



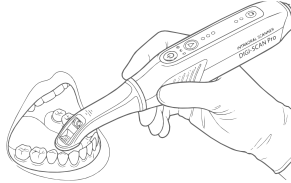
3D Printing Workflow for
Ceramic Crowns

1 Intraoral Scanning & Design

1.1 Intraoral Scanning

⚠ Notice

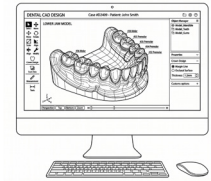
- Clear Margin
- Proper Occlusion
- Sufficient Space



1.2 Design

⚠ Notice

- Accurate Margin-line
- Optimal Contacts
- Adequate Clearance



2 Slicing & Printing

2.1 Slicing

① Printer and Material Selection

- Open the PioNext Box software
- Select the **【PioNext Mini】** and choose **【Ceramic Crown】**
- Choose the **【Select layer thickness】** and click **【Use】**

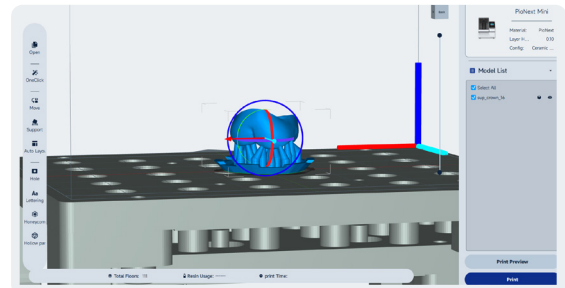
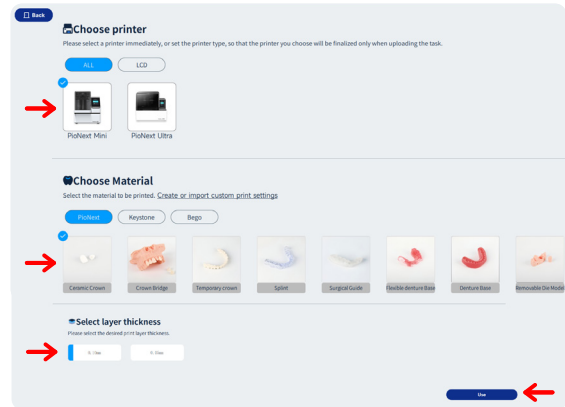
PioNext Box comes with built-in printing parameters, covering a wide range of indications, including fixed, removable, implant, and aesthetic restorations



② Orient Models

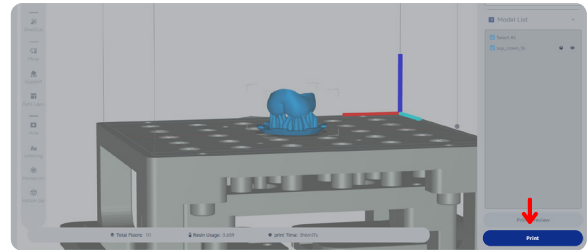
- Click **【Auto Add Supports】**

- ⚠ Note: Arrange supports in non-critical areas, such as the buccal side, occlusal surface or other polishable surfaces



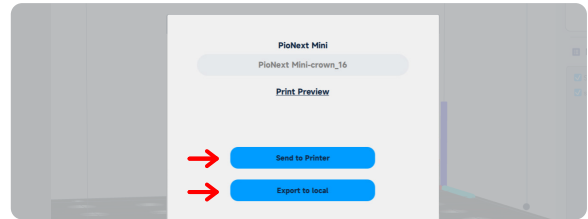
③ Slicing

→ Click “Print” in the lower-right corner to generate the sliced file



④ Export Sliced File

→ Method 1: Export the file directly to a USB drive
→ Method 2: Send the file to the printer via WLAN



2.2 Printing

① Preparation

→ Before printing, check the LCD screen and vat release film for damage
→ Ensure the build platform is clean and free of residual resin
→ Shake the resin, then pour it into the vat without exceeding the MAX level
→ Tap **【Print】** , select the file, and import



Via WLAN

Tap **【Print】** , choose the target file, download and start printing

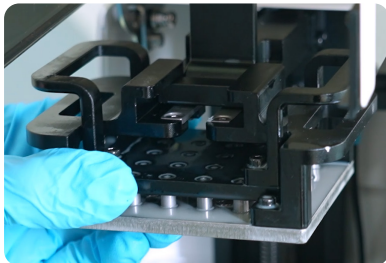


Via USB Drive

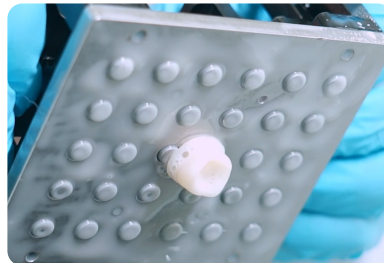
Insert the USB drive, tap **【Print】** select the target file and download it, then start printing

② Quick Release

→ Remove the build platform after printing is finished



→ Press both ends of the platform to quickly release the model



→ Remove the supports



3 Post-processing

3.1 Cleaning

① Prepare cleaning tools



Preparation



Medical cotton swabs



Disposable micro applicators



Non-woven wipes



Note: Do not immerse the ceramic crown in alcohol, as this may cause ceramic filler precipitation and affect the final restoration quality

② Cleaning Procedure

Medical cotton swabs, disposable micro applicators, and non-woven wipes should be moistened with alcohol before use to clean the restoration



Initial Cleaning

Use an alcohol-moistened medical cotton swab to roughly clean the outer surface and inner surface



Detailed Cleaning

Use an alcohol-moistened disposable micro applicator to carefully clean the inner surface and occlusal fossa



Final Cleaning

Use an alcohol-moistened non-woven wipe to thoroughly clean all areas of the restoration



Cleaning complete

③ Completion Criteria

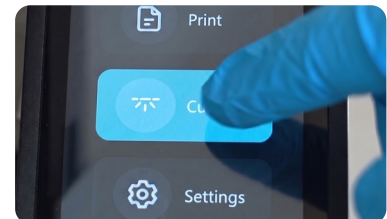
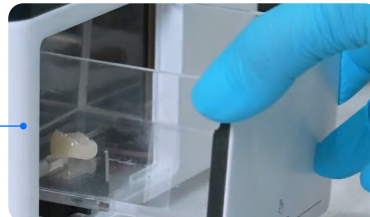
→ Visual Inspection: After drying, the restoration surface should show no reflective or whitish areas.

→ Tactile Inspection: Gently touch the surface with a glove; no tackiness should be present

3.2 Curing

Curing using the PioNext Mini Curing Unit
Parameter Settings: **PMW 30%** **1 min**

Note: These parameter settings are applicable to PioNext ceramic crown resin, for reference only



3.3 Grinding



Rough Grinding

Remove excess material and preliminarily refine the crown morphology



Fine Finishing

Eliminate fine scratches and create a smooth, uniform surface for glazing



Polishing (Optional)

This step is optional and can further enhance the final glazing result

4 Glazing



Select Shade Guide

Select the corresponding shade guide based on the clinical shade value



Glazing

Mix the glaze paste and start glazing



Curing

Complete glazing and proceed to curing
Parameter Settings: PMW 30% 1 min

Note: These parameter settings are applicable to PioNext ceramic crown resin, for reference only

5 Finish



PIOCREAT



Learn More

www.piocreat3d.com
Contact us: sales@piocreat3d.com