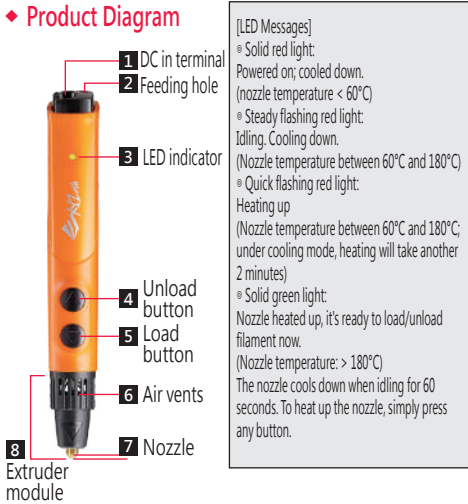## ◆ Package content

1 3D Pen

2 Power adapter

3 Power cord

4 Trial filament
(Including 3x PLA filament. Length: 1 meter; color: random color)

5 Unblocking tool

6 Quick guide / Warranty card

◆ Product Diagram

1 DC in terminal
2 Feeding hole
3 LED indicator
4 Unload button
5 Load button
6 Air vents
7 Nozzle
8 Extruder module

[LED Messages]
◉ Solid red light:
Powered on; cooled down.
(nozzle temperature < 60°C)
◉ Steady flashing red light:
Idling. Cooling down.
(Nozzle temperature between 60°C and 180°C)
◉ Quick flashing red light:
Heating up
(Nozzle temperature between 60°C and 180°C; under cooling mode, heating will take another 2 minutes)
◉ Solid green light:
Nozzle heated up, it's ready to load/unload filament now.
(Nozzle temperature: > 180°C)
The nozzle cools down when idling for 60 seconds. To heat up the nozzle, simply press any button.

◆ Precaution

⚠ BURN HAZARD:

1 The nozzle of the 3D pen will become heated. Do not let the nozzle of the pen come in contact with surrounding components before it completely cools. Do not touch plastic materials that have yet to set to prevent burns.The heated nozzle of the pen and heated plastic materials may damage other objects, plastics, fabrics, or materials. Avoid touching anything with these heated objects before complete cooling.
2 Keep the air vents open to ensure that the 3D pen works properly.
3 The heated filaments would generate certain smells during heating. Please use this product in a well-ventilated space.
4 Please use PLA filaments provided by XYZprinting and refer to user instructions when using this product to avoid damages. Warranty void if non-XYZprinting filaments are used.
5 The product is fully tested on the production line. The testing material may be left in the nozzle. The color of the extruded filament might differ from the feeding filament in the first use.
6 The material in the nozzle may cause slight cracking sound while heating up.

◆ Operation

◎ Loading/extruding the filament

1 Connect the bundled power source to the 3D pen
(LED should be solid red light).

◎ Load / Unload mode:

When you want to...	Button operation	When to use each operation
Extrude manually	Press and hold the load button and release it to stop extrusion.	When you want to best control the extruding at the right moment.
Extrude continuously	Press the load button twice and release the button. The pen will enter continuous extrusion mode. Press any button to stop the extrusion process.	When you need a continuous flow to build up successive structures.
Unload continuously	Press the unload button and allow the filament to continuously unload for about 50 seconds. You can click any button to stop unloading.	When you want to replace filaments or when the feeding path is clogged.

2 Press any button to begin heating up
(the LED indicator should be steady flashing red light).

3 Once the heating is complete (green indicator is ON), press the [Load Button] twice to activate continuous extrusion mode. Insert XYZprinting filament into the feeding hole. Let go of the filament once you feel the pen taking in the filament on its own.

◎ Replacement / unloading

When the indicator is Green, press the unload button to unload the filament. Once the filament unloading has stopped, click any button to stop unloading and pull out the filament.
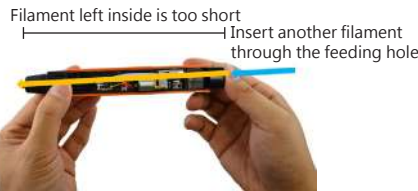
◎ Reminders for using the filament

1 If there is no filament left in the pen, please allow about 1 minute after activating the feeding function to drive the filament into the nozzle of the pen.
2 You may cut the length of the filament to the desired length. The maximum length of the filament should not exceed 3 m to ensure that the feeding process works properly.
3 For best operation, it is suggested to unload the filament left in the pen after you have done your creation. Be sure to cut off the molten tip of the filament before reuse to prevent it from clogging up the feeding path.
When cutting the filament or when you notice that the tip of the filament has been partially melted, cut the tip off the make it flat.

4 When the filament left inside is too short, the internal feeding mechanisms would be unable to push the filament. If this occurs, please insert another strand in filament through the feeding hole to push the filament out.

Filament left inside is too short

Insert another filament through the feeding hole

5 To replace or remove the filament, To replace or remove the filament, please unload the filament as instructed. Do not forcibly pull the filament out from the pen as this may damage the internal components.

6 If you are about to change the color of the filament, please unload the filament before it goes inside the feeding path completely and becomes too short to be pushed out by the gear. When switching between materials of different colors, the tip of the new filament may mix with the old residual material. The extrusion of materials with mixed colors is normal. You may push out the filament left inside with the unblocking tool before inserting the filament of different color if you don't want the unexpected color.

◆ 3D drawing tips

◎ Create the foundations

When you start drawing, draw a base on paper or on the surface of an solid object. When you start drawing, create a base on the surface of a paper or a solid object, and then move freely into the air after the base has been constructed.

◎ Follow the gravity

Heated PLA filament is soft, so it may take a while for the material to harden. When creating bridges and other 3D structures, we recommend adjusting the angle of your drawing so that the partially molten plastic will droop down naturally and achieve a more natural finish.

◆ Troubleshooting

◎ LED indicator is off

If the LED indicator fails to turn on after connecting the power to the 3D pen, please check if the power plug is properly inserted into the power source and the 3D pen. If the light is still off after everything was plugged in properly, please contact the customer service center for help.

◎ The feeding path gets clogged

1 Clean the guide tube

If the pen cannot extrude normally, please first unload the filament, then remove the back cover (by pushing it towards the back). Remove the guide tube, remove all residual filament inside, and reinstall it.
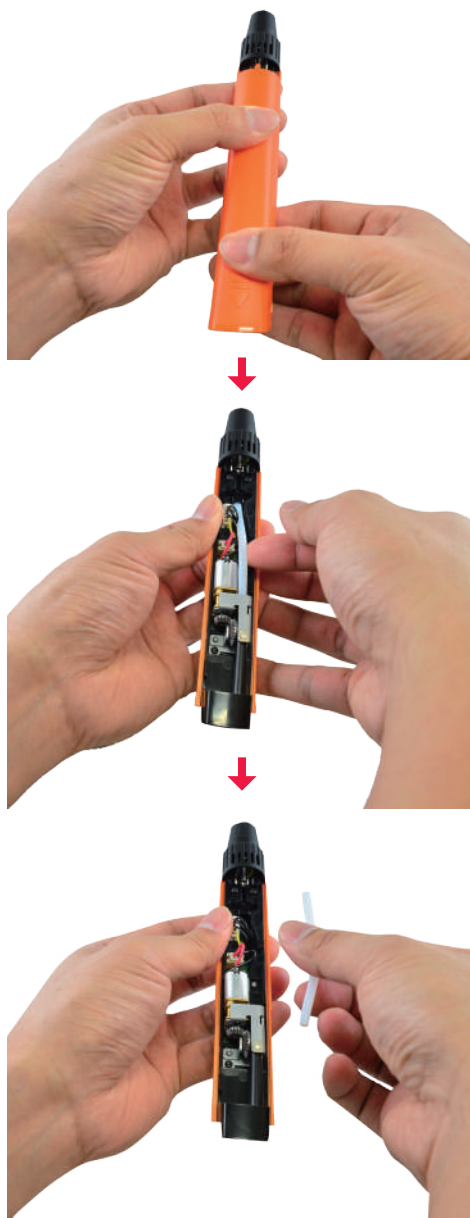
Use the unblocking tool to remove any residue within the white guide tube. Make sure that all the remaining residual filament has been removed from the guide tube, reinstall the back cover, and restart the feeding process.
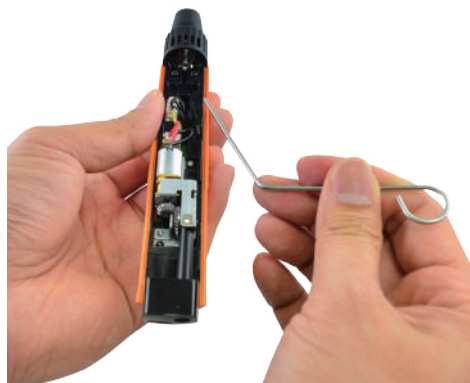
2 Clean the extruder module

After using the pen or when the pen fails to extrude, the blocking tool can be used to clean the extruder module. Please first unload the filament, then keep the pen in continuously extruding mode. Make sure that the pen is kept in a heated state to facilitate the removal of residual materials from the extruder module of the pen. Take the back cover and push it backwards and take out the white guide tube.

Place the unblocking tool in the feeding path and insert the sharp tip of the tool into the round opening at the top of the insertion route.

Press the tool slightly so that it is fully inserted into the feeding route. The tip of the tool will move about 1 cm through the round opening.

Push and pull tool. Residual materials from the extrusion module can be pushed out from the opening.