

Version: V1.0
Updated: 2023/5/30

GRATKIT



GratKit Firefly Smart Dryer Box

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Safety Notes

- Keep GratKit Firefly filament dryer away from children.
- Pay attention to electrical safety during operation. Do not use this product near water, such as in the bathroom, bathtub, wash basin, and other places where water is easily accessible.
- Please use the Firefly filament dryer only with the original power adapter. Using other power adapters may cause damage to the filament dryer.
- Please turn off the power when you're not using it.
- The processing temperature may be very high during the drying process. Please avoid direct contact with the inner box.
- If you encounter any abnormal situations during use, including but not limited to: abnormal fan noise, fan not spinning, heating plate not working, screen not displaying, etc., please make sure to turn off the power first and contact our technical support team. We will assist you in resolving the issue.

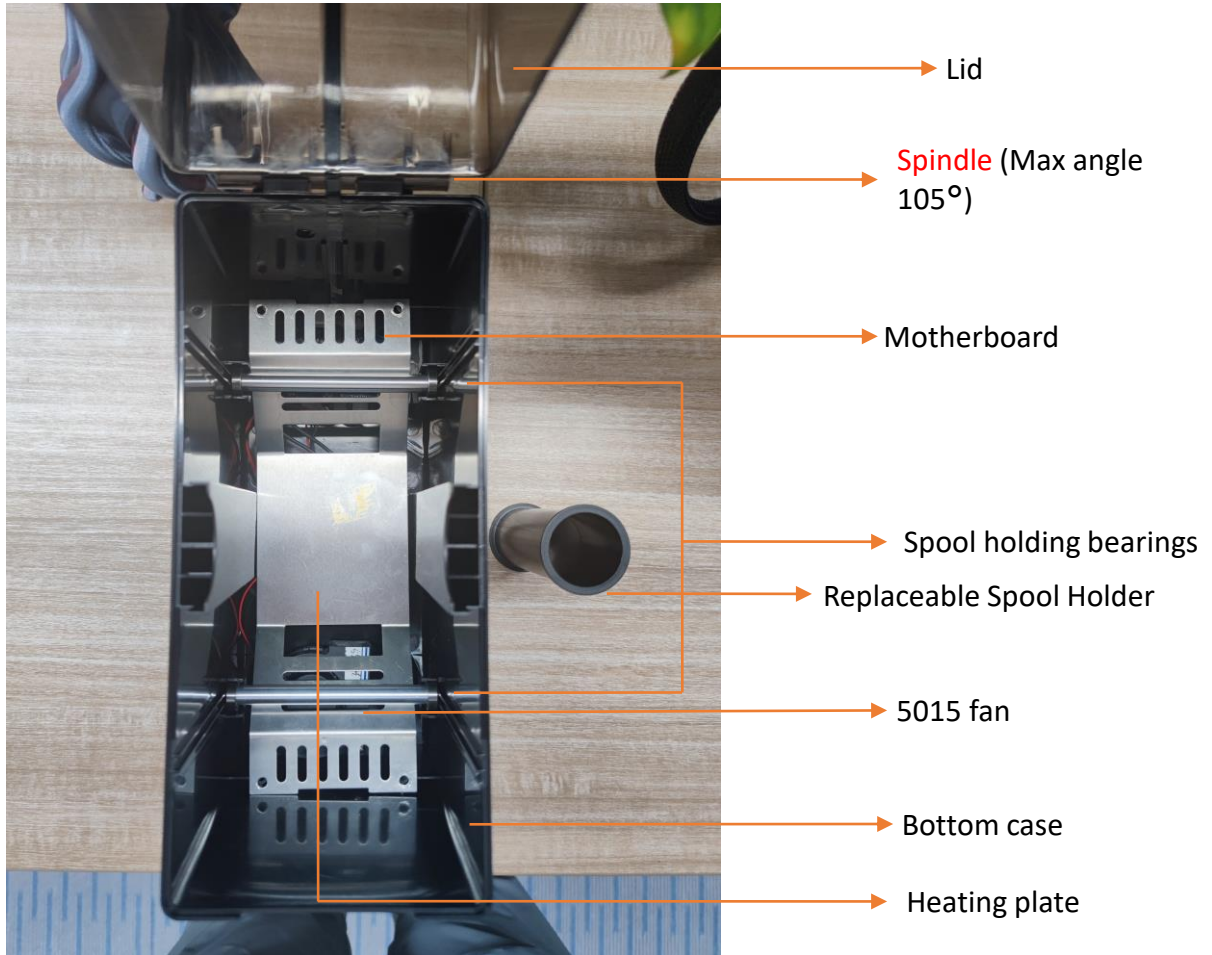
Refer to this link to get the latest version of the user manual & translation version:www.gratkit.com

Technical Specifications

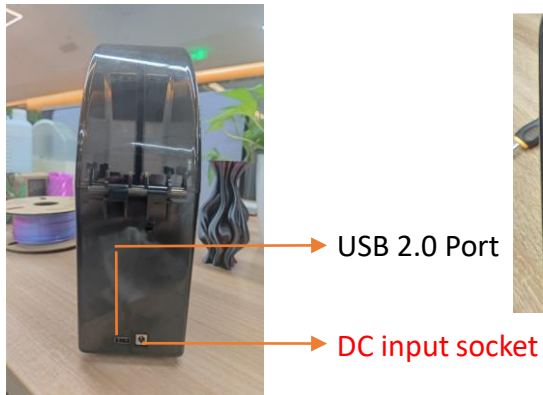
Dimensions	254x261x102mm
Filament Weight	≤1000g[Net]
Spool Width	≤72mm
Dryer box Net Weight	~760g
Filament Diameter	1.75mm/2.85mm/3mm
Filament Types	PLA/PLA+/PETG/ABS/Nylon/PC/HIPS/TPU,... etc.
Desiccant Tank	#N/A
Filament feed-through holes	2
Drying Methods	Bottom heating + fan for heating circulation
Built-in fan	5015, DC24V
Operation Type	Touch Control / WIFI App Control / Bluetooth App Control
Compatible APPs	Tuya / Smartlife
Ambient Light	Controllable RGB light
Settable temperature range	40-70°C
Power Adapter	AC100-240V to DC24V-2A (48W)
Standby Power Consumption	~3W
Display Screen	3.5-inch LCD Screen
Operating Environment	0-45°C
Noise Parameter	<50dB

Product Overview

Inside



Backside



LCD



Button Instructions

Button	Temperature set range: 40°C ~ 70°C	
Set Temperature"+"	Short press: Increase 1°C; Long press: Quickly increase temperature value.	
Set Temperature"-"	Short press: Decrease 1°C; Long Press: Quickly decrease temperature value.	
Drying Time Setting: 0 ~ 24hours. Attention: Set to 00:00 will work infinitely until user turns off the heating.		
Set time "+"	Short press: Increase 1 Min; Long press: Quickly increase time value.	
Set time "-"	Short press: Decrease 1 Min; Long press: Quickly decrease time value.	
ON/OFF Button	Short press	1, OFF status: Turn on heating, start drying filament; 2, ON status: Turn off heating, stop drying filament.
	Long press	OFF status long press 3s: Enter filament selection mode. The selected filament type will flash quickly, a short press will switch to the next filament type, if there is no operation for 3 seconds, the filament select mode will be automatically exited and saved.
	Double press	Set LED colors, 8 static colors (off/red/green/blue/white/yellow/cyan/purple/orange/pink) and 3 dynamic colors (Rainbow blink/Rainbow smooth/Rainbow fade).

参考界面



Operation Guide

1. Turn on the power

Plug the power adapter into the DC socket of the drying box. After the power is turned on, the drying box will beep, and the drying box will default to a non-heated standby state.

No pics yet, will place pic later

2. Place filament

Open the drying box, place the filament on the hanging spool holder, then pull the filament out from any of the two feed-through holes, and then close the lid. (Note: Please make sure that the filament is tight, if it is loose, the filament may tangle itself).

No pics yet, will place pic later

3. Select filament type

1) Click the "ON/OFF" button on the LCD for about 3 seconds, then you will hear a beep sound, and the currently selected filament type will flash quickly. At this point, you have entered the selection mode, and then you can short-press the "ON/OFF" button to select your filament type.

After the selection is completed, wait for 2 seconds, and you will hear a beep sound, the filament switch is successful. The filament type option will change from the fast flashing status to the slow flashing status on the LCD. Please refer to point 4 for the next step.

2) This product additionally reserves two custom modes "DIY1" and "DIY2"**[Do it yourself]**. If your filament type is not among these preset 8 types, you can switch to this mode to set the temperature and drying time (maximum temperature 70°C). If you want it to always be under the heating state, you can set the time to 0 and it will dry filament until you change the setting. After setup, the drying box will save the last changed setup data.

Note: If you are not familiar with filament, acquaint yourself with its characteristics or ask us to prevent your filament from melting or causing other problems.

PLA	PLA+	PETG	ABS	Nylon
PC	HIPS	TPU	DIY1	DIY2

4. Start drying filament

After selecting the type of filament, briefly press the "ON/OFF" button, the heating status will be displayed in the lower right corner of the LCD screen, and the drying box will start working.

No pics yet, will place
pic later

No pics yet, will place
pic later

5. Select LED Mode

GratKit Firefly has built-in RGB LED, it can make your printing more fun. You can double press "ON/OFF" button to switch LED mode. LED mode list:

Mode	Static	Static	Static	Static	Static	Static	Static
Color	Black	Red	Green	Blue	White	Yellow	Cyan
Mode	Static	Static	Static	Rainbow	Rainbow	Rainbow	
Color	Purple	Orange	Pink	Blink	Smooth	Fade	

6. Turning off the dryer box

Click the "ON/OFF" button to enter the standby state. At this time, the heating function is turned off, and other functions are normal. When the power supply is reconnected, the drying temperature, filament type and drying time will return to the state before shutdown.

APP Instructions

Remote control steps

- The cell phone or tablet must have a WIFI connection to the router and the Internet must be available;
- Search Tuya Technology's "Smart Life" or "Tuya Smart" APP software in the app store, download it and install it;

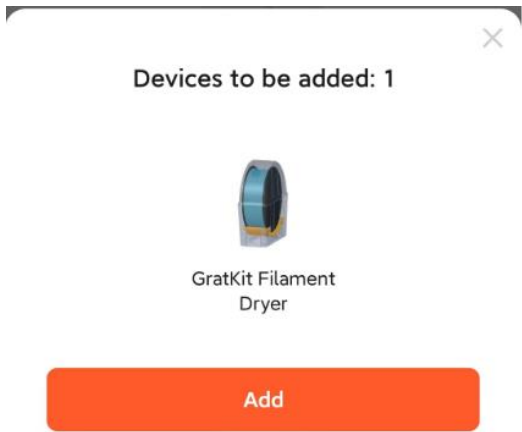


- Power on the product and observe the display screen immediately. When the screen displays the **GRATKIT** LOGO (LOGO display time is about 3 seconds), briefly press the "ON/OFF" button. At the same time, the built-in LED light of the dryer will illuminate in white and pulsate, indicating that it has entered pairing mode, ready to connect to the App via Bluetooth and Wi-Fi.



- Open the APP software installed in step 2 and grant the system permissions for WIFI and Bluetooth. The APP will automatically pop up a window to confirm that the device has been found. If the pop-up window does not appear automatically, click the "+" button in the upper right corner of the APP interface, and then click "Add Device".
Adding devices supports two modes, WIFI connection and Bluetooth connection

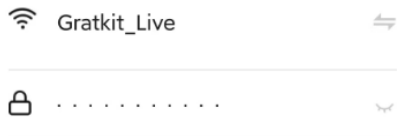
1) WIFI Configuration



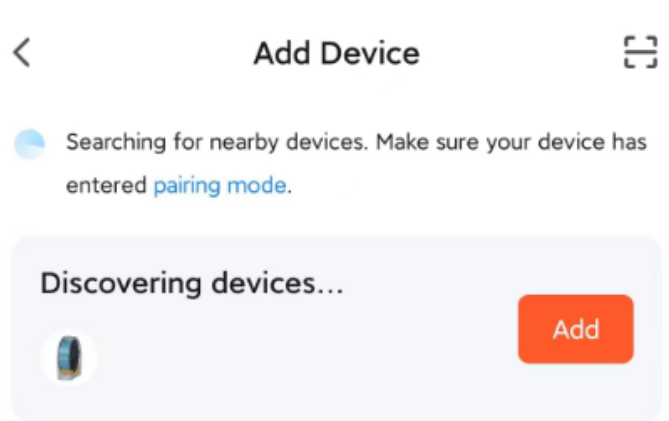
Automatic pop-up prompt

Remote Device Control

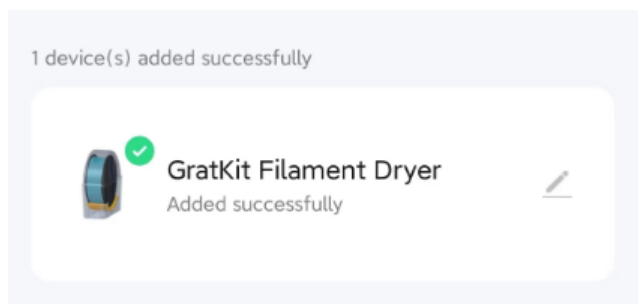
Select a Wi-Fi network, enter the password, and then remotely control the device.



WIFI configuration



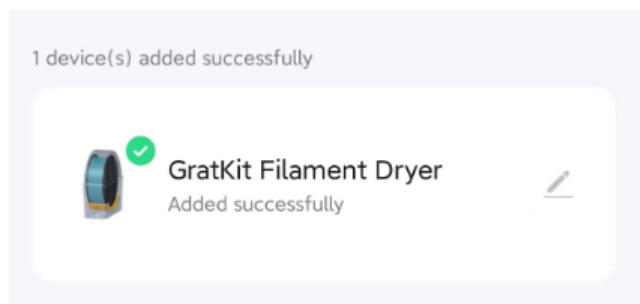
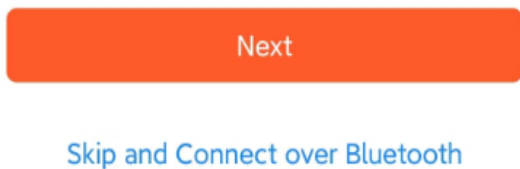
Manually add device



Configuration complete

2) Bluetooth configuration

The steps to adding the device via Bluetooth and connect to WIFI are the same. In the Wi-Fi configuration interface, select "Skip and connect over Bluetooth" at the bottom.



Configuration complete

Bluetooth configuration

After the configuration is completed, the product can be controlled by APP operation, remote control from all over the world, status information query, etc. (Bluetooth mode is not supported).

The application supports the control of multiple dryer boxes, to make drying the filament easier.

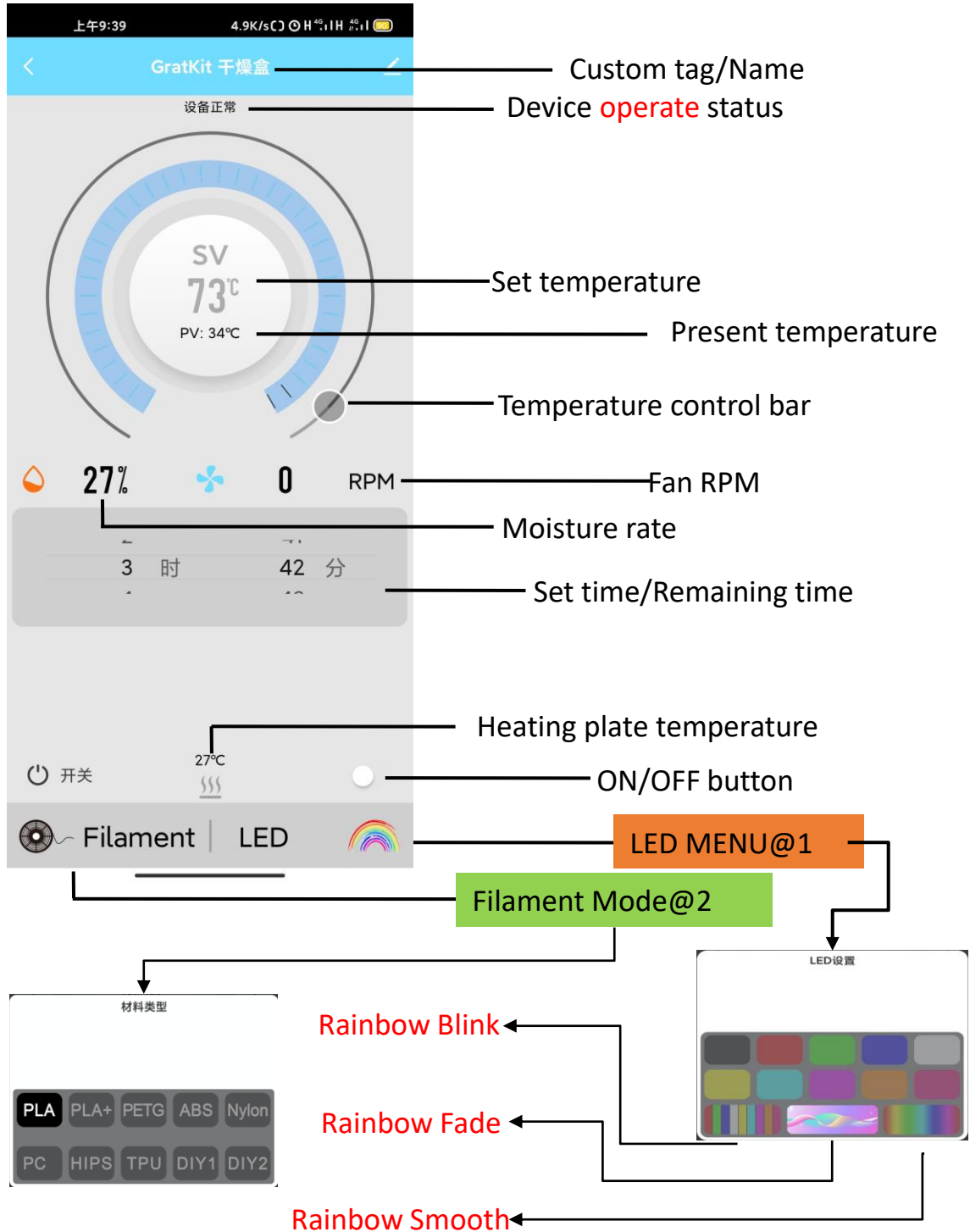
Beep Code Reference

Beeping time	Meaning	Note
Beeping 0.1s	Dryer box feedback	Audio feedback for button or APP operation
Beeping 0.3s	Temperature/time, adjusted to max/min	The value has been adjusted to the limit value
Beeping 1.0s	Product error detected	The product malfunctions with an error code
Beeping 3.0s	Drying completed	Drying finished feedback

Error Code Reference

Error code	Meaning	Note
E-00	Normal State	This code will not display
E-01	Tilted/dumped state	Turn off heating
E-02	Heat plate overheating	Heating plate over than 99°C
E-03	Dryer box upper area overheating	The upper area temperature of the dryer box is higher than the set temperature by 10°C.
E-04	Fan RPM too low	Fan RPM less than 500RPM

APP Insturction



FAQ

Q1: Is the dryer box compatible with 250g and 500g filaments?

A1: Yes. It supports all filament spools with 72mm within 1kg.

Q2: Why does the LCD display show that the humidity is gradually increasing after a few hours of drying?

A2: The dryer box is not completely sealed to allow moisture to escape. This is normal and expected.

Q3: Why the temperature of my dryer box can't reach 70°C?

A3: Our products has been tested at an ambient temperature of 25°C. If your ambient temperature is lower than 25°C, it may not reach 70°C. You can try wrapping the outside of the drying box with an insulating sponge to reduce heat dissipation and increase the upper-temperature limit (maximum limit is 70°C).

Q4: The inner diameter of my filament spools is a special size and doesn't seem to fit the filament spool holder of the dryer box.

A4: We have tried to make the spool holder be compatible with most filaments. But unfortunately, the stock spool holder can't fit all the filaments. Here is the solution: You can replace it with a 3d printed one so it will fit your filament. Or you can send a request mail to support@gratkit.com then we will send you the STL file so you can print it.

More FAQ please access to GratKit forum: <https://forums.gratkit.com>

Warranty and Contact Information

- Firefly Dryer box warranty period is 1 year.

Warranty List:

- Electric: Motherboard, Heating Plate, Temperature sensor, LCD[Include RGB LED], Power adapter, 5015 DC fan, and cables.

- Others: Lid and Bottom case

Warranty does not apply in these: Man-made damage, a malfunction caused by misuse, and damage, rust, or breakdown caused by wear and tear instead of the product itself.

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