

Kobra X-FAQ

Product usage parameters

Product Installation Instructions

An instruction manual is included with the package. Alternatively, you can scan the QR code inside the manual to watch a video demonstrating how to install the machine.



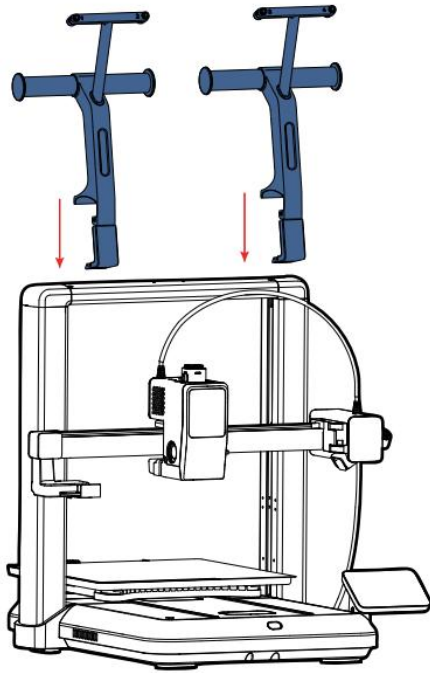
Please scan the QR code on the right for the installation instruction video:



Are there any restrictions on the placement of spoolholder?

Note: To facilitate material replacement, please move the spool holder to the left or right of the horizontal axis.





Q: What materials does the Kobra X support?

A:

- Single material: All PLA series, PETG, TPU, PVA, ABS
- Mixed printing: PLA + TPU, PLA + PVA

This allows you to easily meet more diverse printing needs.

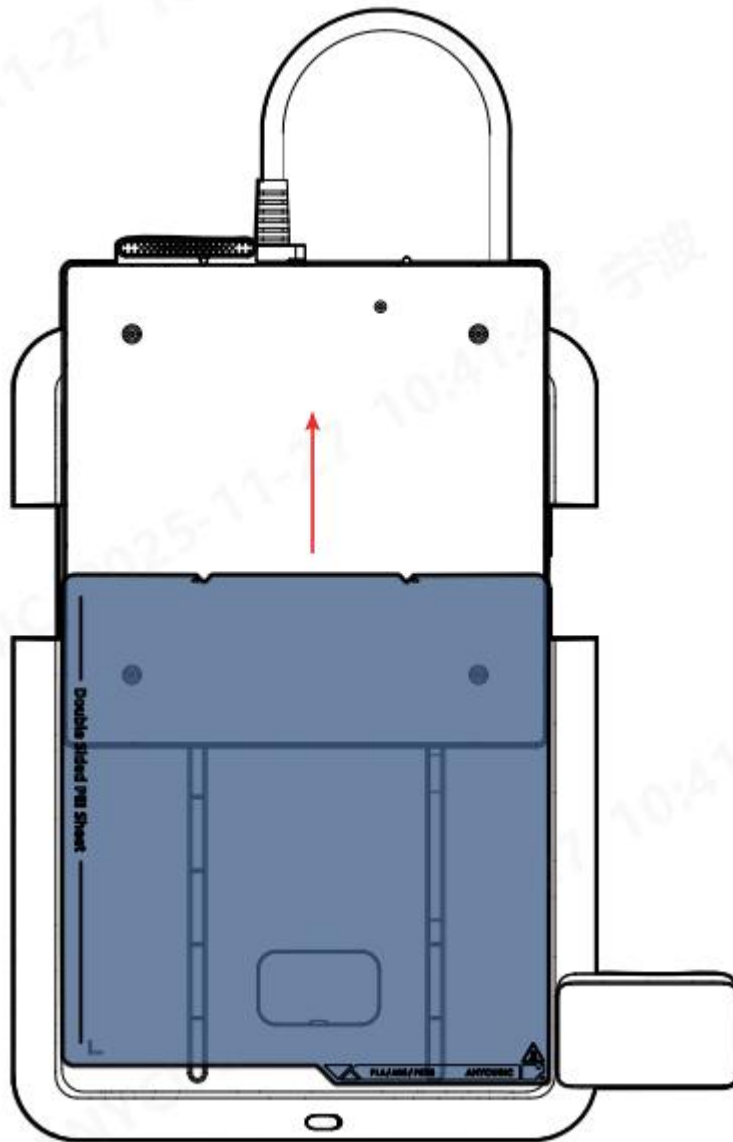
Q: How much space is needed when moving the heated bed back and forth?

A:

The maximum dimensions of the machine (including the filament rack and the distance the heated bed can move back and forth) are:

456mm (L) × 635mm (W) × 685.1mm (H)

To ensure stable operation, please allow slightly more space than this.



Q: How do I properly load the filament?

A:

1. Use pliers to cut the tip of the filament at a 45° angle and straighten it as much as possible.

2. Insert the filament into the Teflon tube inlet at the rear of the machine.

3. Press "Feed" on the machine interface and wait for the nozzle to heat up.

4. Once the nozzle reaches the preset temperature, the extruder will start feeding until the filament emerges smoothly.

If filament does not emerge successfully, it's usually because the filament is not inserted correctly. Push it forward slightly.

Q: I often print large items. Can the machine work continuously for long periods?

A:

Yes.

The Kobra X can print continuously for up to 72 hours, so you can confidently perform long-duration tasks.

Q: Is the machine automatically leveled?

A:

Yes, it uses a strain gauge automatic leveling system, supports LeviQ 3.0 technology, has 49-point leveling, 100% leveling, and requires no manual intervention throughout the process.

Q: Does the Kobra X support mixed printing of multiple materials?

A: The ACE GEN 2 extruder in the Kobra X features an adaptive extrusion force structure. It senses material hardness in real time and automatically adjusts the extrusion force.

This easily enables seamless mixing of PLA and TPU/PVA* materials, as well as soft-soft blending of TPUs with different hardnesses (95A and 68D), with smooth forward and backward movement.

Q: What kind of technology is ACE GEN 2?

A: ACE GEN 2 multi-color printing technology integrates multiple functions such as material feeding and retraction, and multi-color shifting into one extruder, significantly reducing time, material, and space waste, bringing a completely new multi-color printing experience.

Q: Why is there elastic movement between the Kobra X printer's heated bed and the heated bed protective cover?

A:

The design uses springs as a flexible connection between the heated bed protective cover and the heated bed support to address the problem of thermal deformation of the heated bed and improve the leveling effect during model printing. PS: Since the nozzle cleaning silicone is integrated into the heated bed protective cover, there may be instances of filament residue

on the nozzle when printing with softer TPU filaments.

Q: Why does my Kobra X printer sometimes produce a slight abnormal noise when using PETG filament?

A: The material characteristics of PETG filament itself (high toughness, relatively smooth surface, and moderate hardness) can cause slight friction with the upper channel outlet during the feeding process,

resulting in a slight abnormal noise. This situation is due to differences in material compatibility. We are currently evaluating and optimizing the upper channel material to reduce its sensitivity to friction with different filament materials. Please don't worry, after multiple tests, this slight friction noise will significantly decrease or even disappear after a period of use;

this noise will not affect the print quality or the lifespan of the printer.

Q: How does this printer support ASA printing without a fully enclosed chamber?

A:

ABS, ASA, and PC filaments are highly hygroscopic and easily absorb moisture. When the filament becomes damp, it can lead to reduced part strength, surface bubbling, stringing,

or other print quality issues. Therefore, it is strongly recommended to dry the filament before printing. As the Kobra X features an open gantry-style frame, we recommend pairing it with the new ACE 2 Pro unit equipped with a drying function. By using the ACE 2 Pro with its drying function, the filament can be properly dried, helping to ensure stable and consistent print results.

Q: Why isn't a USB drive included with the printer?

A:

To optimize product packaging and reduce electronic waste, the latest version of our machine no longer includes a USB drive.

You may prepare your own USB drive if needed. We recommend using a high-quality drive from a reliable brand with sufficient storage capacity for stable data transfer.

Recommended specs: USB 2.0 or above

FAT32 format

Minimum 8GB capacity

Product Parameters

Printer Basic Parameters

Print Volume: 260 × 260 × 260 mm

Overall Dimensions: 441.5 × 445.3 × 461.3 mm

Weight: 9.5 kg

WIFI

Band: 2.4GHz, 5GHz

Operating Mode: STA, AP+STA Mixed Mode

Q: What is the camera resolution?

A:

Camera Resolution: 720P 10FPS

Q: What is the print layer thickness?

A:

Standard nozzle is 0.4mm, supporting a precision range of 0.08 -

0.28mm

Q: What is the maximum nozzle temperature?

A:

The maximum nozzle temperature can be heated to 300°C.

Q: What is the maximum heated bed temperature?

A:

The maximum heated bed temperature can reach 100°C.

Q: What is the machine's printing speed?

A:

- *Recommended print speed: 300 mm/s*

- Maximum speed: 600 mm/s
- Recommended acceleration: 10000 mm/s²
- Maximum acceleration: 20000 mm/s²

Q: What is the maximum number of colors that can be printed?

A:

- Standard configuration supports 4-color printing
- Expandable to 19-color printing with 4 ACE 2 Pro printers

Q: Is the machine noisy when running?

A:

In silent mode, the operating noise is approximately 45 dB.

Q: Is the machine power-consuming?

A:

- Input: 220V / 50Hz
- Rated power: 1450W

This is within the normal range for high-power, high-speed printers.

Q: What are the environmental requirements for use?

A:

- Recommended ambient temperature: 15°C–40°C

- If the ambient temperature is below 10°C , the heated bed needs to be heated to approximately 70°C before printing to prevent warping.

Other

Q1: What are the main differences between Kobra X and Kobra 3 V2?

A:

1. More efficient, saves time and materials

Thanks to higher motion precision and system optimization, Kobra X's overall printing efficiency is up to twice that of Kobra 3 V2, offering advantages in both time and consumable utilization.

2. Supports more printing colors

a. Kobra X: Up to 19 colors

b. Kobra 3 V2: Up to 8 colors

3. Enhanced leveling capabilities

a. Higher reciprocating motion precision:

By optimizing XY axis repeatability, consistent probe reciprocating paths are ensured, resulting in more stable and reliable leveling data.

b. Superior platform temperature control:

Equipped with a heat conduction prediction algorithm and a new temperature control architecture, it effectively eliminates surface temperature differences on the platform, ensuring uniform heating of the heated bed and more accurate leveling.

4. Larger printing size

Kobra X offers a larger printing space of $260 \times 260 \times 260 \text{ mm}^3$, suitable for creating larger models.

5. Smarter Detection Functions

a. Kobra X: Supports material breakage (fried dough) detection + foreign object detection

b. Kobra 3 V2: Supports material breakage detection only

Significantly improves overall print success rate.

6. Compatible with More Material Types

a. Kobra X: Supports multiple materials including PLA/PETG/TPU /PVA/ASA

b. Kobra 3 V2: Supports PLA/PETG/TPU only

Q: Since the filament holder of the Kobra X is mounted on the top, could this cause vibration or resonance that affects print quality?

A:

The filament holder on the Kobra X is designed based on the Dynamic Vibration Absorber (DVA) principle. Even if you notice some movement during operation, there is no need to worry.

This movement is intentional and helps absorb vibrations, rather than causing abnormal resonance. According to internal laboratory testing, this design contributes to improved printing stability.

Q: Why is the maximum number of supported colors 19 instead of 20? If the print head supports 4-color printing and up to four additional Ace Pro 2 modules can be connected, it seems the system should theoretically support 20 colors. Why is one color slot reserved?

A:

The printhead has four slots. Slot 4 is reserved for connecting an external filament box module ($4 - 1 = 3$). Additionally, up to four ACE 2 Pro units can be connected externally, providing a total of 16 colors. Combined with the remaining 3 slots in the printhead, this allows for a total of 19 colors ($3 + 16 = 19$).

Q: What are the average and peak current values during heating for the heated bed and hotend? For the Ace Pro 2, what is the typical current consumption during the drying process, and what is the peak current?

A:

Before reaching the target temperature, the heated bed draws an average current of approximately 6 A (220 V).

After reaching the set temperature, the current is regulated via PID control and remains very low, with a peak current of 8.4 A (220 V).

Similarly, the hotend draws an average current of 1.5 A (24 V) before reaching the target temperature. Once the set temperature is reached, the current is also regulated via PID control and remains low, with a peak current of 3.2 A (24 V)

Q: Why can't the Kobra X printer be set to the advertised acceleration of 20,000 mm/s²?

A:

Based on laboratory testing, the Kobra X equipped with the ACE Gen 2 architecture can reach a maximum travel acceleration of 20,000 mm/s² when printing common models.

To ensure stable and reliable printing performance for the majority of users in various real-world scenarios, the default maximum travel acceleration is officially limited to 10,000 mm/s².

Future firmware and software updates will gradually relax this limitation, allowing users who require higher speeds to manually increase the travel acceleration.

However, please note that excessively high acceleration may increase the risk of print defects such as layer shifting, visible layer lines, or vibration marks.

We recommend adjusting this setting cautiously based on the specific model and material used.

Q: Why is the first layer still not ideal even after auto bed leveling on the Kobra X?

A:

In most cases, poor first-layer performance is related to filament residue on the nozzle or material buildup inside the silicone sock.

You can significantly improve the first layer quality by following the steps below:

1. Connect the printer to the network and update it to the latest firmware via OTA. The latest firmware includes optimized nozzle wiping logic, which helps reduce the impact of residual filament on bed leveling accuracy.
2. Check and clean the wiping silicone located at the upper-left corner of the heated bed. Please make sure there is no melted or granular filament residue on the silicone surface.

3.Remove the silicone sock from the quick-release nozzle and clean it thoroughly. Please check the inside of the silicone sock and remove any accumulated filament debris if present.

After completing the steps above, please re-run the bed leveling process.

Based on feedback from most users, the first layer quality shows a noticeable improvement after these adjustments.

Q: If the printer causes electrical leakage, static sensation, or a slight tingling feeling when touched, does this indicate a safety issue with the machine?

A:

Based on our review of previously reported cases, our official technical team arranged on-site inspections by qualified professionals.

The results confirmed that the machine itself does not have any electrical leakage or safety hazards. In cases where a “tingling” sensation or the feeling of slight electrification is experienced, this is most commonly caused by an ungrounded or poorly grounded power outlet at the user’s location. Under such conditions, a small capacitive coupling voltage may be present.

While voltage can be detected, the current is extremely weak and completely harmless to the human body. To help resolve this, we kindly recommend checking the following:

1. Please verify that the power outlet is properly grounded (you may use a voltage tester or multimeter to confirm grounding at the earth terminal).
2. Ensure that the three-prong power plug is fully inserted and not loose.
3. Try connecting the machine to a different outlet or extension cord that is confirmed to have proper grounding.

After switching to a properly grounded outlet and retesting, this issue is usually resolved.

If you continue to notice anything unusual, please feel free to contact us at any time, and we will be happy to assist you with further troubleshooting.

Q: What is the hot-end nozzle material of Kobra X?

A:



Hardened steel. Kobra X features a snap-lock quick-release hot end and comes standard with a 0.4mm hardened steel nozzle. Simply open the hot-end lock to replace it; 0.25mm/0.6mm/0.8mm nozzles are available for selection and replacement. Flexible solutions for various printing needs.

Q:How to maintain the printer?

A:

Metallic moving parts:

- Regularly lubricate the lead screw, guide rod, guide rail, idler wheel, and extrusion wheel assembly to prevent rust.
- Use lubricating oil to lubricate the guide rail, guide rod, and idler wheel; use grease for the lead screw and extrusion wheel assembly.

Consumables:

- Regularly check plastic or rubber parts and cutting tools for aging (including deformation) and damage.
- Replace as needed, such as silicone nozzles and Teflon feed tubes.

Other Components:

- Check the camera lens, fan, and filament sensor Hall effect units for debris or dust buildup.
- Clean the fan with compressed air; gently wipe the camera with a non-woven cloth and isopropyl alcohol to ensure optimal clarity.

For detailed maintenance instructions, please refer to – Kobra X Maintenance and Care

Q:What is the difference between partial support and full support?

A:

The difference between partial support and full support is that partial support does not add support between models; it only adds support from the heated bed to the model. Support between models is not added. Partial support is generally recommended.

Q:How does the machine identify color filaments?

A:

First, click on the empty feed slot. Then, a pop-up window will appear indicating the read/recognition process. Gently touch the label with "Anycubic Consumables" to the lower left corner of the machine's reading area and slowly rotate it to complete the reading. Once the reading is successful, a new pop-up window will appear indicating the color recognition. You can then insert the filament

