



SZ10-ZN/EN-A01

CREATOR PRO 金刚狼

用户使用手册

— User Guide —

EN P42

本手册仅适用于闪铸科技金刚狼3D打印机
This user guide is only applicable to FLASHFORGE Creator Pro 3D printer

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前言

注意：每台3D打印机在出厂前都经过打印测试，若设备喷头存在耗材残留或打印平台有轻微划痕，都属正常现象，不影响使用。

尊敬的闪铸用户：

感谢您选择、使用闪铸科技的产品。

闪铸科技的产品质量优质、性能上佳。为了您使用方便，请您在使用之前仔细阅读该说明书，并严格按照说明书的指示进行操作。整个闪铸科技团队时刻准备为您提供最优质的服务。在使用过程中无论遇到什么问题，请按照说明书结尾所提供的电话、邮箱与我们进行联系。

为了您能够更好地体验我们的产品，您还可以从以下途径获取设备的操作知识：

[1] 快速启动指南：请您小心拆箱，您可以从最上层的泡沫中取出附带的快速启动指南。Creator Pro金刚狼快速启动指南将帮助您以最快的速度熟悉设备并成功完成初次打印体验。

[2] 闪铸中文官网：您可以登陆闪铸官网 www.sz3dp.com 寻找相关软硬件、联系方式、设备操作、设备保养等信息。

简介

在使用本产品之前，请先阅读《闪铸Creator Pro桌面级3D打印机用户使用手册》

闪铸科技Creator pro [金刚狼] 3D打印机用户使用手册涵盖3D打印知识、软硬件操作、操作界面及设备维护等信息，旨在帮助闪铸用户能够更好地体验闪铸产品。

该用户使用手册包括三大板块，分别是**前言板块**、**说明板块**及**售后板块**。

前言板块：包括闪铸资源获取渠道、使用手册的整体构架以及用户在打印前、中、后应该注意的问题。

说明板块：包含对3D打印技术和设备的简介、设备的开箱与安装、软件的安装与使用等。

售后板块：包含用户如何获取闪铸团队的支持和帮助。

注意事项

安全提示：请确保认真阅读以下安全提示

工作环境安全

- ◆ 请保证打印机的工作台面干净整洁。
- ◆ 请保证打印机工作时远离可燃性气体、液体及灰尘。设备运行产生的高温有可能会与空气中的粉尘、液体、可燃性气体反应引发火灾。
- ◆ 儿童及未经培训的人员请勿单独操作设备。

用电操作安全

- ◆ 请务必将设备接地；切勿改装设备的插头。未接地 / 未正确接地 / 改装插头必然会增加漏电风险。
- ◆ 请勿将设备暴露在潮湿或烈日的环境中。潮湿的环境会增加漏电的风险 / 暴晒会加速塑料老化。
- ◆ 请勿滥用电源线，务必使用闪铸科技提供的电源线。
- ◆ 切勿在雷雨天气使用设备。
- ◆ 如长时间不使用设备，请关闭设备并拔下电源线插头。

个人操作安全

- ◆ 在设备运行时，请勿触碰喷头、平台等位置！
- ◆ 在打印完成时，请勿触碰喷头！
- ◆ 在操作设备时，请勿穿戴围巾、口罩、手套、珠宝装饰等容易卷入设备的物件！
- ◆ 请勿在饮酒、服药之后操作设备！

设备使用提示

- ◆ 切勿长时间离开正在运行的设备！
- ◆ 请勿自行对该设备进行任何改装！
- ◆ 请在设备进丝操作时，喷头和平台的距离至少保持50mm的距离。距离过近，有可能会造成喷头堵塞。
- ◆ 请在通风的环境下操作设备！
- ◆ 请勿利用该设备进行违法犯罪的活动！
- ◆ 请勿利用该设备制作食物储存类产品！
- ◆ 请勿利用该设备制作电器类产品！
- ◆ 请勿将打印模型放入口腔！
- ◆ 请勿用蛮力卸下打印模型！

设备运行环境要求

- ◆ 室内温度在15-30度为宜；湿度在20%-70%为宜

设备放置要求

- ◆ 设备需要放置于干燥通风的环境中。设备左侧、右侧以及后侧必须要留至少20cm的距离，前侧必需要留至少35cm的空间距离。

设备兼容耗材要求

- ◆ 在使用该设备时，请使用闪铸提供或指定的耗材。市场上耗材鱼龙混杂，质量良莠不齐。质量低劣或不兼容的耗材很容易造成喷头堵塞及喷头损坏。

耗材存储要求

- ◆ 除非需要使用耗材，否则请勿轻易将耗材拆封。拆封后请保持储存环境干燥，无尘。

法律申明

- ◆ 用户无权对此使用手册进行任何修改。
- ◆ 客户若自行拆装或改造设备造成任何安全事故，闪铸科技概不负责。未经闪铸科技允许，任何人不得对该手册进行修改或翻译。本手册受版权保护，闪铸科技对本手册保留最终解释权。
- ◆ 第二版（2017年7月）
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第一章：3D打印技术

3D打印机技术即将三维模型转化成实物的技术。

最常见的3D打印技术被称为FFF[Fused Filament Fabrication]，即熔丝制造技术。金刚狼3D打印机的应用技术即FFF。其工作方式是在打印平台上通过高温融化丝状耗材。耗材降温后固化，通过耗材逐层叠加形成立体的物品。

1.1 3D打印步骤

3D打印包括三个步骤，即获取模型、处理模型处理及打印模型。

1.1.1 获取模型

就目前的模型获取的方式而言，大体有以下3种模型获取方式：

3D建模：您可以使用市场上的3D建模软件来自设计3D模型，较为常见的3D建模软件有 AutoCAD、SolidWorks、Pro-E、Sketchup、Rhino、UG 等。该建模方式适用于专业设计工程师，或者是对使用建模软件有一定基础的用户。

Happy 3D和3D TADA 是两款非专业建模软件适用于初学者使用，可在闪铸官网下载。

扫描3D模型：扫描物体是3D建模的一个替代方法。3D扫描仪通过把物品数字化，收集它的几何数据，然后保存为文件储存在电脑当中。在移动设备上安装相应的app也可以实现3D扫描。

下载3D模型：目前获得 3D 模型最流行也最简便的方式就是从网站上下载，网站允许注册用户上传他们自己设计的3D模型。例如www.thingiverse.com。

1.1.2 处理模型

用户通过特定的切片软件对3D模型进行处理。将模型文件翻译成3D打印机可以读取的G代码（即Gcode）。FlashPrint是闪铸科技针对闪铸不同系列的产品自主研发的切片软件。FlashPrint通过把3D模型分割成许多层并以.g或.gx格式输出，这两种文件格式可以被Creator Pro读取。文件可以通过SD卡传输到Creator Pro中进行打印。

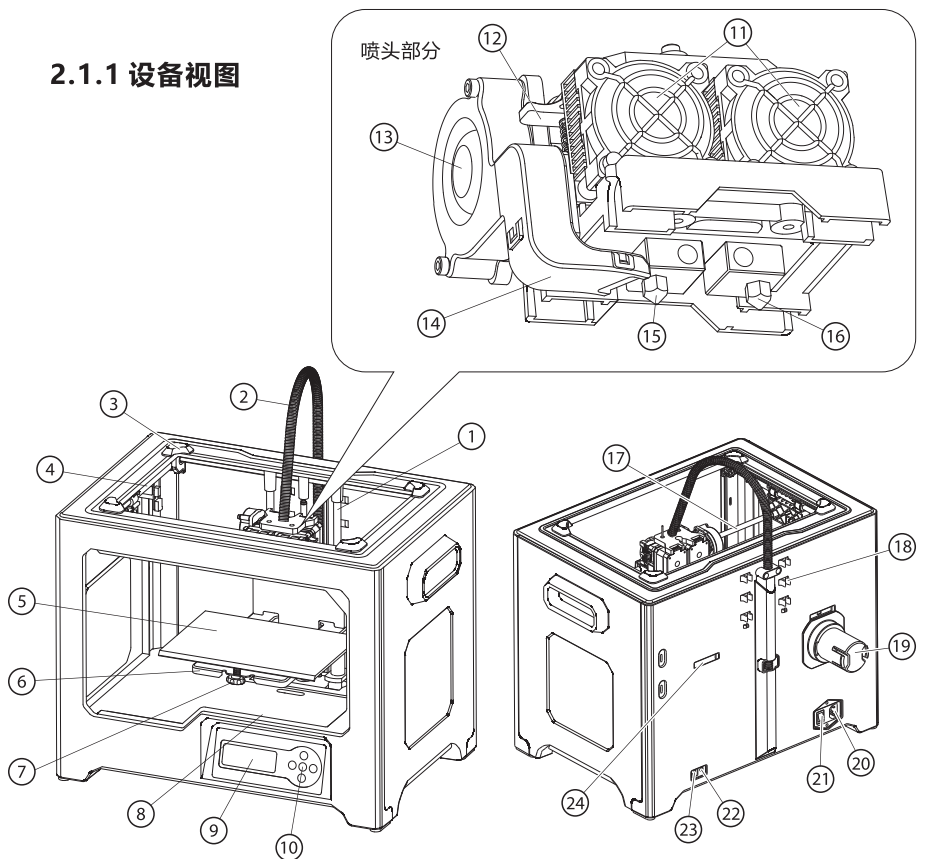
1.1.3 打印模型

将切片处理的模型导入打印机，完成进丝、调平等操作并等待设备预热完成后，设备就会开始逐层排列耗材以进行3D模型的实体转化。

第二章：设备简介

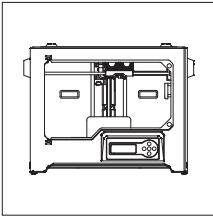
2.1 设备简介

2.1.1 设备视图

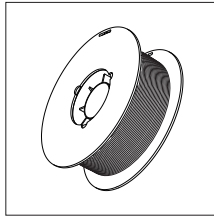


- | | | | | |
|------------|----------|--------------|-----------|-----------|
| 1. Z轴导轨 | 2. 喷头线束 | 3. 顶罩卡槽(四个角) | 4. Y轴导轨 | 5. 打印平台 |
| 6. 平台支架 | 7. 调平螺母 | 8. SD卡插槽 | 9. 液晶屏 | 10. 按键 |
| 11. 喷头散热风扇 | 12. 进丝压板 | 13. 涡轮风扇 | 14. 导风嘴 | 15. 左喷头喷嘴 |
| 16. 右喷头喷嘴 | 17. X轴导轨 | 18. 导丝管卡扣 | 19. 耗材丝盘轴 | 20. 电源线接口 |
| 21. 电源开关 | 22. 复位键 | 23. USB线接口 | 24. 丝盘轴插口 | |

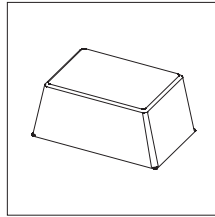
2.1.2 设备配件



3D打印机



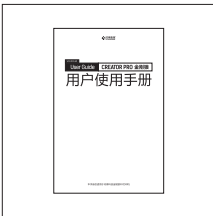
3D打印耗材 x 2



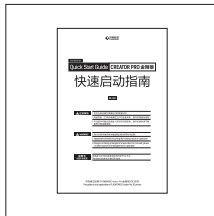
顶罩



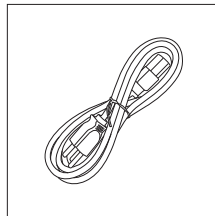
售后服务卡



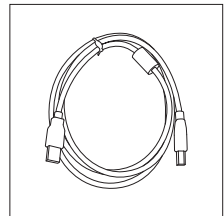
用户使用手册



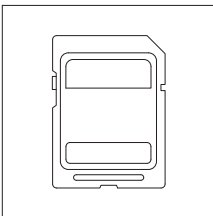
快速启动指南



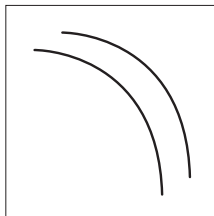
电源线



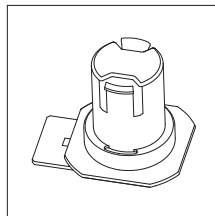
USB线



SD卡



导丝管 x 2



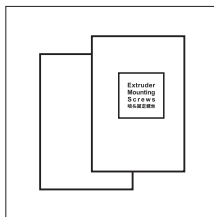
丝盘轴 x 2



平台贴纸 x 2



调平卡片



喷头安装包 / 工具包

工具包内含：

M3 X8规格螺丝两颗 / 2根聚四氟管
1枚手旋螺母 / 2把内六角扳手 / 润滑脂

喷头安装包内含：

M3 X8规格螺丝两颗 / M3 X 6规格螺丝一颗
导风嘴部件

2.1.3 产品术语

打印平台	用于构建实体模型的部分。
平台贴纸	闪铸打印贴纸能够粘贴在打印平台上，目的是能够让打印模型更好地粘贴在打印平台上。当平台贴纸开始影响打印效果时，请及时更换。
打印体积	打印体积是指构建模型的长*宽*高。Creator Pro的最大打印体积为227 x 148 x 150 mm。用户不能直接构建超过该参数的模型，但可以预先进行切割处理。
调平螺母	平台支架下的三颗塑料调平螺母用于调节打印平台和喷嘴的间距。
喷头	内含齿轮传送结构，将耗材从进丝孔导入、加热，再从喷嘴挤出。
喷嘴	构成喷头的最下部的黄铜色金属结构，经过喷头加热的耗材从此挤出。
喷头风扇	喷头风扇用于降低散热器的温度及加速耗材的凝固。
进丝孔	耗材进入喷头的入口，位于喷头顶部。
导丝管	将耗材从丝盘盒引入喷头的黑色塑料细管。
冲压扳手	用于拆卸喷嘴时卡住喉管。
通针	用于疏通喷头，清理喷头中残留的耗材。

2.1.4 产品参数表

打印机名称：Creator Pro 金刚狼	软件名称：FlashPrint / simplify3D / ReplicatorG / Makerware
喷头数量：2个	
技术基础：丝熔制造（FFF）	支持格式：输入3MF/STL/OBJ/FPP/ PNG/JPG/JPEG等文件； 输出：X3G文件
打印尺寸：227 x 148 x 150mm	
层厚：0.1 - 0.2mm	
打印精度：±0.2mm	操作系统：Win xp/Vista/7/8/10、 Mac OS、Linux
定位精度：Z轴0.0025mm； X,Y轴0.011mm	设备尺寸：526 x 360 x 403(505)mm
耗材直径：1.75mm(±0.07mm)	净重：14.8kg
喷嘴口径：0.4mm	电压：100-240V~/4.5A-2.5A
打印速度：10-200mm/s	数据传输：USB / SD卡

第三章：开箱指导

可参考开箱视频：闪铸科技Creator Pro开箱指导。

闪铸对Creator Pro进行了仔细的包装，请您按照以下的开箱步骤拆除包装箱。

⚠ 注意事项

- 1.请小心拆除包装，拿出配件，切勿使用蛮力。
- 2.请勿撕毁围绕在喷嘴周围的黄色耐高温胶带，它具有保温及耐高温特性。



1. 打开纸箱取出顶部泡沫。



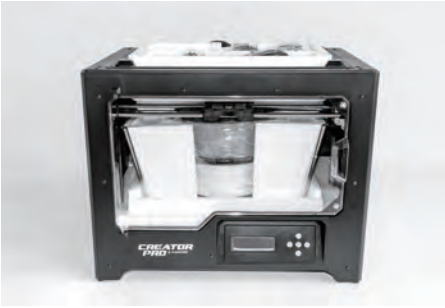
2. 在顶部泡沫中包含有两根导线管、两张平台贴纸、一张调平卡片、一本快速启动指南和一本用户使用手册。



3. 抓住机身两侧的手柄，将打印机从纸箱中提出。



4. 撕除胶带，去除塑料袋。随后撕去固定前门的胶带及包裹前门的薄膜。



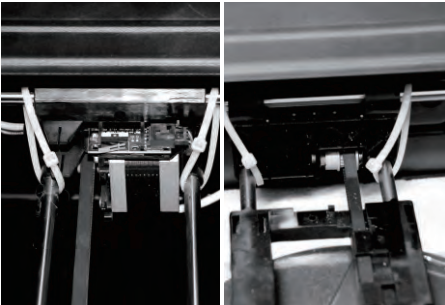
5. 移除塑料袋后您可以看到打印机内部的包装以及配件，我们自上至下逐一解除包装，拿出配件。



6. 首先将喷头从泡沫中取出，放置在台面上。喷头的线束较短，在摆放喷头时请注意喷嘴不能接触台面，避免划伤喷嘴影响打印精度。



7. 取出装有配件的泡沫盒，其中包含一根电源线、一根USB数据线、两个丝盘轴、喷头安装包、工具包、一张SD卡和一包润滑脂。



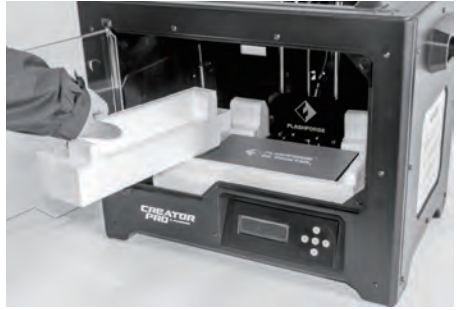
8. 剪断X轴两侧的扎带。



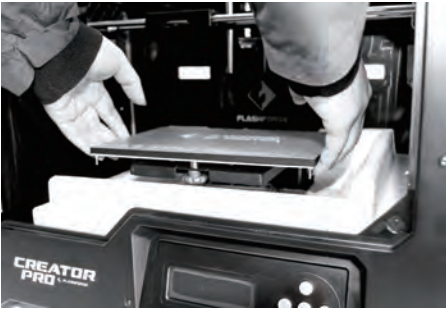
9. 将X轴导轨向后滑动到靠近打印机背部的位置。



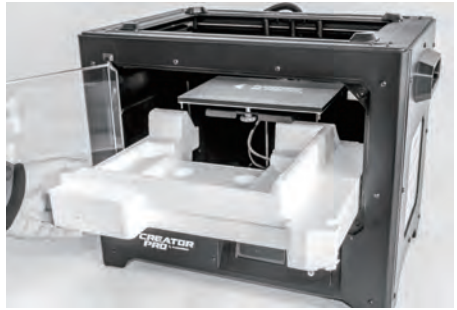
10. 取出顶罩和耗材。



11. 取出底部左侧的泡沫。



12. 托住打印平台两侧，缓慢将平台从底部抬起，便于取出下方的泡沫盒。



13. 取出平台底部的泡沫，然后缓慢将打印平台向下压回较低的位置，便于后续安装。



14. 现在您已经完成了打印机的拆箱工作，我们建议您保留这些包装材料，以便于以后的搬运或保存。

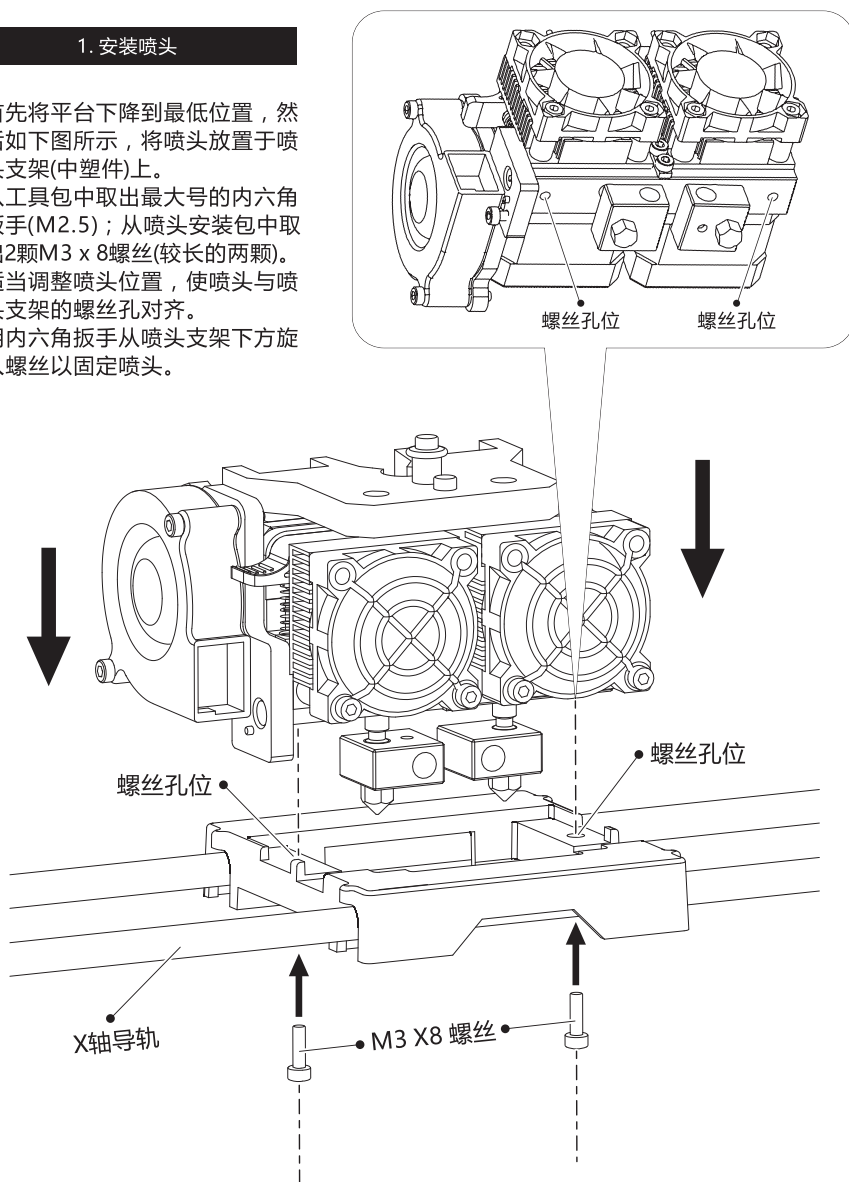
附：亚克力罩拆装视频请扫码进入
闪铸科技优酷频道观看。

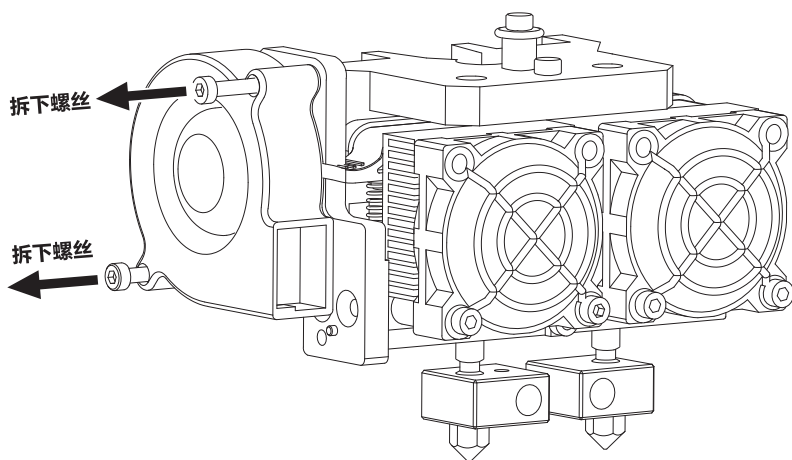


第四章：硬件安装

1. 安装喷头

1. 首先将平台下降到最低位置，然后如下图所示，将喷头放置于喷头支架(中塑件)上。
2. 从工具包中取出最大号的内六角扳手(M2.5)；从喷头安装包中取出2颗M3 x 8螺丝(较长的两颗)。
3. 适当调整喷头位置，使喷头与喷头支架的螺丝孔对齐。
4. 用内六角扳手从喷头支架下方旋入螺丝以固定喷头。

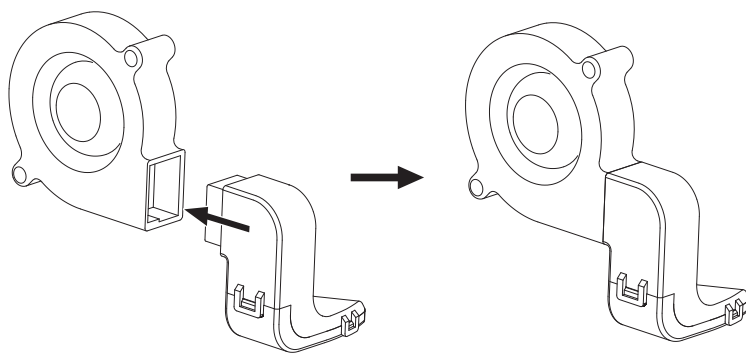




2. 安装导风嘴

注意：连接涡轮风扇的电线较短，拆卸及安装导风嘴时请注意。

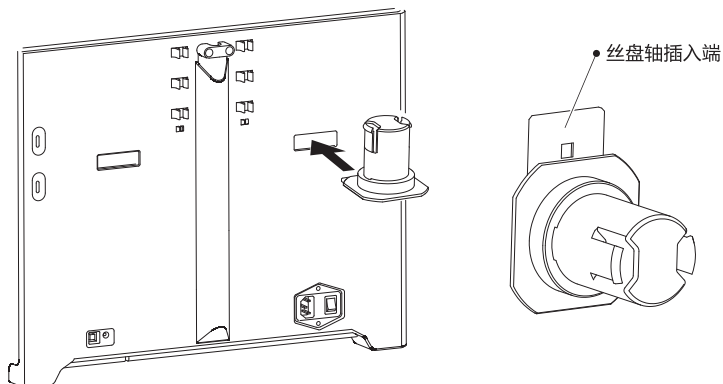
1. 如上图所示，拆下固定涡轮风扇的两颗螺丝。
2. 从喷头安装包中取出导风嘴部件。如下图所示，将导风嘴部件装入涡轮风扇。



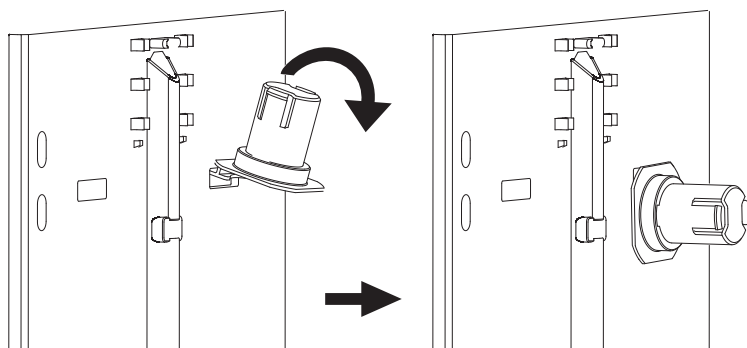
安装导风嘴

完整的涡轮风扇

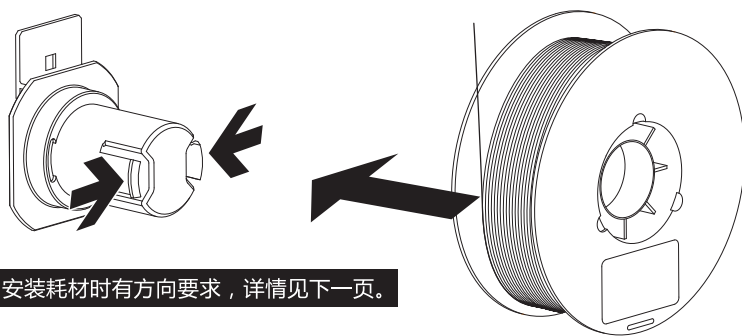
3. 安装耗材和导丝管



1. 将丝盘轴插入端插入打印机背部的丝盘轴插口中。



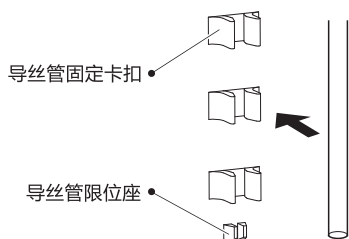
2. 将丝盘轴向下翻转，最终使得丝盘轴贴住打印机背板。



3. 取出耗材，轻按丝盘轴顶端两侧，然后将耗材装入丝盘轴。

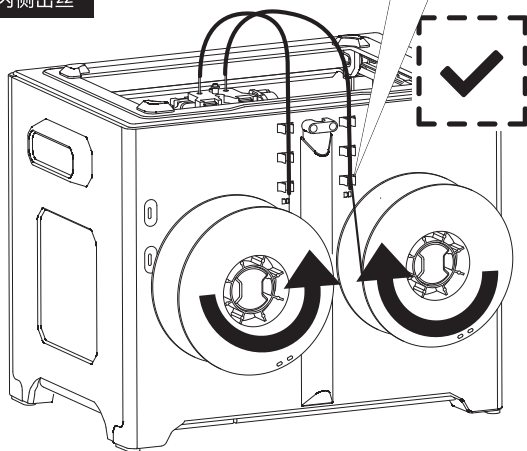
耗材安装提示

- 安装耗材时请注意耗材丝盘的安装方向。如下图所示，请保证耗材从内侧出丝。
- 耗材及导丝管安装完毕后，将耗材穿过导丝管导入左喷头进丝孔中。当您准备将耗材插入喷头前，请按下喷头一侧的进丝压板。
- PLA耗材建议用左喷头打印，ABS耗材建议用右喷头打印。

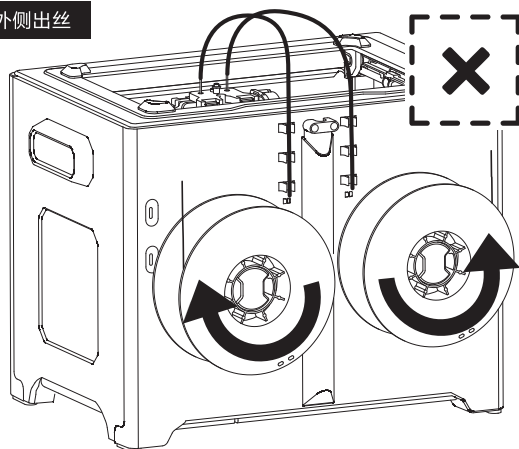


- (4) 将导丝管卡入机身背部的导丝管固定卡扣中。导丝管下端不应超过限位卡座。

安装正确：内侧出丝

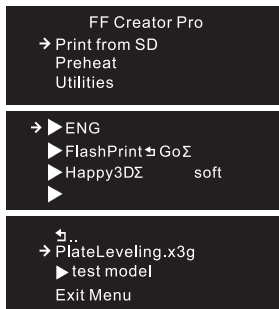
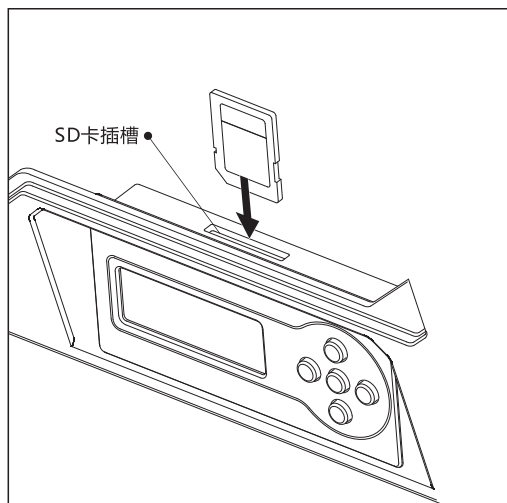


安装错误：外侧出丝



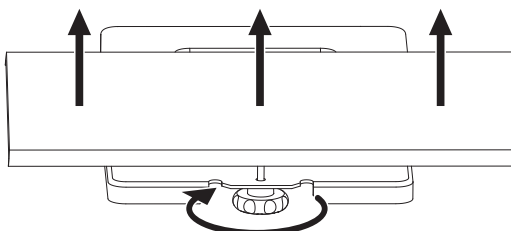
第五章：调节平台

打印平台是否正确调平直接影响着打印质量的优劣。当打印出来的物体不理想时，第一步就是检查并复核以保证打印平台被调平。一般的经验就是留出一片纸的厚度的间隙。然而，要打印高精度的物体（150微米及以下），务必用塞尺来调整平台，因为高精度打印需要喷嘴和平台之间拥有更小的间隙。



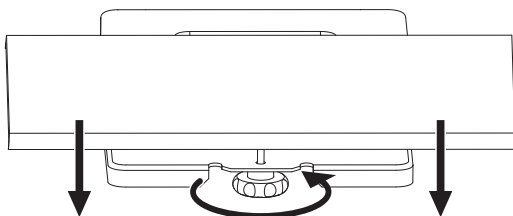
1. 插上电源线，打开电源开关。将SD卡插入SD卡插槽。
2. 将SD卡插入SD卡插槽中，选中 [Print from SD]按[OK]键，然后选择 [ENG]按[Ok]键，可以看见调平文件 [PlateLeveling.x3g]。

如何通过调平螺母调节打印平台



顺时针旋转螺母

打印平台上升，喷嘴与平台之间间距变小

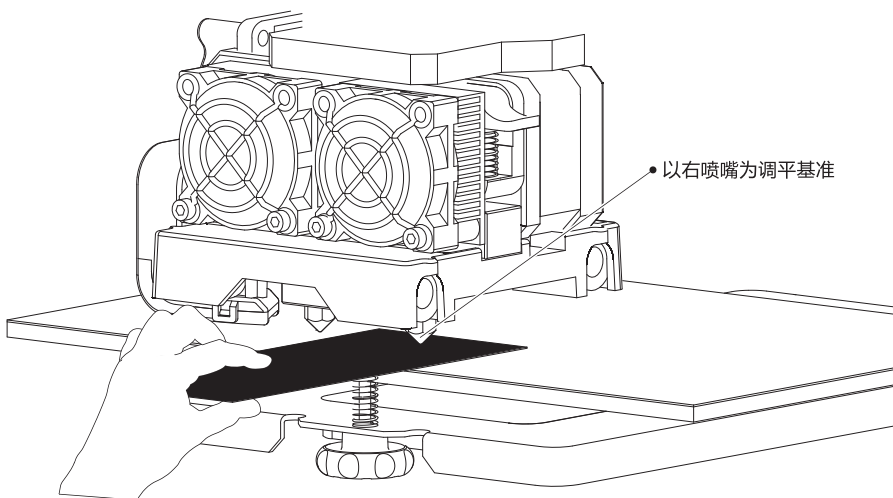


逆时针旋转螺母

打印平台下降，喷嘴与平台之间间距变大

调节打印平台与喷嘴的间距

- (1) 拧紧平台支架下方的3颗调平螺母直到拧不动。
- (2) 在液晶屏上选择[PlateLeveling.x3g]文件，按[Ok]键开始运行调平程序，按[Ok]键阅读调平提示并翻页，直到喷头开始运动并停止在平台前端的调平螺母的上方。
- (3) 取出调平卡片，以右喷嘴为调平基准，将调平卡片放入右喷嘴和打印平台之间，来回滑动调平卡片。若卡片可以轻松抽动则表示喷嘴和平台的距离过大，我们需要顺时针旋转对应位置的调平螺母以缩小平台和喷头的距离。若卡片很难抽动则表示喷嘴和平台的距离过小，我们需要逆时针旋转对应位置的调平螺母以增大平台和喷头的距离。在滑动卡片时感觉到轻微的摩擦即可停止调节，此时的间距已经适合打印。
- (4) 第一个点调节完成后，按[OK]键进行下一步，喷头会移动到第二个螺母上方并停止。采用同样的方法对该点进行调节。
- (5) 以此类推，当4个调平点都完成以后(3个螺母上方+平台正中央)，平台调节完成。按左箭头返回，退回主界面。



第六章：关于软件

本章为FlashPrint软件基础功能介绍，如需进一步了解FlashPrint软件的高级功能，请登陆闪铸官网www.sz3dp.com获取相关功能介绍。

6.1 软件安装

6.1.1 软件获取

您可以选择以下2种方式获取FlashPrint软件安装包：

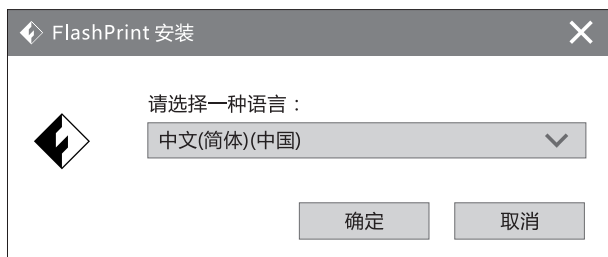
方式1： 将工具包中的SD卡插入电脑，找到相应的软件安装包。

方式2： 打开浏览器输入www.sz3dp.com进入闪铸中文官网，进入首页后将鼠标悬停在技术支持选项上并在下拉菜单中点击下载中心，直接点击Flashprint图标，选择您需要的软件版本点击Download进行下载

6.1.2 软件安装启动

将压缩包解压后启动安装程序，然后按照提示完成安装。

1.双击启动FlashPrint应用程序，选择相应的语言后点击**[确定]**。



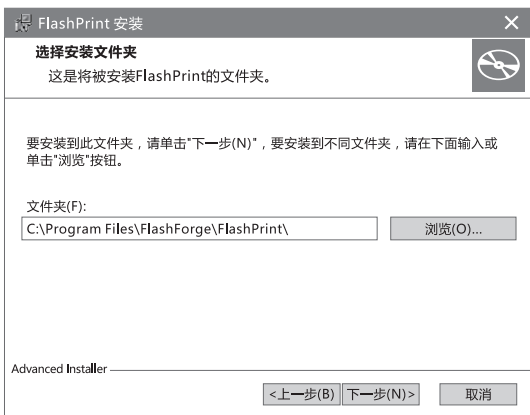
2.点击**[下一步]**。



3.选择接受协议条款，点击[下一步]。



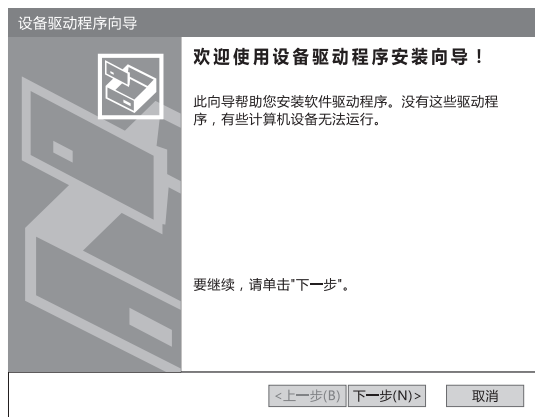
4.选择安装路径（建议使用默认安装路径），点击[下一步]。



5.点击[安装]。



6. 点击[下一步]。



7. 点击[完成]。



8. 使用桌面图标或开始菜单中的快捷方式启动软件。



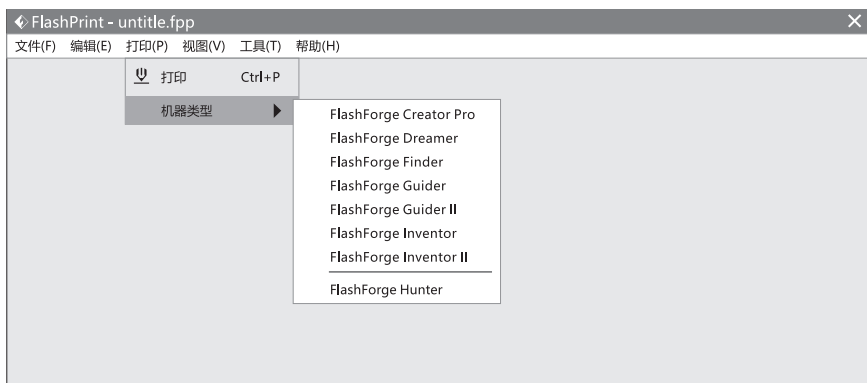
6.2 软件介绍

注：FlashPrint软件不支持通过USB数据线连接Creator Pro打印。

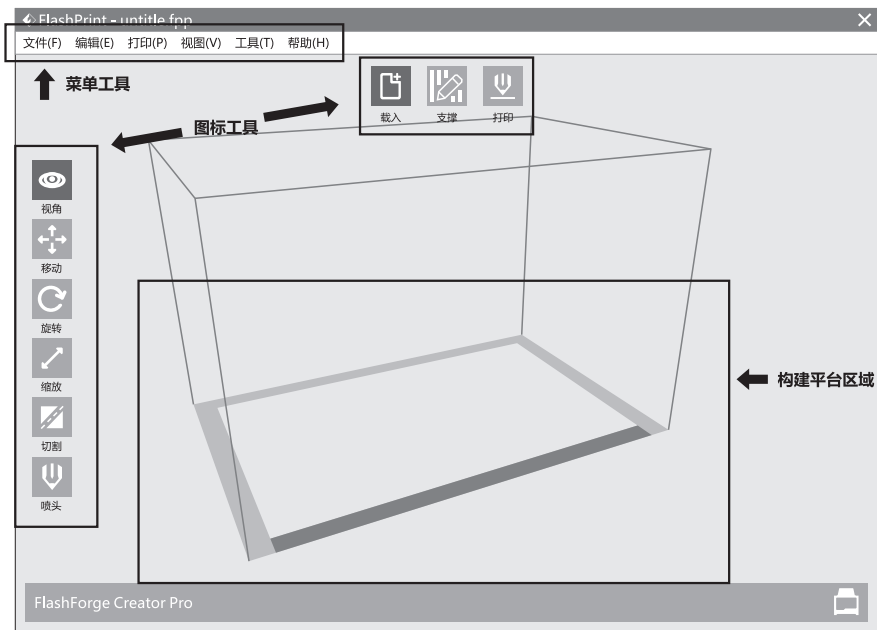
6.2.1 机型选择

注意：启动FlashPrint软件之后，请先选择相应的机型，以便输出正确的打印文件供相应3D打印机进行打印。

首次打开FlashPrint软件，自动跳出选择机型对话框。选择Flashforge Creator Pro并点击[确定]完成机型选择。后续若需更换机型，点击软件菜单栏中的[打印] - [机器类型]，选择相应的机型即可。如下图所示：



6.2.2 认识软件





载入：
导入文件，单次只能导入一个文件



支撑：
进入支撑编辑模式



打印：
用软件控制打印，或导出文件到U盘



视角：
从不同角度观察模型文件



移动：移动模型文件；改变XYZ轴参数，改变模型文件位置；XY轴上移动模型，Shift+鼠标点击在Z轴上移动



旋转：
旋转模型文件



缩放：
缩放模型文件



切割：
将模型切割成若干部分



喷头：
选择使用左喷头打印或者右喷头打印

6.2.3 载入



您可以通过以下6种方式载入模型文件或已切片生成的Gcode文件。

方式1：点击软件主界面中的**[载入]**图标 弹出对话框后选择要载入的模型文件；

方式2：将要载入的文件拖曳至软件主界面；

方式3：点击菜单栏中的**[文件]-[载入文件]**，弹出对话框后选择要载入的文件；

方式4：点击菜单栏中的**[文件]-[示例]**，可以载入列表中自带的文件；

方式5：点击菜单栏中的**[文件]-[最近打开的文件]**，可以载入文件列表中最近一段时间内打开的文件；

方式6：将要载入的文件拖曳至桌面快捷方式的软件图标上。

提示：模型文件目前支持可在软件中编辑的STL、OBJ、FPP、3MF以及JPG等格式文件(载入JPG等图片格式可打印浮雕效果的模型)。

延伸：载入生成浮雕

载入png、jpg、jpeg、bmp格式文件，首先弹出浮雕参数设置页面，即“转换图片为stl”窗口。参数中包含形状、模式、最大厚度、基底厚度、封底厚度、宽度、深度、顶部直径和底部直径。

形状：包含平面、圆筒、笔筒、灯罩、印章。

模式：分为深色的部分更高和浅色的部分更高模式。

最大厚度：转换成stl模型对应的Z值。

基底厚度：生成的stl模型底部的最低厚度，默认值为0.5mm。

宽度：转换成stl模型对应的X值。

深度：转换成stl模型对应的Y值。

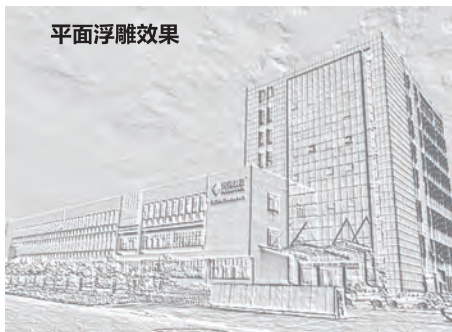
封底厚度：针对笔筒和灯罩封底的厚度。

顶部直径：应用于圆筒、笔筒、灯罩设置顶部的直径大小。

底部直径：应用于圆筒、笔筒、灯罩设置底部的直径大。



平面浮雕效果



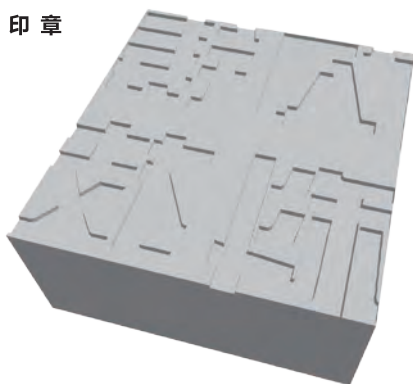
笔筒/圆筒



灯罩



印章



6.2.4 视图视角



1.更改场景视角

可以对场景视角进行更改，包括拖动场景、旋转场景、缩放场景等内容。

01).拖动场景

先单击左侧[视角]图标选中视角状态，再通过以下3种方式来拖动打印范围框体在屏幕中的位置：

- 方式1：长按鼠标左键并拖动鼠标；
- 方式2：按住鼠标中键不放，并滑动鼠标滚轮；
- 方式3：按住Shift键，再长按鼠标右键并拖动鼠标。

02).旋转场景

先单击左侧[视角]图标选中视角状态，再通过以下2种方式对场景视角进行旋转：

- 方式1：长按鼠标右键并拖动鼠标；
- 方式2：按住Shift键，再长按鼠标左键并拖动鼠标。

03).缩放场景

在任何操作状态下，都可以通过上下滚动鼠标滑轮来改变您观察模型的距离。

2.设置场景视角

通过以下方式可以分别从俯视、仰视、前视、后视、左视、右视六个方向观察模型：

方式1：点击软件菜单栏[视图]，可以选择从六个方向观察模型；

方式2：单击软件左侧[视角]图标选中视角状态，然后再次点击该图标，将弹出视角选择框，可以选择六个方向的视图。

3.重置场景视角

通过以下2种方式，可以重置场景视角：

方式1：点击菜单栏[视图]，选择[默认视图]选项；

方式2：单击选中左侧[视角]图标，然后再次点击该图标将弹出视角选择框，选择[重置]选项。

4.显示模型边框

点击菜单栏中的[视图] - [显示模型边框]选项后，场景内的模型会呈现出模型边框，且边框颜色为黄色。

5.显示陡峭表面

点击菜单栏中的[视图] - [显示陡峭表面]选项后，如果模型表面的水平夹角在陡峭判断阈值范围内，那么这部分的面属于陡峭表面且颜色变为纯红色。**其中陡峭判断阈值可以根据需要进行设置，默认值为45度。**

6.2.5 移动



鼠标左键单击需要移动模型后，通过以下2种移动方式可以调节模型的空间位置：

方式1：单击选中软件左侧的[移动]图标，长按鼠标左键并移动鼠标，可以在XY平面内移动该模型；按住Shift键不放，同时长按鼠标左键并移动鼠标，则可以使该模型在Z方向上移动。

方式2：单击选中左侧的[移动]图标，然后再次点击该图标，将弹出设置位置框，可以调节或设置模型的位置，或者重置模型位置。

提示：一般情况下，在模型位置调整完毕后需要选择移动图标内的[居中]和[放到底板上]选项来确保模型位于打印范围内并紧贴于打印平台。如需要特别摆放的模型，则可只选择放到底板上选项。

6.2.6 旋转



鼠标左键单击需要旋转的模型后，通过以下2种旋转方式可以调节模型的摆放姿态：

方式1：单击选中左侧的[旋转]图标，会看到相互垂直的三个圆环，分别为红色X轴圆环、绿色Y轴圆环及蓝色Z轴圆环。点击选中圆环后可以绕当前的旋转轴进行旋转。其中，转过的角度和转动方向将以夹角形式显示在圆心位置。

方式2：单击选中软件左侧的[旋转]图标，然后再次点击该图标，将弹出设置旋转框，可以调节或设置模型的转动角度，或者重置模型姿态。

6.2.7 缩放

鼠标左键选择需要缩放的模型后，通过以下缩放方式可以调节模型的大小。

方式1：选中软件左侧的[缩放]图标后，长按鼠标左键并拖动鼠标来改变模型大小。模型文件当前的长宽高数值将显示在对应三条边框上。

方式2：选中软件左侧的[缩放]图标后，然后再次点击该按钮，将弹出设置模型的尺寸框，可以设置模型的尺寸，或者改变各个方向上的比例以进行缩放。

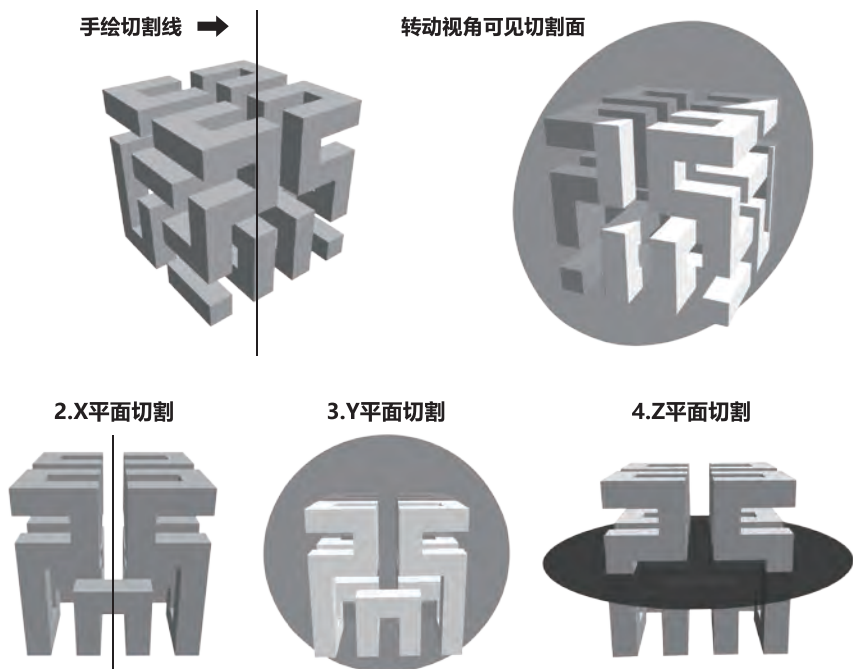
提示：如果下方的[保持比例]选项为勾选状态，那么改变任意轴的尺寸，模型会等比例缩放；如果[保持比例]选项为不勾选状态，轴的改变将在单一方向上进行。

6.2.8 切割

鼠标左键选择需要被切割的模型，点击切割模型图标进入切割指令，再次点击切割模型图标跳出切割设置界面，有切割方向和切割位置两个选项。在切割方向中可以选择手绘切割也可以选择按照X/Y/Z轴进行切割。在切割位置中可以输入数值，可以准确定位到指定的位置进行切割。

1.手动切割

根据用户的要求绘制切割线，系统会自动生成切割面。旋转视角，就可以看到切割面了。



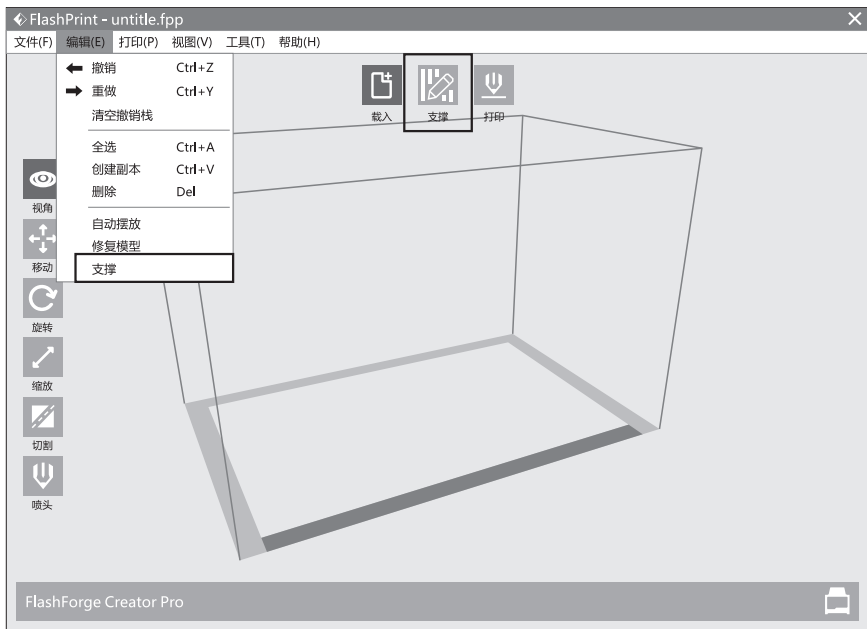
6.2.9 喷头

选择使用左 / 右喷头进行打印，先选中软件上的模型然后单击**[喷头]**两次，出现设置喷头选项，即可选择左或者右喷头进行打印。



6.2.10 支撑

导入模型后，点击菜单栏中的**[编辑] - [支撑]**或直接点击主页面的**[支撑]**图标，可以进入支撑编辑模式。支撑编辑完成后点击上方**[返回]**图标退出支撑编辑模式。



1. 支撑选项

点击[支撑选项]图标弹出支撑选项框，包括树状和线形。当选择树状，点击[确定]按钮，生成的支撑显示为树状结构；当选择线形，点击[确定]按钮，生成的支撑显示为线形结构。在生成支撑前，用户还可以对支撑进行参数的编辑。树状支撑包括陡峭阈值角度、支柱直径、基底直径和基底高度。线状支撑包括陡峭阈值角度和桩柱尺寸。

如果模型已经带有支撑，选择其中一种支撑时软件会根据已有支撑的支撑类型判断是否要先将这些支撑删除。



支撑选项

支撑类型： 树状 线状

陡峭阈值角度：

桩柱尺寸：

确定 取消 恢复默认

线状支撑



支撑选项

支撑类型： 树状 线状

陡峭阈值角度：

支柱直径：


基底直径：

基底高度：


确定 取消 恢复默认

树状支撑


2. 自动支撑

点击软件上方的[自动支撑]图标  后，软件会自动判断模型需要支撑的位置并生成相应的树状或线形支撑。如果模型已经带有支撑，软件会先将这些支撑删除然后再生成支撑。

3. 添加支撑

当软件左侧的[添加图标]  被选中时，可以进行添加支撑操作。将鼠标移动到模型需要添加支撑的位置，点击鼠标左键，选取支撑起点；树状支撑添加时，按住鼠标左键不放，拖动鼠标会显示支撑预览。（若支撑面不需支撑、支撑立柱角度过大或者所加支撑超过未到达支撑面，会红色高亮预览该支撑，若支撑显示绿色，则该支撑可添加）。

4.删除支撑

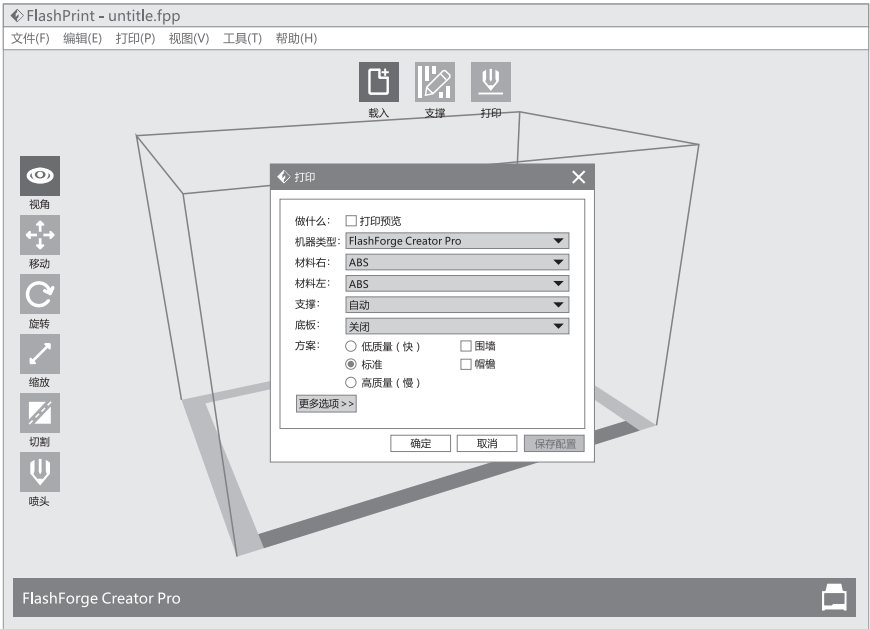
当软件左侧的[删除]图标  被选中时，可进行删除支撑操作。将鼠标移动到要删除的支撑上，当前支撑及其子节点支撑会被高亮显示，单击鼠标左键删除这些高亮的支撑。

5.清空支撑

点击软件上方的[清空支撑]图标  后，场景中所有的支撑将被删除。点击菜单栏中[编辑] - [撤销]。

6.2.11 打印

导入模型后，点击菜单栏中的[编辑] - [支撑]或直接点击主页面的[支撑]图标，可以进入支撑编辑模式。支撑编辑完成后点击上方的[返回]图标退出支撑编辑模式。



1. 打印预览：选择是否进入预览界面。若勾选此项，完成切片后，自动进入打印预览界面。在软件左侧，可以看到模型层数的滑动条，通过上下滑动可以控制模型的显示层数。在软件右上角可看到模型的打印时间和耗材用料的估算，点击[打印]按钮，开始连接打印机；点击[返回]按钮，则返回到软件主界面。

2. 材料类型：ABS/PLA/HIPS可溶耗材/导电PLA/柔性耗材。

3. 支撑：当需要打印悬空的模型时，就需要支撑来达到打印效果。点击支撑下拉按钮并选择开启。

4. 底板：设置是否打印底板，打印底板可以使模型更好地贴合在打印平台上。

-
5. **围墙**：设置是否打印围墙。在打印双喷头模型时，另一个非工作状态的喷头仍会有少量挤出耗材，勾选此选项，可以起到清理耗材的作用。
-
6. **帽檐**：额外在模型底部周围打印出一圈薄底板，将模型底部的外延固定到打印平台上，避免打印过程中翻到。
-
7. **方案**：有四种方案（低质量/标准/高质量/超精细），不同的方案已经设置好了各种不同的参数，高质量方案的成型效果更好但速度更慢；低质量的方案则刚好相反。
-
8. **更多选项**：点击此按钮弹出参数菜单，可以对**层高**、**填充**、**速度**、**温度**等参数进行设置。不同的方案对这些参数有不同的默认值。点击[恢复默认]按钮，各参数恢复默认值。

更多选项 >>

层高	外壳	填充	速度	温度	其他
层高：				0.19mm	
第一层层高：				0.27mm	

恢复默认

层高 层高：是打印中每一层模型的厚度。数值越小，模型文件表面更细腻。

第一层层高：它是模型文件第一层的层厚，这将影响到模型与打印平台的粘合度。最大厚度为 0.4 毫米。一般情况下，建议用户使用默认(layer thickness)的层厚参数即可。

外壳 外周壳数量：控制每层模型外壳部分的打印圈数，最大数量为10。

封顶层数：控制模型封顶的层数，最大层数为30，最小为1。

封底层数：控制模型封底的层数，最大层数为30，最小为1。

填充 填充密度：等同与填充率，表示模型的实心程度。

填充形状：模型内部填充部分的形状。不同的填充形状可能影响打印时间。

合并填充：根据层高的设置，可选择合并填充层数，合并填充高度不超过 0.4。每N层是包括所有的填充；每N层稀疏填充是只针对与稀疏填充的层。对于大多数模型缩短了打印时长。

速度

打印速度：打印中喷头的移动速度。较慢的速度会获得相对更高的精度，也会获得相对细腻模型表面。

空走速度：控制打印过程中喷头不出丝时的移动速度。

温度

右喷头：设置右喷头温度。

平台温度：设置打印平台温度。

其他

冷却风扇控制：设置冷却风扇的运行方式。

6.2.12 文件菜单

1. 项目新建

点击菜单栏中的**[文件] - [新建项目]**或使用快捷键**Ctrl+N**，可以新建一个空白的项目。如果原先的项目有未保存的改动，那么会提示是否需要保存更改。点击**[是]**，则会保存更改的内容。如果点击**[否]**，则放弃保存更改的内容。如果点击**[取消]**或者关闭该提示框，则会取消新建项目。

2. 文件保存

完成模型的编辑调整之后，通过以下两种方式可以将场景中所有的模型进行保存。

方式1：点击菜单栏中的**[文件] - [保存项目]**或者使用快捷键**Ctrl+S**，可以将文件保存为后缀**.fpp**的工程文件。在这个类型的文件中，场景中所有的模型(包括支撑)之间是独立的。重新载入文件后，喷头配置信息以及模型位置与保存时的配置一致。

方式2：点击菜单栏中的**[文件] - [另存为]**，可以将场景保存成工程文件**.fpp**或者后缀名为**.stl**或**.obj**的文件。在后缀名为**.stl**或**.obj**的文件中，场景中所有的模型(包括支撑)之间是不独立的，而是合并成一个新的模型，模型和支撑之间不能单独编辑。

3. 偏好设置

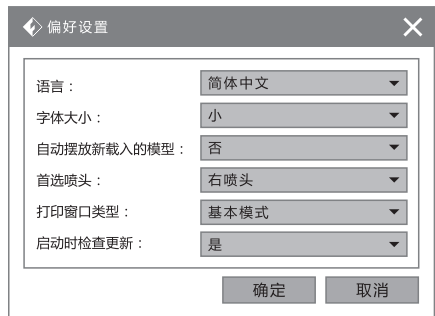
点击菜单栏中的**[文件] - [偏好设置]**，可以设置以下几项功能：界面语言、字体大小以及启动时是否检查更新。

打印窗口类型

分基本模式和专家模式两种。在专家模式下会有更多可设置选项。

启动时检查更新

用来设置是否启动在线自动更新功能，如果选择是选项，则每次启动软件时，能自动在线检测是否有新版的软件版本。一旦发现新版本则提示用户下载和安装更新版本。



6.2.13 编辑菜单

1.撤销

通过以下2种方式，可以撤销对模型的上一次编辑。

方式1：点击菜单栏中的[编辑] - [撤销]。

方式2：使用快捷键**Ctrl+Z**。

2.重做

通过以下2种方式，可以恢复对模型上一个的撤销编辑。

方式1：点击菜单栏中的[编辑] - [重做]。

方式2：使用快捷键**Ctrl+Y**。

注：此功能仅在用户已执行撤销动作后生效。

3.清空撤销栈

模型编辑的操作步骤将被记录在[清空撤销栈]中，清空撤销栈中被记录的操作步骤，将释放占用的内存。

4.全选

通过以下2种方式，可选中所有模型。

方式1：点击菜单栏中的[编辑] - [全选]。

方式2：使用快捷键**Ctrl+A**。

注：如果模型过小或不在视野范围内时，可选中场景内的所有模型，然后使用居中和缩放功能调整模型位置。

5.创建副本

选中模型后，可以通过以下2种方式来创建相应模型的副本。

方式1：点击菜单栏中的[编辑] - [创建副本]。

方式2：选中模型后，使用快捷键**Ctrl+V**。（若副本文件与源文件重合，请使用移动工具调整模型位置）

6.删除

选中模型后，可以通过以下2种方式来删除相应模型的副本。

方式1：点击菜单栏中的[编辑] - [删除]。

方式2：使用快捷键**Delete**。

7.自动摆放

导入一个或多个模型后，点击[编辑] - [自动摆放]，所有模型会根据自动摆放规则进行自动摆放模型的位置。

8.修复模型

修复模型存在的错误。

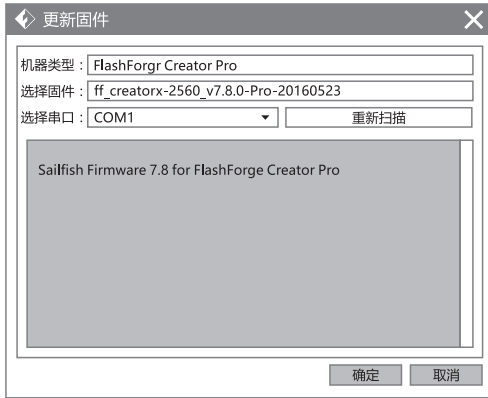
9.支撑

见 6.2.10 章节。

6.2.14 工具菜单

更新固件

在用USB线连接机器的前提下打开FlashPrint，点击**[工具]**菜单，选择相应的固件，点击**[确定]**，随后在弹出的对话框内选择**[是]**即可进行固件更新。



6.2.15 帮助菜单

1.首次使用向导

简单介绍软件的基本功能。

2.帮助文档

点击菜单栏中的**[帮助] - [帮助文档]**，能够在线查看帮助手册。

3.检查更新

点击菜单栏中的**[帮助] - [检查更新]**，能够在线检测是否有可更新的软件版本。如果检测到有可更新的软件版本，则用户可以下载并安装更新版本。

4.关于FlashPrint

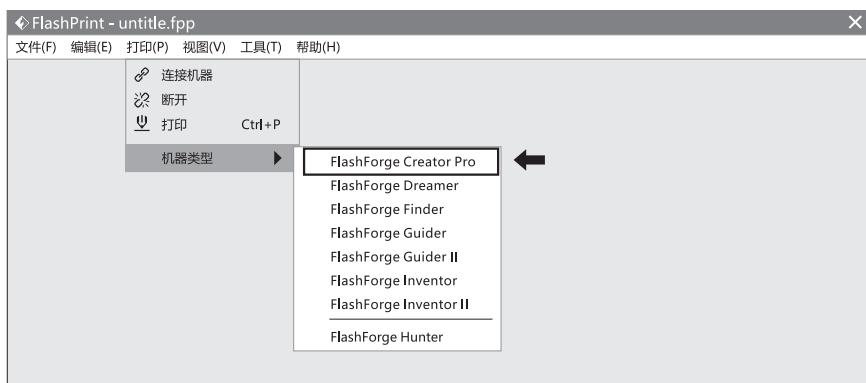
点击菜单栏中的**[帮助] - [关于FlashPrint]**，会显示该软件的信息，内容包括当的软件版本和版权等信息。

第七章：入门级打印

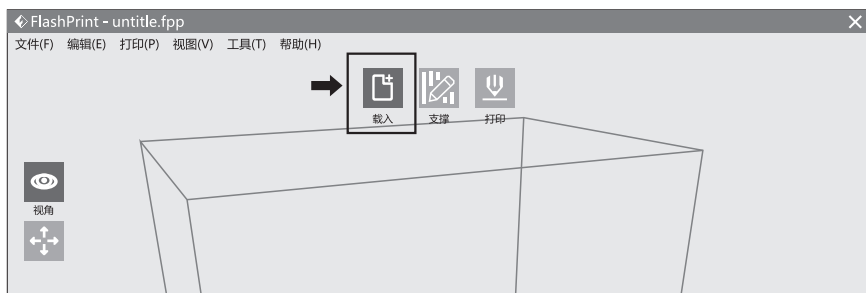
本章为您提供如何将3D模型转化成为实体的详细指导。打印之前，建议您回顾第一章提到的进丝/退丝耗材，调平打印平台，检查FlashPrint软件的功能和性能。

7.1 生成打印文件

在本节中，您将学习如何设置3D模型参数来生成Gcode文件（.X3G格式）。双击电脑桌面快捷方式图标打开FlashPrint软件。点击软件菜单栏中**[打印] - [机器类型]**，确认所选机型为FlashForge Creator Pro。



点击软件上方**[载入]**图标，并从您的电脑中选择一个.stl格式3D模型文件，所选的3D模型就会显示在屏幕上；



选中模型，点击左侧图标[旋转] - [按面放平]，双击选择一个平面，作为与底板的接触面，优化模型放置方式，提升打印效果。完成后，点击[返回]按钮，双击[移动]图标，并点击[放到底板上]和[居中]按钮，确保模型与底板接触完好。

提示：如果您的模型已是最佳放置方式，请忽略上述步骤。

点击软件上方的[打印]图标，设置3D模型参数，参数设置如下：



打印预览：建议开启

机器类型：FlashForge Creator Pro

材 料：根据需求选择

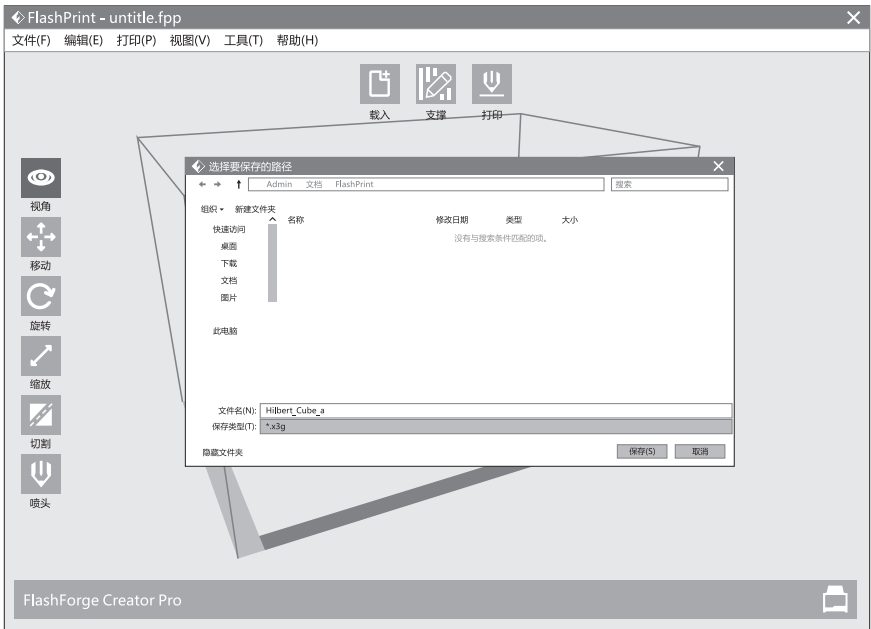
底 板：建议开启

方 案：建议选择标准

更多选项：建议默认

提示：此参数设置仅供用户首次打印参考。

点击[确定]按钮，选择保存Gcode文件路径，选择x3g或格式类型，点击[保存]，开始生成Gcode文件。



至此，Gcode文件已生成。

7.2 使用LCD屏幕进丝

打开电源，使用屏幕右侧的方向箭头按键，按向下键选择[Utilities]：

FF Creator Pro
Print from SD (从SD卡开始打印)
Preheat (预热功能)
→ Utilities (应用)

按下OK键后，选择**Filament loading**，选择你想要进丝的喷头(左喷头或右喷头进丝)，按OK键，喷头开始加热。当温度达到它的目标温度后，设备会发出提示声，将丝料以垂直的角度插入喷头，同时按下进丝压板，待感觉到喷头开始送丝，即可松开进丝压板。

Monitor Mode (监控模式)
→ Filament loading (进丝)
Preheat Setting (预热设置)
General Settings (一般设置)

Unload Right (右喷头退丝)
→ Load Right (右喷头进丝)
Unload Left (左喷头退丝)
Load Left (左喷头进丝)

7.3 使用LCD屏幕退丝

打开电源，使用屏幕右侧的方向箭头按键，按向下键选择[Preheat]，按OK键：

FF Creator Pro
Print from SD (从SD卡开始打印)
→ Preheat (预热功能)
Utilities (应用)

→ Start Preheating (开始预热)
Right Extruder (右喷头) OFF
Left Extruder (左喷头) OFF
Platform (平台) OFF

按向下键选择要加热的喷头，按下OK键，将关闭状态OFF切换为打开状态ON。按向上的箭头回到**Start Preheating (开始预热)**，按OK键喷头开始加热。(图片中温度仅为举例使用，以实际温度为准)。

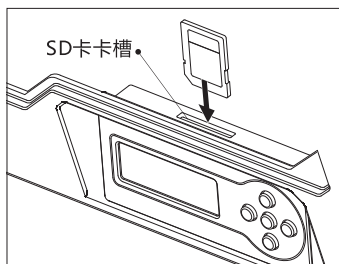
Start Preheating (开始预热)
→ Right Extruder (右喷头) ON
Left Extruder (左喷头) OFF
Platform (平台) OFF

Heating :
R Extruder : 33/230°C (右喷头温度)
L Extruder : 33/230°C (左喷头温度)
Platform : 024°C (平台温度)

这表示喷头已经开始加热，当温度达到230°C时，请先将耗材往下压一小段距离，您会看到有些许耗材从喷头中挤出，然后按下进丝压板，随后迅速拔出。这就确保了喷头的畅通，不会出现堵头的现象。

7.4 使用LCD屏幕打印

在完成调平、进丝后，就可以开始您的3D打印之旅。将SD卡插入SD卡卡槽，选择[Print from SD card]，然后选择想要打印的文件，按下[OK]键，打印机完成预热后将会自动进行打印。



第八章：打印机功能介绍

最后我们介绍一下打印机的其他功能，基于打印和预热选项前面章节已有介绍，本章不做重复说明。本章主要阐述**Utilities**（应用）选项下面的各个功能选项以及打印过程中可用的功能选项。

Utilities (应用) 功能选项

使用屏幕右侧的方向箭头按键，按向下键选择**Utilities**，按下**OK**屏幕将显示：

1.Monitor Mode (监控模式)。选择此命令按下**OK**键，屏幕将显示：

Creator Pro	打印进度
R Extruder	(右喷头温度)
L Extruder	(左喷头温度)
Platform	(打印平台温度)

2.Filament loading (丝加载) 参照第七章

3.Preheat Setting (预热设置) 参照第七章

4.General Settings (一般设置)。选择此命令，按下**OK**键，屏幕将显示：

Ditto Printing	(双喷头同时打印一份文件)	OFF
Override GcTemp	(重新选择)	OFF
Pause with Heat	(暂停时是否继续加热)	OFF
Sound	(打印机的提示音)	ON
Acceleration	(加速)	ON
Extruder Count	(喷头个数)	2

提示：ON为开启状态，OFF为关闭状态。

5.Level Build Plate (调节打印平台)

调平之前，请将底部的三个螺丝拧到最紧请将底部的三个螺丝拧到最紧，使平板与喷头之间的距离最大使平板与喷头之间的距离最大。此步骤极为重要，一定要先操作再调平。当启动水平矫正命令时，需要将一张**0.1-0.2mm**厚纸片放到构建底板与喷头之间，然后按**M**键读取显示屏信息一直到喷头开始移动，这个时候，我们可以通过旋钮调整水平构建底板底部的三个螺丝来达到喷头与底板的间隙均匀，间隙大概有**0.2-0.3mm**即可，抽动纸片时能感觉到一定的摩擦，但不至于将纸片划破，则表明平台和喷嘴的距离适中。

6.Home Axes (轴的初始位置)

选择此命令，按下**OK**键，打印机喷头会向后方移动，且水平底板会向上抬高，就是预备打印的状态。

7.Bot Statistics (统计)。选择此命令，按下**OK**键，屏幕将显示：

Lifetime	(打印机累计使用的时间)
Last Print	(最后一次打印花费的时间)
Filament	(打印机累计打印的耗材长度)
Fil. Trip	(打印机使用耗材长度小计)

8.Filament Odometer (耗材里程)。选择此命令，按下OK键，屏幕将显示：

Life (累计使用的耗材长度)
Trip (耗材使用长度小计)
Reset (按OK键可重置小计的数据)

9.Profiles (配置文件)。选择此选项，按OK键，屏幕将显示：

Abs
Pla
Profile1
Profile2

任选一项，按OK键，屏幕将显示：

Restore (回到Utilities功能选项)
Display Config (显示配置)
Change Name (修改名称)
Save To Profile (保存到配置文件)

选择显示配置选项，按OK键，屏幕将显示：

配置名称
X Offset (打印时X轴的起始坐标)
Y Offset (打印时Y轴的起始坐标)
Z Offset (打印时Z轴的起始坐标)
Right Temp (右喷头设定的温度)
Left Temp (左喷头设定的温度)
Platform Temp (平台设定的温度)

10.Home offsets (主偏移量)。选择此命令，按下OK键，屏幕将显示：

X Offset (打印的起始坐标)
Up/Dn/Left/ok to Set (按提示按OK键，屏幕将陆续显示Y轴跟Z轴的坐标，上下键修改数据，按向左键返回上级菜单)

11.Toolhead Offsets 机头偏移

12.Jog Mode (手动操作模式)。选择此命令，按下OK键，屏幕将显示：

X+ (按方向右键，将陆续显示Y轴，Z轴的调节界面)
(Menu) Y-> (按上下键调节喷头(或者打印平台)的单个移动距离)
X-

13.Enable steppers(启用步进电机)。选择此命令，按下OK键，屏幕将显示：

Disable steppers (禁用步进电机)，此时电机进入锁紧状态，不能手动改变喷头或打印平台的位置；反之当屏幕显示 **Disable steppers** 时，按 OK 键，屏幕将显示 **Enable steppers**，此时允许手动改变喷头和打印平台的位置。

14.Auto-Level Adj (自动化水平调整)

15.Auto-Level Variance (自动化水平方差)

16.Max Z Probe Hits (Z轴最大距离)。选择此命令，按下OK键，屏幕将显示打印结束时，平台下降的距离。

17. Calibrate Nozzles (校准喷嘴)。选择此命令，按下**OK**键，屏幕将显示：

X Axis Line
Y Axis Line (双喷头偏移的距离，用于双喷头同时使用打印双色产品)
Done (接受修改)

18. Restore Settings (恢复出厂设置)。选择此命令，按下**OK**键，屏幕将显示：

Restore factory settings ?
NO
YES

19. Eeprom (电机参数)

此选项客户勿动，操作不当可能会使机器瘫痪。

20. Version Information (版本信息)

选择此命令，按下**OK**键，屏幕将显示打印机的基本参数。

21. Exit Menu (退出菜单)

打印工作中功能选项

我们在打印过程的中，难免会出现各种各样不可预知的问题，这时就需要暂停打印。第一步，按**OK**键或者左键，由监视器界面进入菜单选项。菜单选项有：

1. Back to Monitor (返回监视器界面)。选择此选项，按下**OK**键，屏幕将显示：

文件名称	打印进度
R Extruder	(右喷头温度)
L Extruder	(左喷头温度)
Platform	(平台温度)

2. Cancel Print (取消打印)

3. Pause (暂停)

4. Pause at ZPos (暂停时平台停留的高度)

5. Change Speed (改变打印速度)

6. Change Temperature (改变喷头温度)

7. Change HBP Temp (改变打印平台温度)

8. Set Cooling Fan (散热器开关)

当状态显示为**ON**时，按**OK**键，显示变成**OFF**，此时风扇开始工作；
当状态显示为**OFF**时，按**OK**键，显示变成**ON**，此时风扇停止工作。

9. Set Lights Off (灯光开关)

10. Print Statistics (当次打印信息)。选择此选项，按下**OK**键，屏幕将显示：

Print Time (当前打印已用的时间)
Time Left (打印剩余的时间)
Filament (当前打印所使用的耗材长度)

11.Cold Pause

选择暂停 / 冷暂停选项，你会看到下列内容：

1. Back to Monitor (返回监视器界面)

2. Cancel Print (取消打印)

3. Unpause (取消暂停)

选择此选项，按下**OK**键，喷头就会开始加热，到达指定温度打印机就会继续打印。

4. Jog Mode (手动操作模式)

5. Filament Loading (丝加载)

6. Change Speed (改变打印速度)

7. Change Temperature (改变喷头温度)

8. Print Statistics (当前打印信息)

9. Change HBP Temp. (改变打印平台温度)

10. Set Lights Off (灯光开关)

第九章：帮助与支持

闪铸专业的售后服务人员及业务员随时为您待命，非常乐意为您解决在您使用金刚狼过程中遇到的任何问题。如果你的问题从用户手册中找不到答案，你可以进入我们的官方网站来搜索问题的解决方案，当然您也可以通过电话或QQ联系我们。

在我们的官网中可以找到一些常见问题的说明和解决方法。您的许多问题都可以在闪铸科技官方网站 www.sz3dp.com 得到解决。

您可以在周一到周六的上午8:00到下午5:00的时间段通过电话和QQ来联系闪铸的售后团队，为您解决问题。如果您刚好在下班时间联系我们，我们将在下一个工作日的第一时间给您反馈，为您解决问题，若造成不便，我们万分抱歉。

提示：由于更换不同的丝料，会有少量杂质残留在喷头中造成喷头堵塞，疏通后即可，不属于质量问题，不在400小时寿命范围内，若用户使用时存在该问题，请联系售后，并在售后的指导下完成疏通工作。

售后服务热线：400-699-1063

售后客服QQ：2850862986 / 2850863000 / 2853382161

3D爱好者QQ群：206773820

公司地址：浙江省金华市婺城区仙源路518号。

提示：联系售后时，需提供机器的序列码，也就是金刚狼背面的条形码。



Contents

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Preface

Note: Each device must be tested before leaving factory. If there are some residues in extruder or some tiny scratches on the build tape, it is normal and won't affect the printing quality.

On the completion of this User Guide, thanks all Flashforge engineers and the Flashforge 3D printer users for their unremitting efforts and sincere assistance.

The Flashforge Creator Pro User Guide is designed for the Creator Pro users to start their printing journey with Flashforge Creator Pro. Even if you are familiar with earlier Flashforge machines or 3D printing technology, we still recommend that you read through this guide, as there is lots of important information about the Creator Pro for you to get a better 3D experience.

For a better and more successful printing experience, you can refer to the following materials:

(1) Quick Start Guide

Users will find the Quick Start Guide together with the printer accessories. The Quick Start Guide will help you start your print journey as soon as possible.

(2) Official Flashforge Website: www.flashforge.com

The official Flashforge website contains the up-to-date information concerning Flashforge software, firmware, device maintenance and so on. Users are also able to get the contact information from there.

Introduction

- ◆ Please read Flashforge Creator Pro 3D Printer User Guide carefully before use.

The Flashforge Creator Pro 3D Printer User Guide contains the information needed for you to set up and use this device.

This User Guide includes the following parts: Preface, Introduction and after-sale service.

The Preface section includes resource acquisition channel, the overall framework of the manual, and the problems that should be paid attention to.

The introduction section contains the presentation of 3D printing technology, equipment introduction, unpacking and installation of equipment, software installation and usage.

After-sale section tells the user how to get the support and help.

Notice

Notices: Read all the instructions in the manual and familiarize yourself with the Flashforge Creator Pro User Guide before setting-up and using. Failure to comply with the warning and instructions may result in individual injury, fire, equipment damage or property damage.

PLEASE STRICTLY FOLLOW ALL THE SAFETY WARNINGS AND NOTICE BELOW ALL THE TIME.

Work Environment Safety

- ◆ Keep your work place tidy.
- ◆ Do not operate Creator Pro in the presence of flammable liquids, gases or dust.
- ◆ Creator Pro should be placed out of children and untrained people's reach.

Electricity Safety

- ◆ Always use the Creator Pro with a properly grounded outlet. Do not refit Creator Pro plug.
- ◆ Do not use Creator Pro in damp or wet locations. Do not expose Creator Pro to burning sun.
- ◆ In case of device damage, please use the power supply provided by Flashforge.
- ◆ Avoid using the device during a thunderstorm.
- ◆ In case of uncertain accident, please unplug the device if you do not use it for long.

Personal Safety

- ◆ Do not touch the nozzle and build plate during printing.
- ◆ Do not touch the nozzle after finishing printing.
- ◆ Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.
- ◆ Do not operate the device while you are tired or under the influence of drugs, alcohol or medication.

Cautions

- ◆ Do not leave the device unattended for long.
- ◆ Do not make any modifications to the device.
- ◆ To lower the build plate before loading/unloading filament. (The distance between the nozzle and build plate should be kept for at least 50mm)
- ◆ Operate the device in a well-ventilated environment.
- ◆ Never use the device for illegal activities.
- ◆ Never use the device to make any food storage vessels.
- ◆ Never use the device to make any electrical appliance.
- ◆ Never put the model into your mouth.
- ◆ Do not remove the models with force.

Environment Requirements

- ◆ Temperature: RT 15–30°C
- ◆ Moisture: 20%–70%

Filament Requirements

Do not abuse the filament. Please make sure you use the Flashforge filament or the filament from the brands recommended by Flashforge.

Filament Storage

All polymers will be degraded with time. Do not unpack until filament is needed. Filament should be stored in clean and dry conditions.

Legal Notice

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Chapter 1: 3D Printing Technology

3D printing refers to transforming three-dimensional models into physical objects that you can hold and touch. It is also called additive manufacturing, because the 3D model is created by “adding” layers upon layers of material until the object is fully formed.

Fused Filament Fabrication(FFF) is the most common method of 3D printing. It is also the method that the Creator Pro uses. It works by melting plastic material called filament onto a print surface in high temperature. The filament solidifies after it cools down, which happens instantaneously after it is extruded from the nozzle. 3D objects are formed with the filament laying down multiple layers.

1.1 Process

3D printing involves three steps:
1. Make or download a 3D model.
2. Slice and export the 3D model.
3. Build the 3D model.

1.1.1 Make a 3D Model

Currently, there are three ways of making a 3D model.

Designing From Scratch: You can use free CAD (computer-aided design) software such as 3DTADA, AutoCAD, SolidWorks, Pro-E, and our own software Happy 3D to design your own 3D model.

3D Scanners: An alternative method to making a 3D model is to scan an object. 3D scanners work by digitizing a physical object, collecting its geometric data, and saving it to a file on your PC. There are also apps that can turn a mobile device into a 3D scanner.

From the Cloud: The most popular way of obtaining a 3D model is to download it from websites that allow users to upload 3D models that they designed.
E.g.: www.thingiverse.com

1.1.2 Slice and Export the 3D Model

Slice software is the software that prepares 3D models for printing and turns them into instructions for the 3D printers. FlashPrint is the slicing software used for the FlashForge Creator Pro.

Using FlashPrint, you can prepare .STL files to be .x3g files for printing. Then users can print files via SD card.

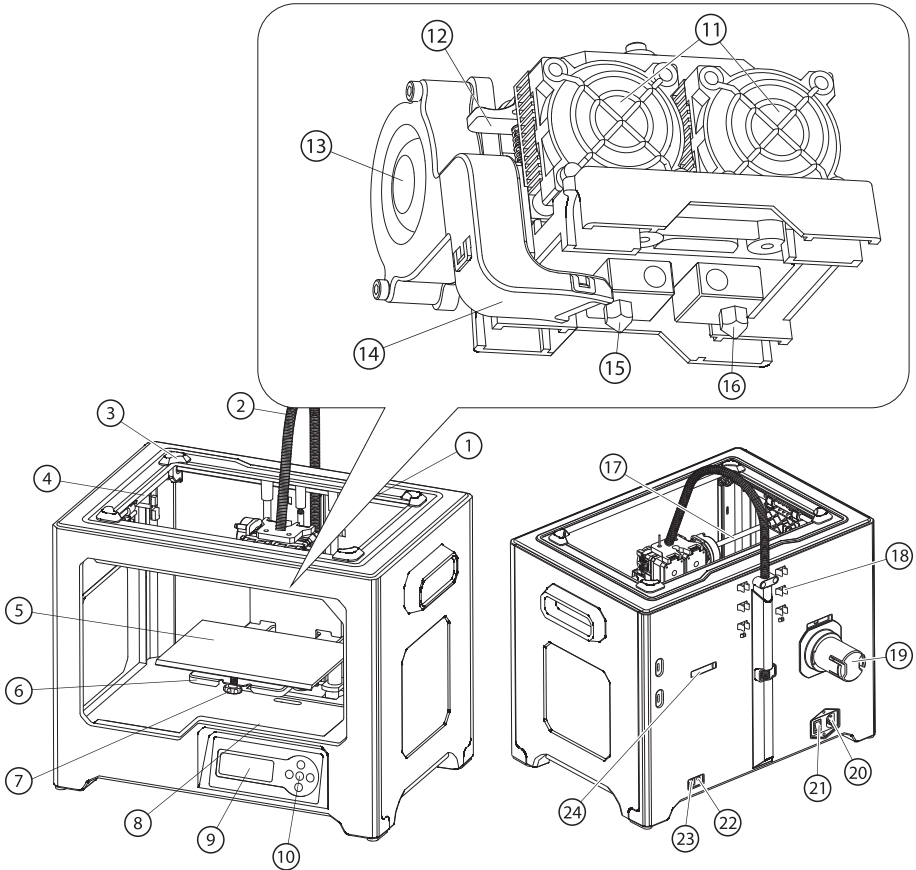
1.1.3 Build the 3D Model

Once the output file has been transferred to your Creator Pro, it will start to turn the 3D model into a physical object by laying down layers of filament.

Chapter 2: About Creator Pro

2.1 About Your Creator Pro

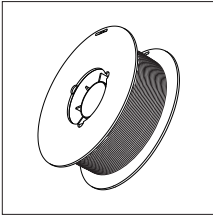
2.1.1 Views



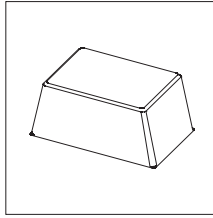
- | | | | |
|-----------------------|--------------------------------|------------------|---------------------|
| 1. Z-Axis Guide Rod | 2. Extruder Cable Bunch | 3. Slot | 4. Y-Axis Guide Rod |
| 5. Build Plate | 6. Build Platform | 7. Leveling Knob | 8. SD Card Slot |
| 9. LCD Panel | 10. Buttons | 11. Cooling Fan | 12. Spring Presser |
| 13. Turbofan | 14. Turbofan Baffle | 15. Left Nozzle | 16. Right Nozzle |
| 17. X-Axis Guide Rod | 18. Filament Guide Tube Buckle | 19. Spool Holder | |
| 20. Power Input | 21. Power Switch | 22. Reset Button | 23. USB Input |
| 24. Spool Holder Slot | | | |

2.1.2 Accessories

Along with your Creator Pro 3D printer, the box also contains the followings:



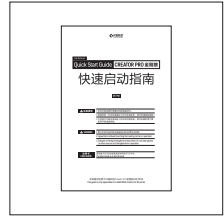
Filament Spool x 2



Lid



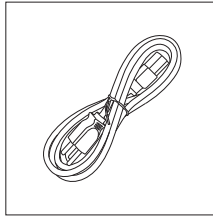
After-sales Service Card



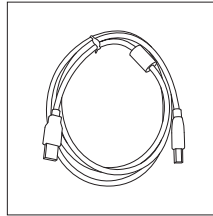
Quick Start Guide



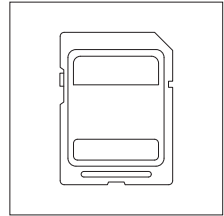
User Guide



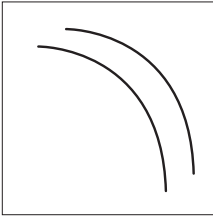
Power Cable



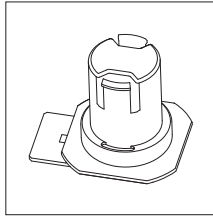
USB Cable



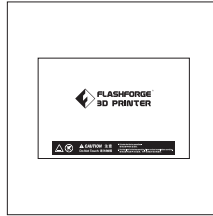
SD Card



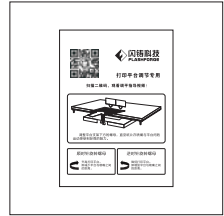
Filament Guide Tube x 2



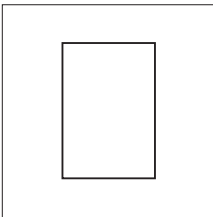
Spool Holder x 2



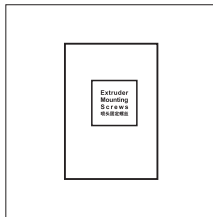
Build Tape x 2



Leveling Card



Tool Bag



Extruder's
Accessory Kit

Tool bag:

(Allen Wrench / Leveling knob /
M3X8 Bolt / PTFE Tube / Grease /
Stamping Wrench/Unclogging Pin Tool)

Extruder's accessory kit:

(M3X8 Bolt / M3X6 Bolt / Turbopan baffle)

2.1.3 Terms

Build Plate	The surface on which the Creator Pro builds an object.
Build Tape	The blue tape that covers Creator Pro's build plate so that the object can adhere to the build plate well.
Build Volume	The three dimensional amount of space that an object will use once it is completed. The largest build volume of Creator Pro is 227*148*150 mm.
Leveling Knobs	Knobs under the build platform that are used for adjusting the distance between the nozzle and build plate.
Extruder	The device that draws the filament from the spool, melts it and pushes it through a nozzle onto the build plate.
Nozzle	Also called "print head", which located at the bottom of the extruder where heated filament is squeezed out.
Cooling Fan	To cool the outer assembly of the extruder and gear motor.
Filament Intake	An opening located at the top of the extruder.
Filament Guide Tube	A plastic piece that guides the filament from the filament box to the filament intake.
Unclogging Pin Tool	A tool that used for cleaning the extruder.
Stamping Wrench	A tool that used for seizing the nozzle's metal cube.

2.1.4 Parameters

Number of Extruder: 2	Software: FlashPrint / simplify 3D / ReplicatorG / Makerware
Print Technology: Fused Filament Fabrication(FFF)	Support Formats: Input: 3MF/STL/OBG/FPP/PNG/JPG/JPEG Output:X3G
Screen: LCD Panel	OS: Win xp / Vista/7/8/10 / Mac OS / Linux
Build Volume: 227*148*150mm	Device Size: 526*360*403(550)mm
Layer Resolution: 0.05 – 0.4mm	NET Weight: 14.8Kg
Build Precision: ±0.2mm	AC Input: 100V-240V/4.5A-2.5A
Positioning Precision: Z axis 0.0025mm; XY axis 0.011mm	Connectivity: USBCable, SD Card
Filament Diameter: 1.75mm(±0.07)	
Nozzle Diameter: 0.4mm	
Build Speed: 10~200 mm/s	

Chapter 3: Unpacking

3.1 About Your Creator Pro

The Creator Pro was carefully packaged at FLASHFORGE manufacturing facility. Please follow the unpacking steps laid out below.

⚠ CAUTION

1. Handle the package and its contents with extra care; do not use any unnecessary force.
2. Do not remove the wrapping around the nozzle. It consists of a ceramic fiber fabric and heat resistant tape that helps to keep the nozzle at a constant temperature.



1. Open box and remove top foam piece.



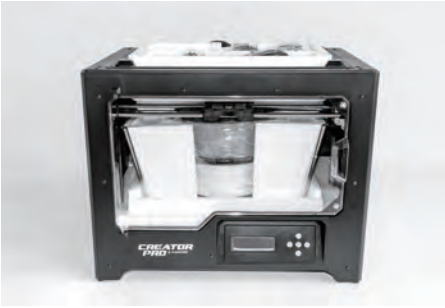
2. The foam should contain: two filament guide tubes, two build tapes, one Flashforge leveling card, one user guide and one Quick Start Guide.



3. Firmly grasp the two side handles of Flashforge Creator Pro. Lift it out from the carton and place it on a stable surface.



4. Remove the packing bag. And then remove the tape and plastic wrap for protecting the front door.



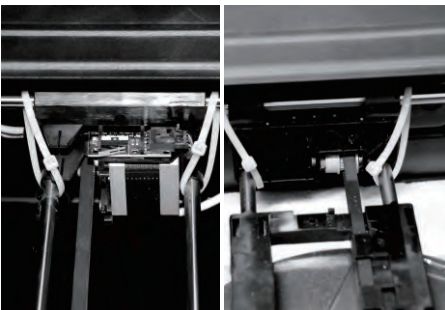
5. The Flashforge Creator Pro and its accessories shall be displayed in front of you.



6. Take the dual extruder out and place the extruder carefully because the extruder cable bunch is short.



7. Remove the foam container. It should contain: power cable, USB cable, two spool holders, SD card, tool bag, extruder's accessory kit.



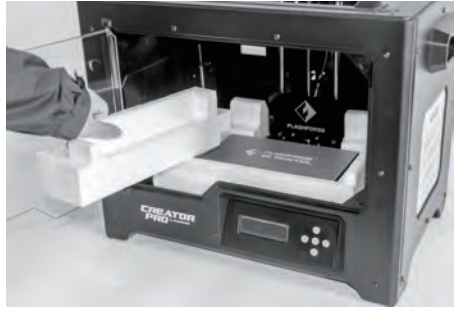
8. Snip beltings on both sides of X-axis guide rod.



9. Slide the X-axis Rods to the very back.



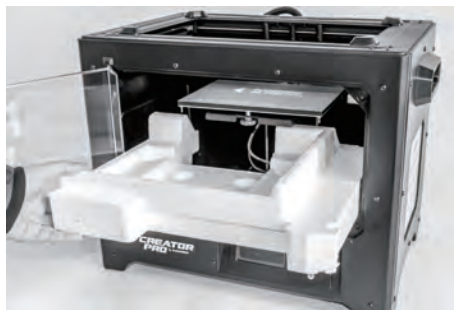
10. Remove lid, which should hold two rolls of filament.



11. Remove side protective foam sheets from inside the printer.



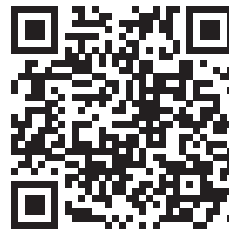
12. Elevate the build plate to its limit with care.



13. Take the bottom protective foam from the printer and then lower the build plate back.



14. Congratulations! You've finished the unpacking process. (Tip: Save your Flashforge Creator Pro packaging for transportation and storage.)



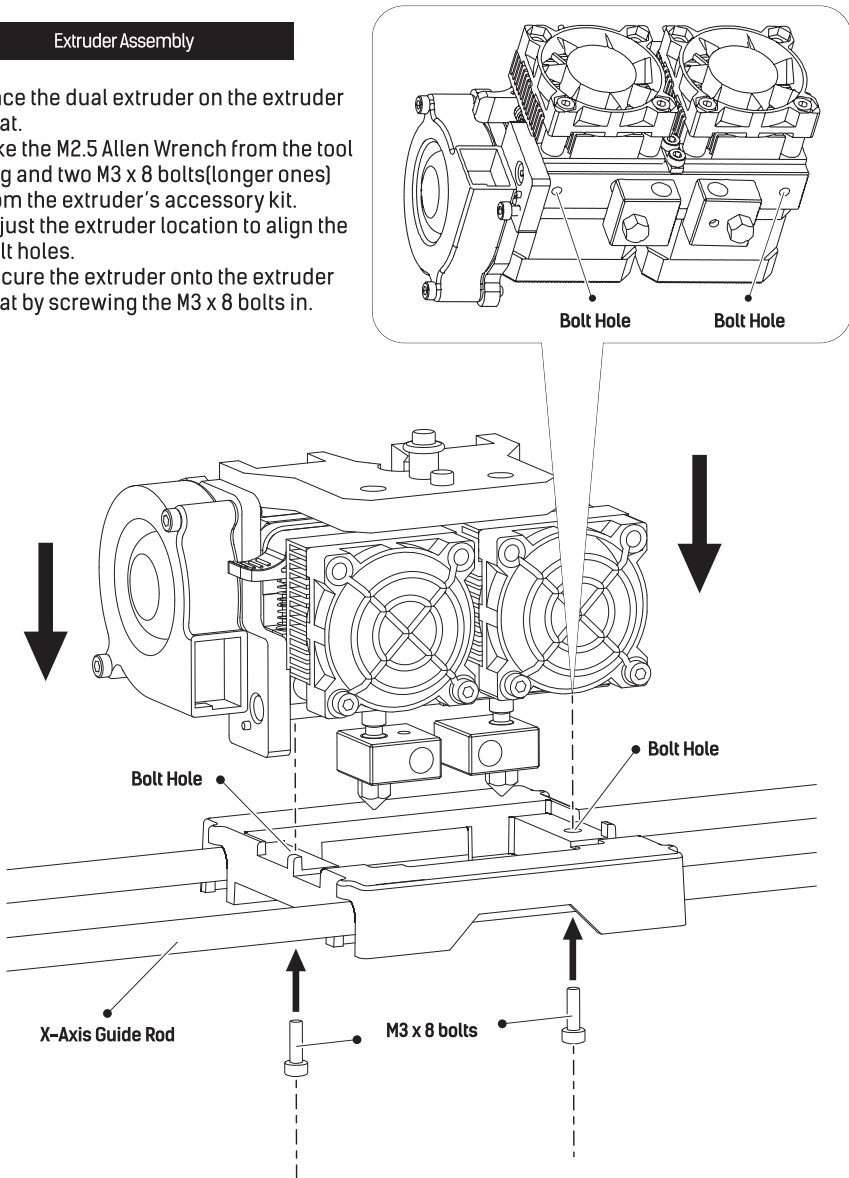
YouTube

Scan QR code to get Creator Pro Unboxing video.

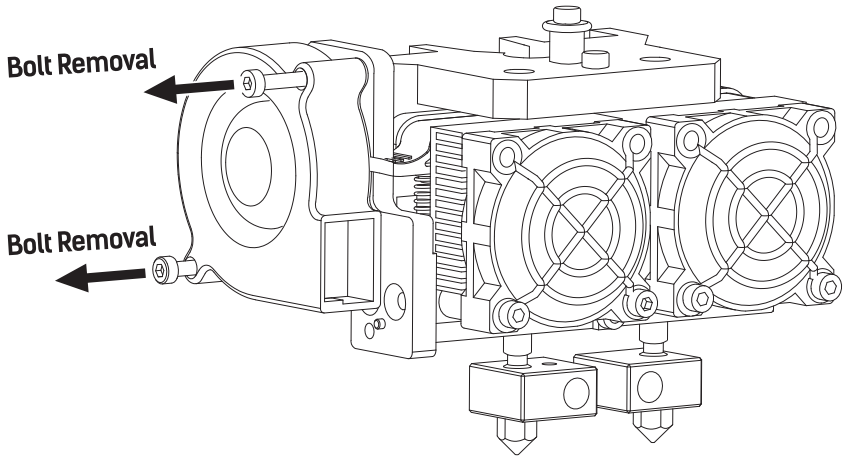
Chapter 4: Hardware Assembly

Extruder Assembly

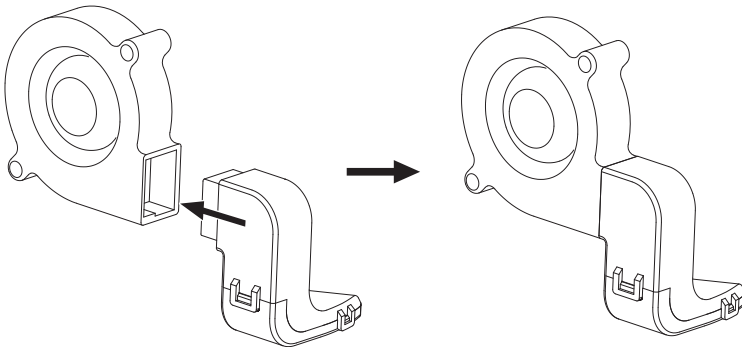
1. Place the dual extruder on the extruder seat.
2. Take the M2.5 Allen Wrench from the tool bag and two M3 x 8 bolts(longer ones) from the extruder's accessory kit.
3. Adjust the extruder location to align the bolt holes.
4. Secure the extruder onto the extruder seat by screwing the M3 x 8 bolts in.



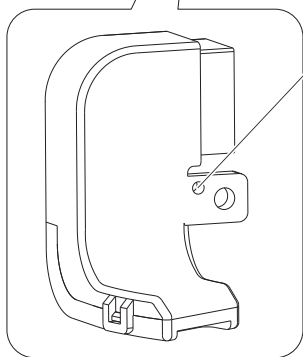
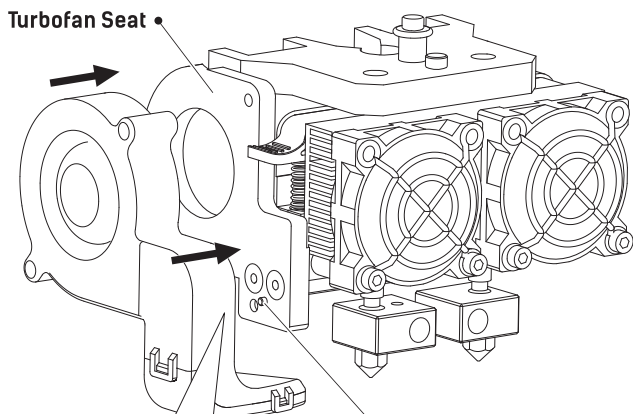
Turbofan Baffle Assembly



1. Use the M2.5 Allen Wrench to remove two turbofan bolts.

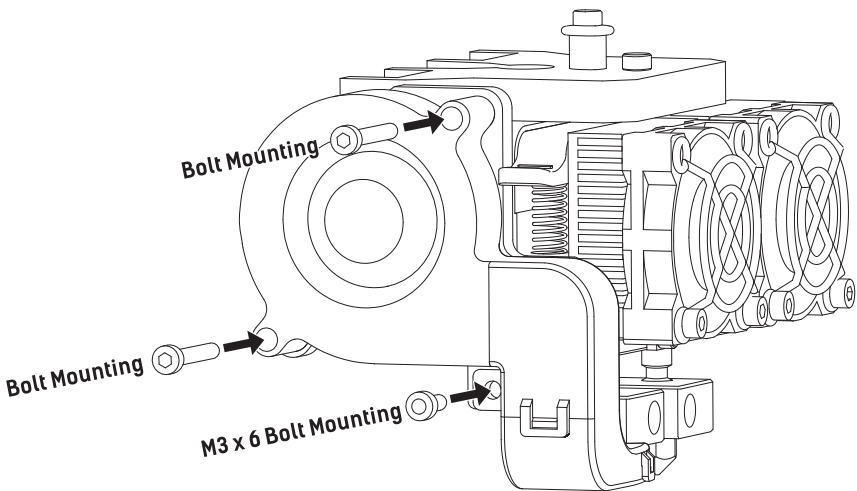


2. Take the turbofan baffle from the extruder's accessory kit.
3. Install the turbofan baffle to the turbofan.

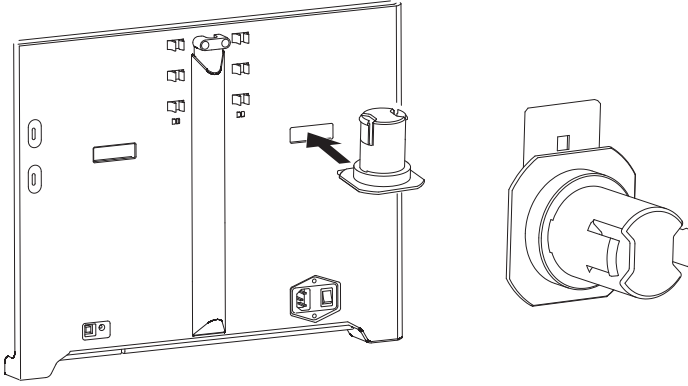


● **Align the bump on the turbofan seat to the hole in turbofan sub-assembly.**

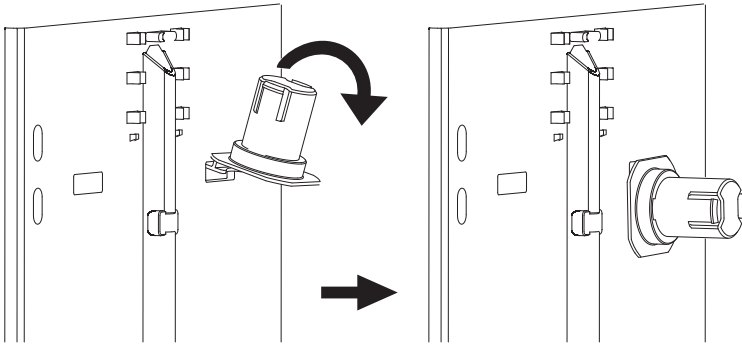
1. Place the turbofan sub-assembly beside the turbofan seat.
2. Insert the bump on the turbofan seat to the turbofan sub-assembly.
3. Screw the two bolts in.
4. Take a M3 x 6 bolt from the extruder's accessory kit and complete installation according to the instruction below.



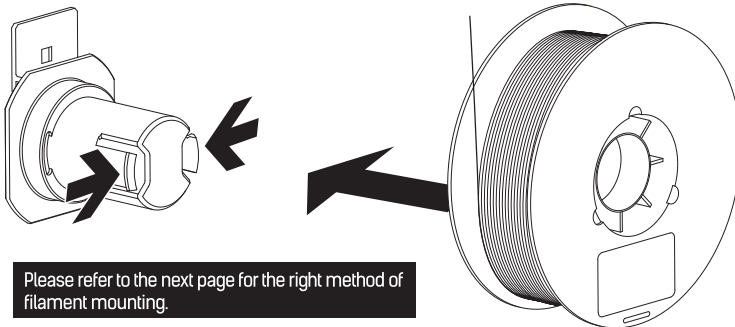
1. To install a spool holder, level it and insert the end into the corresponding opening.



2. Turn down the spool holder to make the holder bottom cleave to the printer back.



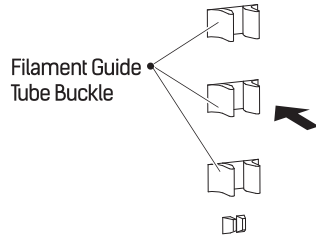
3. Take a roll of filament, then squeeze the spool holder top and mount the filament spool to the holder.



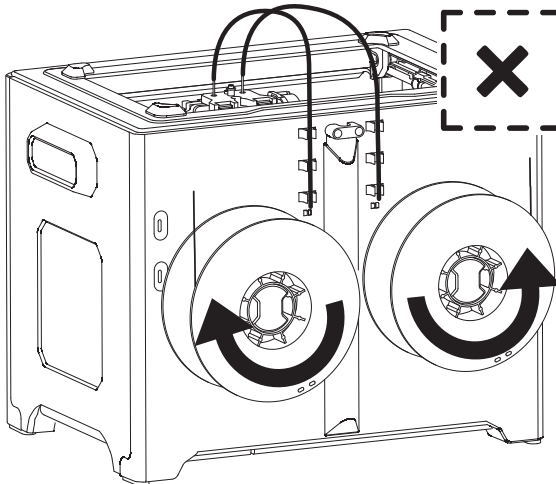
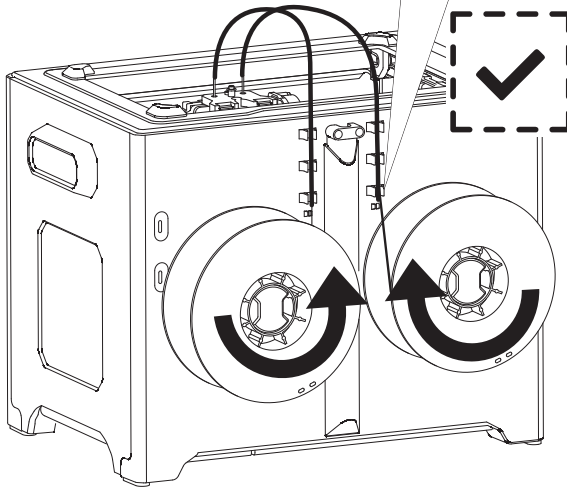
Please refer to the next page for the right method of filament mounting.

Tips

- The filament spool must be oriented correctly (see below).
- The filament guide tube ensures stable printing and protects the printer.
- After securing the filament and guide tubes, thread the filament through the guide tubes.

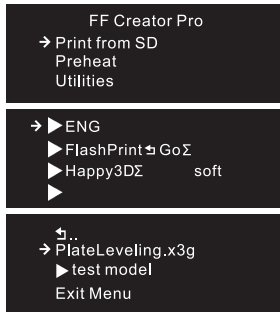
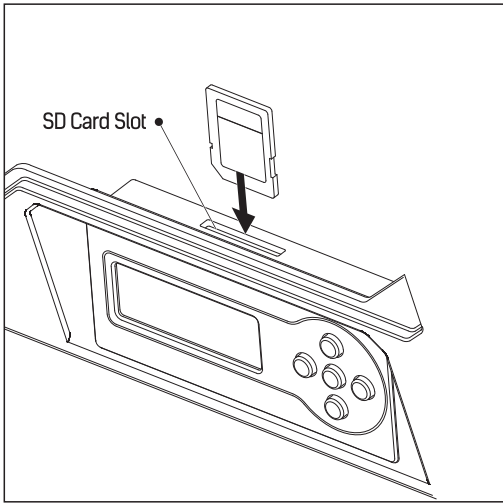


4. Lock the filament guide tube with R-shape buckles.



Chapter 5: Build Plate Leveling

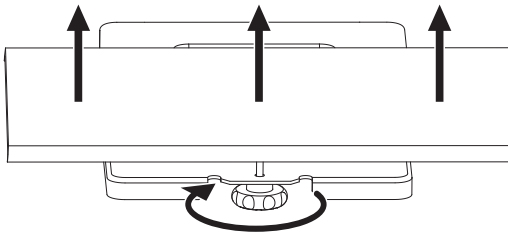
Every printer will be leveled before shipped out, but we can't ensure that the platform won't move during delivery, so it will be better to level platform before you begin to print.



1. Attach the power supply, plug the power cable into an electrical outlet and turn on the printer.
2. Insert the SD card into the slot. Tap [Print from SD] and Tap [OK]. Tap [ENG] and tap [OK].

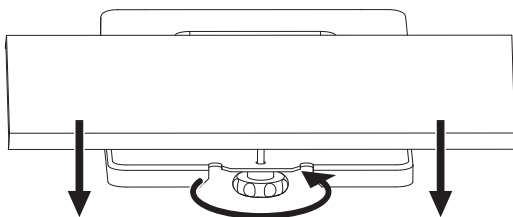
Then you will see the [Plateleveling.x3g].

How to use the leveling knobs



Rotate knob clockwise

Raise the build plate to reduce the distance between the nozzle and build plate.

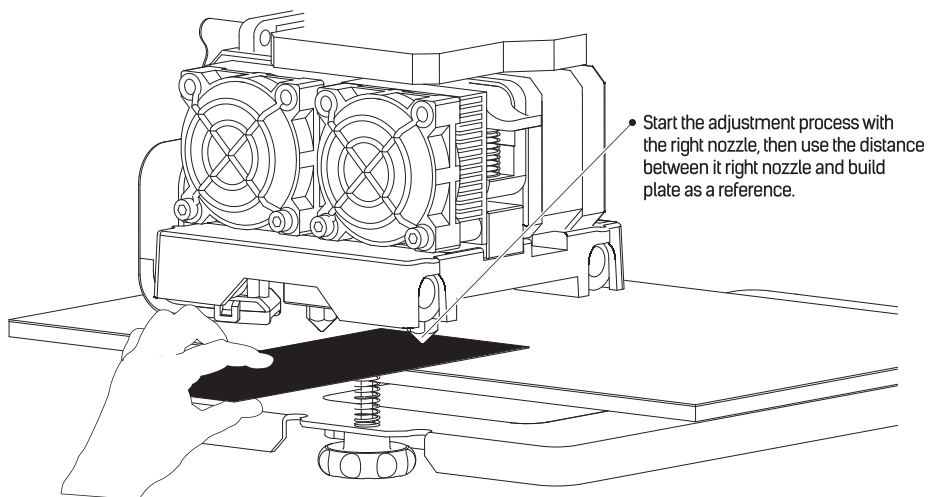


Rotate knob anticlockwise

Lower the build plate to increase the distance between the nozzle and build plate.

How to level the build plate

1. Tighten the three leveling knobs under the build platform until you cannot tighten them any more.
2. Select the [PlateLeveling.x3g] on the control panel, and tap [OK] to start leveling. Then tap [OK] for page-turning to read the leveling instructions.
3. The build plate and nozzle will start to move. Wait for them to stop, then adjust the corresponding knob under the right nozzle first using the leveling card.
4. The leveling card should slide between the nozzle and build plate with some friction/resistance. If the card slides through easily, the nozzle and build plate are too far apart. Rotate the knob clockwise to decrease the distance between them. If the card cannot slide through, rotate the knob anticlockwise.
5. After leveling the first point, tap [OK] to continue to the next point.
6. Adjust all three knobs as outlined above. Then, check that the nozzle is also correctly placed when it is at the center of the build plate, using the leveling card. That's it!



Chapter 6: About Software

This chapter talks about the basic function of FlashPrint. For more information about advanced function, you can browse our website www.flashforge.com.

6.1 Software Installation

6.1.1 Software Acquisition

- ◆ **Method 1:** To get the installation package from the SD card.
- ◆ **Method 2:** Open the link below to download the installation package: www.flashforge.com

Steps: Support – Downloads – FlashPrint – Choose Software Version – Download

6.1.2 Software Installation and Start-up

1. Decompress the zipped file and start the installation program, and then install the software according to the direction.
2. Start the software with the start menu shortcut by left double clicking.

6.2 Exploring FlashPrint

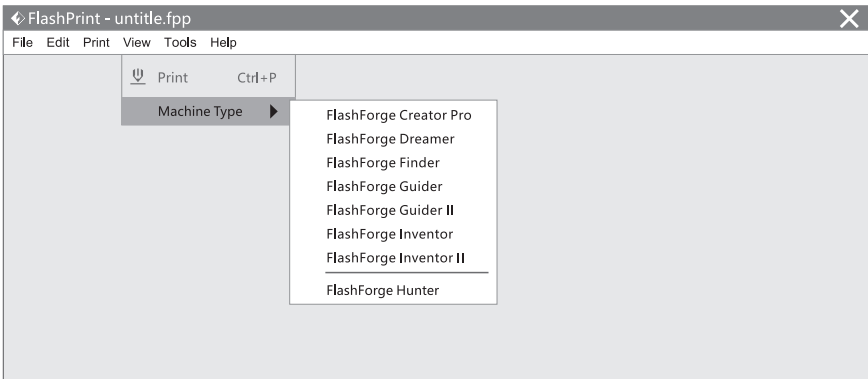
Note: Before updating Firmware, you need to install a relevant drive.

6.2.1 Machine Type Selection

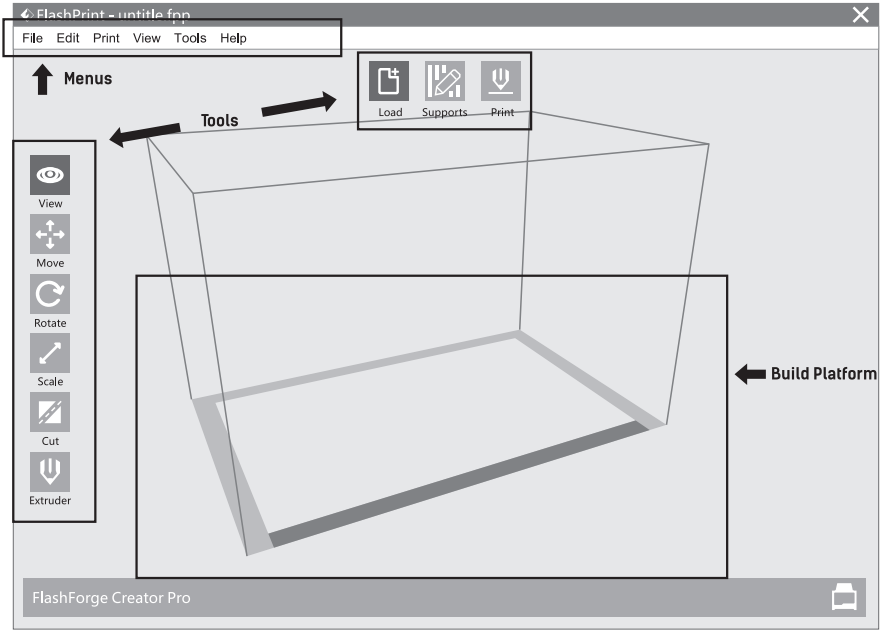
Attention! After starting FlashPrint, you need to select the target machine type first.

When you start FlashPrint, a dialog box will pop up. Just need to select FlashForge Creator Pro in the machine type list and click [OK].

You can also change the machine type via clicking [Print] – [Machine type].



6.2.2 Software Introduction



Load
Load files



Supports
Enter into the support edit mode



Print
Print it directly with your Creator Pro or export to your USB Stick



View
View FlashPrint home screen from one of six viewing angles



Move
Move model around on XY- axis; shift+click to move along Z axis



Rotate
Turn and rotate your model



Scale
Scale the size of your object



Cut
Cut model into several parts



Extruder
Select right or left extruder you want to print with

6.2.3 Loading



You can load a model file or Gcode file into your FlashPrint by the following six methods:

- ◆ Method 1: Click the Load icon on the main interface. Then select the object file.
- ◆ Method 2: Select the file for loading and drag the file to the main interface of the software.
- ◆ Method 3: Click [File] – [Load File]. Then select the object file for loading.
- ◆ Method 4: Click [File] – [Examples] to load the example files.
- ◆ Method 5: Click [File] – [Recent Files] to load the files opened recently.
- ◆ Method 6: Select and click-drag the target file to the icon of FlashPrint.

Note: 3D models can be stored as .stl, .obj and .fpp file and support edit by FlashPrint.

Generating Rilievo

Load .png, .jpg, .jpeg and .bmp files into the FlashPrint. And the following dialogue box will pop up. The setting box includes settings for shape, mode, maximum thickness, base thickness, bottom thickness, width, height, top diameter and bottom diameter.

Shape: including plane, tube, canister and lamp.

Mode: including “darker is higher” and “lighter is higher”.

Maximum thickness: Z value of the model.

Base thickness: The minimum raft thickness and the default value is 0.5mm.

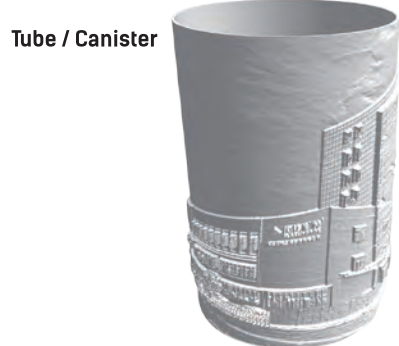
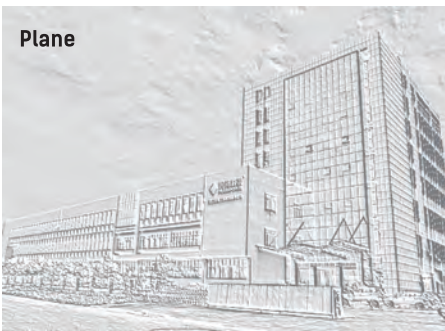
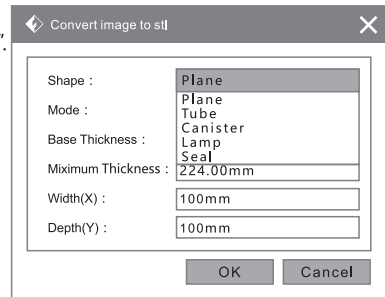
Width: X value of the model.

Depth: Y value of the model.

Bottom thickness: For tube, canister and lamp to set up bottom thickness.

Top diameter: For tube, canister and lamp to set up the top diameter.

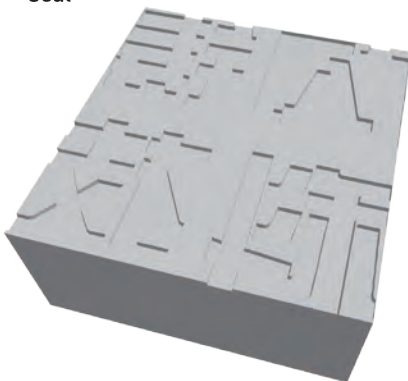
Bottom diameter: For tube, canister and lamp to set up the bottom diameter.



Lamp



Seal



6.2.4 Views



1. Changing Views

Change model views by moving, rotating, scaling.

Drag:

Click the [View] icon and then you can move the object by the following three methods:

- ◆ Method 1: Hold down the left mouse button and drag.
- ◆ Method 2: Hold down the mouse wheel and scroll up and down.
- ◆ Method 3: Hold down the Shift key, hold down the right mouse button and drag.

Rotate:

Click the [View] icon and then you can rotate the object by the following two methods:

- ◆ Method 1. Hold down the right mouse button and drag.
- ◆ Method 2. Hold down the Shift key, hold down the left mouse button and drag.

Scale:

Scroll the mouse wheel to enlarge or shrink the build plate.

2. Set View

Allow users to view the object on the build plate. Six views are under the view menu, that is bottom view, top view, front view, back view, left view and right view.

Method 1: Click the the [View] button, there are six views in the drop-down list.

Method 2: Click the the [View] icon on the left, click it again and a submenu will appear with six views for selecting.

3. Reset View

Allow users to reset views by the following two methods:

Method 1: Click the [View] menu and select [Home View].

Method 2: Click the [View] button on the left, click it again and you will see the viewing options, you can click [Reset].

4. Show Model Outline

Click [View] – [Show Model Outline], it will highlight the yellow border of the object.

5. Show Steep Overhang

Click [View] – [Show Steep Overhang]. When the intersection angle between the model surface and horizontal line is within the overhang threshold value, the surface has steep overhang and it becomes red in the software. Overhang threshold value could be set as needed. The default value is 45 degree.

6.2.5 Move

Select the object and move the object by the following two methods:

- ◆ Method 1: Click the [Move] icon on the left, hold down the left mouse button and drag it to adjust the location of the model in XY direction. Hold down the Shift key, hold down the left mouse button and drag it to adjust the location of the model in Z direction. The distance and the direction of the movement will be displayed.
- ◆ Method 2: Click the [Move] button on the left and then enter the distance value to move the model. You can also click [Reset] to reset distance values.

Note: Users shall click [Center] and [On Platform] after the location adjustment to ensure the model(s) be within the build area and on the build platform. If a specified position is needed, only click [On Platform].

6.2.6 Rotate

Select the target object and rotate the object by the following two methods:

- ◆ Method 1: Click the [Rotate] icon on the left and three mutually perpendicular rings appear around the object. Click one ring and rotate on the present axis, you will see the rotation angle and direction in the center of circle. In this way, you could make the model rotate on X/Y/Z axis.
- ◆ Method 2: Click the [Rotate] icon on the left, and then enter into rotating angle values in X/Y/Z axes positioning. Click [Reset] to reset rotating angle values.

6.2.7 Scale

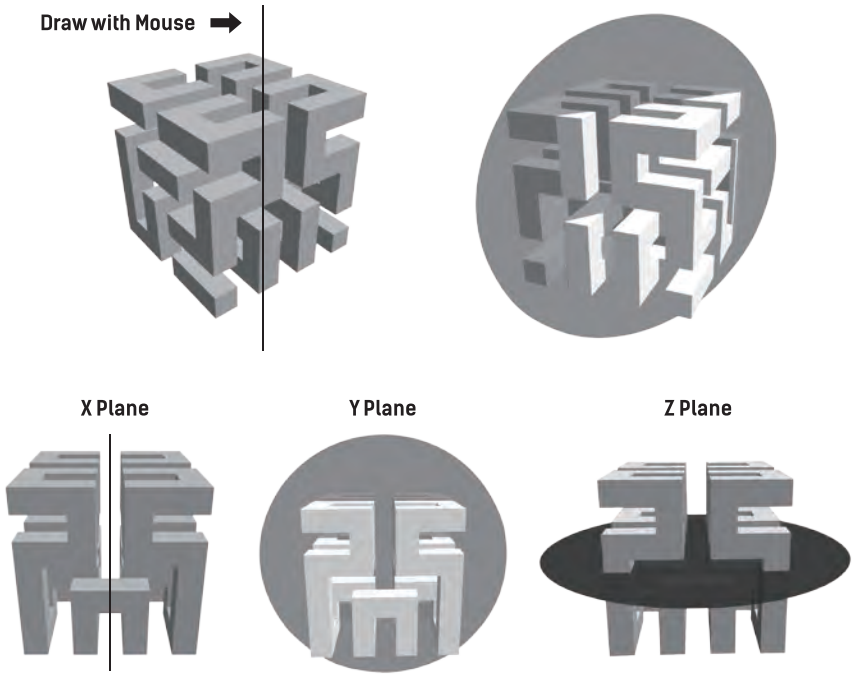
Select the target object and scale the object by the following two methods:

- ◆ Method 1: Click the [Scale] icon on the left, hold down the left mouse button and scale the model. The corresponding values will display near the object.
- ◆ Method 2: Click the [Scale] icon on the left and then enter into scale values in X/Y/Z axes positioning. Click the [Maximum] button to get largest size possible for building. Click [Reset] to reset the size of model.

Note: If the [Uniform Scaling] radio button is clicked, it will scale the model in equal proportion when changing value in any positioning of the model. Otherwise it will only change the value of the corresponding positioning.

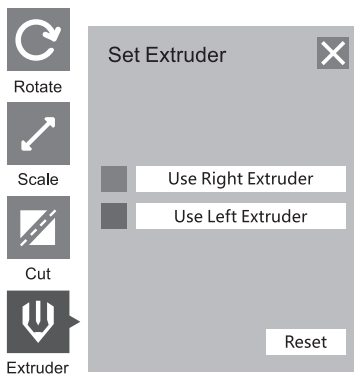
6.2.8 Cut

Click on the model to select it and click on the Cut icon to set the cut plane. The direction and position are available for setting.



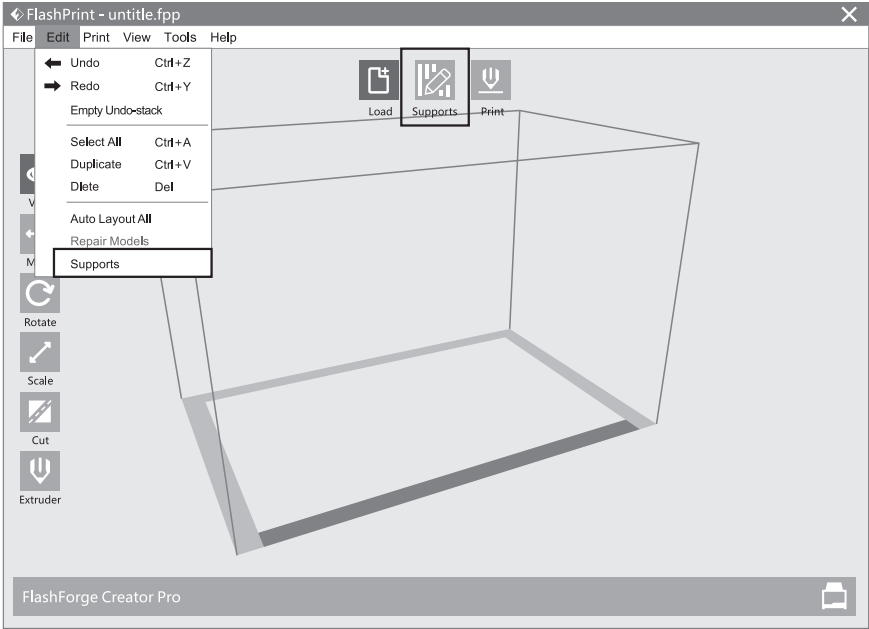
6.2.9 Extruder

Click the model to select it, then double-click the Cut icon in the left to choose L/R extruder to print .



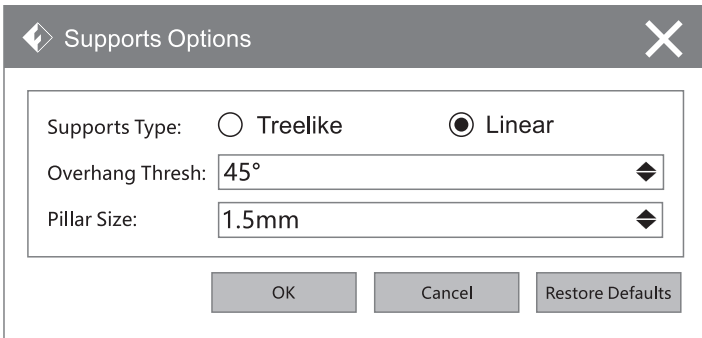
6.2.10 Supports

You can click [Edit]--[Supports] or click the Supports icon to enter the support edit mode (as shown in the picture below). When you finish editing, click [Back] to exit.

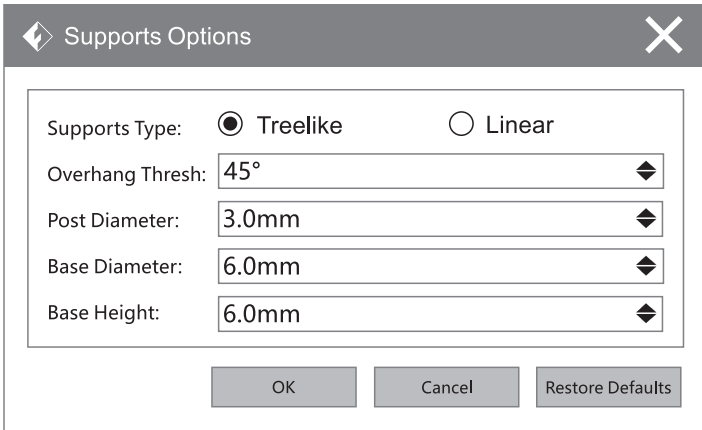


1. Support Options

Click the Support Options, an option box will appear, supports options include "treelike" and "linear", when choose "treelike", click [OK], then it will generate treelike structure; when choose "linear", click [OK], then it will generate linear structure.



Linear



2. Auto Supports



Click the [Auto Supports] button, the software will judge the position where supports are needed and generate corresponding treelike or linear supports. If it is a model with supports, the existing supports will be deleted and new supports will be generated.

3. Add Supports



Supports will be added once clicking the [Add] button. Move the cursor to the position where supports needed, left-click to choose the starting point of supports, hold down the left mouse button and drag the mouse the supports preview will show up (if support surface doesn't need support or the support column angle is too large, the support review will be highlighted). Loosen the left mouse button, if support column doesn't meet with model, then support will be generated on origin and terminal point (the highlighted preview support won't generate support structure).

3. Clear Supports



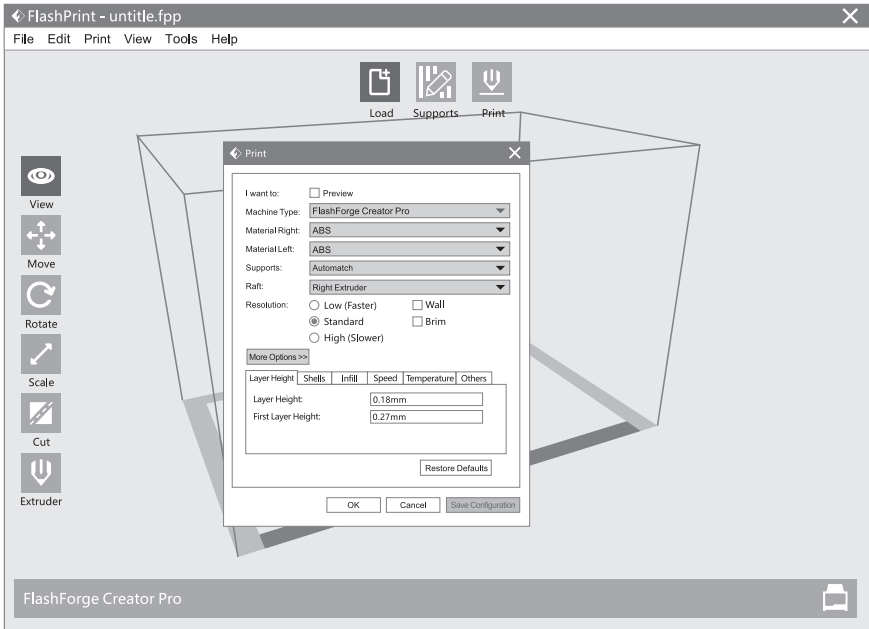
Click [Clear Supports], all supports will be deleted. The operation can be repeated via clicking [Undo] or pressing the shortcut key Ctrl+Z.

4. Delete Supports



Supports will be deleted once clicking the [Delete] button. Move the cursor to the supports needed deleting, current supports and its subnode support will be highlighted, click the left mouse button to delete these highlighted support.

6.2.11 Print



1. **Preview:** Choose to enter preview interface or not.
2. **Machine Type:** Choose the target 3D Printer.
3. **Material Right/Left:** Choose a type of material according to the type of model.
4. **Supports:** When print suspended structure models, support is necessary.
Click [Supports] to create support part for the printing.
5. **Raft:** This function will help the model to stick well on the platform.
6. **Wall:** During dual color printing, this function will help to clear the leaking filament of another extruder.
7. **Brim:** Expand the outline of model's bottom layers to a brim which helps anchor the edges of model to the plate to avoid warping.
8. **Resolution:** You have three resolution solution(with default setting)to choose from, high resolution is corresponding with slow printing speed, opposite for the low resolution. For PLA printing, an extra solution "Hyper" is available.
9. **More options:** Click [More options] to set for layer, shell, infill, speed and temperature. Different resolution solution is corresponding to different defaults, click [Restore Defaults] to back to default setting.

Layer Height

Layer Height: Layer thickness of the printing model. With a small value, the surface of the model will be smoother.

First Layer Height: This is the first layer of the model, which will affect the sticking performance between the model and platform. Maximum is 0.4mm, and usually the default is OK.

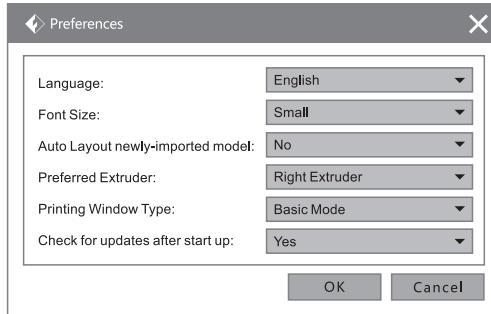
Shells	<p>Contains the outside shell value, capping layer value (under vase mode, top solid layer setting is invalid.)</p> <p>Perimeter Shells: Maximum is 10</p> <p>Top Solid Layers: Maximum is 30, minimum is 1.</p> <p>Bottom Solid Layers: Maximum is 30, minimum is 1.</p>
Infill	<p>Fill Density: Fill rate.</p> <p>Fill Pattern: The pattern of filling shape which effects printing duration.</p> <p>Combine Infill: You can select the layers for combining according to the layer thickness. The combined thickness should not exceed 0.4mm. "Every N layers" is for all the infills while "Every N inner layers" is only for inner infills, which generally can save print time.</p>
Speed	<p>Print Speed: The moving speed of the extruder. Generally, the lower speed is, the better print you will get. For PLA printing, 80 is recommended.</p> <p>Travel Speed: Control the moving speed of the extruder under non-printing Status during work. For PLA printing, 100 is recommended.</p>
Temperature	<p>Extruder Temperature: Recommended extruder temperature is 220°C. Note: Different temperatures have subtle influences in prints. Please adjust the temperature according to the condition in order to get a good print.</p> <p>Platform Temperature: To set the temperature of Platform.</p>
Others	<p>Cooling Fan Control: Set up the time to turn on the cooling fan. You can pre-set the height and make the cooling fan begin to work at the point.</p>

6.2.12 File Menus

1. **New Project:** Click [File]--[New Project] can build a blank project. If there is an unsaved modification on previous project, then it will inform you whether the modification needs to be saved or not. Click [Yes] will save the modification, and then click [No] will abandon it. If click [Cancel] or close tool tip, then it will cancel the new project.
2. **Saving:** After finishing the model edit and adjustment, there are two ways below to save all models in the scene.
 - ◆ Method 1: Click [File]--[Save Project] in the menu bar to save the file as a project file with the ".fpp" suffix, all models in the scene (include support) are independent. If reloading the files, extruder configuration information and model position will be the same as the configuration during saving.

- ◆ Method 2: Click on [File]--[Save As...] to save the model as project file .fpp or .stl and .obj. For .stl and .obj, models are integrated as one (include support part). If load it again, only the position of the model was saved, not included the printing parameters.

3. Preferences: Click [File]--[Preferences], you can choose language and if needs detecting update when start



- ◆ **Language:** The software supports several languages, namely, Chinese (simplified Chinese and traditional Chinese), English, French, Korean, Japanese and so on.
- ◆ **Font Size:** Set the front size.
- ◆ **Auto layout newly-imported model:** Set YES or NO.
- ◆ **Preferred Extruder:** Set preferred extruder to print with.
- ◆ **Printing Window Type:** Including base model and expert model.
- ◆ **Check for Update after start up:** It is used to preset if it is necessary to activate the online automatic update function, if choose yes, every time when you open software, it can online detect if it is the latest version, once a new version found, it will reminds users to download and install the new version.

6.2.13 Edit Menus

1. Undo: Allows users to undo the recent edits by the following two methods:

- ◆ Method 1: Click [Edit]--[Undo].
- ◆ Method 2: Press the shortcut key Ctrl+Z.

2. Redo: Allows users to redo the most recent edit you have undone to your model file by the following two methods:

- ◆ Method 1: Click [Edit]--[Redo]
- ◆ Method 2: Press the shortcut key Ctrl+Y.

3. Empty Undo-stack: To clean up the recorded operating steps so as to release the memory.

4. Select All: By the following two methods, you could select all models in the scene. (When models are too small to be seen or out of viewing scope, please click [Center] and [Scale] buttons to adjust the model.)

- ◆ Method 1: Click [Edit]--[Select All].
- ◆ Method 2: Press the shortcut Ctrl+A.

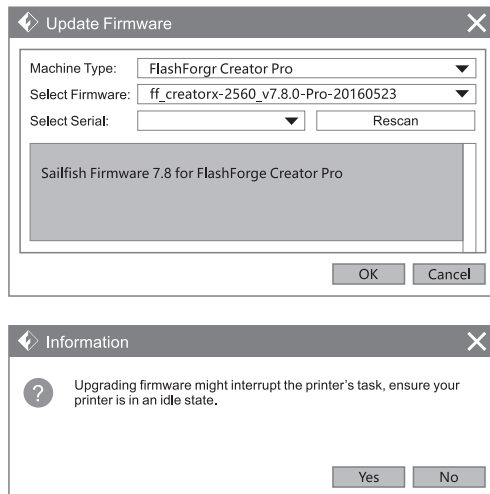
5. **Duplicate:** Select the object and duplicate the object through the following two methods:
 - ◆ Method 1: Click [Edit] – [Duplicate].
 - ◆ Method 2: Press the shortcut key Ctrl+V.
6. **Delete:** Select the object and delete the object through the following two methods:
 - ◆ Method 1: Click [Edit] – [Delete].
 - ◆ Method 2: Press the shortcut key Delete.
7. **Auto Layout All:** Click [Edit] – [Auto Layout All] after loading one or more than one models, all models will be placed automatically as automatic placement rule.
8. **Repair Models:** Recover model error.
9. **Supports:** Refer to Chapter6.2.10.

6.2.14 Tools

6.2.14.1 Update Firmware

Before updating firmware, you need to find and depress “driver-creator-pro” in the SD card. Click and install the relevant installation program.

Launch the FlashPrint (Now your computer and Creator Pro are connecting with each other), click [Tools] and [Update Firmware], then click [OK] and a dialog box will pop up. Click [Yes] to start firmware update.



6.2.15 Help Menus

1. **First Run Wizard:** For first user to get FlashPrint functions and layout quickly.
2. **Help Contents:** Click [Help]—[Help Contents], you can read flashprint user guide.
3. **Check for Updates:** Click [Help]—[Check for Update] to detect the available updates online.
4. **About FlashPrint:** Click [Help]—[About FlashPrint], the software information box will pop up. The contents include the current software version and copyright information.

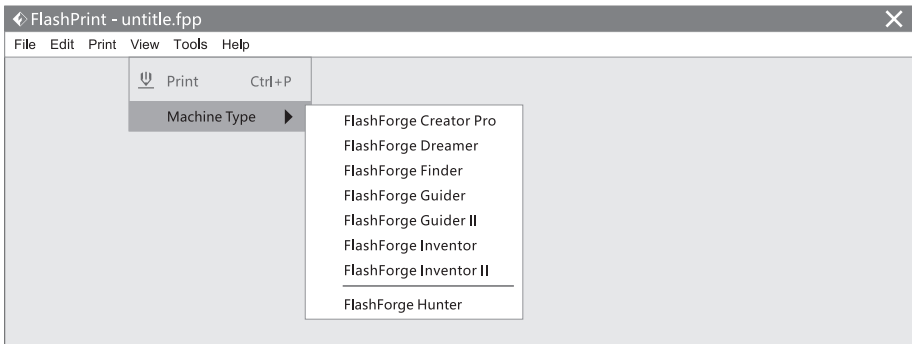
Chapter 7: Basic Printing

This chapter will provide a step-by-step guide on turning a 3D model into a physical reality. Before proceeding, it is recommended that you go over prior chapters on loading/unloading filament, leveling the build platform, and the functions and capabilities of FlashPrint.

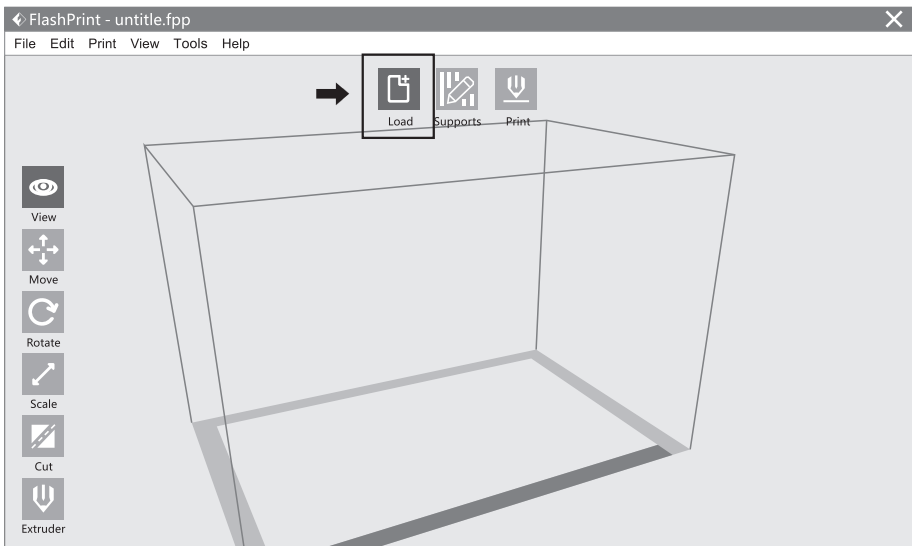
7.1 Generate a Gcode

Double-click the icon of FlashPrint to start the software.

Click [Print]--[Machine Type] to select FlashForge Creator Pro.



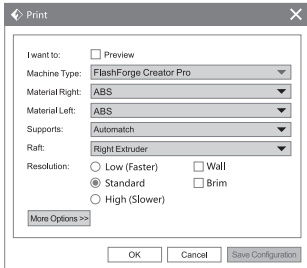
Click the [Load] icon to load a .stl model file and the object will be displayed on the build area.



Note: If you've placed your model in a right place, you can skip the step below.

Click the model to select it, then click the icon in the left [Rotate] – [Surface to Platform] to make your model perfectly positioned on the build area. Click [Back] and double-click the Move icon again, then click [On the Platform] and [Center] to ensure the model be placed on the platform.

Click the Print icon on the top, and you should make some setups for your print job.



Preview: If you check the [Preview] box, you can preview your model after slicing is done.

Machine Type: FlashForge Creator Pro

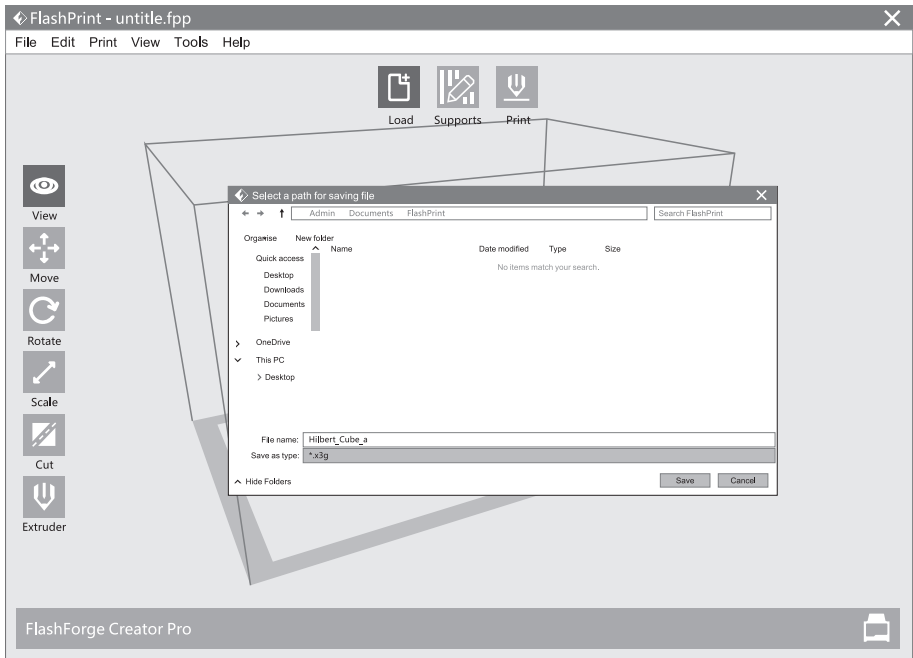
Supports: If you print a model with supports, you should click the inverted triangle and select [Enable].

Raft: You are suggested to select [Enable].

Resolution: You are suggested to select [Standard].

More Options: You are suggested to keep them default.

Click [OK] to select the path to save the Gcode file. You can rename the file as you like and save it as a .x3g file, click [Save] to generate a Gcode file.



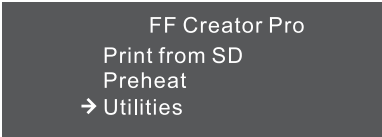
Next, we are going to print the model. Before printing, users should:

1. properly install the dual extruder.
2. properly install the filament guide tube.
3. properly mount the filament spool and feed the filament.

To make the process of feeding or withdrawing the filament easy, please follow the next few steps carefully: After inserting the filament into the filament intake, do not push it further until the extruder temperature reaches 200°C or higher. Once the machine reaches this point, you will feel the filament being pulled into the extruder head.

7.2 Loading Filament

Turn on the Creator Pro; using the directional arrow buttons in the right of the screen, to select Utilities and then press the [OK].




FF Creator Pro
Print from SD
Preheat
→ Utilities

Select Filament loading, press the [OK] key of the keypad.



Monitor Mode
→ Filament loading
Preheat Setting
General Settings



→ Unload Right
Load Right
Unload Left
Load Left

Select the appropriate side of the extruder you wish to load (Left or Right for models with dual extruders). Press the [OK] key again on the keypad. The display will indicate [I'm heating up my extruder!] At this time, the temperature of the right nozzle is being heated up. When the temperature of the nozzle reaches its target temperature, pressing the [OK] key on the keypad, and the nozzle should start extruding filament. If not, keep pressing the [OK] key until it does.

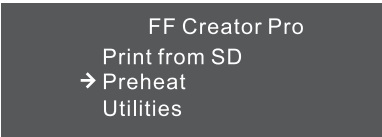
7.3 Unloading the Filament Using LCD Panel

CAUTION

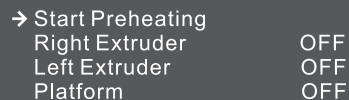
If you want to withdraw the filament after just finishing your printing or extruding, first press down the spring presser and push the filament in a little further, and then directly pull it out when the extruder temperature is still over 200°C.

If you want to change another color filament, first you need to withdraw filament and then load in. Please do as following shown to avoid filament jam.

Turn on the Creator Pro. Using the directional arrow buttons in the right of the screen, to select Utilities and then press the [OK].

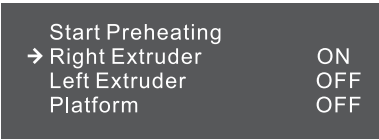


FF Creator Pro
Print from SD
→ Preheat
Utilities

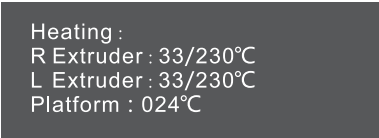


→ Start Preheating
Right Extruder OFF
Left Extruder OFF
Platform OFF

Press page down key to select Right Extruder (or Left Extruder), press [OK] key, you will see :



Press page up key back to Start Preheat, and Press [OK] key, you will see:



This means the right extruder is heating up, when it reaches 220°C. First push in the filament a little bit until you see filament come out of the nozzle, press the spring presser then pull it out quickly. This will ensure you have withdrawn the filament inside the nozzle successfully.

Then users should:

1. Insert your SD card with target x3g file to your Creator Pro. .
2. Turn on the Creator Pro.
3. Select [Print from SD] on the LCD panel.
4. Select the file you want to print and press [OK].
5. And the printer will heat up the nozzle and the build plate automatically and start to print after the nozzle and the build plate reaches the aimed temperature.

Chapter 8: Function

In this chapter, we will introduce the Creator Pro function to you. We will mainly introduce Utilities function and other available functions in printing process, as Print from SD and Preheat are introduced in prior chapters.

Utilities

Using the directional arrow buttons in the right of the screen to select Utilities, Press OK key on the keypad, then you will see:

1. Monitor Mode

Select it and then press OK, the display will indicate:

Creator Pro
R Extruder
L Extruder
Platform

2. Filament loading: Refer to Chapter 7

3. Preheat Setting: Refer to Chapter 7

4. General Settings

Select it and then press OK, the display will indicate:

Ditto Printing (The dual-extruder print one model simultaneously)
Override GcTemp (Reselect)
Pause with Heat (Whether continue heating when pause printing)
Sound
Acceleration
Extruder Count

5. Level Build Plate

Build plate leveling refers to Chapter 5.

6. Home Axes

Select it and then press OK. The dual-extruder will move backwards, and the build plate will elevate up. It means Creator Pro is ready for printing.

7. Bot Statistics

Select it and then press OK, the display will indicate:

Lifetime (Accumulated time for printing)
Last Print (Spent time for the last printing)
Filament (Accumulated filament length for printing)
Fil. Trip (Accumulated filament length for printing)

8. Filament Odometer

Select it and then press OK, the display will indicate:

Life (Accumulated filament length for printing)
Trip (Accumulated filament length for printing)
Reset (Press OK to reset the Trip data)

9. Profiles

Select it and then press OK, the display will indicate:

ABS
PLA
Profile1
Profile2

Select any option and press OK; the display will indicate:

Restore (Back to Utilities)
Display Config
Change Name
Save To Profile

Select Display Config and then press OK ; the display will indicate

Config
X Offset
Y Offset
Z Offset
Right Temp
Left Temp
Platform Temp
Change Name
Save To Profile

10.Home offsets

Select it and then press OK, the display will indicate:

X Offset
Up/Dn/Left/OK to Set (Press Up button and Down button to change the X/Y axis coordinate;
press OK to confirm; press Left button to back.)

11. Toolhead Offsets

12. Jog Mode

Select it and then press OK, the display will indicate:

X+		Press Right/Left button change the X/Y/Z axis interface;
(Menu)	Y- >	press Up/Dn button to change the coordinate;
X-		press OK button to back.

13. Enable steppers

Select it and then press OK, the display will indicate:

Disable Steppers

Steppers is lock. It means the position of extruder or build plate cannot be manually adjusted.
Press OK button again to back to Enable steppers. It means the position of extruder or build plate can be manually adjusted.

14. Auto-Level Adj

15. Auto-Level Variance

16. Max Z Probe Hits

Select it and then press OK, the display will indicate the distance build plate descending after printing job completed.

17. Calibrate Nozzles

Select it and then press OK, the display will indicate:

X Axis Line
Y Axis Line
Done

18. Restore Settings

Select it and then press OK, the display will indicate:

Restore factory settings ?
NO
YES

19. Eeprom

The setting is not suggested modified by users. Improper operation may cause the device shutting down.

20. Version Information

Select it and then press OK, the display will indicate the basic information of the printer.

21. Exit Menu

Options during printing process: In the process of printing, we may encounter the inevitable problem. At that situation, we have to pause printing.

First, press OK button or Left button to back to the menus. Then you will see:

1. Back to Monitor

Select it and then press OK, the display will indicate:

Printer name
Printing progress
R Extruder
L Extruder
Platform

2. Cancel Print

3. Pause

4. Pause at ZPos

5. Change Speed

6. Change Temperature

7. Change HBP Temp

8. Set Cooling Fan

When it display ON, press OK button. Then it will display OFF. It means the cooling fan starting working;
When it display OFF, press OK button. Then it will display ON. It means the cooling fan stopping working.

9. Set Lights Off

10. Print Statistics

Select it and then press OK, the display will indicate:

Print Time (Spent time for printing)
Time Left
Filament (Accumulated filament length for printing)
Auto-level inactive (build plate cannot move)

11. Cold Pause

After selecting it and pressing OK, the extruder and build plate will move to the initial position. It may cost several seconds. And then the display will indicate:

1. Back to Monitor

2. Cancel Print

3. Unpause

After selecting it and pressing OK, the extruder begins heating up. The printer will resume printing when the extruder reaches the target temperature.

4. Jog Mode

5. Filament Loading

6. Change Speed

7. Change Temperature

8. Change HBP Temp

9. Set lights OFF

10. Print Statistics

Chapter 9: Supports and Service

FlashForge team is on standby and ready to help you with any problems you may have with your Creator Pro. If the issues or questions are not covered in this User Guide, you can seek for solutions on our official website or contact us via telephone.

There are solutions and instructions to common issues that can be found in our knowledge base. Have a look first as most basic questions are answered there. www.flashforge.com

The FlashForge support team can be reached by e-mail or phone between the hours of 8:00 a.m. to 5:00 p.m. PST Monday through Saturday. In case you contact us during off-duty time, your inquiry will be answered the following business day.

Note: Because of change different filament the extruder maybe blockaded. It's not owing to quality issue, and outside the scope of 400 hours life. If users encounter this problem, please contact our after-sales department and finish clean work according to their instruction.

Tel: 400-699-1063

QQ: 2850862986 2850863000 2853382161

ADD: No. 518, Xianyuan Road, Jinhua, Zhejiang, China.

After-Sales Service: support@ff3dp.com

Amazon.com orders only: 597891915@qq.com

* When contacting support, please have your serial number ready. The serial number is a bar code on the back of your Creator Pro. *



S/N: FFCXXXXXX

