

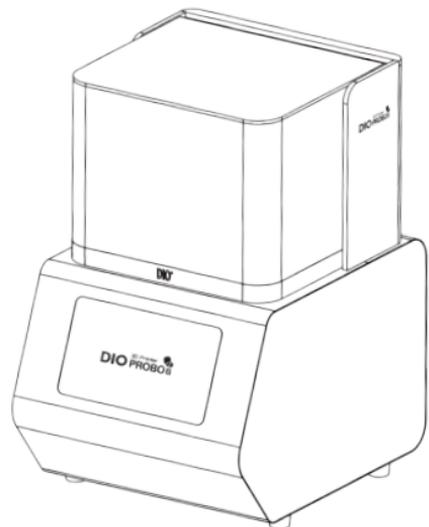
# 3D Printer

# DIO PROBO Z

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## User Guide

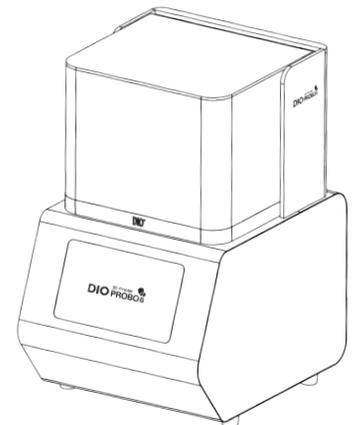
This is industrial (Class A) electromagnetic compatible equipment for use outside at home.



# 3D Printer **DIO PROBO Z**

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## User Guide



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## Greetings

Thank you for purchasing 3D Printer DIO PROBO Z.

We provide a total digital solution for a wide range of digital care services. You can print high-quality prosthetic outputs using DIO PROBO Z in order to increase productivity and work efficiency. This manual guides you to use the printer.

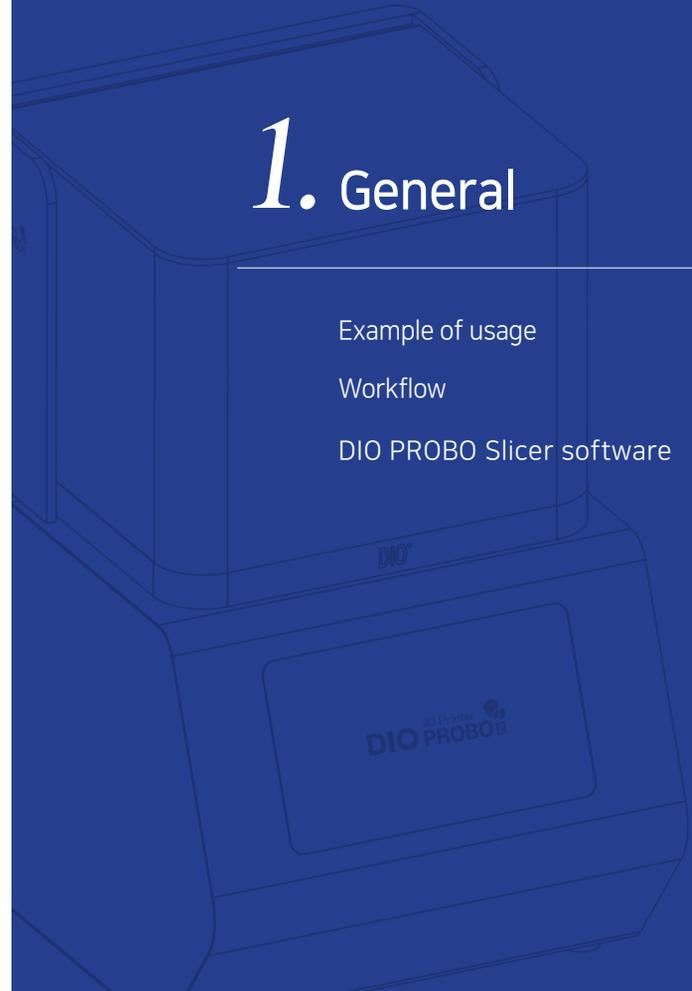
 Caution : Carefully read this manual before operating 3D Printer DIO PROBO Z.

# 1. General

Example of usage

Workflow

DIO PROBO Slicer software



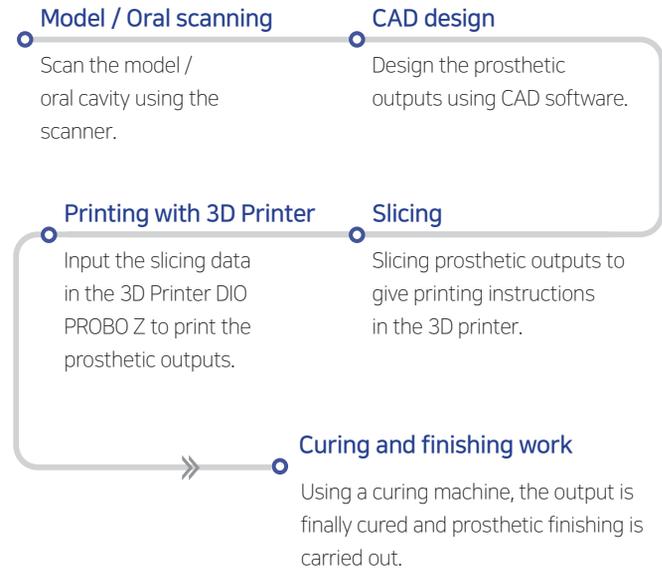
## Example of usage

DIO PROBO Z is used for a wide range of dental production

- Dental model
- Ortho model
- Temporary crown
- Surgical guide
- Casting
- Denture base

## Workflow

The workflow of PROBO Z is designed to enhance the prosthetic outputs quality as well as production efficiency. The intuitive and user-friendly process allows the user to perform tasks easily.



## **DIO PROBO Slicer software**

The slicing software DIO PROBO Slicer optimizes the work of 3D printer PROBO Z so that production efficiency is maximized through automated functions that can perform optimal allocation, orientation, and support generation.

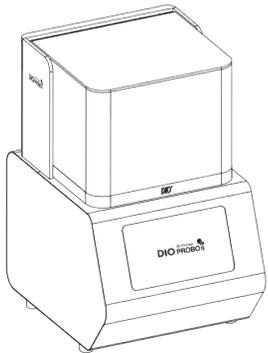
# 2. Introduction

Components

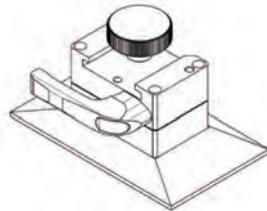
Equipment specifications

3D Printer  
**DIO PROBO Z**

## Components



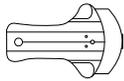
① DIO PROBO Z



② Build Plate



③ Vat



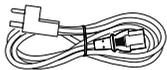
④ Scraper



⑤ Brush



⑥ Power adapter



⑦ Power cable



⑧ L-shaped hex wrench

## Equipment specifications

Dimension	300 x 378 x 484 mm
Build size	105.6 x 59.4 x 80 mm
Light modulator	DLP (FHD: 1920 x 1080 Pixels)
Light source	405 nm LED
Resolution (Axis)	XY 55 $\mu$ m / Z 100, 50, 25 $\mu$ m
Operating ambient temp	20 ~ 32°C
Weight	21 kg
Power consumption	120W
Rating	DC 24V

### Adaptor

Input : AC 100-240V, 50/60Hz

Output : DC 24V

⚠ Caution : Please check your package components and if you have a missing component, contact your distributor.

※ If you want to use a wireless network, you need to purchase an additional USB wireless LAN card. Please contact DIO Corporation before purchasing.

# 3. Installation

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DIO PROBO Z installation

User precautions

3D Printer  
DIO PROBO Z

## DIO PROBO Z installation

### Product connection guide



① Connect the power cable.



② Turn on the power switch at the back of the 3D printer.



## User precautions

### General caution

The equipment must be handled by experienced personnel only.

### Installation caution

- Install the equipment at a location without adverse effects on the air in terms of pressure, temperature, humidity, ventilation, dust, salinity, and ions.
- Beware of safety such as inclination, vibration, and shocks.
- Do not install the equipment at a chemical storage area and a gas generation point.
- Beware of power frequency, current, or allowable current(or power consumption).
- Level the vat and the installation location.

### Pre-operation checklist

- Prevent shock or vibration during operation.
- Do not turn off the power of the printer during operation.
- In case of smoke or strange odor from the equipment or cables, immediately turn off the power switch and unplug the power cable, and then contact the distributor.
- Remove the power cable from the power outlet if the equipment is not to be used for a long time.
- If there is any problem, do not disassemble the equipment. Please contact the distributor.
- Do not modify the equipment.

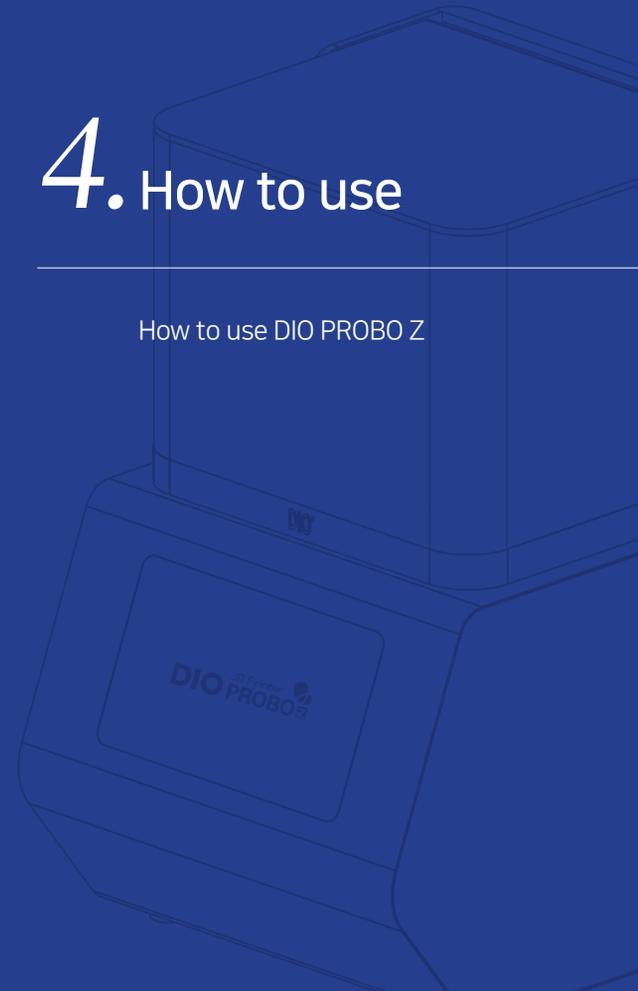
## Operation precautions

- Install the printer at a well-ventilated location because resin may generate a peculiar smell during printing.
- Do not use volatile substances near the printer as it may cause fires or explosions.
- Turn off the printer then remove the power cable connection and resin vat from the printer, during moving it, so that resin doesn't overflow or spill from the vat.
- Do not turn off the main power of the printer before press the Shutdown button on the top left of the touchscreen. Turn off the main power switch while the printer is in operation may shorten the life of the engine and cause mechanical failure.
- Prevent foreign substances into the printer, such as water, other liquids, metal pieces, or other conductive substances, may have harmful effects on the printer such as mechanical failures. Also, do not operate the printer with wet hands as there is risk of electric shock; please wear nitrile gloves.
- Scratching of the printer power cable for the rough floor may cause sparks or voltage failures, so please take caution.
- Do not arbitrarily disassemble or modify the printer. The warranty benefits will void and we will not be responsible for any problems that arise with the products.
- When the temperature is below 20°C, the 3D printer will display a low temperature warning message and the output of the 3D printer may not be good. The warning message will be automatically cleared when the temperature rises above 20°C.
- During output operation of 3D Printer, the output operation may be automatically cancelled to protect the product and prevent output failure, such as detection of shock or motor malfunction signals.

# 4. How to use

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How to use DIO PROBO Z



## How to use DIO PROBO Z

### ① System on

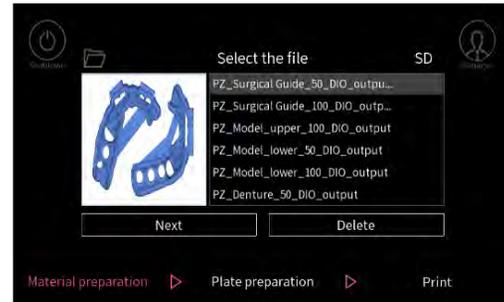


- | **Touch twice** the touch screen at a time.
- | Wait for the **loading screen** then slice file selection screen to appear



Loading screen

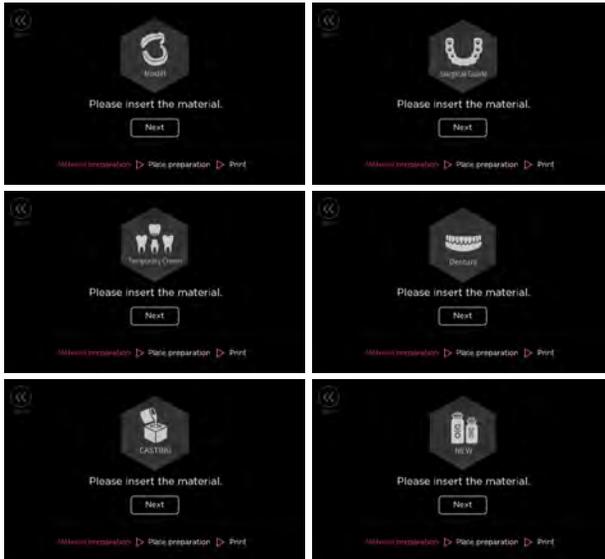
### ② Select output file



Slice file selection screen

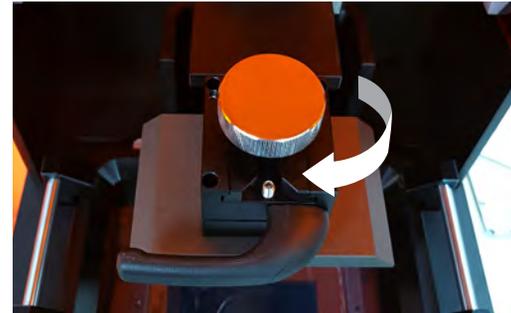
- | Select a slice file from the file list and press the **next button** at the bottom

### ③ Pouring resin



- | Pour appropriate material **into the vat** for the printing.
- | Press the **next button** to continue.

### ④ Lock the build plate

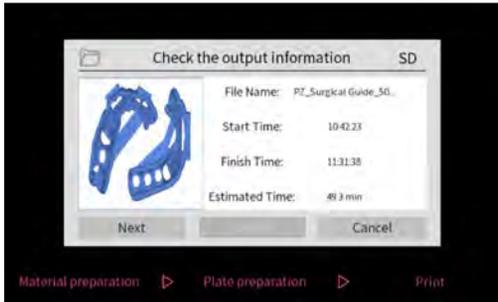


- | Insert the build Plate into the groove of fastening plate
- | Push the build Plate all the way in and turn the silver knob clockwise to ensure that it is fixed firmly.
- | Press the **next button** on the touch screen and proceed to the next step

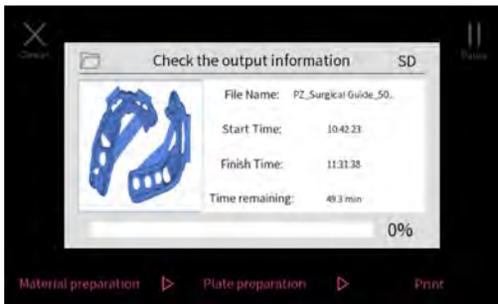


Build plate confirmation screen

### ⑤ Confirm output file



| Check the name of the file to print and press **next** button.

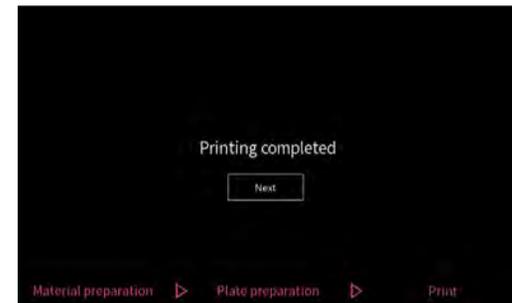


- | The printing commences and you can see the progress.
- | When press cancel button, output operation is cancelled.
- | When press pause button, output operation pause.

### ⑥ Removing the build plate



- | When the printing finish, press the **next** button on the touch screen.
- | Rotate the silver knob **counterclockwise** to release the fixed build plate.
- | Perform post processing of the output.



Printing completion screen

## ⑦ System off



I Press the **shut down button** on the top left of the screen.

# 5. Maintenance

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DIO PROBO Z maintenance

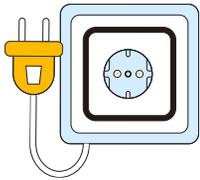
Vat and Resin maintenance

Warranty

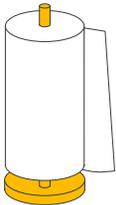


## DIO PROBO Z maintenance

For a longer service life, the proper maintenance is key.  
Here is guideline for 3D printer and consumables maintenance.



- If the printer is not be used for an extended period, unplug the power cable of the printer and store the printer in a shade area to keep it stored for a long time without failure.

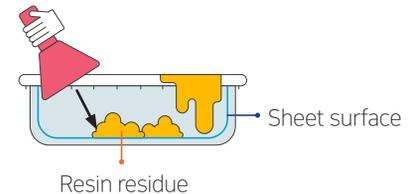


- In case resin has fallen or spilt inside the printer, use alcohol to an industrial wiper and clean it.

## Vat and Resin maintenance

### Vat maintenance

- Remove the used resin completely from the vat with an industrial wiper.
- If you clean the resin with tissues Instead of an industrial wiper, dust could be stick with the vat film, thus influencing the output. And if a different type of resin or water is mixed into it, it may have a negative influence on the print output quality.

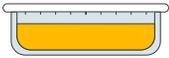


- **In case there is residue on the vat**
  - Use silicone spatula to remove debris.
  - When removing debris, be careful not to damage the film

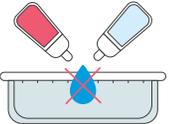
## Resin maintenance



- Resin is vulnerable to sunlight or various other lights. Always keep in a shade area without light for longer service life.



- Store the remaining resin in a resin container.



- Never mix with other types of resin.

## Resin waste handling guide

### Resin waste

- Contact to a specialized waste handler.

## Warranty

This free warranty is valid for one year from the date of original purchase and does not cover any damage caused by misuse, accident, unauthorized repairs or modifications.

For more information, please contact DIO Corporation.





3D Printer  
**DIO PROBOZ**  
[www.dioimplant.com](http://www.dioimplant.com)