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1. Why LuckyBot? Why our brand?

Wiiibox has always been committed to being a leading global supplier for 3D printing integrated solutions. We are a professional team integrating the design, R&D, manufacturing. Our purpose is to provide affordable, high-quality 3D printers to different kinds of customers. So here we are, presenting our latest creation - LuckyBot, an affordable food extruder for FDM 3D printers.

LuckyBot can adapt to a wide range of FDM 3D printers and satisfy simple installation advantages, affordable price, simple design, and easy portability compared with other food extruders on the market.

2. What FDM 3D printers does LuckyBot work with?

There are the brands and printers we recommend:

Brands	Printers
Creality	Ender-3/3s、Ender-3 Pro、Ender-3 V2、Ender-3 MAX Ender-5 Pro、Ender-5 Plus、Ender-6、Ender-7 CR-10、CR-10 V2、CR-10 V3
Anycubic	Mega X、Mega Zero、Mega Zero 2.0
FlashForge	Aquila、Aquila C2
Geeetech	Mizar A10 Pro、A10M、A10T A20、A20M、A20T A30 Pro 、A30M、A30T
Artillery	Hornet

Please leave a message for us if your printer model isn't on the list above. We're trying to unlock more new models!

3. Can I still buy LuckyBot if I don't have a FDM 3D printer?

Please consider purchasing LuckyBot ONE Food 3D Printer if you don't have a FDM 3D printer, including a self-assembling food 3D printer kit and three boxes (12 pcs) of LuckyBot customized tube.

4. Will LuckyBot change or damage the original FDM 3D printer?

LuckyBot is a food extruder for FDM 3D printers that is reversible for installation and removal without damaging the printer.

5. Does LuckyBot support power outage renewal and breakpoint renewal?

Power outage and breakpoint renewal of LuckyBot are based on whether your original FDM 3D printer has or not.

6. Does LuckyBot support a filament run-out sensor?

LuckyBot does not support a filament run-out sensor. The starts and ends of printing depend on the original printer. The side door is easy to open and close, making it easy to see how many ingredients are printed. When ingredients are almost out, pause printing, replace the tube, and start printing again.

7. What size can LuckyBot print?

The print size of the X-axis will be the same as your original FDM 3D printer, while the Y-axis is reduced by 30mm and Z-axis is reduced by 150mm. (e.g. The original printing size of the FDM 3D printer is 210mm*210mm*250mm, while the printing size is 210mm*180mm*100mm after installing LuckyBot.)

8. What ingredients can LuckyBot print?

The preferred ingredient that LuckyBot can print is chocolate, which supports 3D molding. You can also print jams, creams, mashed potatoes, salad dressing. These materials support 2D molding. Ingredients other than those mentioned above are not supported now.

9. How long does it take for LuckyBot to print a chocolate model from installation to completion?

It takes less than 1 hours from installation to successful printing of LuckyBot for newbies, even less for those with 3D printing experience. The average installation time is about 30 minutes, 15 minutes to download the sliced model, and the actual printing time depends on the size of the sliced model you download.

10. Is there anything should pay attention to when choosing chocolate?

Please pay attention to whether it is Pure Cocoa or Cocoa Butter Replacer when choosing chocolate. The difference between the two kinds is the heating temperature during printing, 34~35 °C for Pure Cocoa, 37~38 °C for Cocoa Butter Replacer. Cooling in low-temperature environment will be better for pure cocoa printing, but there is no need for Cocoa Butter Replacer. Printing with chocolate containing granular substances (easy to clog) is prohibited. Please use our recommended chocolate brands for printing. For other chocolates, please ensure that they can be melted at 40°C and below.

11. Is there anything should pay attention to when filling chocolate?

- (1) Please ensure the blue plug is tightened before filling.
- (2) Please clean the tube before filling and make sure the inside of the tube is dry and clean when filling.
- (3) Please divide the chocolate into the right size to melt in the tube when filling.
- (4) After the chocolate is fully melted, put on the rubber plug and invert the tube for about 5 minutes, shake and squeeze out the air inside the tube.
- (5) Please put the filled tube in the refrigerator for more than 2 hours after filling. (The recommended refrigeration temperature is about 6°C)

12. How to store a filled tube?

Please keep it in the refrigerator. (Recommended refrigeration temperature is about 6°C)

13. Where can users download the 3D models?

3D models and parameter settings are available for download and reference at user.luckybot.us

14. What is the function of the WL-wheel?

Z-axis height of the original FDM 3D printer will be reduced after installing LuckyBot, and the WL-wheel serves to increase the Z-axis height by 60mm.

15. What is the function of the TRM?

Because LuckyBot needs to adapt to various FDM 3D printers, a TRM needs to be inserted to ensure that the removed original printhead is not heated.

16. What is the function of the E-axis adapter wire?

Since each brand of FDM 3D printer has a slightly different cable sequence, the E-axis adapter wire is used to ensure that the LuckyBot works properly. So we provide one E-axis adapter wire to adapt LuckyBot to FDM 3D printers.

Note: It does not need to be connected to the Creality Ender series printers, but the Anycubic Mega series printers. Please test yourself to see if other printers need to be wired.

17. What is the function of the Limit extension wire?

The original wire length needs to be extended by the limit extension wire after the limit switch of the original printer is moved up when installing LuckyBot. We provide two types of limit extension wires to adapt LuckyBot to FDM 3D printers. Please choose according to the cable interface.

18. Is there anything need to pay attention to when installing LuckyBot?

- (1) Place the original FDM 3D printer safely after removing it, away from children and flammable materials.
- (2) Be sure to return the LuckyBot to its home position by operating the panel after the limit switch has been moved up to the specified position when installing.
- (3) Be sure to plug in the TRM when connecting wire.
- (4) The E-axis adapter wire does not need to be connected to the Creality Ender series printers, but the Anycubic Mega series printers.
- (5) The printer will need to be leveled after installing LuckyBot. Consult the user manual or visit luckybot.us for the specific leveling method.

19. How to use the baking paper?

Place one sheet at the home position and another on the printing platform before printing, which can be fixed with double-sided tape.

20. Why does the motor reverse or not rotate when connected to the E-axis adapter wire?

Creality Ender series printers do not need to be connected to the E-axis adapter wire. Otherwise, it will cause the motor to reverse or not rotate. Anycubic Mega series printers need to be connected. Otherwise, it will cause the motor to reverse or not rotate. For higher compatibility, we have two E-axis adapter wires. Please apply them according to the actual situation.

21. Is there anything that needs to pay attention to pre-extrusion?

- (1) Please change the value of E-steps to 750mm/s or read the “For LuckyBot.gcode” configuration file directly.
- (2) Please take the precision value of 0.1mm for pre-extrusion, and the amount of extrusion is 0.5~1mm each time.
- (3) Please observe whether the extruded chocolate is continuous and semi-fluid.

22. Is there anything need to pay attention to when starting printing?

- (1) Keep the printing speed at 100% when starting printing and adjust it according to the actual situation after printing the bottom layer.
- (2) Please observe whether the Z-axis needs to be lifted after printing the bottom layer. If the nozzle scrapes the base chocolate, increase the value of Babystep Z. If the distance between the nozzle and the base chocolate is too large, reduce the value of Babystep Z.

Operation reference of adjust the Babtstep Z:



23. What can cause LuckyBot to print without output?

- (1) Wrong preheating process
Preheating temperature for Pure Coca is 34°C, and 37°C for Cocoa Butter Replacer, keep heating for 20 minutes. And do not shorten the preheating time by raising the temperature. Please put the tube back into the refrigerator for about 30 minutes and follow the above steps again once the printing temperature is too high.
- (2) Unsuitable chocolate for printing
LuckyBot sets the upper heating temperature at 40°C for safety reasons, preventing chocolate melts with a melting point of more than 50°C and even 80°C. Please use our recommended chocolate brands but do not use the chocolate with particles.
- (3) Insufficiently melted chocolate
It is recommended that the chocolate be preheated for more than 30 minutes. Insufficient preheating time will result in inadequate melting of the chocolate, which will result in a poorly flowing or clogged.
- (4) There is air in the tube.
Please take out the tube, invert it to expel the air, and then restart printing.

(5) Parameter setting error

Inadequate extrusion amount will result in a low extrusion amount. Please set the value of E-steps to 750mm/s or read the “For LuckyBot.gcode” configuration file directly. (Other models need to be adjusted, except for ANYCUBIC)

(6) Abnormal connection between FDM 3D printer and LuckyBot

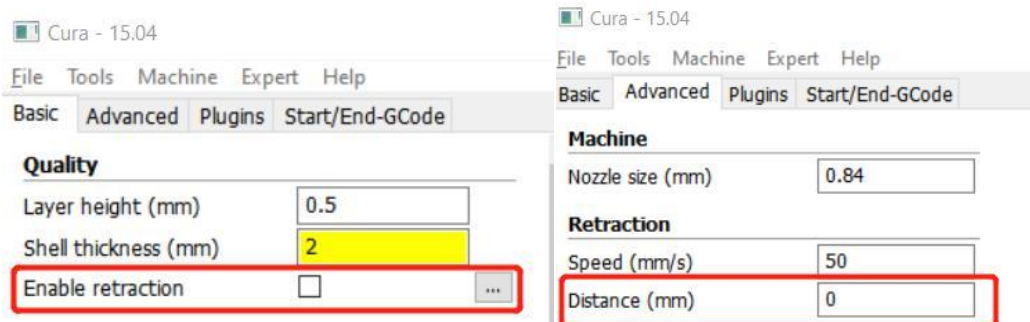
The pre-extrusion and printing need to be operated through the FDM operation panel to ensure the normal connection between the printer and LuckyBot.

(7) The tube, nozzle, or chocolate were stained with water.

Please make sure that any part should not be stained with water during the whole process.

(8) Wrong parameter settings when slicing.

Retaining the amount of ENABLE RETRACTION and DISTANCE will increase the gap between the plunger and the piston of the tube, which will cause the chocolate not to be extruded. Please set the parameters as the pictures show.



(9) The side door is incompletely closed.

It stops heating when the side door is not fully closed, which can cause the chocolate to fail to melt, thus affecting the extrusion.

(10) Temperature setting error

There are Sidewall and Bottom temperature control systems of LuckyBot. Please ensure that both temperatures are correctly adjusted when printing.

(11) Wrong operation

The up and down buttons only control the movement of the lead screw, not the extrusion of the chocolate. Please through the control panel of the original printer to operate the extrusion.

(12) E-axis adapter wire connection error

The chocolate may not be extruded, or the machine can't work if the E-axis adapter wire is connected. The plunger will block the motor, and a sudden rise in overload will cause the printer motherboard to burn out in severe cases.

Note: It does not need to be connected to the Creality Ender series printers, but the Anycubic Mega series printers. Please test yourself to see if other printers need to be wired.

24. What can cause unshaped printing or less extrusion?

High printing temperature will cause unshaped printing, which can be solved by reducing the Sidewall and Bottom temperature. And raise the Sidewall and Bottom temperature if the extrusion is too small. With 1°C as the adjusting accuracy, wait for two minutes to observe the printing effect. You can keep debugging until to get the best printing effect.

25. How to know the amount of ingredients left?

It is hard to know exactly the remaining chocolate when LuckyBot's side door is fully closed. You can observe the remaining chocolate by opening the side door or the length of the lead screw exposed.

26. How to remove the rubber plug when the chocolate runs out?

The tube is disposable, it is not recommended to reuse it after printing.

27. How to clean and maintain the LuckyBot after printing?

- (1) Remove the tube as soon as possible after printing and clean the inside of the base with a cotton swab.
- (2) Remove the nozzle and unclog it. Clean the inside and outside of LuckyBot with cotton cloths.

28. How to store the left chocolate after printing?

Please take out the tube and put it in the refrigerator (The recommended refrigeration temperature is about 6°C)

29. Completely prohibited behavior

- (1) Plunger blocking rotation after ascending in place.

Do not keep pressing the up button after the lead screw is ascending in place.

- (2) Plunger blocking rotation after descending in place.

Do not keep pressing the down button after the lead screw is descending in place.

- (3) Clamping blocking rotation between plunger and tube.

Press the down button to ensure complete contact between the plunger and the tube piston after installing the tube, but do not keep pressing the down button for a long time.

- (4) The tube is not tightened.

Please make sure that the tube is installed by screwing it in place.

- (5) Prohibit any abnormal operation that may damage the device.

30. Warnings

Please cut off the power immediately when the following phenomena occur:

- (1) The motor is blocked and makes a continuous noise.
- (2) The device is working abnormally.
- (3) Wires are abnormally hot.
- (4) The equipment (including wires) emits a burnt smell.