

LulzBot KT-PR0035NA

LulzBot Mini Desktop 3D Printer User Manual

Model: KT-PR0035NA

PRODUCT OVERVIEW

The LulzBot Mini is a high-performance desktop 3D printer designed for ease of use. It is an Open Source Hardware product, certified by the Free Software Foundation, allowing users flexibility and access to evolving technology. This printer is known for its accuracy and speed, making it suitable for various applications.



Figure 1: LulzBot Mini 3D Printer with a sample print.

KEY FEATURES

- **Ease of Use:** Features include auto-bed leveling, auto-nozzle cleaning, and an easy-carry handle.
- **Software Compatibility:** Comes standard with Cura LulzBot Edition and is compatible with OctoPrint, BotQueue, Slic3r, Printrun, MatterControl, and more.
- **Print Volume:** 6in x 6in x 6.2in (152mm x 152mm x 158mm).
- **Layer Resolution:** Capable of resolutions from 50 micron to 500 micron, depending on part geometry and desired speed/finish.
- **Temperature Capabilities:** Hot end reaches up to 300°C (572°F) and heated bed up to 120°C (248°F), supporting a wide range of materials.
- **Print Speed:** Top speed of 275mm/sec (10.8 in/sec) at 0.18 mm layer height.
- **Modular Design:** Tool head carriage allows for easy swapping of different print heads for various filament materials.
- **Open Source Hardware:** Provides freedom to adopt new technologies and materials.



Figure 2: The LulzBot Mini 3D Printer actively printing an object.

SETUP GUIDE

The LulzBot Mini is designed for quick and easy setup. It ships fully assembled and calibrated, allowing users to begin printing shortly after unboxing.

1. **Unboxing:** Carefully remove the printer from its packaging. Ensure all packing materials and protective elements are removed from the print bed and print head.
2. **Placement:** Place the printer on a stable, level surface in a well-ventilated area.

3. **Power Connection:** Connect the power supply to the printer and plug it into a suitable electrical outlet.
4. **Software Installation:** Install the recommended Cura LulzBot Edition software on your personal computer. This software is essential for preparing 3D models for printing and controlling the printer.
5. **USB Connection:** Connect the printer to your computer using a USB cable.
6. **Filament Loading:** Follow the on-screen instructions in the software or the quick start guide to load your chosen filament material into the printer's extruder.
7. **First Print:** The printer is pre-calibrated. Initiate a test print through the software to verify proper operation.



Figure 3: The LulzBot Mini 3D Printer ready for setup.

OPERATING INSTRUCTIONS

Operating the LulzBot Mini involves preparing your 3D model, sending it to the printer, and monitoring the printing process.

1. Model Preparation (Slicing):

- Open your 3D model (.STL, .OBJ, etc.) in Cura LulzBot Edition or another compatible slicing software.
- Adjust print settings such as layer height, infill density, print speed, and support structures as needed for your specific model and material.
- The software will "slice" the model into layers and generate G-code, which are instructions for the printer.

2. Printer Connection:

Ensure the printer is connected to your computer via USB and powered on.

3. Print Initiation:

- Load the appropriate filament into the extruder.
- Initiate the print from the slicing software. The printer will automatically perform auto-bed leveling and auto-nozzle cleaning before starting the print.

4. Monitoring:

Observe the initial layers of the print to ensure proper adhesion and extrusion. The PEI print surface is designed for low maintenance and good adhesion.

5. Print Completion:

Once the print is complete, allow the print bed to cool before carefully removing the printed object.



Figure 4: Detailed view of the print head and filament path.

MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your LulzBot Mini 3D Printer.

- **Nozzle Cleaning:** Periodically clean the print nozzle to prevent clogs and ensure consistent extrusion. The auto-nozzle cleaning feature helps, but manual cleaning may be required for stubborn residue.
- **Print Surface Care:** The PEI print surface is low maintenance. Clean it with isopropyl alcohol before each print to ensure good adhesion. Avoid using abrasive materials that could scratch the surface.
- **Lubrication:** Refer to the detailed user guide (available as a PDF document) for instructions on lubricating the printer's moving parts, such as lead screws and smooth rods, to ensure smooth operation.
- **Firmware Updates:** Check the LulzBot website regularly for firmware updates. Keeping your printer's firmware up-to-date can improve performance and add new features.

- **General Cleaning:** Keep the printer free of dust and filament debris. Use a soft brush or compressed air to clean hard-to-reach areas.

TROUBLESHOOTING

This section addresses common issues you might encounter with your LulzBot Mini 3D Printer.

Problem	Possible Cause	Solution
Print not sticking to bed	Dirty print surface, incorrect bed temperature, or nozzle too far from bed.	Clean the PEI print surface with isopropyl alcohol. Verify bed temperature settings in slicing software. Ensure auto-bed leveling is functioning correctly.
Extruder clicking or no filament extrusion	Clogged nozzle, tangled filament, or incorrect hot end temperature.	Perform a cold pull or use a thin needle to clear the nozzle. Check filament path for obstructions. Verify hot end temperature is appropriate for the filament type.
Poor print quality (stringing, layer shifting)	Incorrect print settings (retraction, speed), loose belts, or mechanical issues.	Adjust retraction settings in software. Inspect and tighten X and Y axis belts if loose. Check for any damaged or misaligned components.
Printer not connecting to computer	USB cable issue, driver problem, or software conflict.	Try a different USB port or cable. Reinstall printer drivers. Ensure no other software is interfering with the connection.
Unusual noises during operation	Loose components, worn bearings, or fan issues.	Inspect the printer for any loose screws or parts. Check the extruder fan for proper operation. If noises persist, consult the full user manual or contact support.

SPECIFICATIONS

Attribute	Detail
Model Number	KT-PR0035NA
Product Dimensions	17 x 22 x 19 inches
Item Weight	22 Pounds
Print Volume	6in x 6in x 6.2in (152mm x 152mm x 158mm)
Layer Resolution	50 micron to 500 micron
Max Hot End Temperature	300°C (572°F)
Max Heated Bed Temperature	120°C (248°F)
Top Print Speed	275mm/sec (10.8 in/sec) at 0.18 mm layer height
Compatible Devices	Personal Computer
Material Compatibility	Polylactic Acid (and others via modular tool head)

Attribute	Detail
Date First Available	January 19, 2015
Manufacturer	Aleph Objects Inc

WARRANTY AND SUPPORT

The LulzBot Mini Desktop 3D Printer comes with a**One-year warranty** and **One-year customer support**. For any issues or questions, please refer to the official LulzBot support channels or the comprehensive User Manual (PDF) available through the product's Amazon page.

Documents - LulzBot – KT-PR0035NA



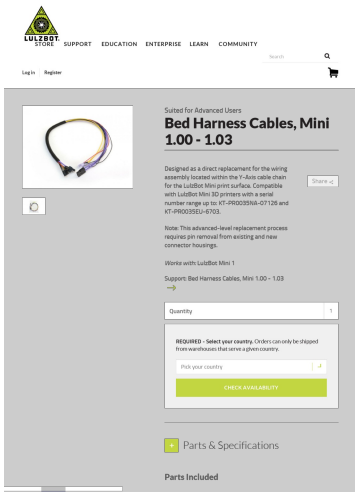
[pdf] Service Bulletin

extruder idler service bulletin lulzbot sites default files
Service Bulletin Affected product: LulzBot TAZ 5 Serials KT-PR0036NA-11500 and higher LulzBot Mini Serials **KT-PR0035NA**-1100 and higher Single Dual Extruder Tool Heads v2 Effective date: February 23, 2016 Service issue: Some extruder idlers may crack and eventually fail. Indication: Duri...
lang:en score:32 filesize: 233.82 K page_count: 1 document date: 2016-03-16



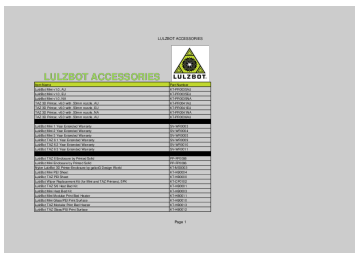
[pdf] Specifications Datasheet

Microsoft Word Document1 2792856 ga 2 122492299 1834188734 1583149669 1184609798
1579499890 gac 1 259937528 1580390615 Cj0KQCqAmsrxBRDaARIsANYiD1qd farnell datasheets
Cj0KQCqAmsrxBRDaARIsANYiD1qdiI3Nue9NS W9YLTSUswBmrW18oRJRqp qfry9krnjQIFhR9t014aAhv
EALw wcb
Suited for Intermediate Users LulzBot Mini Modular Print Bed Heater The LulzBot Mini Modular Print B ... ed Corners, 8 mm x 10 mm Compatible with LulzBot Mini s with serial number equal to or higher than **KT-PR0035NA**-07500 - KT-PR0035EU-7659 o
4 Metric 18-8 Stainless Steel Unthreaded Spacer, 8mm OD, 1...
lang:en score:30 filesize: 75.58 K page_count: 2 document date: 2018-04-11



[pdf] Instructions Specifications Documentation

pgurl 5156859901365300 static6 arrow aro conversion f1e97fe8735e7b2cba91b7ffca2642bc89f0a308 ||| STORE SUPPORT EDUCATION ENTERPRISE LEARN COMMUNITY Search Log in Register Suited for Advanced Use ... zBot Mini print surface. Compatible with LulzBot Mini 3D printers with a serial number range up to: **KT-PR0035NA**-07126 and KT-PR0035EU-6703. Note: This advanced-level replacement process requires pin r... lang:en score:29 filesize: 303.58 K page_count: 3 document date: 2022-03-25



[pdf] Datasheet Warranty Accessories

Plant James 2604967 ga 2 114129031 1834188734 1583149669 1184609798 1579499890 gac 1 55942873 1580390615 Cj0KCQiAmsrxBRDaARIsANyiD1qdi farnell datasheets Cj0KCQiAmsrxBRDaARIsANyiD1qdi3Nue9NS W9YLTSUswBmrW18oRJRqp qfry9krnjQIFhR9t0l4aAhv EALw wcB LULZBOT ACCESSORIES LULZBOT ACCESSORIES Item Name LulzBot Mini v1.0, AU LulzBot Mini v1.0, EU LulzB ... Z Modular Print Bed Heater LulzBot TAZ Glass/PEI Print Surface Part Number KT-PR0035AU KT-PR0035EU **KT-PR0035NA** KT-PR0041AU KT-PR0041EU KT-PR0041NA KT-PR0036AU SV-WR0003 SV-WR0004 SV-WR0005 SV-WR0009 ... lang:en score:26 filesize: 41.45 K page_count: 2 document date: 2018-03-20