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ELEGOO Neptune 3 pro

ELEGOO Neptune 3 Pro FDM 3D Printer Instruction Manual

Model: Neptune 3 Pro | Brand: ELEGOO

INTRODUCTION

This manual provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your ELEGOO Neptune 3 Pro FDM 3D Printer. Designed for ease of use and high-quality output, the Neptune 3 Pro is equipped with advanced features to enhance your 3D printing experience.

SAFETY GUIDELINES

Always operate the printer in a well-ventilated area. Keep hands clear of moving parts during operation. Do not touch the hotend or heated bed during operation or immediately after, as they can reach high temperatures. Ensure the power supply is correctly configured for your region's voltage (115V/230V selected by switch). Refer to local regulations for proper disposal of electronic waste and materials.

This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

PACKAGE CONTENTS

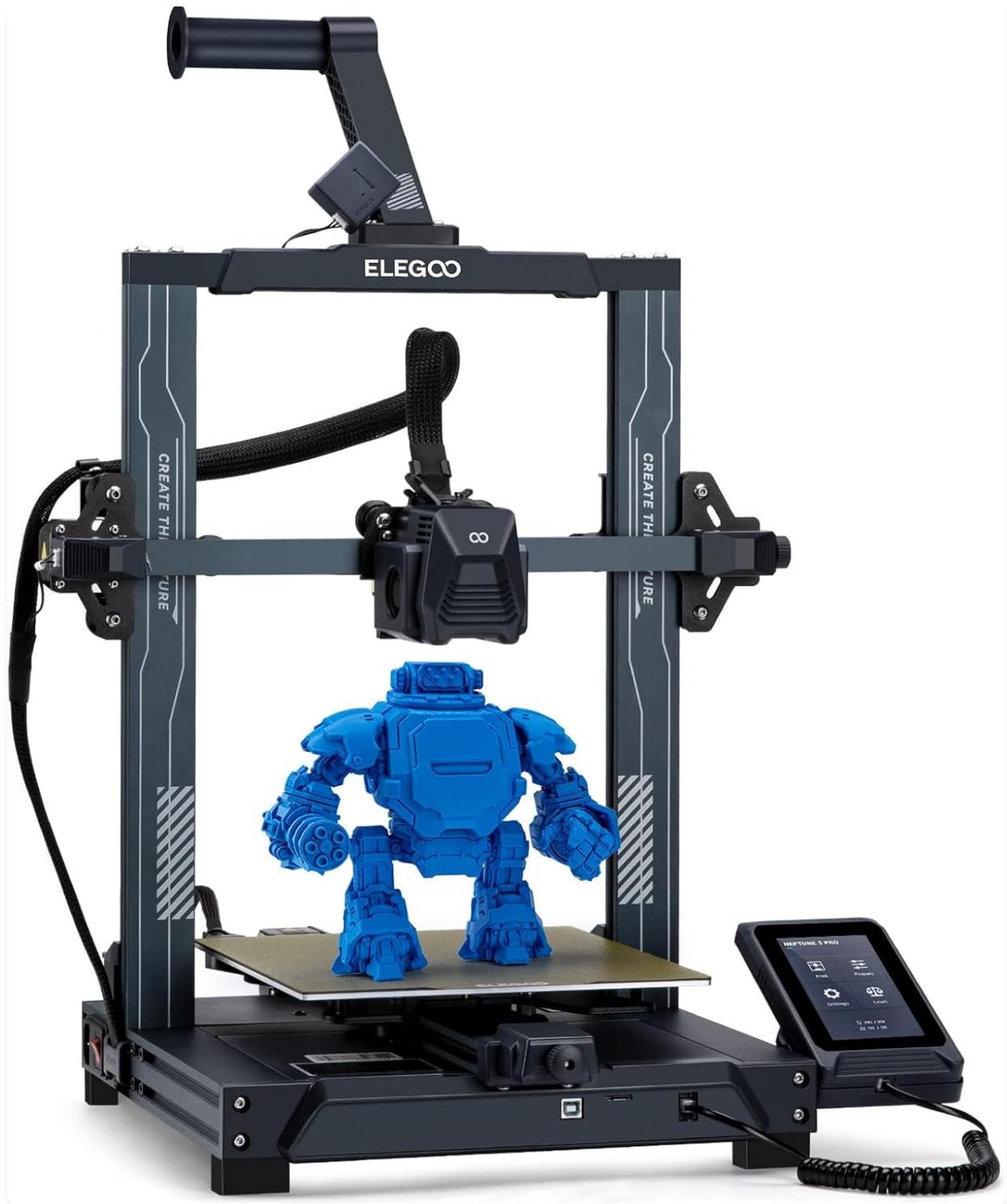
- ELEGOO Neptune 3 Pro 3D Printer (main components pre-assembled)
- Complete Tool Kit for quick installation
- Filament Sample
- USB Stick

- Removable Capacitive Screen
- Power Cable

SETUP AND ASSEMBLY

The ELEGOO Neptune 3 Pro is designed for quick setup, with most main components pre-assembled. Refer to the included quick start guide for detailed assembly steps.

Initial Assembly



The ELEGOO Neptune 3 Pro 3D printer, ready for initial setup.

Bed Leveling

The Neptune 3 Pro features a 36-point automatic bed leveling system using a high-precision sensor. This system automatically scans the hotbed and adjusts the Z-axis height to compensate for any irregularities, ensuring an optimal first layer. Initial manual Z-offset adjustment may be required.



STM32
Motherboard
quiet & safe printing

**Silent Stepper
Motor Drive**

the noise as low as
47dB

Visual representation of the 36-point auto-leveling process on the print bed.

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An overview of the auto bed leveling feature of the ELEGOO Neptune 3 Pro.

Filament Loading

The printer features a dual-gear direct extruder made of SUS303 high-quality stainless steel with a 3:1 reduction ratio, providing stronger extrusion force for smoother filament feeding. It is compatible with various filament types including PLA, TPU, PETG, and ABS.



Close-up view of the dual-gear direct extruder mechanism.

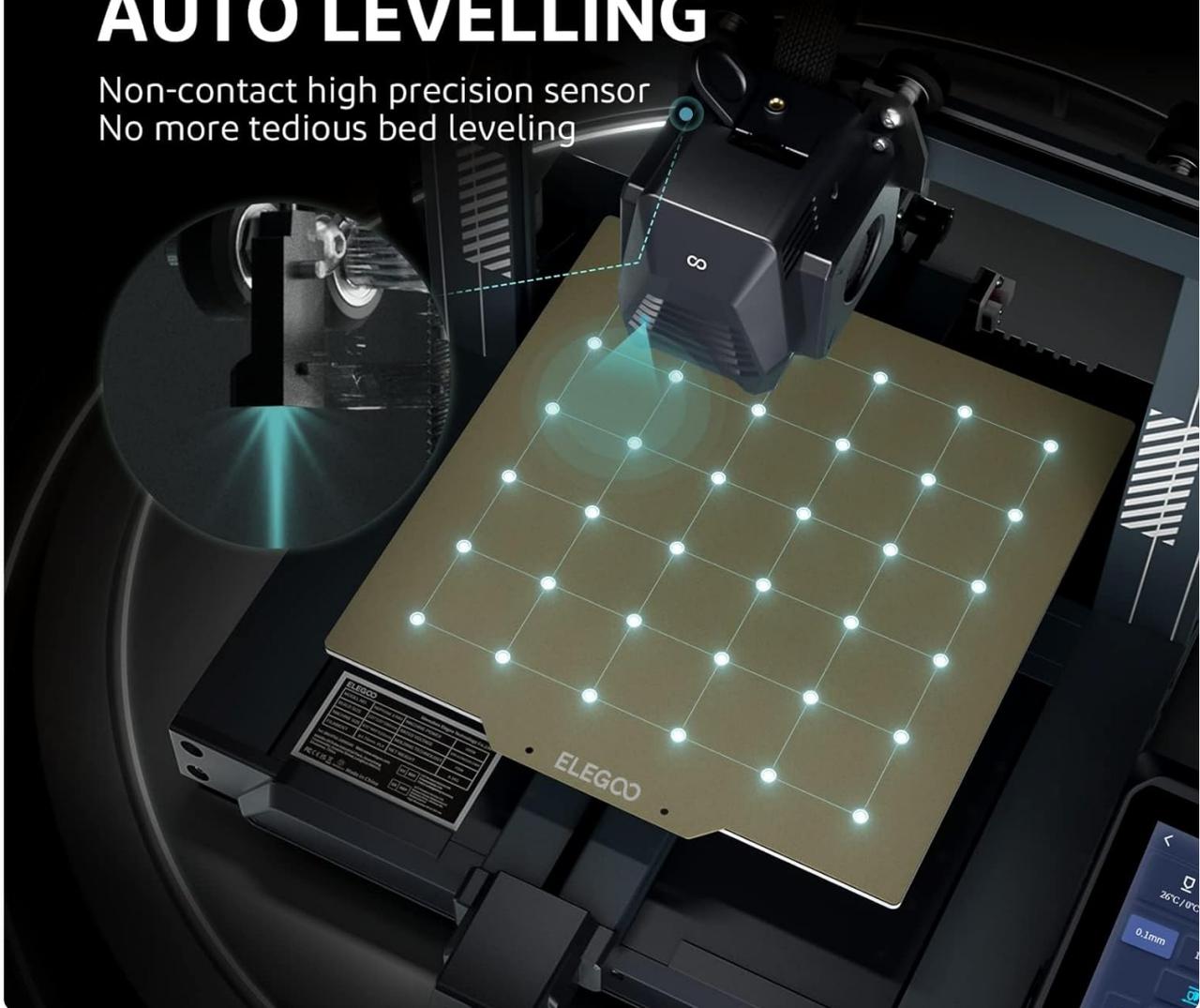
OPERATING YOUR PRINTER

Printing Process

Prepare your 3D models using slicing software such as Elegoo Cura. Once sliced, transfer the G-code file to the printer via the provided USB stick. The removable capacitive screen allows for intuitive control and monitoring of the printing process.

36-POINT AUTO LEVELLING

Non-contact high precision sensor
No more tedious bed leveling



The removable capacitive touchscreen display, used for controlling print operations.

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A user demonstrates the ELEGOO Neptune 3 Pro in operation, highlighting its ease of use.

Smart Features

The printer is equipped with smart features for a seamless experience. It can auto-pause when the filament runs out or breaks, and you can resume printing after a power outage, minimizing print failures.

UPGRADED HOTEND KIT

with outstanding heat dissipation



Illustration of the smart resume printing function, allowing prints to continue after interruptions.

MAINTENANCE AND CARE

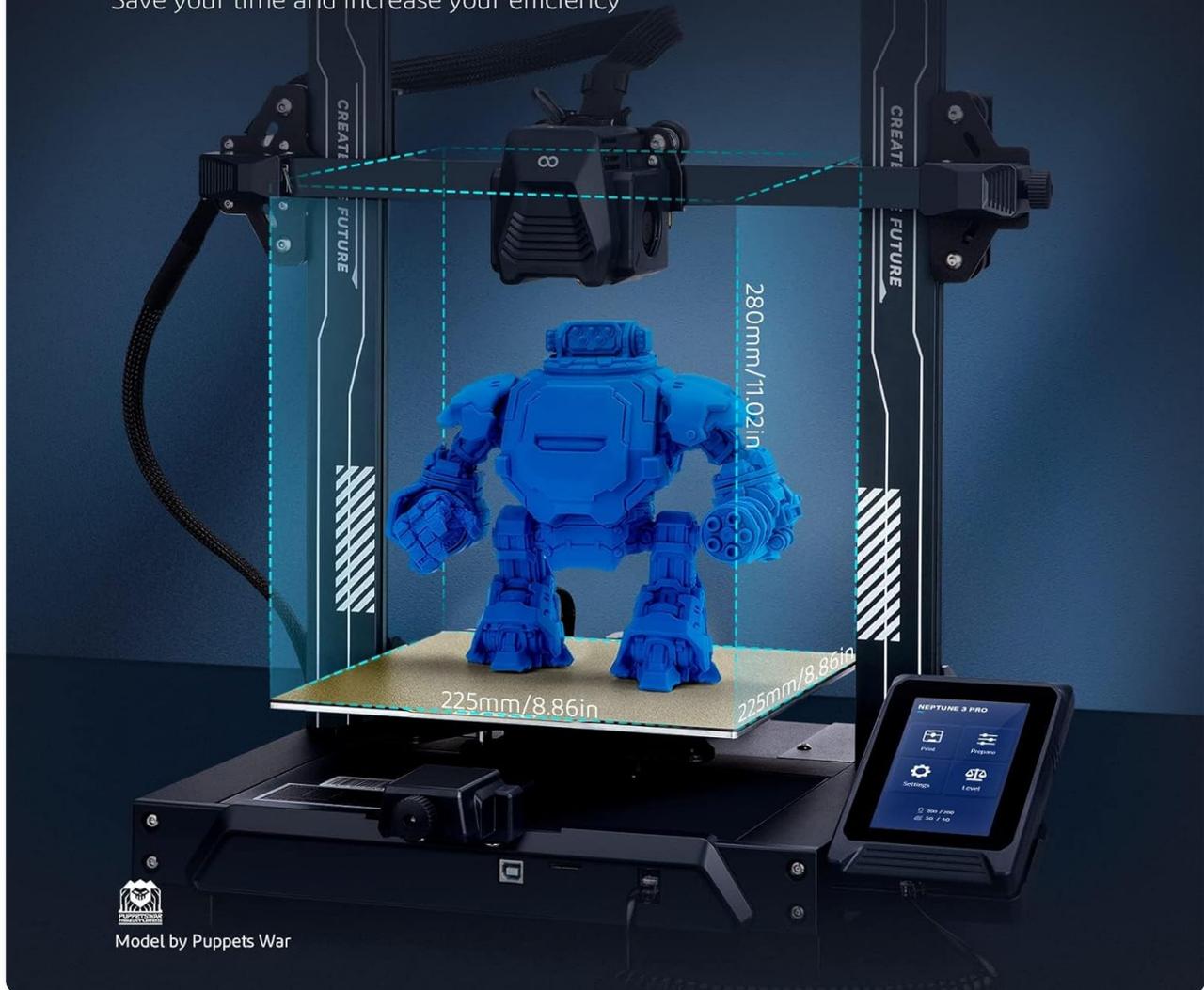
Nozzle and Hotend

The nozzle kit contains a TC4 titanium alloy throat pipe, an aluminum alloy flat heat sink structure, and a brass nozzle. The widened aluminum heat sink paired with the front close-fitting efficient cooling fan ensures better heat dissipation and lowers the temperature of the throat pipe, thereby reducing the possibility of nozzle clogging.

LARGER PRINT VOLUME

225x225x280 mm³ / 8.85 x 8.85 x 11.02 in³

Save your time and increase your efficiency



Model by Puppets War

Detailed view of the upgraded hotend assembly with enhanced cooling.

Print Bed

The PEI magnetic platform provides high stickiness for print adhesion and allows for easy release of models once the bed has cooled down. Keep the PEI sheet clean for optimal performance.

DUAL-GEAR DIRECT EXTRUDER



3:1 reduction ratio
SUS303 stainless steel
Compatible with PLA, TPU, PETG, ABS filament

The PEI magnetic print platform, showing its textured surface for optimal adhesion.

TROUBLESHOOTING COMMON ISSUES

Print Quality

For optimal print quality, ensure proper bed leveling and Z-offset calibration. Adjust print speed, temperature, and cooling settings in your slicer software (e.g., Elegoo Cura) to match your filament type and desired results. Issues like stringing or poor layer adhesion can often be resolved by fine-tuning these settings.

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A user demonstrates techniques for improving print adhesion on the build plate.

Noise Reduction

The STM32 motherboard and silent stepper motors ensure quieter and more precise movement during printing, reducing noise levels to as low as 47-48dB. If unusual noises occur, check for loose components or

obstructions.



Diagram illustrating the STM32 motherboard and silent stepper motors for reduced noise.

Filament Issues

The printer's filament detection sensor will automatically pause printing if the filament runs out or breaks, preventing failed prints. Ensure filament is properly loaded and free of tangles.

PRODUCT SPECIFICATIONS

Feature	Detail
Printing Size	225x225x280mm (8.85x8.85x11 inches)
Extruder Type	Dual-Gear Direct Extruder (SUS303 stainless steel, 3:1 reduction ratio)
Hotend Assembly	TC4 titanium alloy throat pipe, aluminum heat sink, brass nozzle (0.4mm)

Motherboard	STM32 (Silent Stepper Motors)
Noise Level	As low as 47-48dB
Bed Leveling	36-point Auto Bed Leveling (high precision sensor)
Z-axis Drive	Dual synchronized lead screws and dual-motor drive
V-guide rail pulley	4-wheel POM (stable movement, low noise, wear resistance)
Product Dimensions	23 x 9 x 19 inches
Item Weight	22 pounds
Material	Aluminum
Color	Black
On-mode Power Consumption	360 watts

WARRANTY AND SUPPORT

For warranty claims, technical support, or service inquiries, please contact ELEGOO directly. Refer to the official ELEGOO website for the most up-to-date support information and resources.

Manufacturer: ELEGOO

Official Website: www.elegoo.com