 7.5in x 3.9in)

Top Print Speed: 200mm/sec (7.9in/sec)

Print Tolerance: 0.2mm (0.008in) in X and Y axes; Z axis is dependent on layer thickness

Layer Thickness: .075mm – .2mm (with .25mm nozzle); .1mm – .3mm (with .35mm nozzle); .3mm – .45mm (with .5mm nozzle)

Supported Materials: ABS and PLA plastic filaments

Usable Filament Sizes: Standard 3mm (0.1in) and 1.75mm (0.007in) with included accessory and setup

Physical Dimensions

Overall Dimensions: 464mm x 483mm x 381mm (18.3in x 19in x 15in)

Weight: 8.18kg (18lbs)

Electrical

Power Requirements: 110-240 VAC, with USA power cord

Temperature: Max operating temperature (Extruder): 240C; max heat bed temperature: 120C

Your AO-101 printer package includes:

Your printer comes with complete documentation including a detailed manual with information for unpacking the printer, setup, downloading and using software, and starting your first print.

Mountable spool holder

Filament feedtube

Filament feedtube holder

Startup supply of ABS filament, natural, 3mm dia. – 5lbs (2.3kg)

Toolkit bag

Allen wrenches: 1.27mm, 2.5mm, 3mm, 4mm

Combination wrenches: 5.5mm, 13mm, 18mm

Pliers, needle nose

Tweezers

Xacto knife

Dental pick

Flathead bristle brush

Part removal knife (clam knife)

Metric ruler

PET sheet

Acetone-safe bottle (acetone not included)

No-maintenance Budaschnozzles: .5mm (attached), plus .25mm, and .35mm nozzles included

PTFE tube for 1.75mm filament

90-day warranty

1 year support

Bill of Materials

Printed part source files, STLs, and G-Code

Part specifications

Electronics schematics

Printed manual

MendelMax RepRap derived

All available at http:download.lulzbot.com/AO-101

Free Software

Marlin firmware

Slic3r G-Code generator

Pronterface host software

Workstation Compatibility

GNU/Linux, Mac OS, Windows

LULZBOT™

www.LulzBot.com

For more information, call **+1-970-377-1111** or email **sales@lulzbot.com**

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Free software, libre hardware, collaborative communities: