X-MAKER

User Manual

Hi, this is AOSEED X-MAKER.

X-MAKER, an AI-powered 3D printer, is a brand new product with a gamification 3D design App. The minimalist interaction design, intelligent algorithms, high-speed Wi-Fi data transmission and one-touch printing feature make this 3D printer available to everyone and allow you to create anything. The X-MAKER is not only a 3D printer, but it also includes a powerful software and rich content, like "Things", "Theme", "Design" and "Explore" modules, which are constantly updated. It doesn't matter if you are a beginner or an advanced player, you will always have new ways to play here.

X-MAKER - Make Creativity Touchable

Contents

Our Products

X-MAKER 3D Printer

X-MAKER Design App
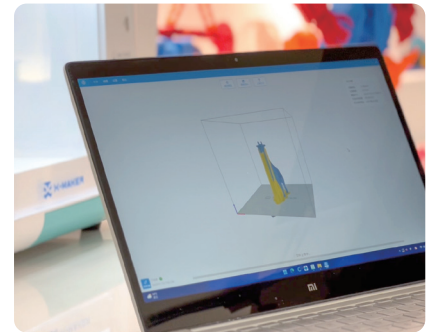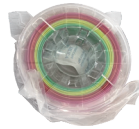

X-PRINT Slicing Software

Packing list

PLA Filament x1

Filament Holder x1

Power Cord x1

Flexible & Magnetic Baseplate x1

Pliers x1

Tool Kit x1

3D Printer x1
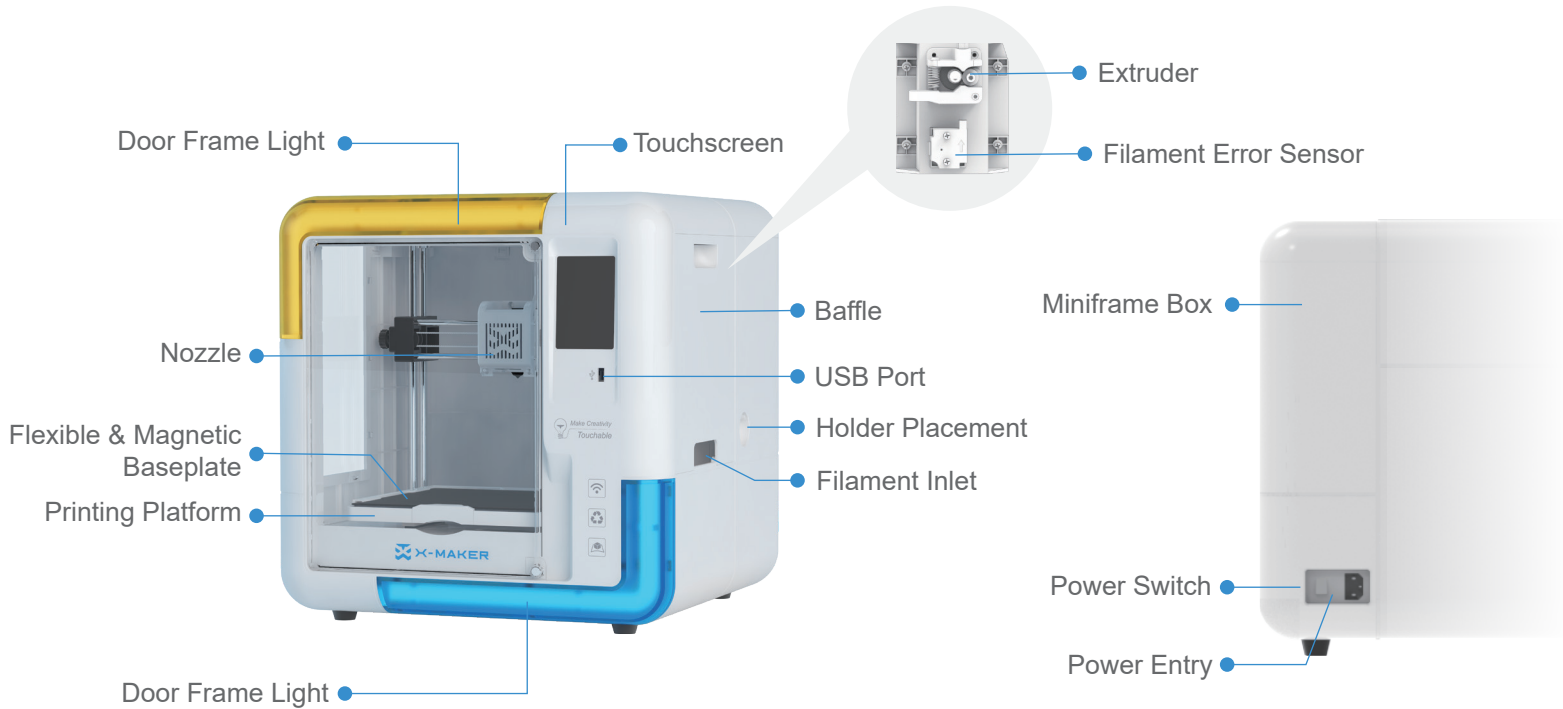

Quick Start x1

U Disk x1

- Printable creative models
- X-MAKER App installer
- X-PRINT installer

Main components

Door Frame Light

Touchscreen

Extruder

Filament Error Sensor

Nozzle

Flexible & Magnetic Baseplate

Printing Platform

Baffle

USB Port

Holder Placement

Filament Inlet

Miniframe Box

Door Frame Light

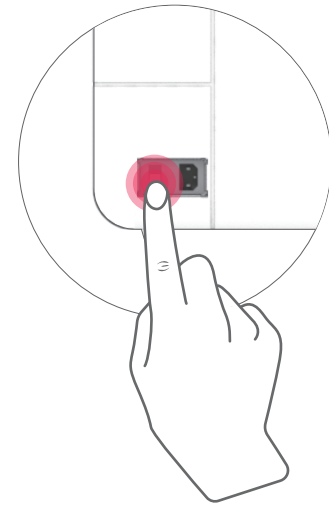Power Switch

Power Entry
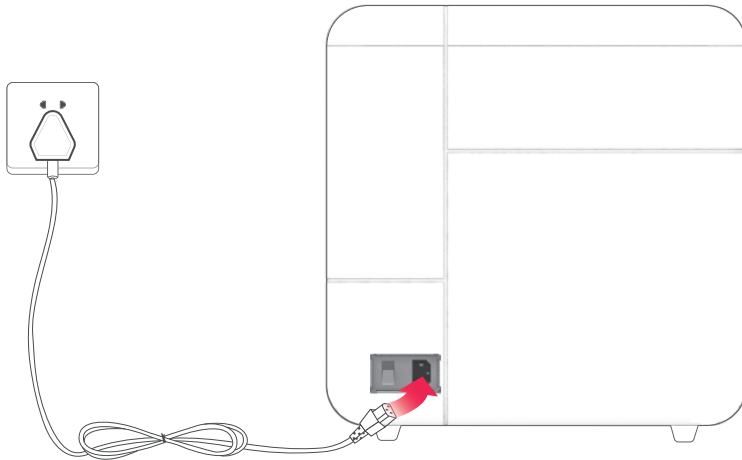
Connection

Connect the power cord to the printer and the other end to a power outlet. (Please keep your hands dry.)

Turn on

Turn on the printer by the power switch on the back.

Welcome setup

After power on, the welcome setup will appear on the touchscreen. Follow the steps and complete the setup.

Language

Select your preferred language. You can also change it by going to "Setting -> Language".
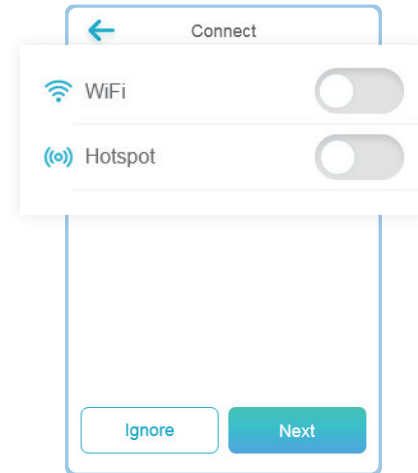
Connection

Wi-Fi: With the same WLAN, the X-MAKER App can be connected to the printer.

Access Point: When there is no WLAN available, the printer's access point can provide Internet access to the application.

Install the filament holder

Filament Inlet

Filament Inlet
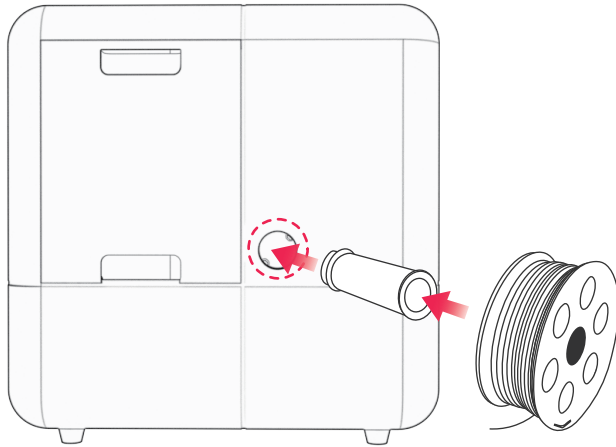
✓ Right

✗ Wrong

Install the filament holder

Install the holder on the right side of the printer.

Place the spool

Place the filament spool in the holder.

(Please make sure the filaments are not knotted or crossed.)

Install the filament
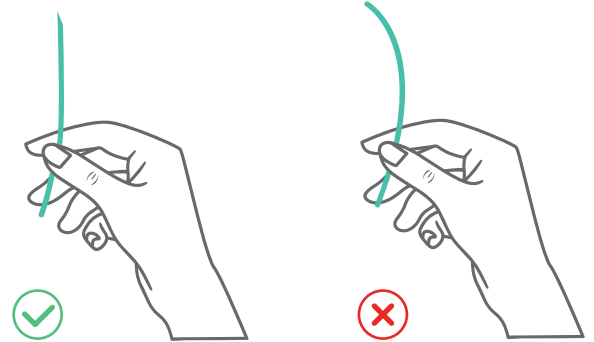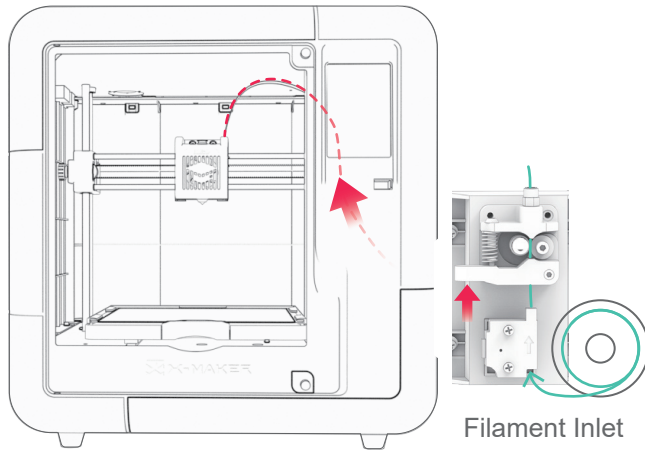
Filament Inlet

Note: The tip of the filament should be straightened and cut at an oblique angle.

Instructions

Insert the tip into the filament inlet until the prefeeder grabs the material. Push the spring up (as shown by the red arrow in the figure above), so that to make the filament enter smoothly.

Touchscreen

Print: Select the file to print

Filament: Load / unload

Connect: Network connection

Setting: More settings

◆ Homepage

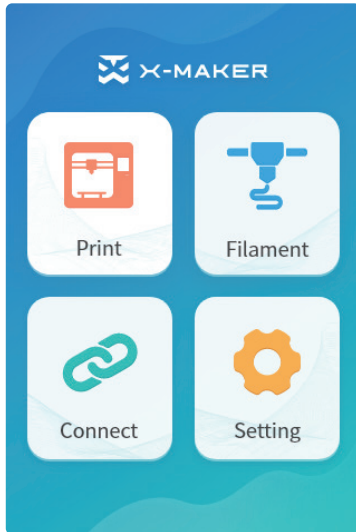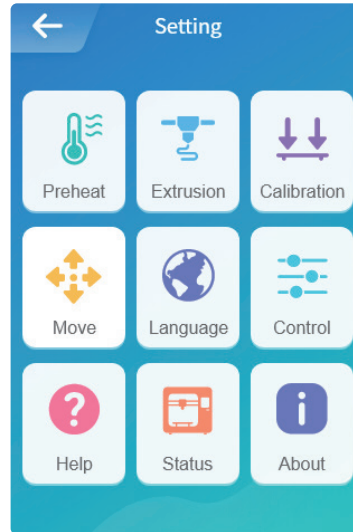**Preheat:** Nozzle/hotbed heating and cooling

Extrusion: Load or unload manually

Calibration: Adjust the distance between the nozzle and baseplate

Move: Adjust X/Y/Z axes

Language: Change language

Control: Switches for light recovery, fan and power loss

Help: More information

Status: Printer status

About: Printer specifications

◆ Setting

Load the filament

Method 1

Go to "Filament -> Load" and wait for the nozzle to heat up. When the nozzle reaches the target temperature, the filament will be loaded automatically. Wait for the filament to come out of the nozzle and press the "Cancel" button.
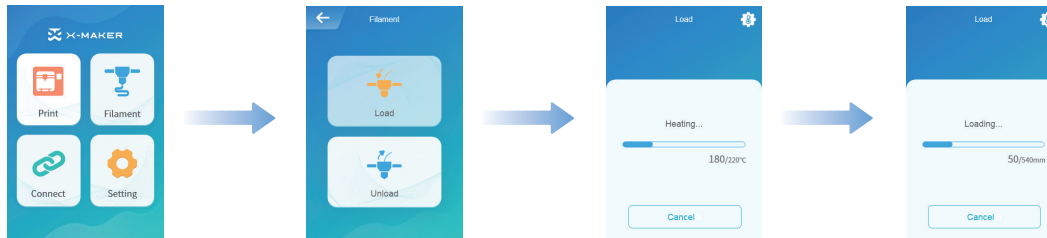

Method 2

Go to "Setting -> Preheat" and set the target temperature, then select "Start" to continue. (The target temp for PLA is 200 °C, and for ABS is 230 °C. If you use a third-party material, please refer to the target temperature on the packing box.)

Go to "Extrusion -> Load" and set the feed length to 10mm. Loading ends until the filament outflows from the nozzle.
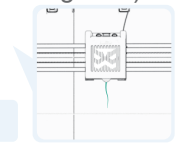
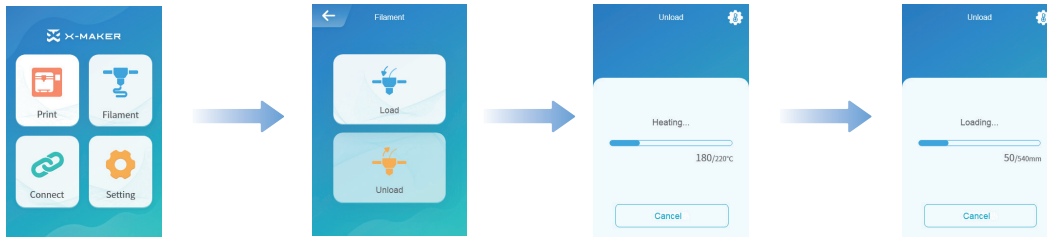Note: The filament must be pushed to the end of the pipe so that it comes out of the nozzle as soon as possible.

Unload the filament

Method 1

Go to "Filament -> Unload" and wait for the nozzle to heat up until the filament is unloaded under the extruder gear and pull out the filament directly.

Method 2

Go to "Setting -> Preheat" and set target temperature, then select "Start" to continue. (The target temp for PLA is 200 °C, and for ABS is 230 °C. If you use a third-party material, please refer to the target temperature on the packing box.)

Go to "Extrusion -> Unload" and set the feeding length to 10mm. Repeat the above operation for 3-5 times until you see the end of the material appearing in the filament inlet, then push the spring up and pullout the filament.

Model printing

Print status	Printing...
File name	MODEL...xcode
Current temperature of nozzle / Target temperature of nozzle	200°C / 200°C

Current temperature of hotbed / Target temperature of hotbed — 30°C / 0°C

Current Z axis coordinate — 150

3D Viewer

Print progress

Remaining time — Left: 0:55:48 — 70%

Pause/Start (Printing can be resumed.)

Stop (Printing can't be resumed.) — Stop / Pause / Setting

More settings
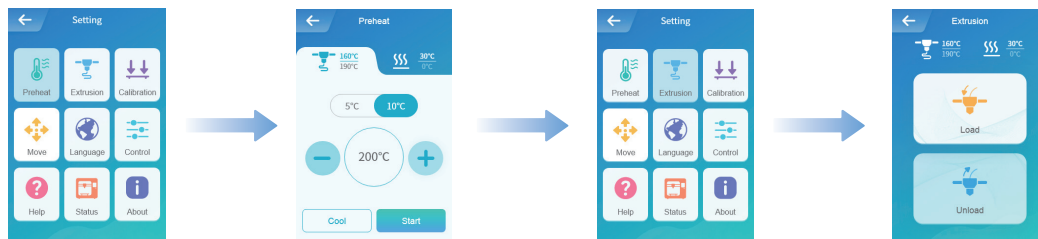
◆ Printing interface

## You can print the model by performing the following steps

1. Get your model sliced by using X-PRINT.
2. Load the file into the printer and print it with the one-press printing feature. (Make sure your printer and X-MAKER app are connected to the same WLAN.) * Alternatively, you can save the file to a U-disk for printing with offline printers.

Printing completes

Remove the print

Once the print job is finished, allow the baseplate to cool down for 5 minutes before reaching inside. If the print is removed without complete cooling, some parts of the print may adhere to the baseplate. (*Don't touch the nozzle and allow it to cool down below 45 °C to avoid burns.)

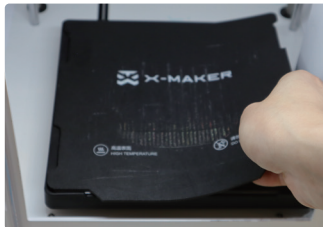Use pliers to remove the support structures of the prints.
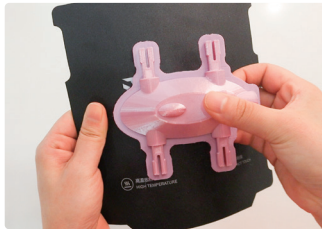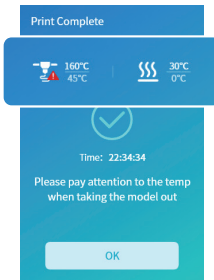
Remove the print

Remove support material

Place the baseplate

After removing the print, use tools to carefully clean the remaining parts of the print on the baseplate. Put the baseplate back on the heating platform. (As shown in the figure below)

Remove support material

Some models have overhanging parts. In this case, you must print a support structure under the model to prevent these parts from falling off. The support structures must be removed when the print is finished. You can remove the support structures manually or using pliers.

The image on the left shows the model with the support structure.The image on the right shows the model with the support removed.


pliers

Model with the support   Model with support removed

Remove the support with care and do not damage the model.
Use pliers carefully. Children should be under constant supervision during the process.

Change the filament

In an idle state

Go to "Filament -> Unload" and wait for the nozzle to heat up until the filament is unloaded under the extruder gear. Remove the filament and load a new spool of filament.
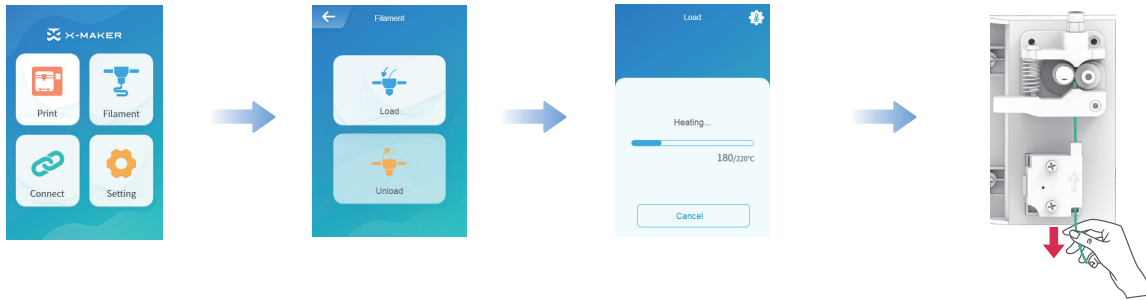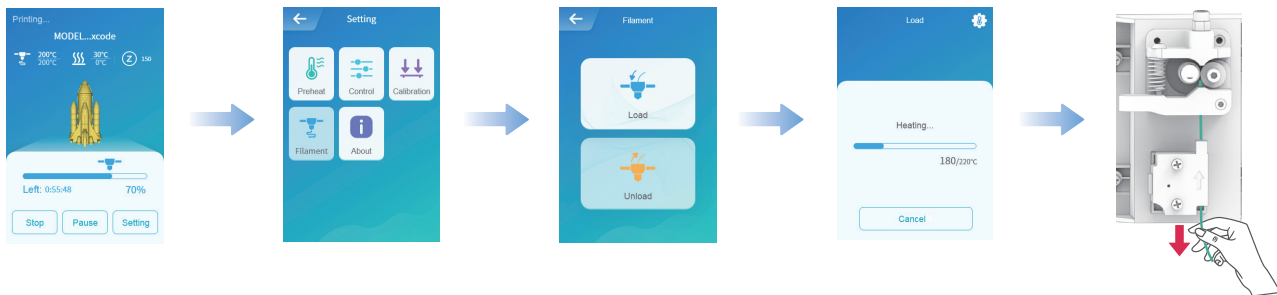

During printing

Go to "Pause -> Filament -> Unload" and wait for the nozzle to heat up until the filament is unloaded under the extruder gear. Remove the filament and load a new spool of filament. Then press the "Start" button to continue the print job.

Note: Don't touch the "Stop" button by mistake, or your print job will not be able to continue.

Move

To ensure optimal printing results, you need to perform the X，Y and Z axes calibration during maintenance.
Go to "Setting -> Move -> Reset" and wait for the X，Y and Z axes to reset. Select the moving distance: 1mm, 5mm, or 10mm. Press the [+/-] button and move the X，Y and Z axes. (If the distance is set to 10mm, press the [+/-] button once and the X，Y and Z axes will move 10mm accordingly; press twice and it will move 20mm.)

◆ Move

Motor release

Activate this mode and you will be able to adjust the nozzle and baseplate manually. Turn off this mode and the printer will be energized again. Only the nozzle and baseplate can be adjusted using the touch screen. (See "Move" operations for more information)
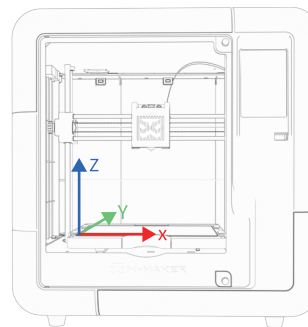
X/Y/Z axes

◆ Calibration & Leveling ◆

After using the X-MAKER 3D printer for a long time, the calibration should be performed to adjust the distance between

1. If the distance between them is too wide, your print will not adhere properly to the baseplate.

2. If the nozzle is too close to the baseplate, it can prevent material from extruding.

> Note: Calibration is a professional operation. Usually, there is no need to perform manual calibration. The distance has been set before printers leave the factory. It is recommended to adjust the offset value in the range from -0.5mm to 0.5mm.

Manual leveling is required in the event that prints become warped.

Calibration

Make sure there is no excess of material under the nozzle tip before calibrating, or you may get inaccurate results;
Place the calibration card in between the nozzle and the baseplate and go to "Setting -> Calibration".The Z offset value is shown on the touchscreen; Use the touchscreen controls to adjust the distance until you feel some resistance when moving the card. Select [Save] to continue. (Press the [+] button once and the nozzle will be raised by 0.1mm; press the [-] button once and the nozzle will be lowered by 0.1mm.)

Leveling

Click [Leveling] again and the nozzle will move to nine points following the sequence shown in the image on the right.
Repeat the Step 3 above for each point and adjust the distance between the nozzle and the baseplate until you feel some resistance when moving the card. Click the [Complete] button and the calibration is finished!

Leveling sequence
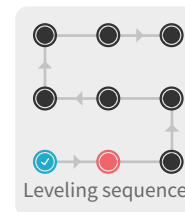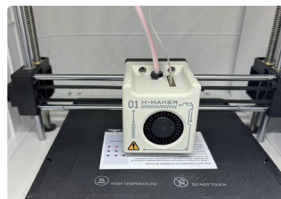
Control

CONTROL includes switches for internal light, external light, fan, ES mode, child lock, power loss recovery and filament error sensor.
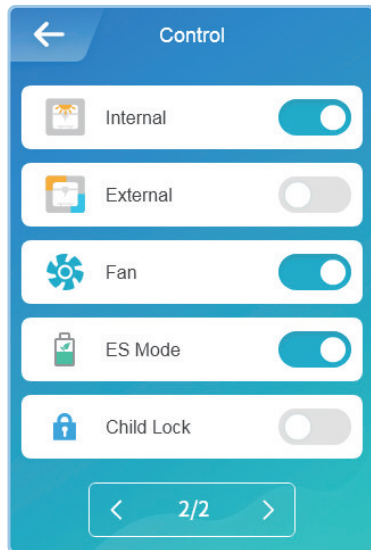
◆ Control

Internal: Control the light inside

External: Control the external light

Fan: Control the fans to cool down

ES Mode: Reduce the temperature inside for optimal printing results

Child Lock: Prevent the print stop or other problems caused by children's mistaken touching

Power Loss Recovery: Proceed with the print job after a power failure

FES: Pause the print job automatically and prompt you to change the filament when the filament runs out

* It is not recommended to turn off the fan.

Help

Here you can see a QR code for exploring courses, as well as a QR code for downloading X-MAKER App.

Explore gameplay   Download

Status

Nozzle temperature, baseplate temperature and XYZ coordinates are shown in this page.

About

From here, you can know about X-MAKER 3D printer's name, model, firmware version and IP address.

· Product name: Printer's name can be changed.

· Version: Current firmware version can be viewed.

· Usage log: Logs for printing can be seen.

· IP address: Each printer's IP is unique, so it's convenient to connect with the X-MAKER App.

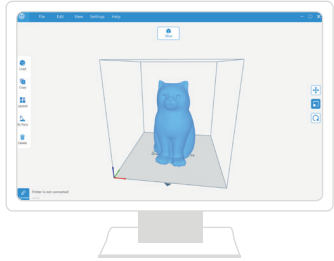*It is not recommended to perform a "Factory Reset". Once it is performed, all records will be cleared.

X-MAKER App

For Windows PC

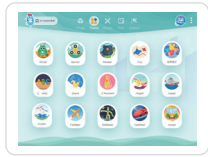You can download the X-MAKER App at https://www.aoseed.com/pages/apps-downloads.

*Windows 7 or above

For Android Tablet / iPad

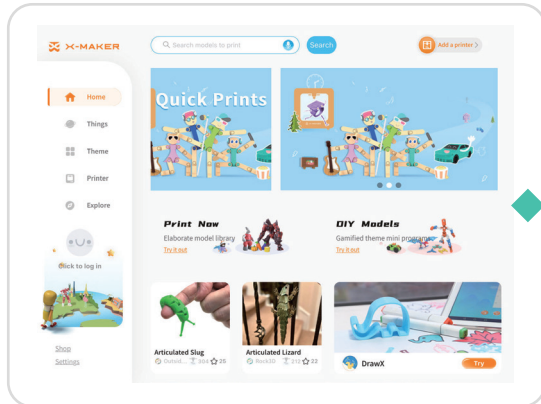Search the name of X-MAKER in the app stores and download.

Open the App store   Search "X-MAKER" / "XMAKER"   Click "Download"

Introduction

Things — Various and growing well designed model database

Theme — Gamification 3D design mini programs

Design — Two LEGO-style and user-friendly design apps
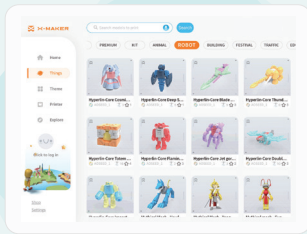
Print — AI-powered one-touch printing feature

Explore — Constant new gameplay and exploration

Things

Well-designed 3D model library in four categories
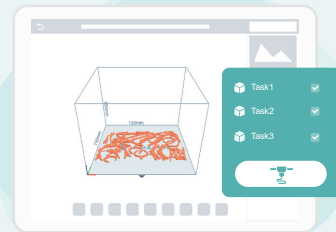Create anything with your infinite creativity

Original well-designed 3D model library

3D real-time view

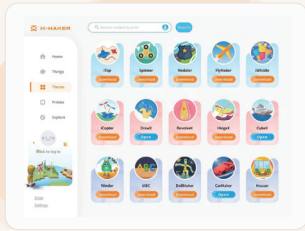High-speed & stable Wi-Fi connection

Intelligent data process for one-touch printing

Theme

Gamification 3D Customized Gadgets for Personalized
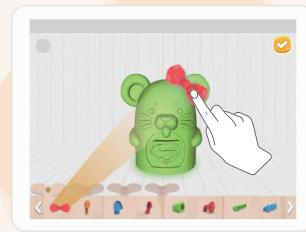Designs Make Creation Touchable

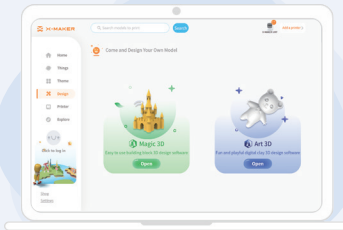15 gamification 3D design gadgets

Diverse themes can be selected

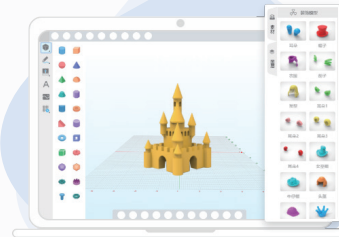High-speed Wi-Fi transmission for printing
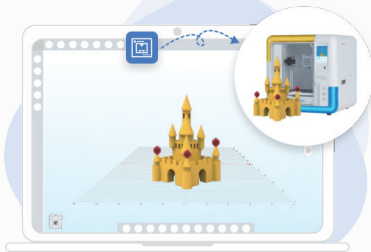

Customize unique model toys

Design

Graphic & Modeling 3D Design Apps for
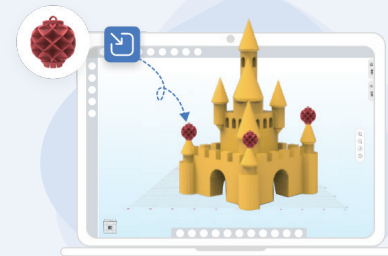Advanced Creations

Two powerful 3D-design apps

Magic 3D geometry design

High-speed Wi-Fi transmission for printing


Compatible with imported models

Print

Connect to the printer

Press the button at the upper right corner and search for available printers.

Select your X-MAKER 3D printer and connect to it . (Make sure your printer and the X-MAKER App are connected to the same WLAN.) Alternatively, you can perform the IP Connection if your printer cannot be found. (The IP address can be found by navigating to "Setting -> About" on the touchscreen.)
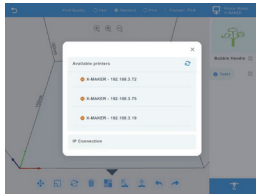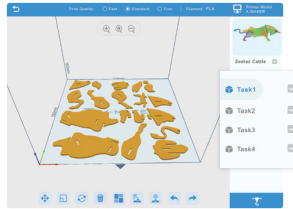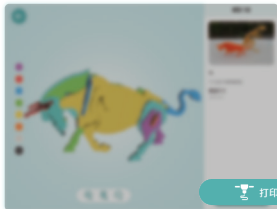

Search for printer
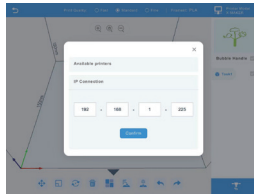
IP connection

Search for IP address

One-press printing

Click the [Print] icon. The print job will be divided into several tasks with automatical slicing, while all files are uploaded to the printer directly. In each task, you can see how your models are being sliced. Press the [Print] icon again to start printing.

X-PRINT

After successfully setting up the printer and the X-MAKER App, install the X-PRINT — AOSEED's free slicing software on your computer. You can download X-PRINT at https://www.aoseed.com/pages/apps-downloads.

Supported OS

Windows

System Requirements

· Display card compatible with OpenGL 2
· Intel Core 2, AMD Athlon 64, or higher
· At least 4GB of memory (8GB or above is recommended)
· 64-bit processor

Installation

After downloading, run the installer to complete the installation of the X-PRINT. When opening the X-PRINT for the first time, you will be asked to select your X-MAKER 3D printer.
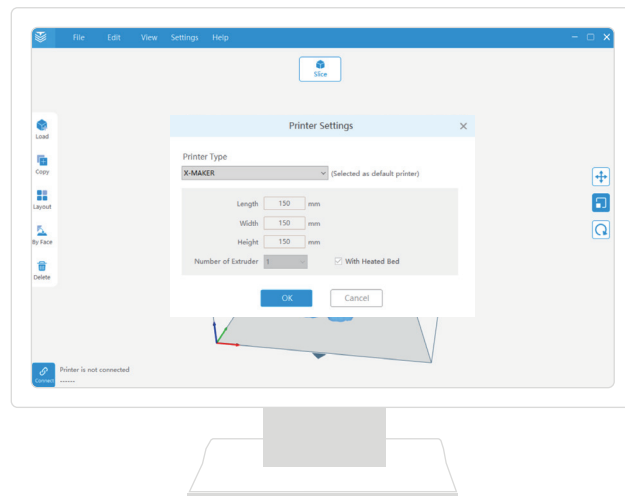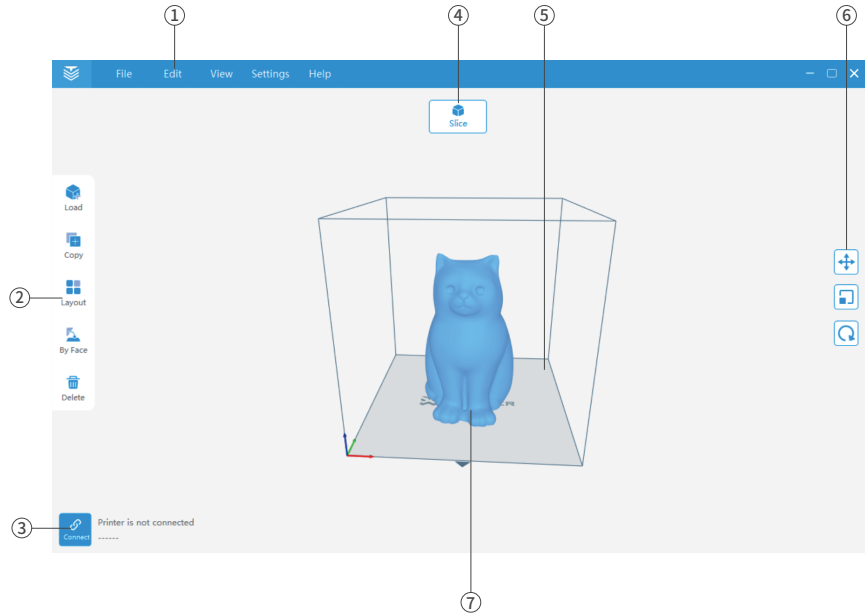
* If you skip this step, you can connect it to the printer later, by going to "Setting -> Printer".
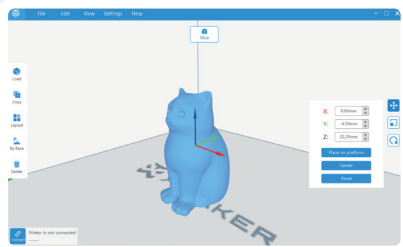
Interface

UI elements of the X-PRINT

① Menu bar

② Adjustment tools

③ Printer connection

④ [Slice] button

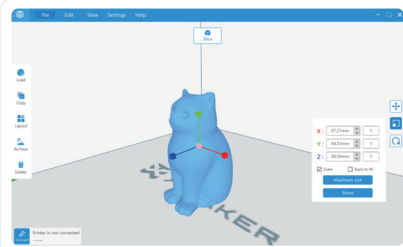⑤ Working range

⑥ Model editing & panel editing

⑦ 3D viewer

Model editing

The X-PRINT includes functions to move, scale, rotate, or duplicate parts and optimize the layout.
An Optimal layout can reduce the need for support material.
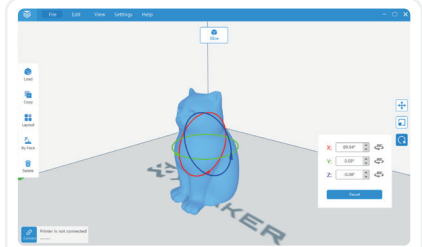
Move

Select the model you would like to move and click the [Move] button. You can move the model by setting exact coordinates of it, or by dragging the arrows. You can also use [Centered] or [Place on baseplate].

Scale

Select the model you would like to scale and click the [Scale] button. You can scale the model by setting the exact model size in millimeters, dragging arrow handles. You can also print the model at the maximum size.

Rotate

Select the model you would like to rotate and click the [Rotate] button. You can rotate the model by setting the exact rotate degrees or dragging rotate hoops.

For more information about the X-PRINT, please consult the
X-PRINT user manual

Model slicing

Prepare the model for slicing before the print stage. Go to "Settings -> Slice settings" and set the parameters control and see how your 3D model will be sliced.

Layer height: The Layer height is the thickness at which each horizontal layer is sliced. A thinner layer height produces a higher resolution. Similarly ,a thicker layer heights reduce resolution.

Infill density: The Infill density refers to the printing of internal structures. A 0% infill prints a completely hollow model. A 100% infill prints a completely solid model.

Print speed: A faster print speed decreases print time, but with reduced strength and toughness.

Adhesion type: Different adhesion types helps to improve the adhesion to the baseplate to prevent the model from sliding. These parts needs to be removed after printing.

Support type: Some models have overhanging parts. In this case, you must print a support structure under the model to prevent these parts from falling down. The support structures can be removed during post-processing.

Bed temp: Set the bed temperature during printing.

For more information about the X-PRINT, please consult the
X-PRINT user manual

Model printing

Once the slice settings are in place, press the [Slice] button. When the process completes, it will go to the preview stage and immediately will show a [Print] button, as well as a [Save] button. Press the [Save] button and save the files to your computer as Xcode / Gcode. Press the [Print] button and print it via the network that the X-MAKER 3D printer is connected to.
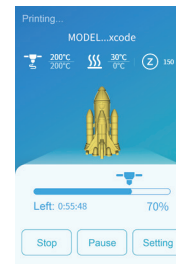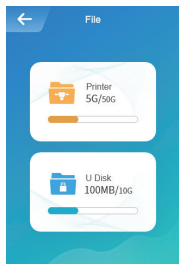
One-press printing

Make sure that your printer and the X-PRINT are connected to the same WLAN and the file can be uploaded to the printer directly via the network.
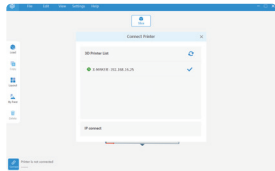
U-disk printing

You can also save the file to a USB for printing if the network is in bad condition.

Specifications

Name: X-MAKER 3D printer	Language: Chinese / English
Model: V4.0	Printer dimension: 360*360*380 mm
Nozzle temp: ≤ 265°C	Package dimension: 440*440*460 mm
Bed temp: ≤ 100°C	Net weight: 10.9 kg
Nozzle diameter: 0.4 mm	Grossweight: 13.45 kg
Input: AC 100V-120V, 50/60Hz 3.2A 200V-240V, 50/60Hz 1.6A	Maximum build volume: 150*150*150 mm
	Control panel: 3.5-inch touch screen
USB2.0 Output：5V $=$ 0.5A	Connectivity: Wi-Fi / U disk
FCC ID：2A35N-V04	File type: Xcode / Gcode
Compatible filaments: PLA/ABS	Supplied software: X-MAKER App / X-PRINT

* Recommended max ambient temp: 35°C

Notices

For printer stability and optimal results, please pay attention to the following matters :
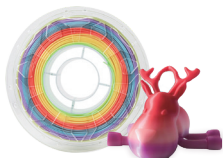
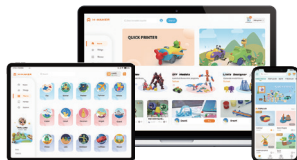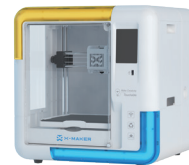AOSEED filaments are recommended. Do not change the filaments of different brands or types frequently to avoid nozzle jamming.

Please notice the supported versions. The X-MAKER app may work with some Android smartphones, but the experience may be affected due to limited screen width.

The recommended ambient temp for using the printer is 0-35℃. If you don't use it, please turn off the printer.

Close the glass door and don't reach inside while the printer is in opertion. Make sure there is no problem on the first layer of the model after printing.

Do not block the air outlet on the top of the printer during printing. Do not move the printer while it's in operation.

To avoid unnecessary damage, never disassemble the printer without following professional instructions.

Troubleshooting

1. The nozzle does not heat up
· Check if the silicone falls under the nozzle. If it does, reattach it after the nozzle cools down and then restart the printer.
· Check if the nozzle cable is loose. Turn off the printer, plug the cable back and then turn on the printer by the power switch.
 (It is forbidden to plug the cables when the power is on.)

2. Extrusion problems
· Check if the extrusion motor is working properly. If not, please consult our after-sales customer service.
· Unload the filament, cut off the end of the filament, then straighten the top and reload.
· Set the temperature to 250°C and load filaments for 2-3 times to push out the residue in the nozzle.
· Check if the nozzle has been blocked. If it has, heat up the nozzle and set the temperature to 250°F, then clean the hole
 (0.4mm) at the end of the nozzle with the nozzle cleaner.

3. The print does not stick to the base plate.
· Check if the slicing temperature meets the required temperature for filaments.
· Check if the distance between the nozzle and the baseplate is too wide. If it has, calibrate the baseplate and adjust the distance.

4. U disk not read
· Check if the U disk is damaged. Plug in the U disk and try again.
· If the U disk does not match the printer, please check whether its file system is FAT32; If not, please format the U disk and modify its file system to FAT32.

5.The printing is paused or interrupted
· Check if the filament has been consumed. If it has, replace the filaments.
· Check if the filament is broken.
· Check whether the nozzle is clogged. If it is, clean the nozzle.
· Check if the filaments and spool are wrapped or crossed.

Support and help

More interesting gameplay and usage techniques will be updated in the "Explore" module of the X-MAKER app.
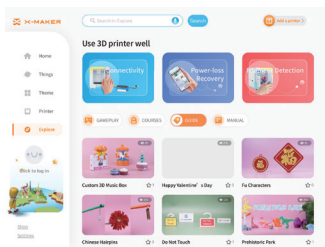
Explore

Warranty messages

1. Please carefully read and understand the contents of this user manual before using the products.

2. Within the warranty period, repaired machines can still enjoy the remaining warranty service.

3. Please keep all packaging for warranty purposes, in case of problems during the express delivery process.

4. When requesting for QA service, please provide the product code, the purchase voucher, the order ID and the invoice. Failing that, the company has the right to refuse offering the QA service.

5. Service Email :service@aoseed.com

   Amazon Service Call :+1(833)655 1595 (Toll-free)

   Amazon Email: aoseed@afterservice.vip

Thank you for your support and trust in our products!

If you have any suggestions or feedback on our products and services, please feel free to email us (service@aoweidig.com). We welcome and value your suggestions and feedback. It's our hope to continue with further business dealing with you.

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