phrozen

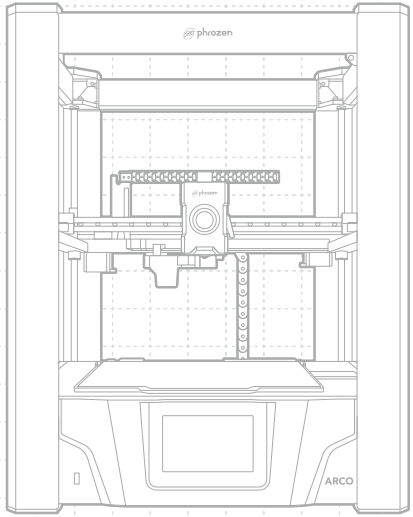
ARCO

Phrozen Arco FDM 3D Printer

Dear User,

Thank you for joining us. Please read the Arco manual thoroughly and follow the instructions step by step to get the best printing experience.

FCC ID:2BCTP-ACROFDN
IC:31284-ACROFDN



01 Key Notes 03
- Printing Environment 03
- Safety Cautions 03
- Maintenance 03

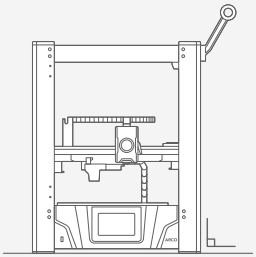
02 Introduction 04
- Printer Parts 04
- Accessories 06
- Specification 07

03 Get Started 09
- Unboxing 09
- Hardware Installation 11
- Test Print 14

04 Function 15
- Adjust the Temperature of the Nozzle and Heated Bed 15
- Use of Extruder for Feeding and Retracting Filament 15
- Firmware Update 16

05 After-Sales Service & Warranty 16

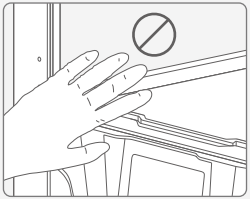
01 Key Notes



-5 ~ 45 °C / 23 ~ 113 °F

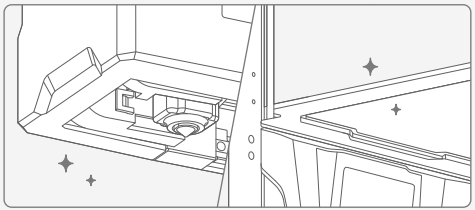
Printing Environment

- Keep the printer and its accessories away from children.
- Store your 3D printer in a dry and well-ventilated environment. Place it on a flat surface to avoid vibration or movement that could affect the print quality.
- Make sure the printer's power cord is properly grounded. Improper grounding or failure to ground can increase the risk of electric shock.
- Protect the printer from water, moisture, and dust. Unplug it if you're not using it for a while to ensure safety.



Safety Cautions

- In case of an emergency, turn off the printer immediately.
- Don't touch the nozzle or heated bed while the printer runs to avoid burns from high temperatures.
- The printer has high-speed moving parts, do not put your hands inside while it's operating to avoid injury.

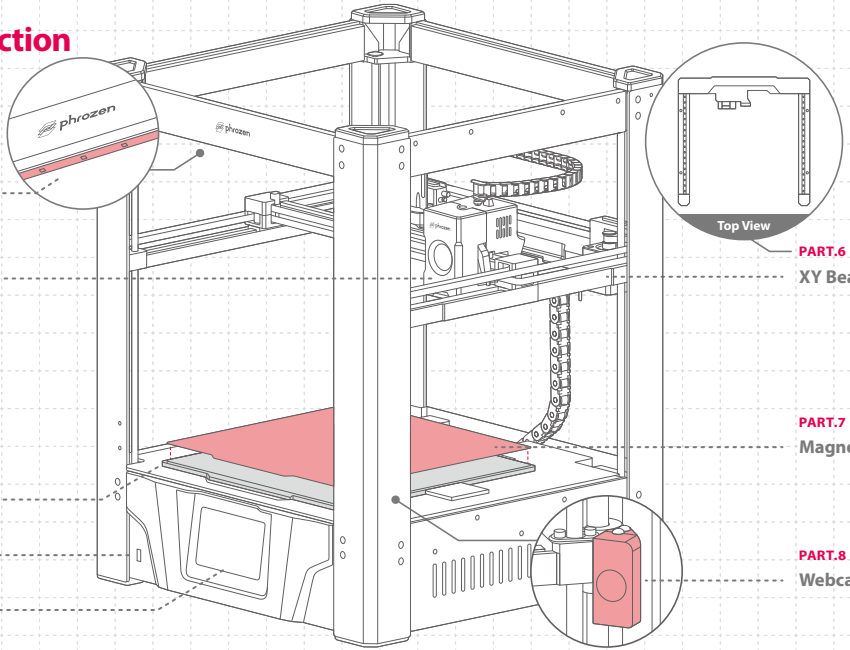


Maintenance

- It is recommended to use Phrozen filament for Arco for best printing results and to avoid printing issues.
- Before performing any maintenance or cleaning, please ensure that the printer is powered off.
- Before starting a print, make sure the magnetic building plate is clean and free of any debris, and check the belt tension.
- After printing, it is recommended to clean the filament adhered to the nozzle with a brush.
- Regularly lubricate the linear rails and lead screws.
- Regularly clean the nozzle, platform, linear rails, lead screws and fan.
- **Please only use officially designated software, firmware, and hardware accessories.** Modifying the product or using any accessories not officially recommended will prevent us from providing you with official technical support, and any issues arising from this will not be covered under warranty.

02 Introduction

Printer Parts



PART.1
Interior Light

PART.2
Extruder

PART.3
Heated Bed

PART.4
USB Port

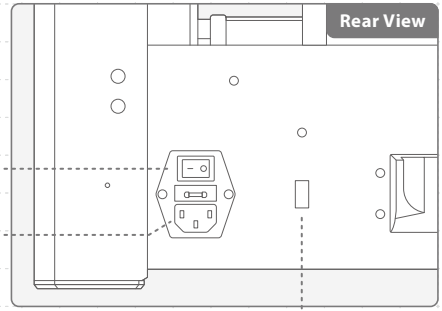
PART.5
Touch Panel

PART.6
XY Beam

PART.7
Magnetic Building Plate

PART.8
Webcam

Printer Parts

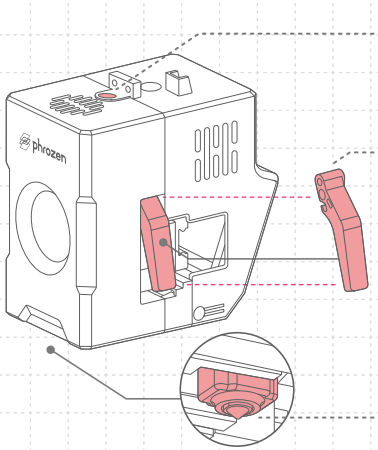


PART.9
Power Switch

PART.10
Power Socket

PART.11
Chroma Kit Port

Extruder



PART.12
Filament Inlet

PART.13
Filament
Clip Lever

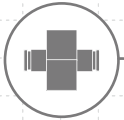
PART.14
Nozzle

Accessories

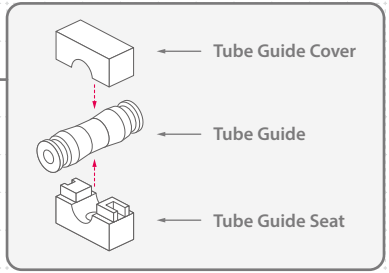
Warranty Card

PIXUP card

Power Cord
1.5 m EU/US



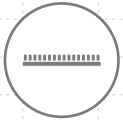
Tube Guide Accessories



Hexagon Socket Head Screws
M4 X 8 x2 / M3 X 8 x1

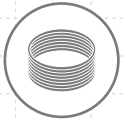
Hex Wrench set

Open-End Wrench



Silicone Brush

PTFE Tubes
Short x1 / Long x1

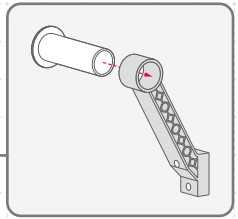


PLA Filament 38 g

USB

Lubricant Grease

Filament Spool Bracket
(with Axis)



Specification

Technology		FDM
Framework		CoreXY
Single / Multi-Color		Multi-Color Compatible (requires Chroma Kit)
Body	Printing Volume (W x D x H)	30.0 x 30.0 x 30.0 cm
	Printer Size (W x D x H)	49.2 x 47.5 x 62.0 cm
	Material	Aluminum Alloy
	Case	Sheet Metal / Glass / Acrylic
	Printer Weight	22 kg
	Operating Temperature	-5 ~ 45 °C / 23 ~ 113 °F
Extruder	Maximum Printing Speed	1,000 mm/s
	Maximum Acceleration	40,000 mm/s^2
Hot End	Material	Brass
	Maximum Flow Volume	50 mm^3/s (CHT nozzle)

Nozzle	Material	Brass
	Maximum Temperature	300 °C / 572 °F
	Diameter	0.4 mm
	Supported Filament Diameter	1.75 mm
Heated Bed	Magnetic Building Plate	High-Temperature Double-Sided Textured PEI Print Bed
	Maximum Temperature	110 °C / 230 °F
Supported Material	PLA, PETG, ABS, ASA, PET	Compatible with Arco and Chroma Kit
	PVA, TPU	Compatible with Arco, not compatible with Chroma Kit
	PA, PC	Supported with Specialized Nozzle Installed
	Carbon / Glass Fiber Reinforced Wire	Supported with Specialized Nozzle Installed

Assistance Features	Built-in Camera	Resolution: 720p, 150° Wide Angle Lens
	Material Breakage Detection	Supported
	Printing after Power Outage	Supported
	Auto Leveling	25 point leveling / Tolarence <0.05 mm
Hardware	Display	5-inch Touch Panel
	Connectivity	Wi-Fi
	Storage	8 GB
	Operation Method	Touch Panel

Software	Slicer	PIXUP FDM Slicer / Orca Slicer * PIXUP FDM Slicer is recommended for comprehensive functional compatibility.
	Connectivity	Wi-Fi / USB
	Printing File Format	.gcode
Power	Power Requirement	100-240 V AC ; 50-60 Hz
	Rated power	900 W

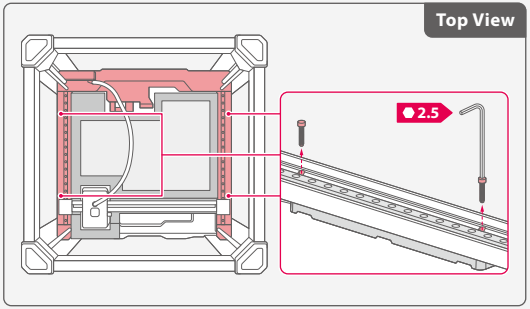
* All specifications were tested in a laboratory and are subject to change without prior notice. For the latest update, please refer to Phrozen's official website.

** The included power cord set packaged with the main unit cannot be used with electrical equipment other than the specified device.

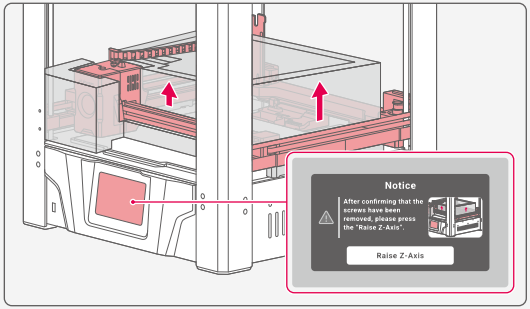
03 Get Started

Unboxing

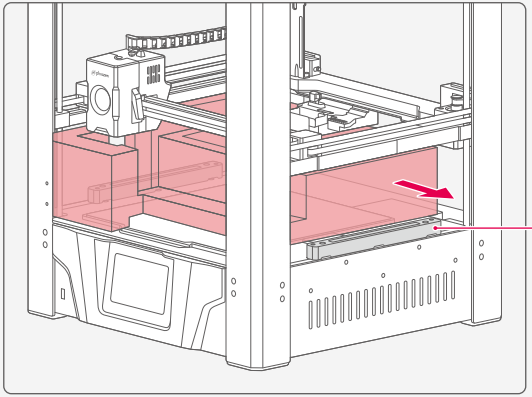
1. Pull out the EPE cover from the right side, then **take out the 2.5 mm hex wrench** and **power cord** in the EPE box.



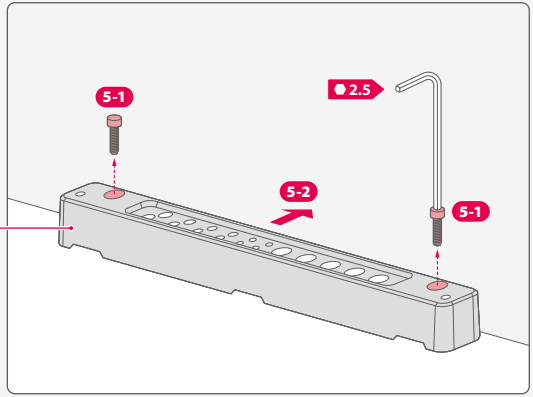
2. Use the **2.5 mm hex wrench** from the EPE box to remove the **four** fixing screws on both sides of the XY Beam.



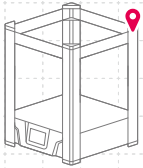
3. Plug in the power cord, turn on the printer, and follow the instructions on the touch panel until **lift the Z-axis**.



4 After lifting the Z-axis, please remove the EPE case.

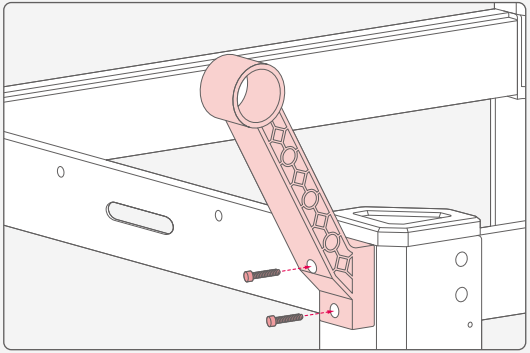


5 Use a **2.5 mm hex wrench** to remove the **four** screws of the fixtures under the XY Beam and **remove the fixtures**.

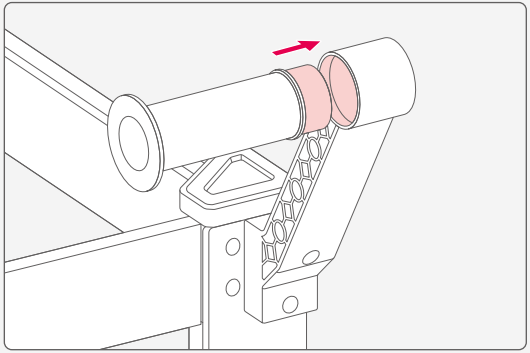


Hardware Installation

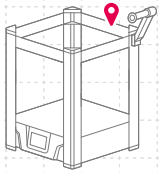
Installation of Filament Spool Bracket



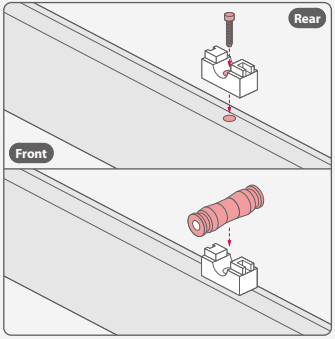
1. Place the filament spool bracket on the right rear side of the printer and lock **the two hexagon socket head M4 X 8 screws** with a **3 mm hex wrench**.



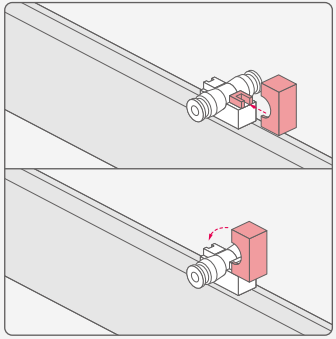
2. Locking the axis onto the filament spool bracket, now you finished the installation of the filament spool bracket.



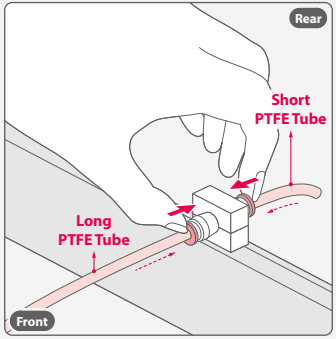
Installation of PTFE Tube



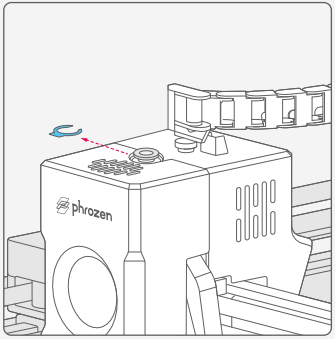
1. Place the tube guide seat on the beam at the rear of the printer and use a **2.5 mm hex wrench** to secure **an M3 X 8 hex socket screw**, then place the tube guide.



2. Place and lock the **tube guide cover** in place.

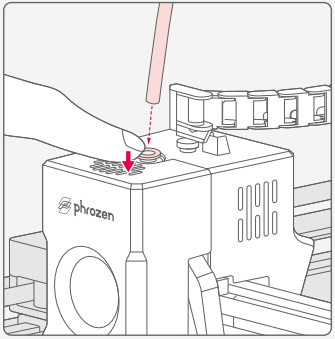


3. Press both sides of the tube guide. **Connect the short PTFE tube to the rear** and **the long PTFE tube to the front**.

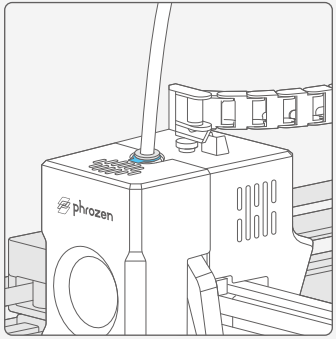


4 Remove the blue clip from the extruder.

* Keep it in a safe place to avoid losing it.



5 Press the extruder inlet and insert the other end of the **long PTFE tube**.



6 Reattach the blue clip.

Test Print

1 When you reach this page in the boot instructions, click "Next" to perform a test print.
If you click "Skip", the printer will only complete the calibration.

2 Install the PTFE tube onto the printer. If the PTFE tube is already installed, click ⓝ to proceed to the next step.

*: You can find instructions for this installation in the 'Installation of PTFE Tube' section on page 12.

3 Place the spool on the filament spool bracket.

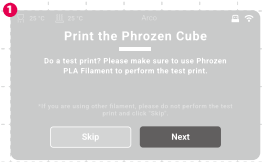
4 Wait for the nozzle to heat up.

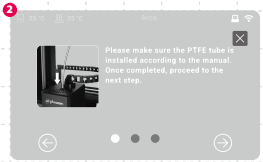
5 Feed the filament into the PTFE tube.

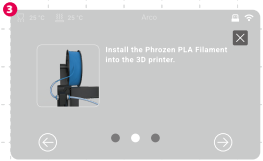
6 The printer will perform each calibration and automatically start a test print once all calibrations are complete.

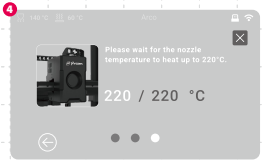
7 Test print details will be shown once the printing is complete.
Click "OK" to proceed to the next page.

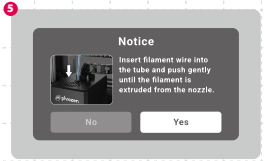
8 You can scan the QR code to learn more about the test print on Phrozen's official website.

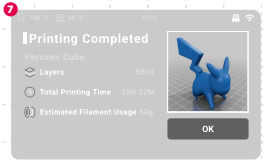








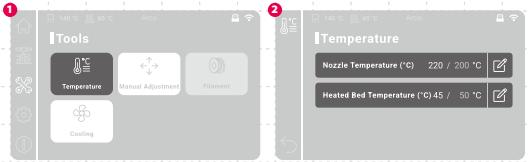




04 Function

Adjust the Temperature of the Nozzle and Heated Bed

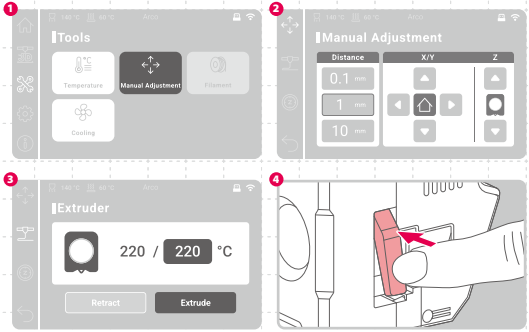
1. You can access the "Temperature" from "Tools" .
2. In the "Temperature" , you can adjust the temperature of the nozzle and the heat bed .



Use of Extruder for Feeding and Retracting Filament

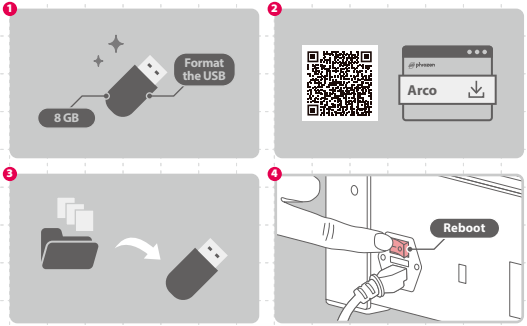
1. You can access the "Manual Adjustment" from "Tools" .
2. Click the "Extruder" .
3. Set the temperature and wait for the nozzle to heat up, then you can click "Extrude" to feed the filament.
4. To retract the filament, first press the extruder clip lever to cut the front part of the filament, then retract the filament to avoid nozzle clogging.

* Avoid letting the filament at the spool come loose during the process of retracting the filament.



Firmware Update

1. Please use a USB with at least 8 GB and format the USB.
2. Download the Arco firmware from the Firmware downloads Page.
3. Extract the installation files into the USB root directory.
4. Insert the USB and reboot to update Arco.
5. Once the update is complete, remove the USB and restart to use the new firmware.



After-Sales Service & Warranty

- Phrozen provides 1-year warranty covering non-human-caused damage for Arco.
- If you have any questions while using the product, please scan the QR code to visit the Phrozen Help Center, where you can find helpful product guides or get in touch with our support team.

Phrozen Help Center

FCC Warning

15.19 Labeling requirements.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

15.21 Information to user.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.105 Information to the user.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment.
3. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

IC Warning

This device complies with Innovation, Science and Economic Development Canada ' s licence-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference;

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d ' innovation, sciences et développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

ISED Radio Frequency Exposure Statement:
This equipment complies with ISED exposure limits set forth for an uncontrolled environment. This equipment shall be installed and operated with minimum distance 20cm between the radiator & body.

Déclaration d'ISDE sur l'exposition aux radiofréquences :
Cet équipement est conforme aux limites d'exposition d'ISDE établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et le corps.

Congratulations!

You have just completed your first run.
We hope you've had a great experience!

Please follow Phrozen's social media accounts to learn more about printing tips and share your printing experience with the community.

Facebook

YouTube

Instagram

Phrozen Official Website