

“SPEED UP DESIGN ITERATION AND PRODUCTIZATION”

CREATOR 4



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Creator 4 is equipped with industrial-grade printing configuration and advanced temperature control management system, which can more accurately controls the printing of engineering consumables during the whole process of each printing. The printed parts have excellent mechanical strength and precision, and the large-size model can adapt to the application requirements of different scenarios.

Creator 4 uses a multi-configuration, interchangeable extruder module, refreshes the limitations of material application and is suitable for printing flexible, standard, engineering and carbon fiber composite materials. According to different application demands, Creator 4 will choose the best configuration scheme, to provide enterprise customers with the best cost control plan from designing to finished products.

Equipped with engineering filament series and Creator Elite made of German LEHVOSSS raw materials, Creator 4 is able to print stronger parts.

Newly developed FlashPrint software can be integrated to control more Flashforge printer

KEY FUNCTION

- ▶ Interchangeable printing modules for different filaments.
- ▶ IDEX, creates high-quality and detailed prints;
- ▶ Wrap free on large-scale parts ;
- ▶ Intelligent filament management system and outstanding performance
- ▶ 5000 hours of stable and continuous printing;

INTERCHANGEABLE PRINTING MODULES

► 1+3 modules

1 device +3 extruder
Unlock requirements of materials printing.



EXTRUDER -F



EXTRUDER -HT



EXTRUDER -HS

Printing temp	180-265°C	200-320°C	265-360°C
Filament diameter	2.85mm	1.75mm	1.75mm
Max printing speed	100mm/s	200mm/s	150mm/s
Nozzle diameter	0.4mm	0.4/0.6/0.8mm	0.4/0.6mm
Applicable	TPU/ TPE/TPB/TPC	PC/PA/PP/PETG/ASA/ ABS/PLA/PC-ABS	PACF/ PET-CF/ PP-CF/PA- GF/PC-ABS/PP-GF/PPS- CF

It is not necessary to have multiple 3D printers at hand for different applications any more. You will always achieve outstanding prints quality using Creator 4 that combines job-specific printing modules with approved and preset printing profiles.

▶ EXTRUDER-F



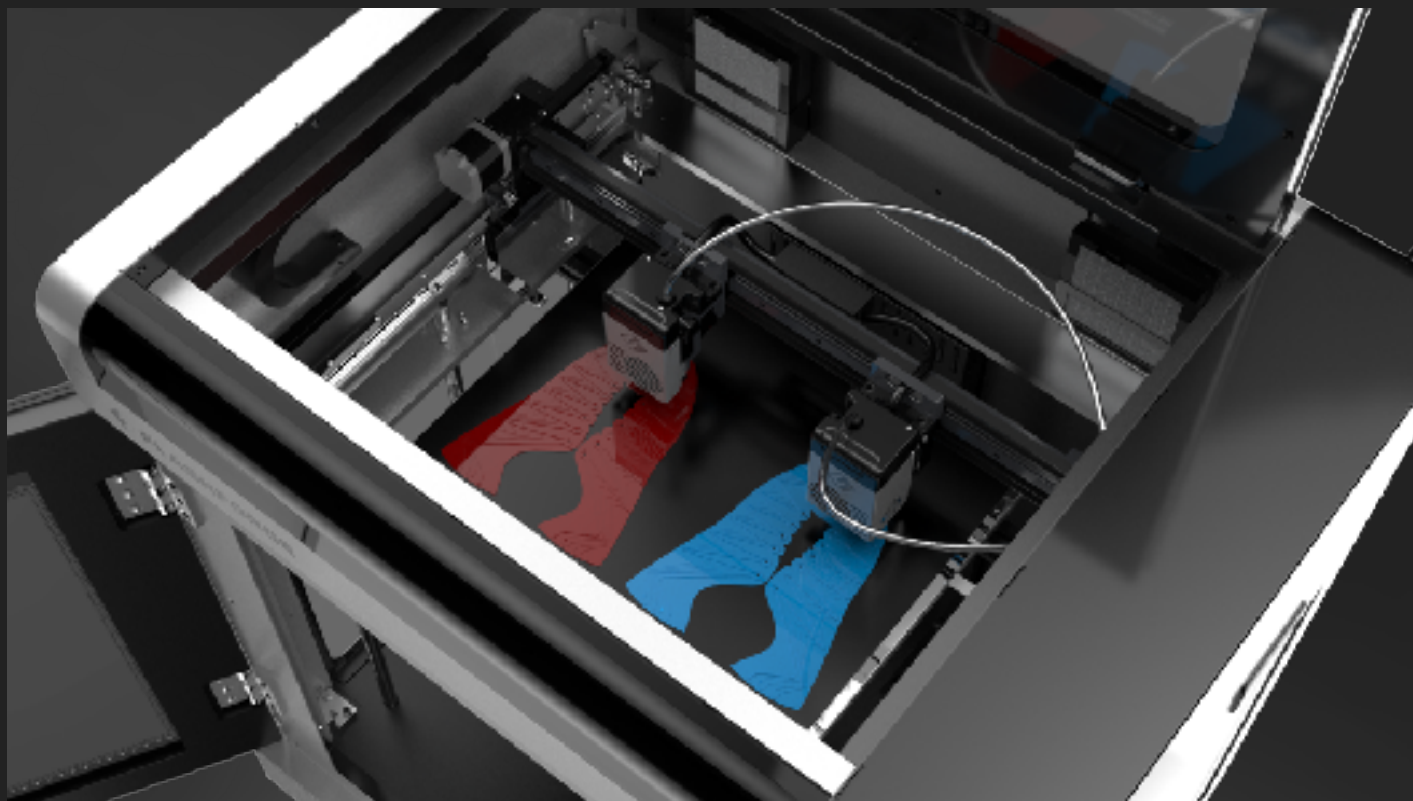
- ▶ Max printing speed 100mm/s for TPU95a
- ▶ 2.85mm filament,
- ▶ Flexible filament :85A-98A

Application

Shoe vamp and pad, (cushioning effect)

Sporting goods, smartphone cases, car bushings and shock absorbers; (such as car soft rubber handle, sports kettle)

FPV (Explosion-proof)



▶ EXTRUDER-HT



▶ Max printing speed 200mm/s

▶ 1.75 diameter filament

▶ 0.4mm nozzle

▶ Material range:

Standard : PLA/ABS/PETG

Engineering: PC/ABS/PP/PA/PAHT

Application

Functional Prototype of Consumer Electronics (ABS/PC/PETG)

Fixture (ABS/PC/PETG)

Automotive Parts, Structural Verification, Motorcycle Helmets (PC/PA/PACF)

Tools and live hinges, gears (PA, impact resistance, high toughness)

Experimental bottle ,container printing (PP, chemical resistance, fatigue resistance)



▶ EXTRUDER-HS



- ▶ Max printing speed 150mm/s
- ▶ 1.75 diameter filament
- ▶ 0.4/0.6mm nozzle for carbon fiber filament to reduce clogging and improve printing efficiency
- ▶ Material range:

Standard : PLA/ABS/PETG

Engineering: PC/ABS/PP/PA/PAHT

Composite carbon fiber: PA-CF/PETG-CF/PET-CF

Application

High strength, light weight and temperature resistance;

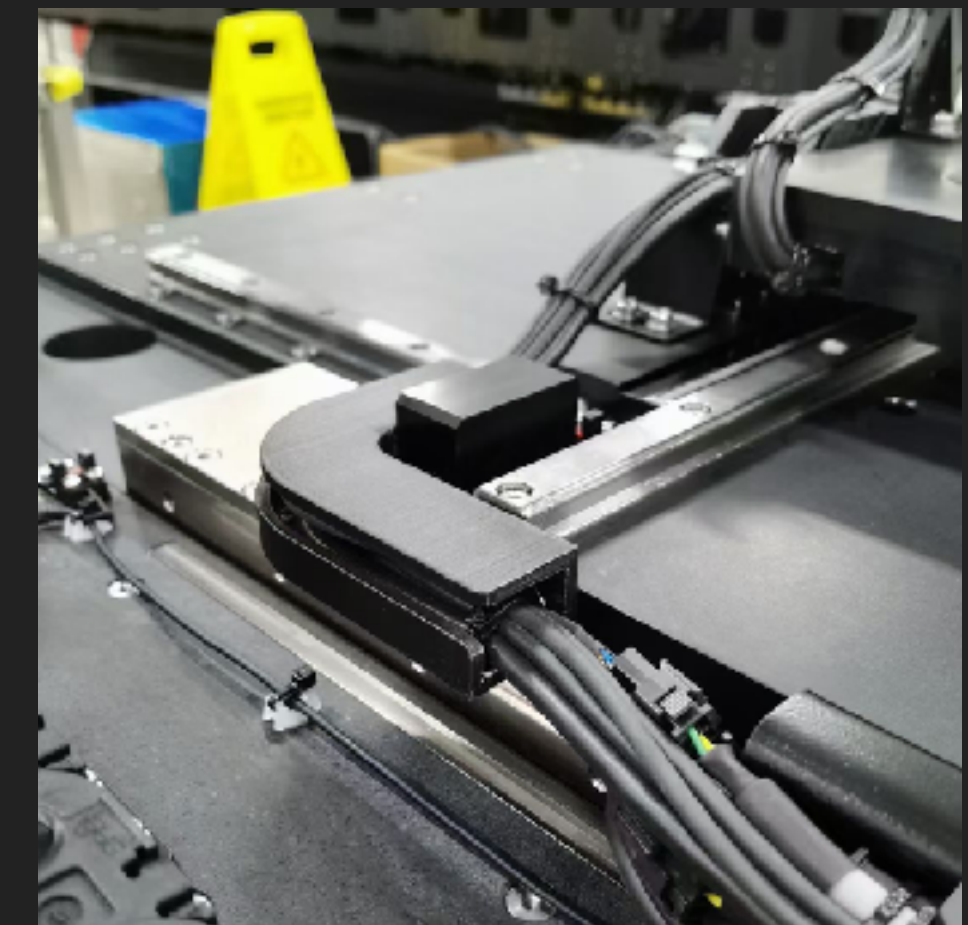
RC auto parts;

FPV parts;

Turbine blade

Parts of racing cars and military industry

Tennis rackets, golf clubs, bicycle frames and other sports equipment



► INDEPENDENT DUAL EXTRUDER

- **IDEX** is the only extrusion system capable of printing with two heads independently. This system allows enabling Duplication and Mirror printing modes so as to print two pieces at a time. Doubled printing capacity means double productivity, all with the same investment.
- **IDEX** is the best option for production optimization to create functional 3D printed parts with advanced materials.
- Direct drive for smooth extruding



SMART FILAMENT MANAGEMENT

- ▶ Intelligent identification of material types and automatic matching of heating temperature;
- ▶ Intelligent identification of material options, automatic setting of cavity pre-reserved temperature, to ensure the success rate of printing;
- ▶ Free to adjust the cooling temperature, ready for the next print, no more waiting.
- ▶ Open material system, compatible with third party filaments.



WARP FREE ON LARGE-SCALE PARTS

- ▶ The new thermally controlled build chamber helps to avoid heat stress and warping of parts. Especially those difficult to print engineering filaments.
- ▶ Advanced software controls preheating and heat preservation before and after printing to ensure the mechanical properties of the finished model
- ▶ Prevent the engineering filaments like ABS/PC from warping and splitting.
- ▶ Interconnected filament compartment and printing chamber helps to keep the printing environment dry. Users may observe the humidity directly with temperature and humidity sensor equipped in the filament compartment. The filament status can be guaranteed and printing performance would be improved time by time.



▶ 5000 hours of stable and continuous printing

- ▶ High accuracy linear rail structure of X&Y axis guarantees the printing precision to be 4-5 times higher than the average on the market.
- ▶ New S-type motion control, smoother start and stop, more accurate positioning, excellent model accuracy;
- ▶ Accurate linear guide rail which is key to high manufacturing quality
- ▶ The metal framework and axis structure of CREATOR 4 for high stability and sustainability
- ▶ Sensor detection of key parts (positioning sensor, temperature control sensor, filament sensor), ensuring smooth operation of each workflow



FEATURES

- ▶ Create big functional parts or many models in one run.

400

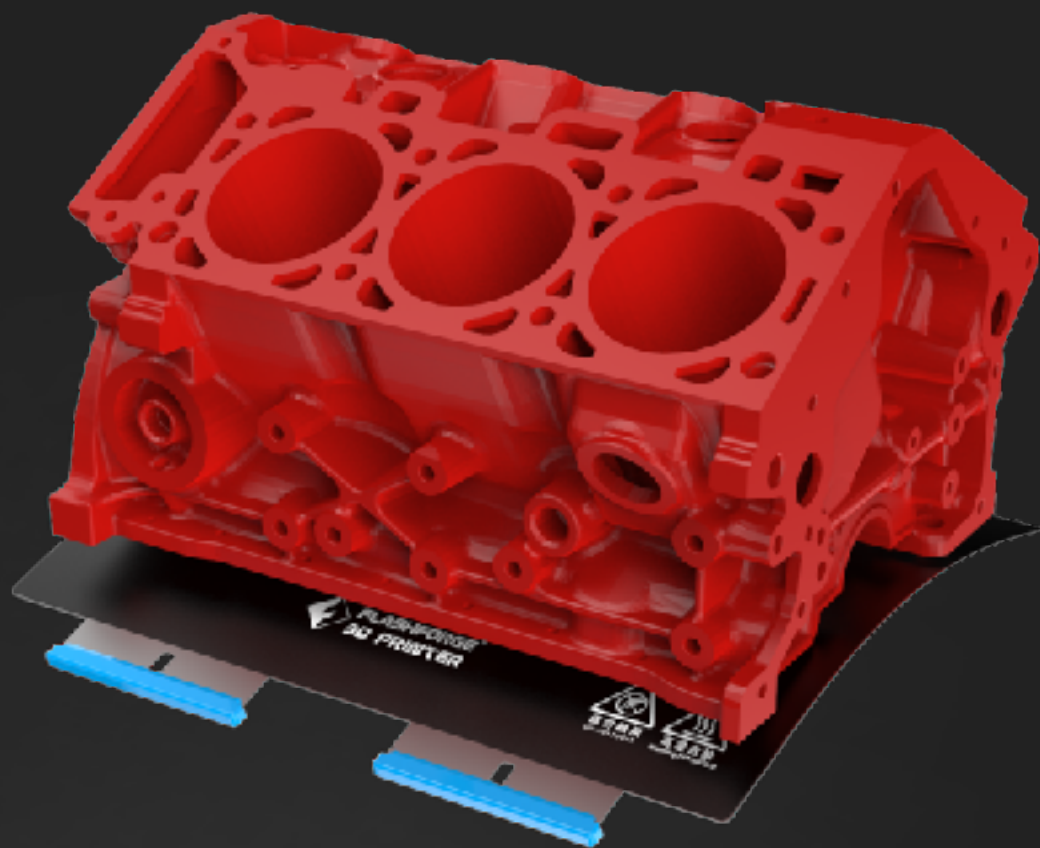
Length (mm)

350

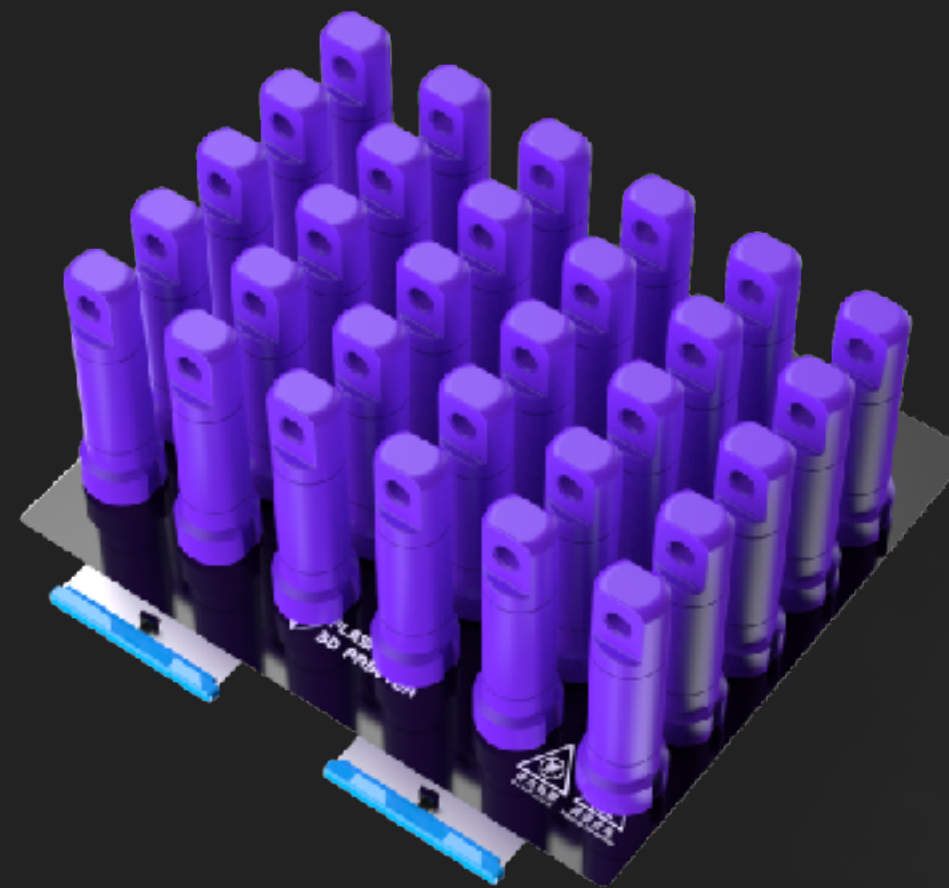
Width (mm)

500

Height (mm)



Large model printing



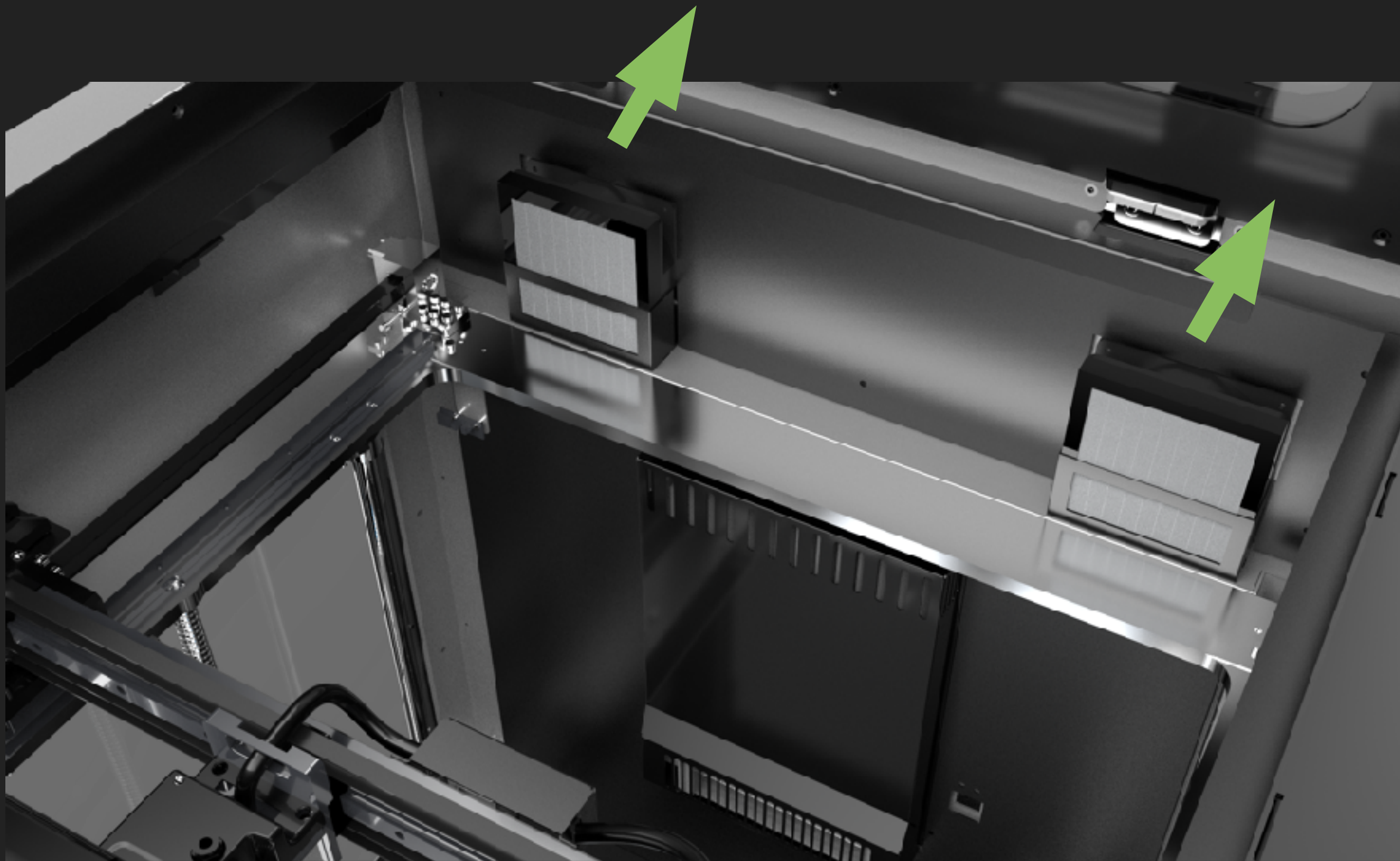
Multi -model printing



Z-axis high model printing

FEATURES

- ▶ HEPA Air filter system for clean ambient air

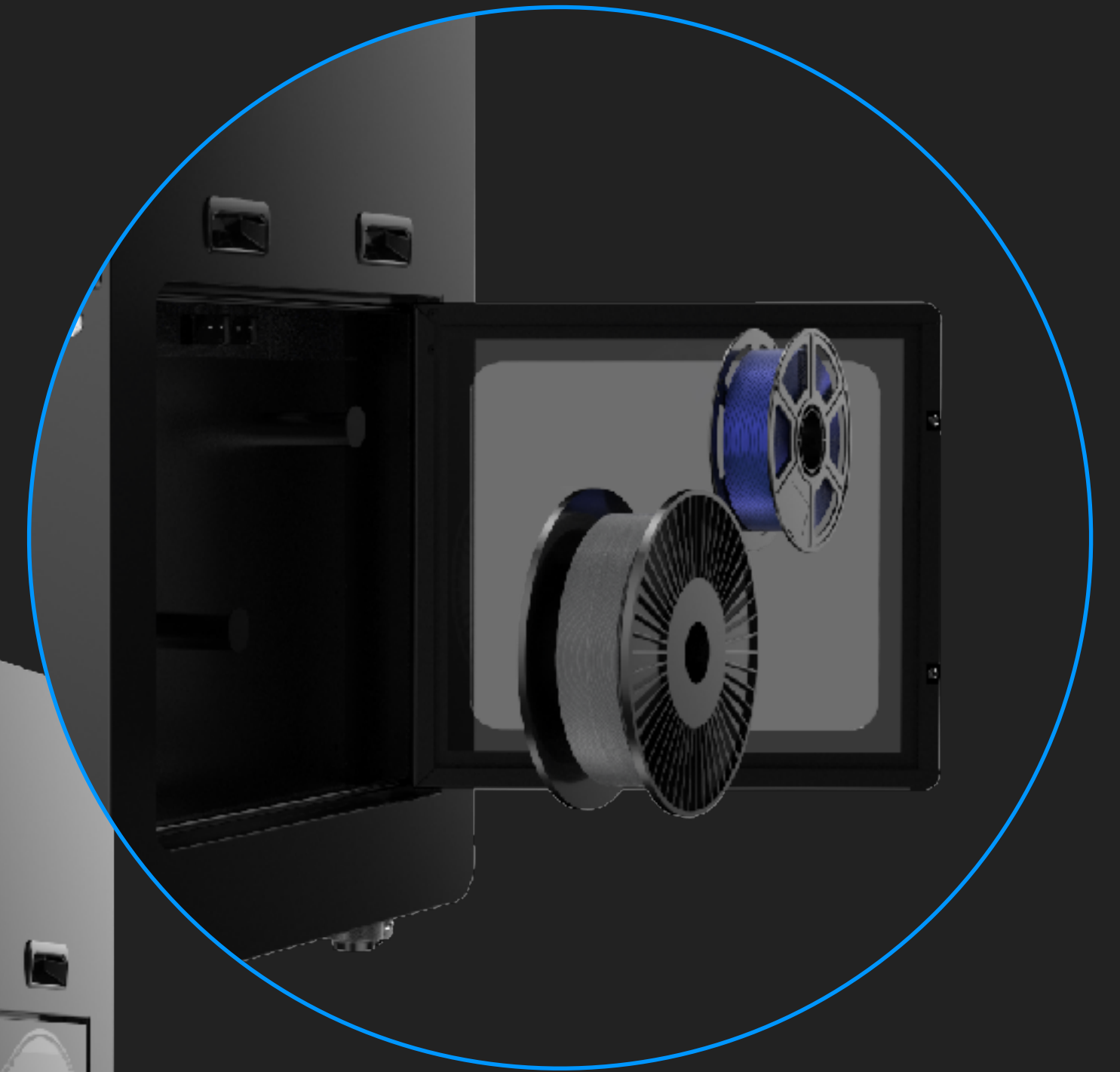


Equipped with a HEPA filter, filtering 99% of TVOC dust out, which protects your working environment from potentially harmful particles when printing with industrial materials

FEATURES

- ▶ Enlarged filament compartment to support 2kg spool, coming with improved filtration and humidity control system.
- ▶ Transparent window to observe filament consumptions.

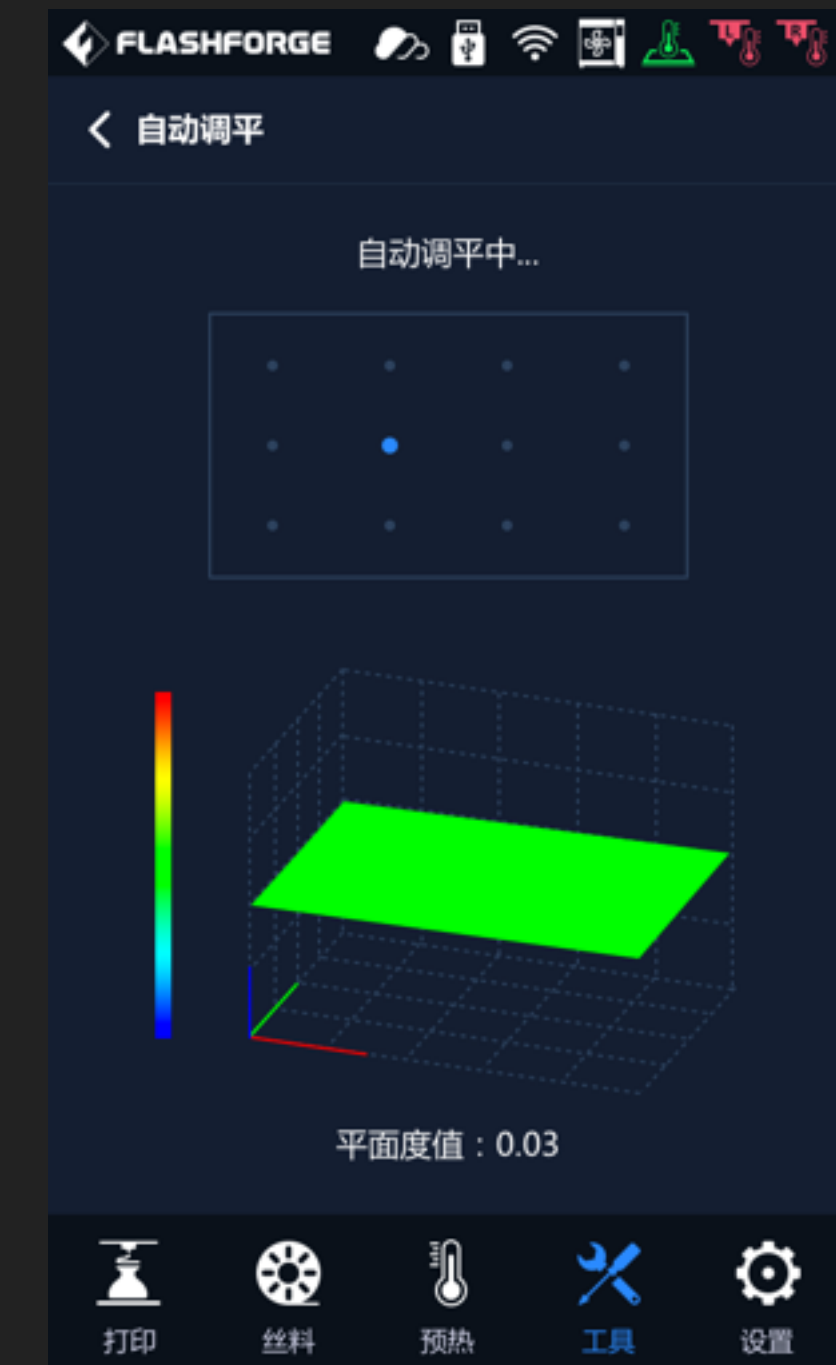
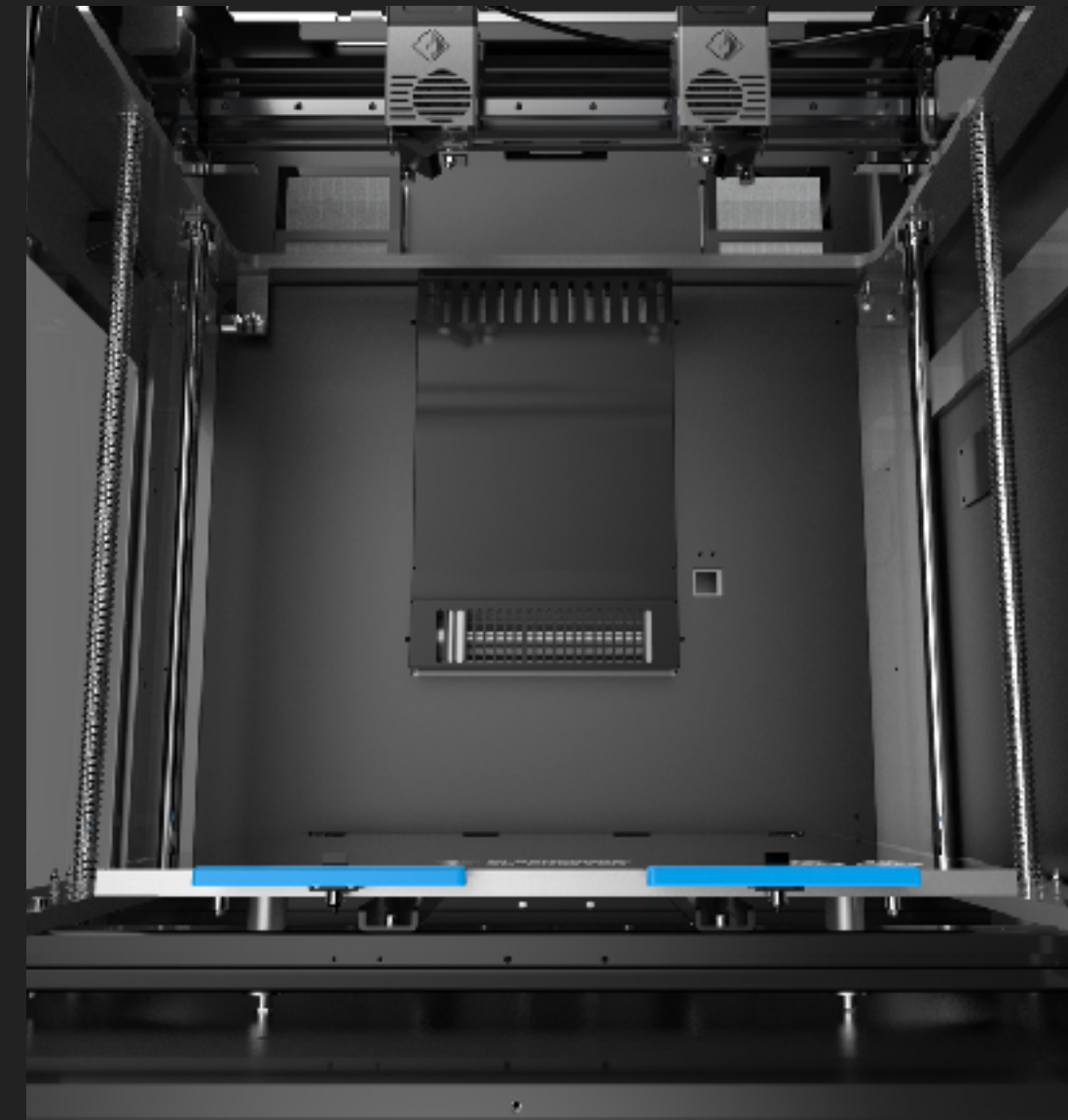
▶ 2KG +1KG spool holder



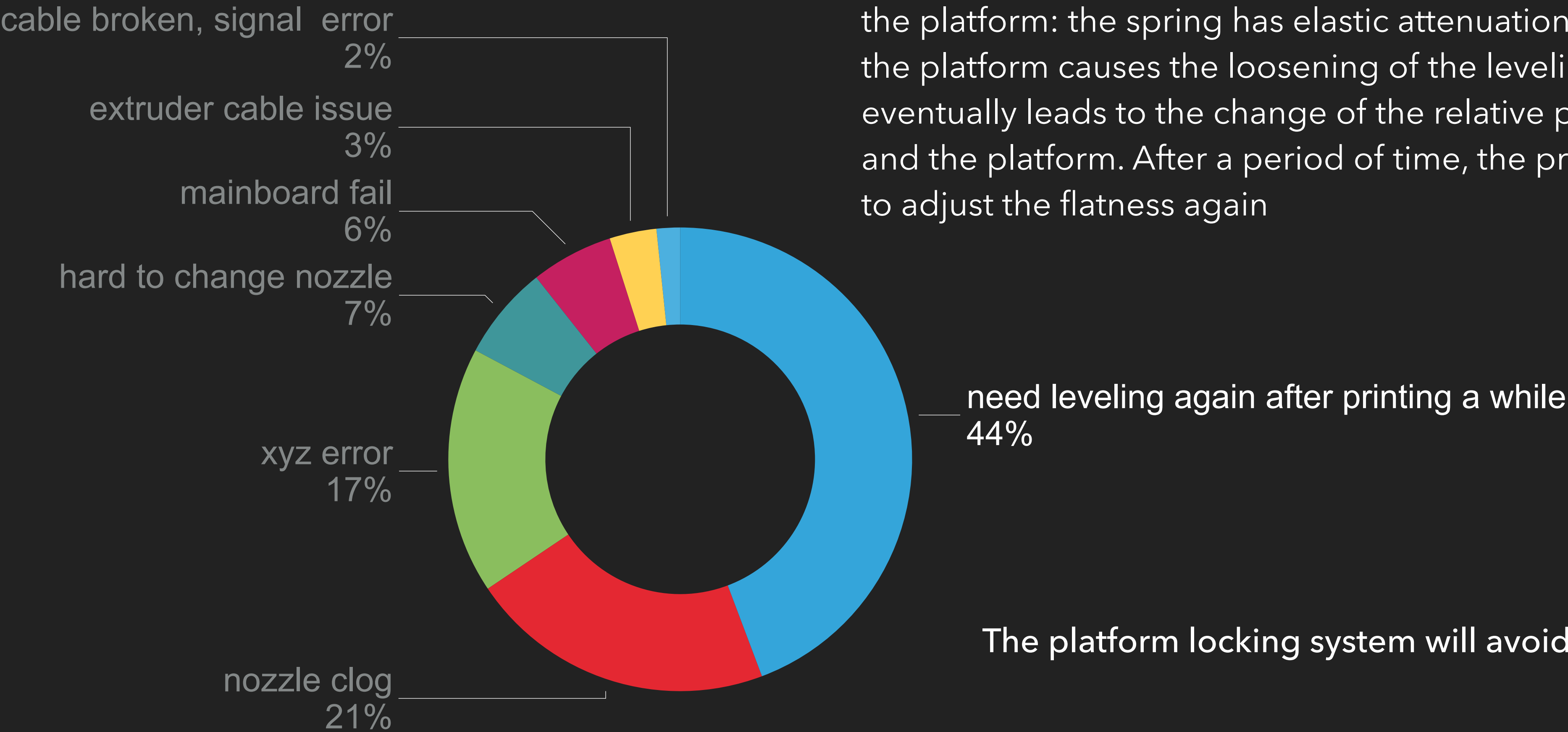
FEATURES

▶ Intelligent leveling system + platform locking system

- ▶ The platform will keep the former leveling once it has been locked, ensuring that the relative position of the platform and the nozzle will not be changed due to the printing vibration during the printing, guaranteeing the consistent.
- ▶ With leveling sensor built in the extruder and 16-point sensor probe, it can compensate the tiny difference of the whole platform flatness.
- ▶ Use 16 points leveling through the extruder sensor probe to save and analyze platform flatness data and intelligent compensation function on table height of the Z-axis during printing process helps to achieve fully automatic leveling.
- ▶ Rotating lock structure, turn 90 degrees to unlock and remove the platform.



WHY NEED THE PLATFORM LOCKING SYSTEM



The desktop 3D printer usually uses a spring to adjust the flatness of the platform: the spring has elastic attenuation, and the vibration of the platform causes the loosening of the leveling nut, which eventually leads to the change of the relative position of the nozzle and the platform. After a period of time, the printing machine needs to adjust the flatness again

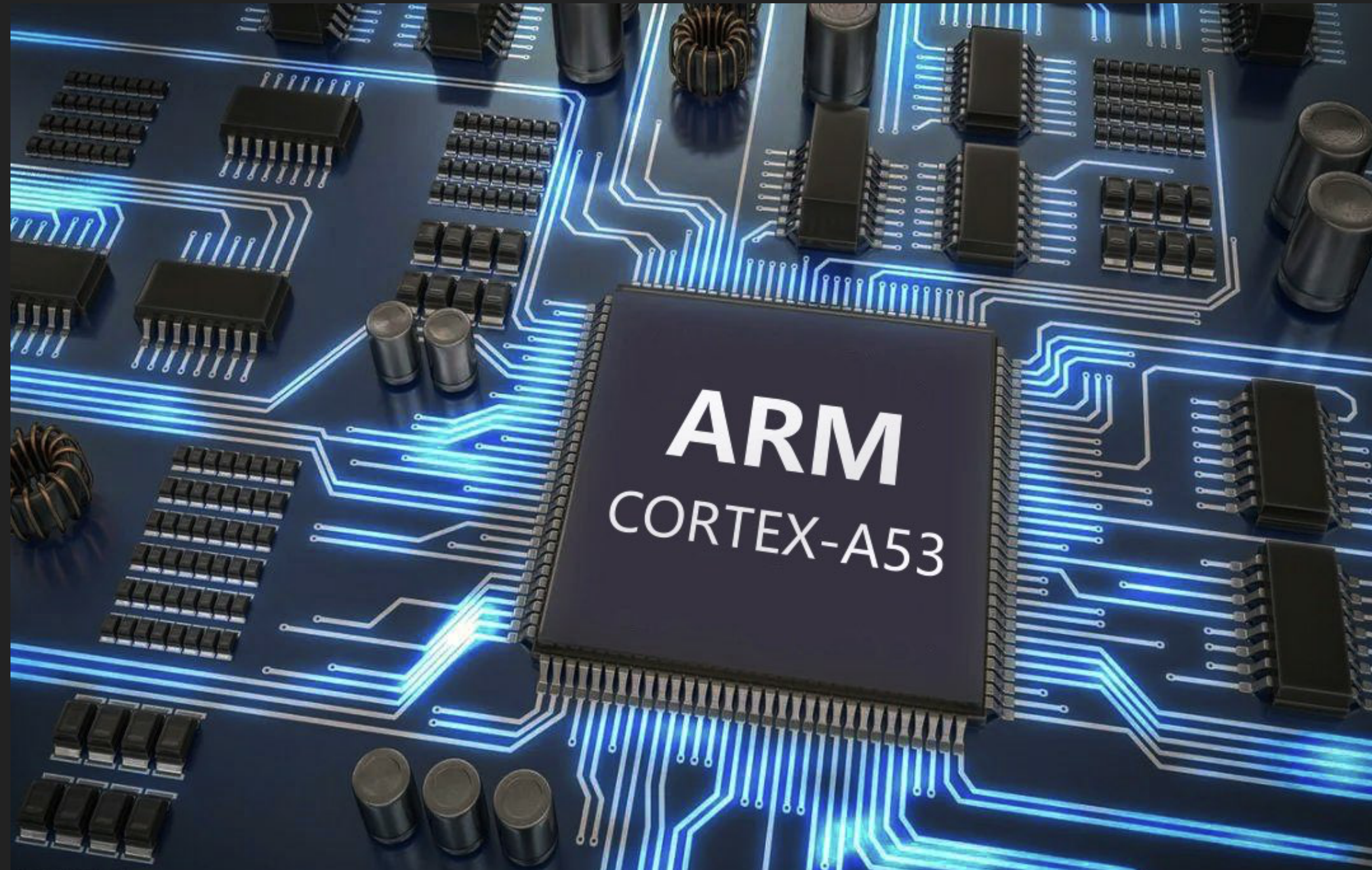
The platform locking system will avoid this kind issues

DETAILS



- ▶ Simple and intuitive operation via 7 inch touch screen;
- ▶ HD camera 1080P remote monitoring;
- ▶ Power failure backup to easily resume your 3D prints continuously;
- ▶ Auto power off when prints done;

DETAILS

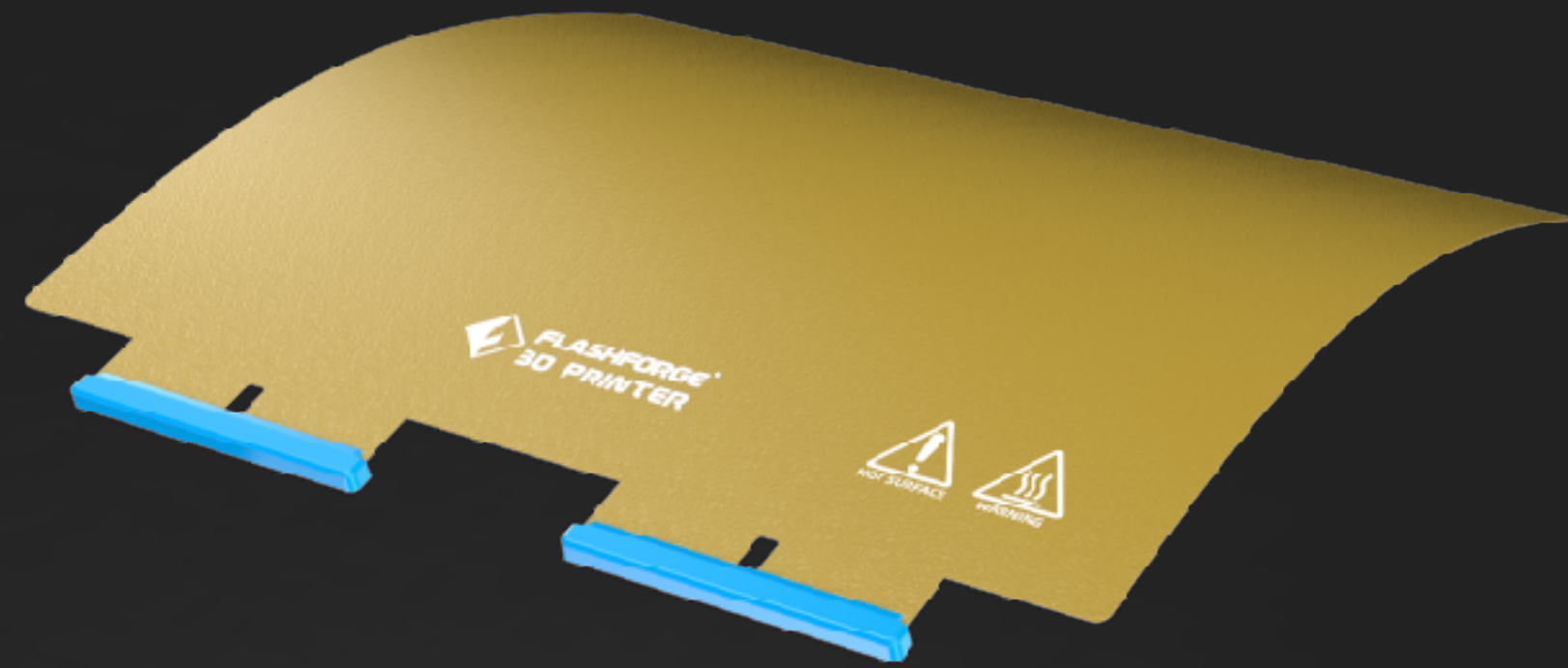


The Cortex-A53 chip

High reliability/accurately control/strong heat dissipation performance

- ▶ 4 core , 64bit , 1.8 Ghz
- ▶ High CPU processing speed
- ▶ higher level of power efficiency

ACCESSORIES



PEI Spring sheet

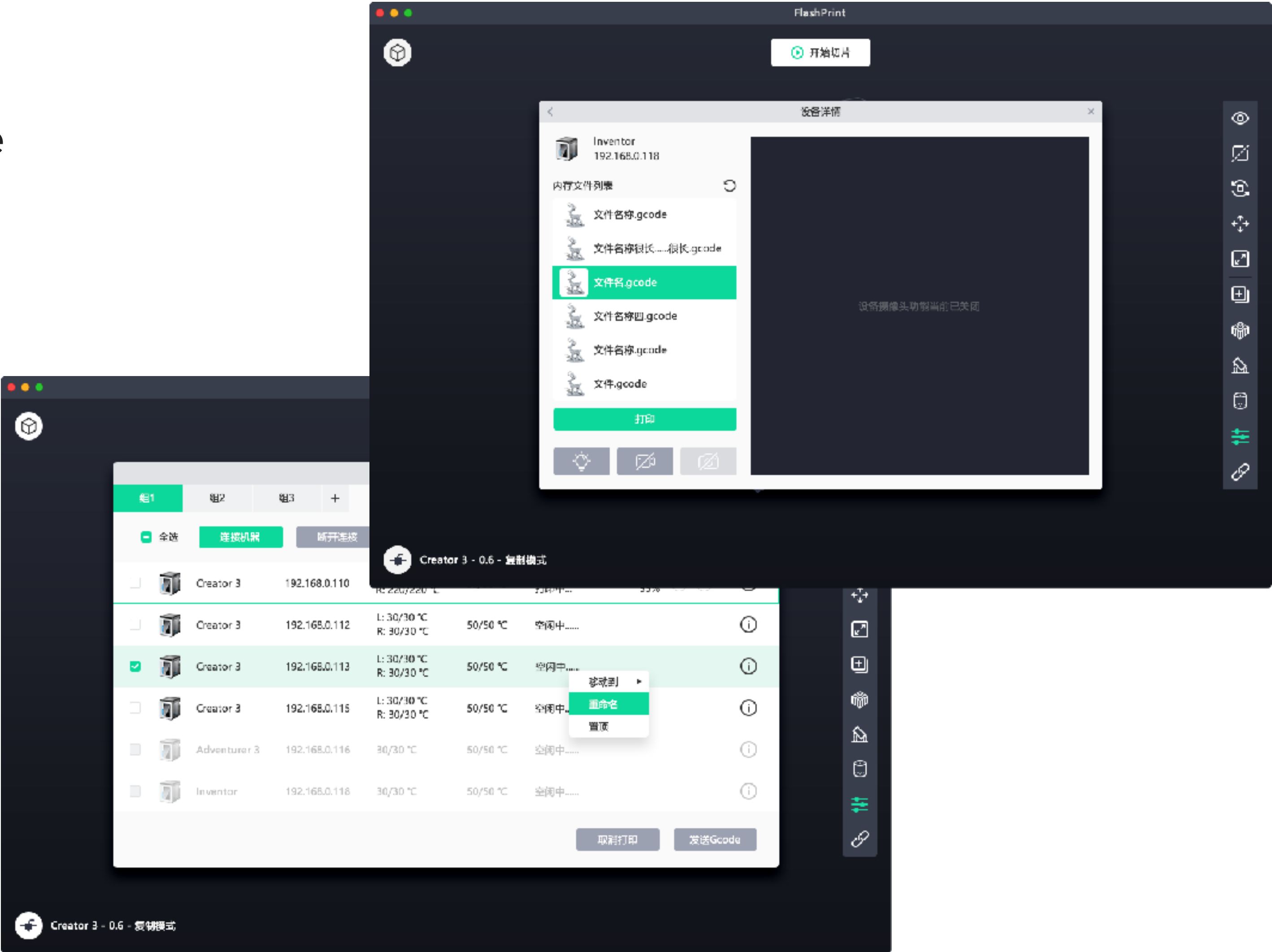


PC sticker spring sheet (PP sticker)

SLICE SOFTWARE

Newly developed FlashPrint software

Take control of your production workflow. New Flashprint slicer queue management printers in the workplace. Group printers based on the business. See an overview of printer status by in-build camera and setting it up according the situation.



Creator 4 series is suitable for printing Flashforge high-end filaments. This series collaborates with Germany LEHVOSS, and the filaments have been formulated by LEHVOSS specially so as to limiting heat-shrinkable and warping while printing. In that case, the requirement of high temperature in chamber become unnecessary. The series also meets the Engineering Mechanics standard of strength and thermal endurance. The filament obtains Germany LEHVOSS laboratory certification.

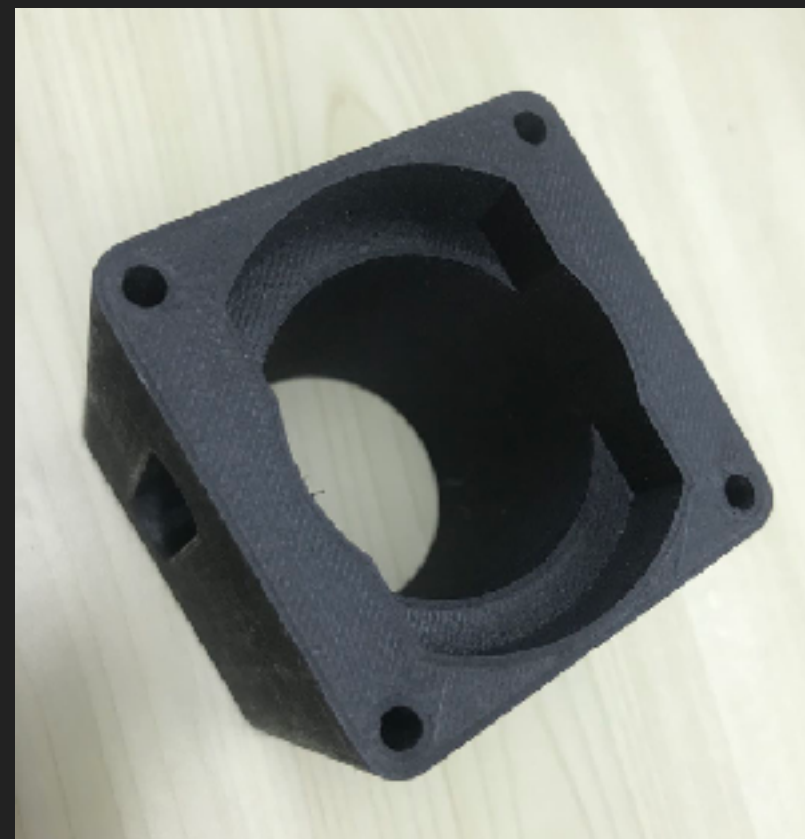
PAHT (9875)

Compared with PA66, the size and electrical properties are less affected by humidity and temperature



PA12-CF(9891)

High temperature resistance/Low water uptake



PET-CF (9780)

Easy to print. No warping/ High Z-axis strength.



Excellent printability | Reduced anisotropy, easy to print | Focus on serial production by 3D printing

APPLICATION

► Automobile



After the part is designed, 3D printer quickly verify the part structure.

Compatibility, rationality of the design; part of it is involved. Some verification of the impact strength of the parts,

The strength of the study, the weight of the parts, the degree of structural matching. Multiple test. It also prevents design files from leaking Exposure to ensure data security.

Material: PA/PC/ABS/PLA/PACF

► Consumer Electronics



Confirm the appearance of the parts and constantly modify the design details;

Quickly iterate the design and confirm the most popular design

Works, shorten the time to market.

For example, designing the appearance of an electric water pot, CNC is difficult to process or the process is not good, the cycle is long.

You can use 3D printing to print multiple appearances directly to customers

Product, select OK, and then proceed to open mold batches

Production, shorten the time from design to mold production

Material: PLA/PETG

► Tooling or fixture for production line



Manufacturing fixtures or other vulnerable parts of the production line; adapting its strength, temperature resistance, wear resistance and fatigue resistance characteristics.

Material: PLA/ABS/PC/PA

► 3D Printing Service



Mass production system for large parts manufacture, is directly put into the terminal application, reducing costs and add Synergies

Material: PLA/ABS/PC/PA

APPLICATION

- ▶ **Sculpture industry**

3D Printing can effectively reduce the cost of labor; the originally used creams are fragile when transported; Add a layer of putty on the 3D printed large sculpture , and remove print texture, then painting, you've got the flat surface. The whole sculpture production line could only keep painters instead of plaster line employees, reducing the cost of labor largely. **Material:PLA**

- ▶ **University-Industry design major**

Reproduction of student design works , graduation project and Thesis Defense; commonly used materials PLA

- ▶ **University- mechatronic engineering major**

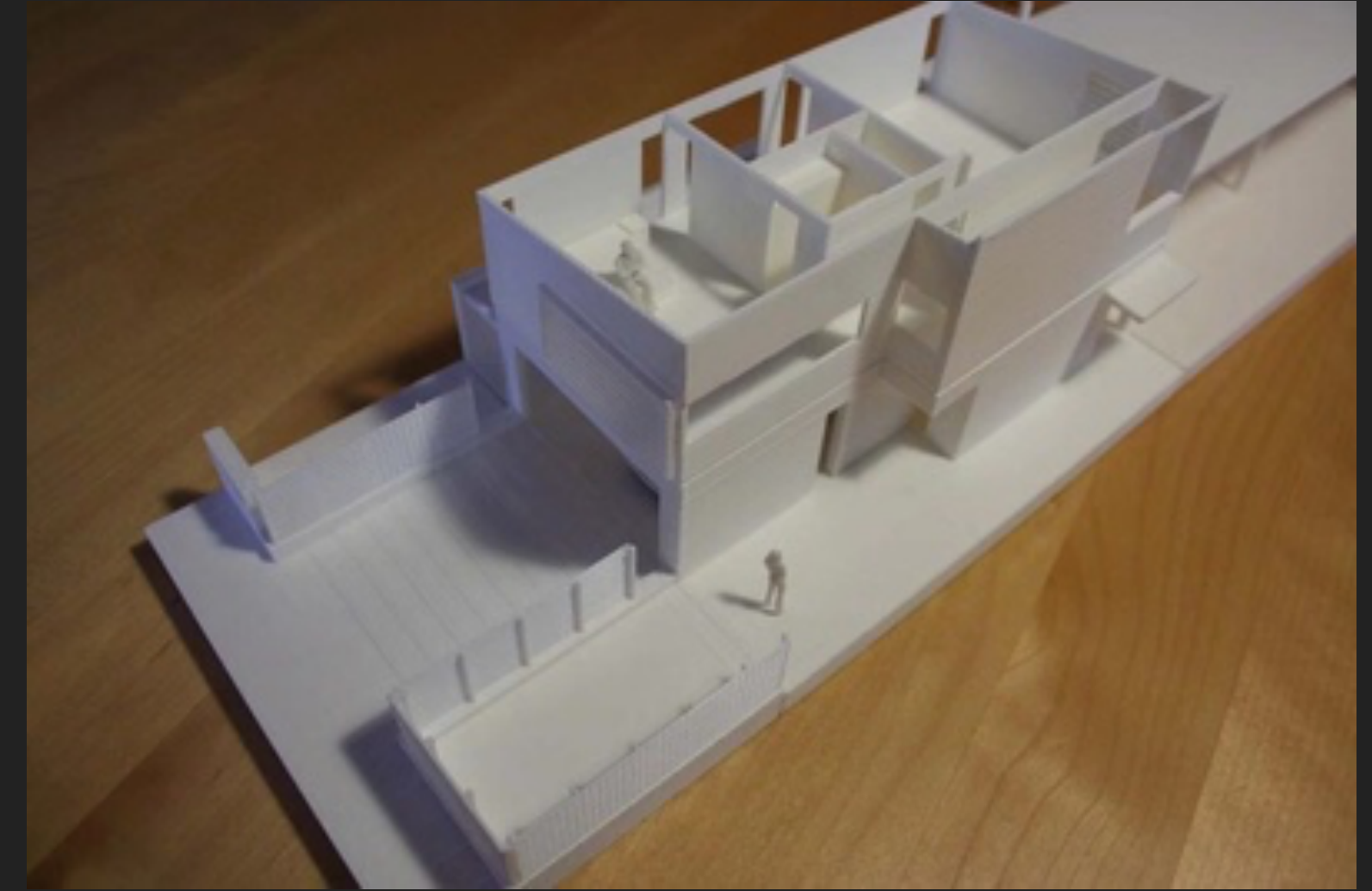
Test the matching of mechanical structure; commonly used materials PLA/ABS

- ▶ **College-Skill training and create jobs**

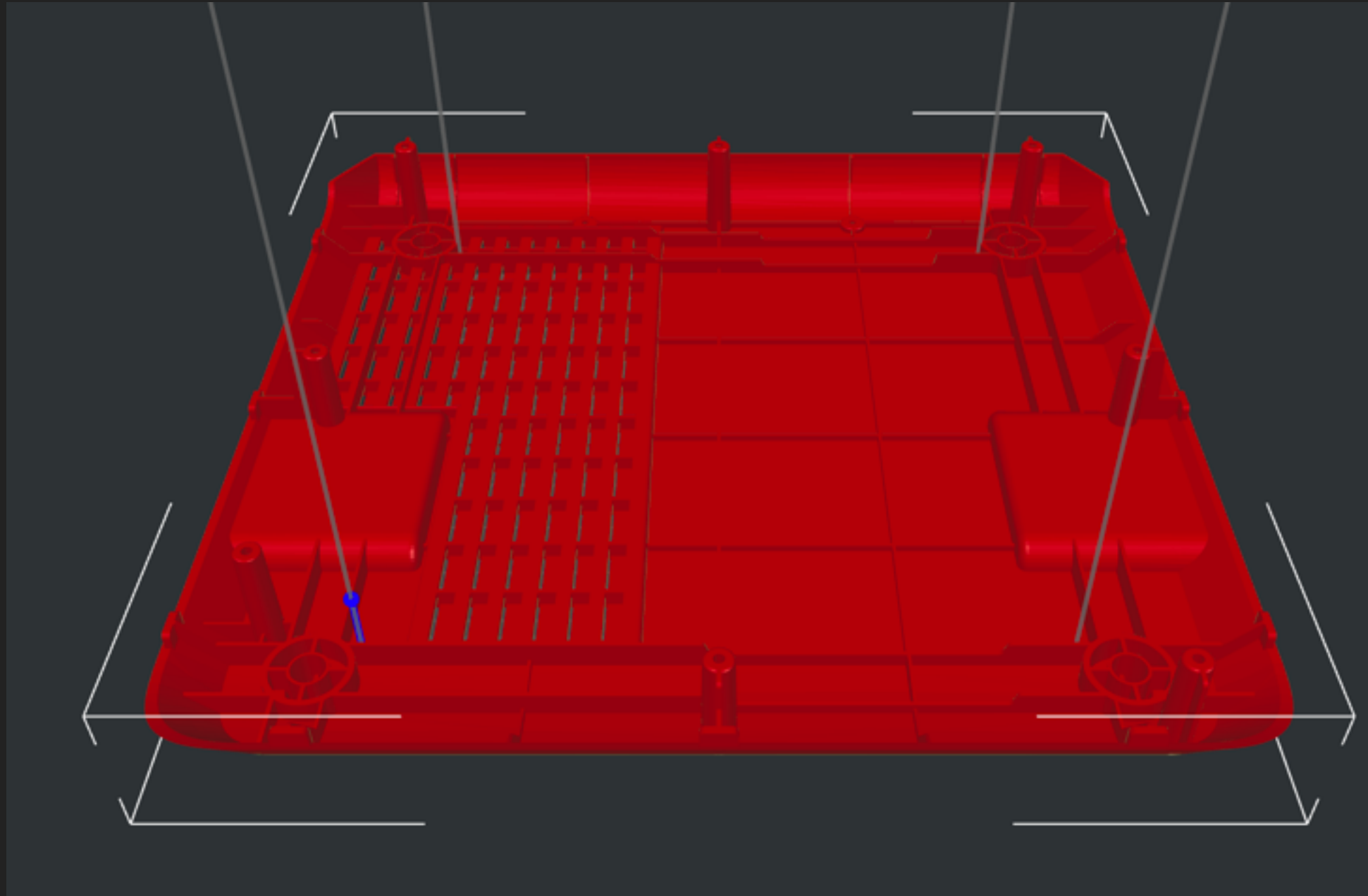
Training the basic operation of 3D printer so as to prepare students' ability to find job in 3D printing, commonly used materials PLA



APPLICATION



APPLICATION(3D PRINTING VS CNC PROCESS)



3D printing

0.25mm layer height

0.4 nozzle;

Size: 340*350*51mm

Print speed: 60mm/s

Print material: PLA

Printing time: about 46hours

Filament : 220m

Estimated cost: lower than ¥200

Size: 340*350*51mm

Process cycle: 10-15 days

Material right: 400*400*60mm The whole piece of board

Estimated cost: ¥ 800- ¥ 1000

CNC

SAVE TIME 3/5;

SAVE COST 3/4;

PA12CF 9891

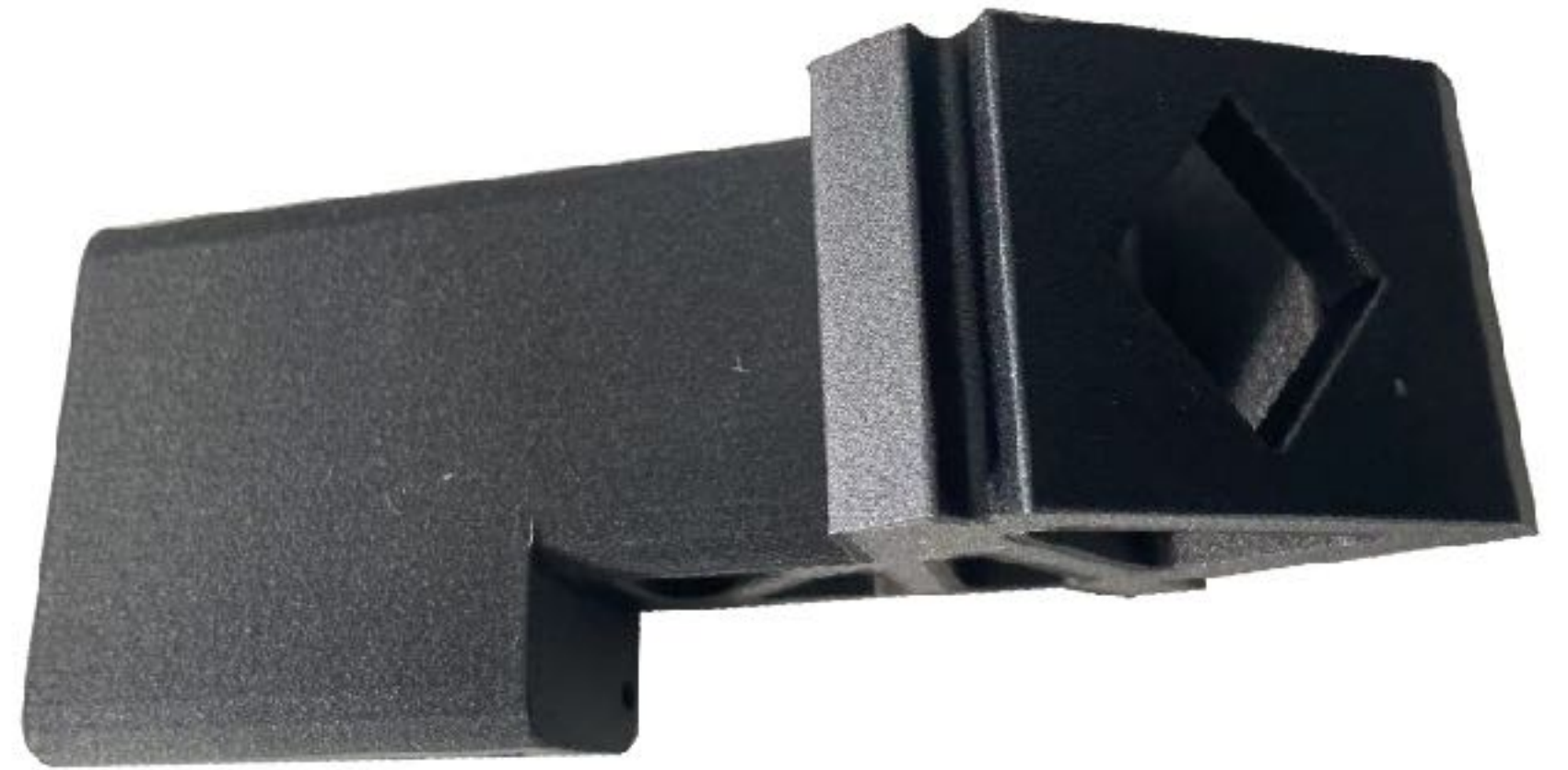
Structural connection piece



PA66CF10



PA6 CF10



PA12CF 9891

Arm slider prototype of outdoor leisure chair



3D printing prototype

Mold parts

The parts need good wear resistance and strength

MODEL-PLA-CF/ PLA-GF

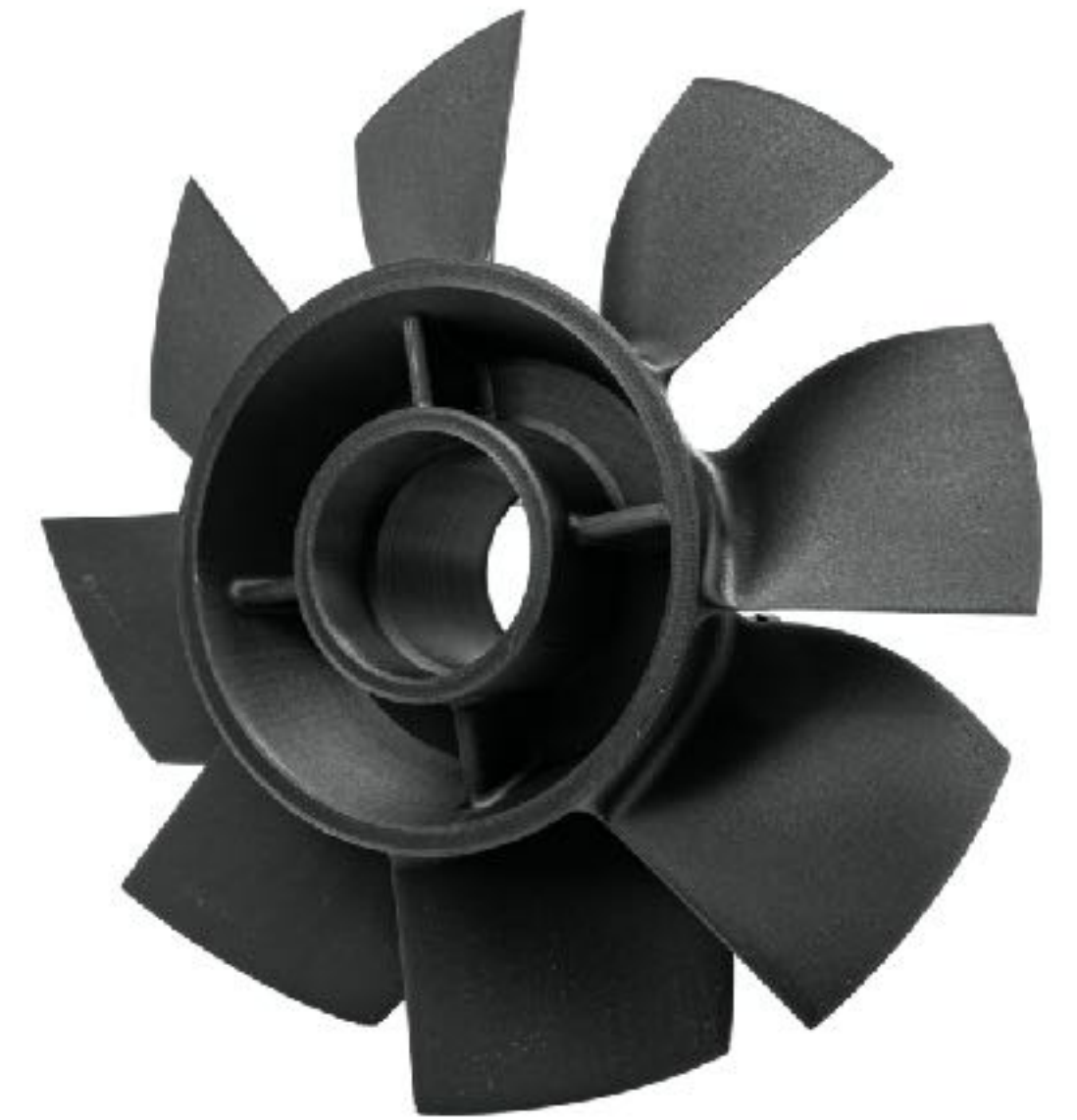
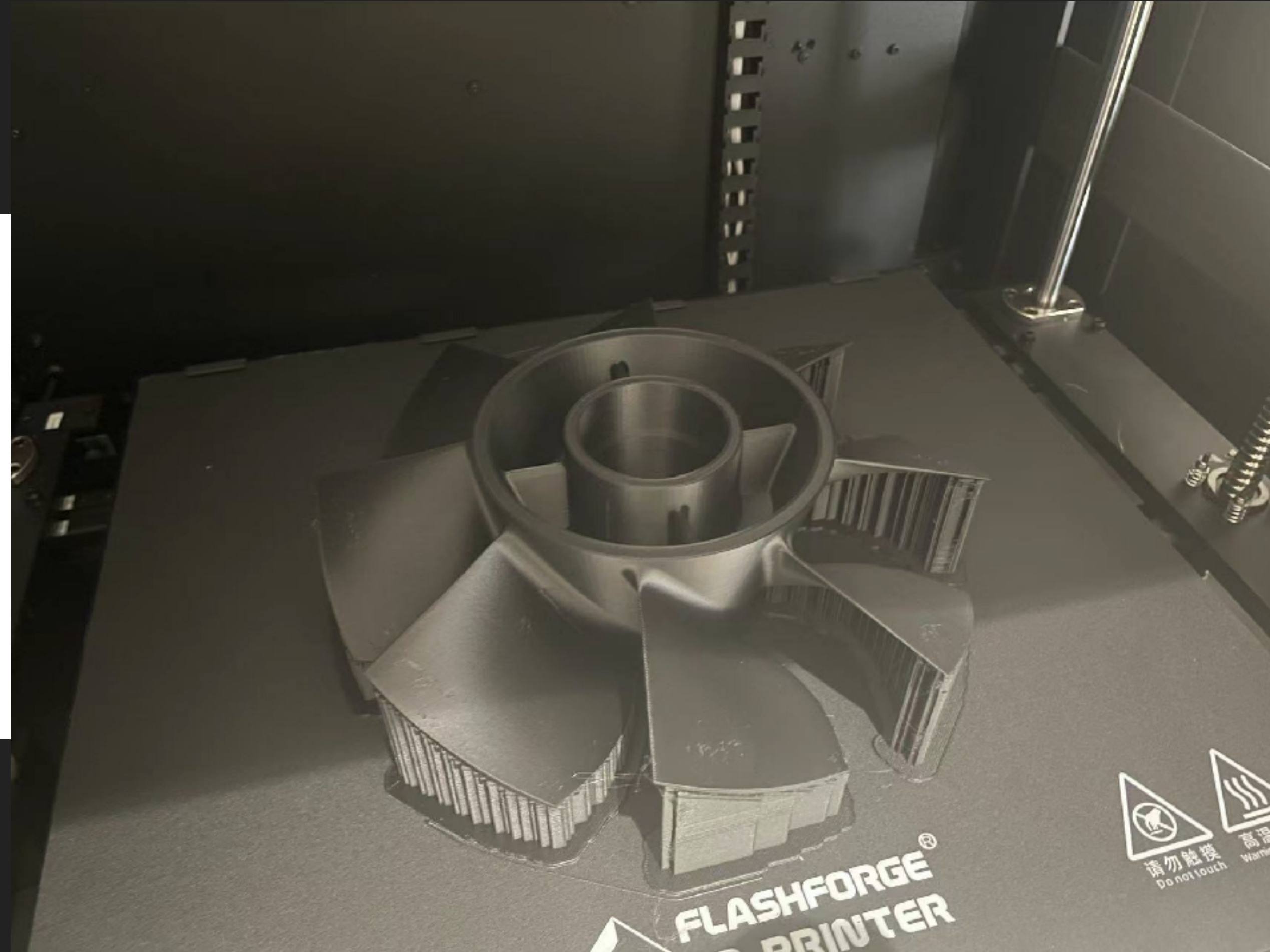


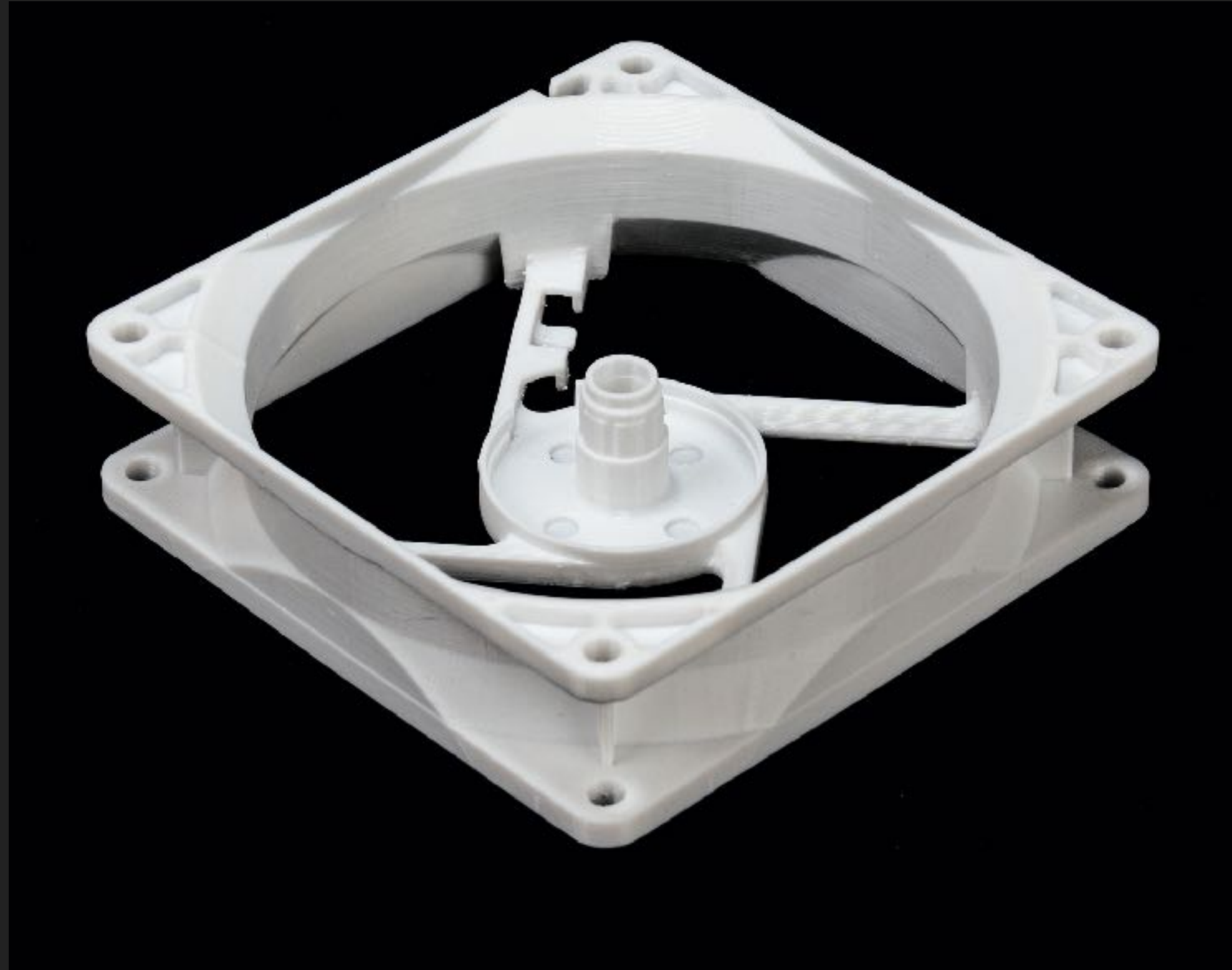
An outdoor user company prints the clips for beach towels with Flashforge 3D printer: first it confirms the appearance design, and confirms whether the printed object is convenient for use; This greatly shortens the development cycle, and overseas customers can immediately perform the mold opening and mold production after confirming the first sample. Customer's main requirements: the external surface shall be of good quality and certain strength.

PETG-CF



PLA-CF





РАНТ (9875NT)



PC-ABS/ PBT



PC-ABS



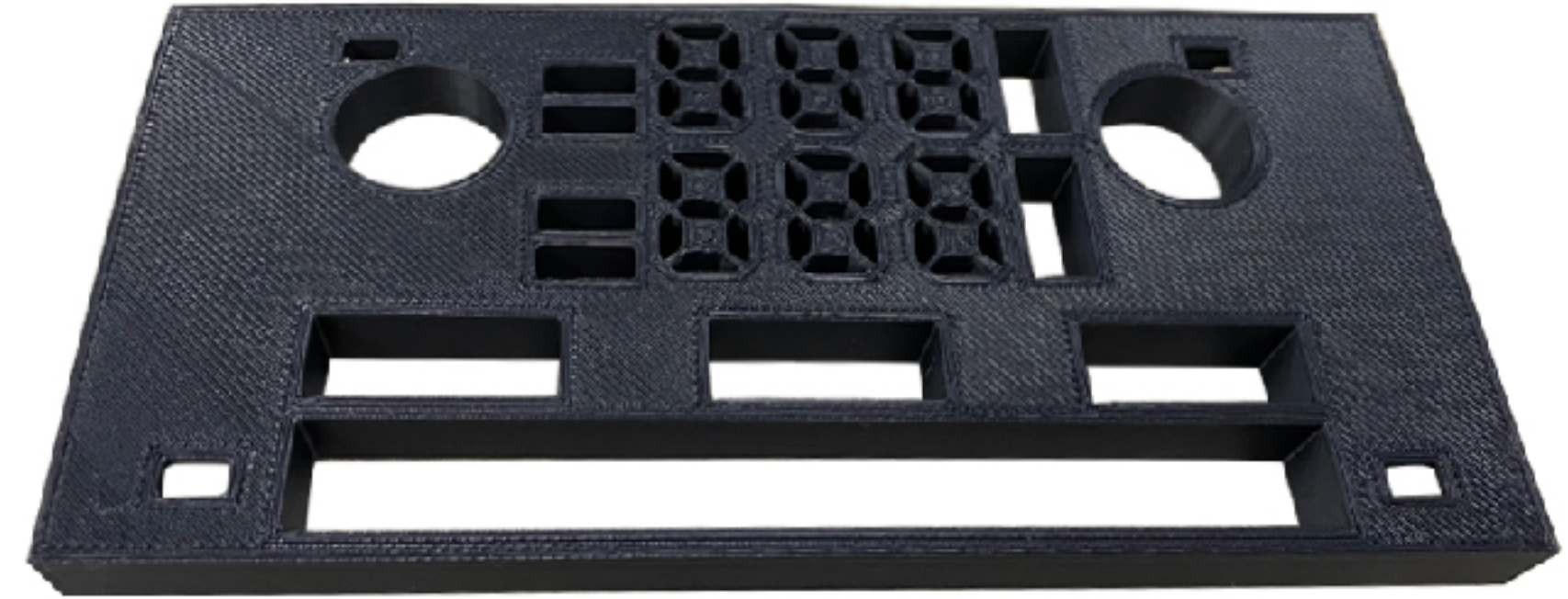
PBT



PBT

PC/ABS: SUITABLE FOR PRINTING TOOL PARTS AND FUNCTIONAL PARTS THAT REQUIRE SUPERIOR IMPACT STRENGTH

PBT: CAN BE USED FOR SOME TINY PARTS, BUCKLE, ELECTRONIC COVER, BOLT INSERTS

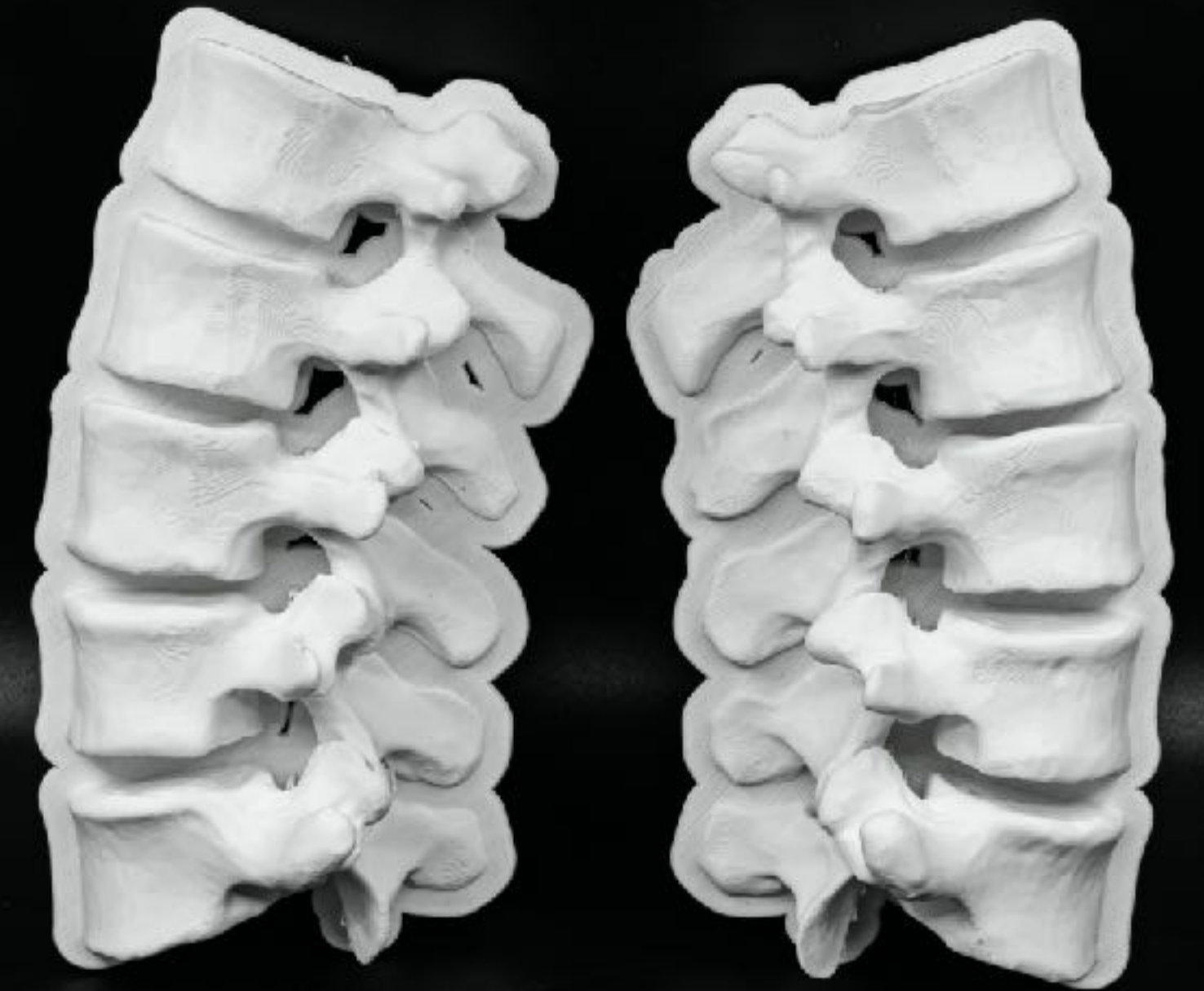
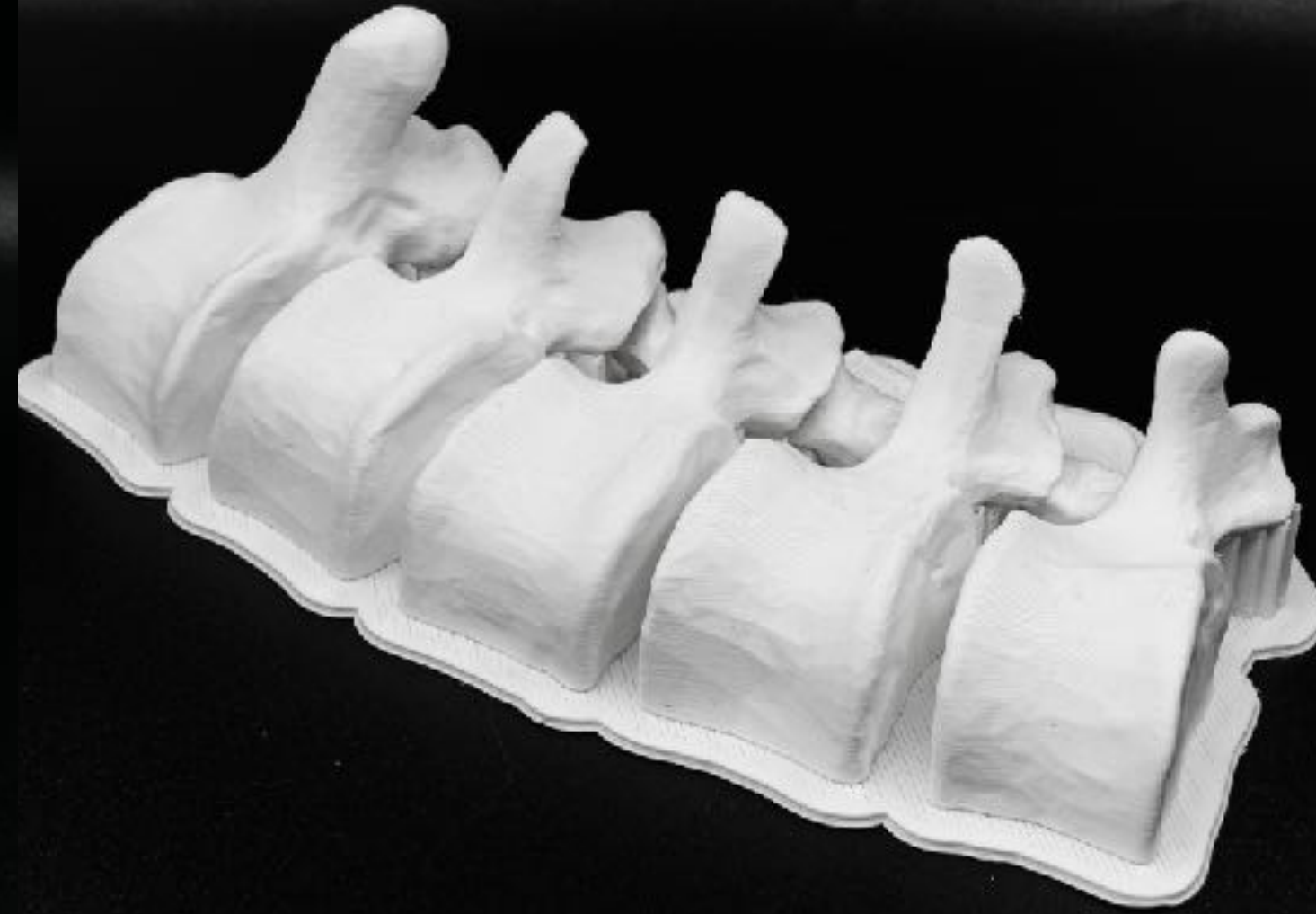




Printed by Flashforge Creator 4 0.4mm Nozzle - **PILE PP**

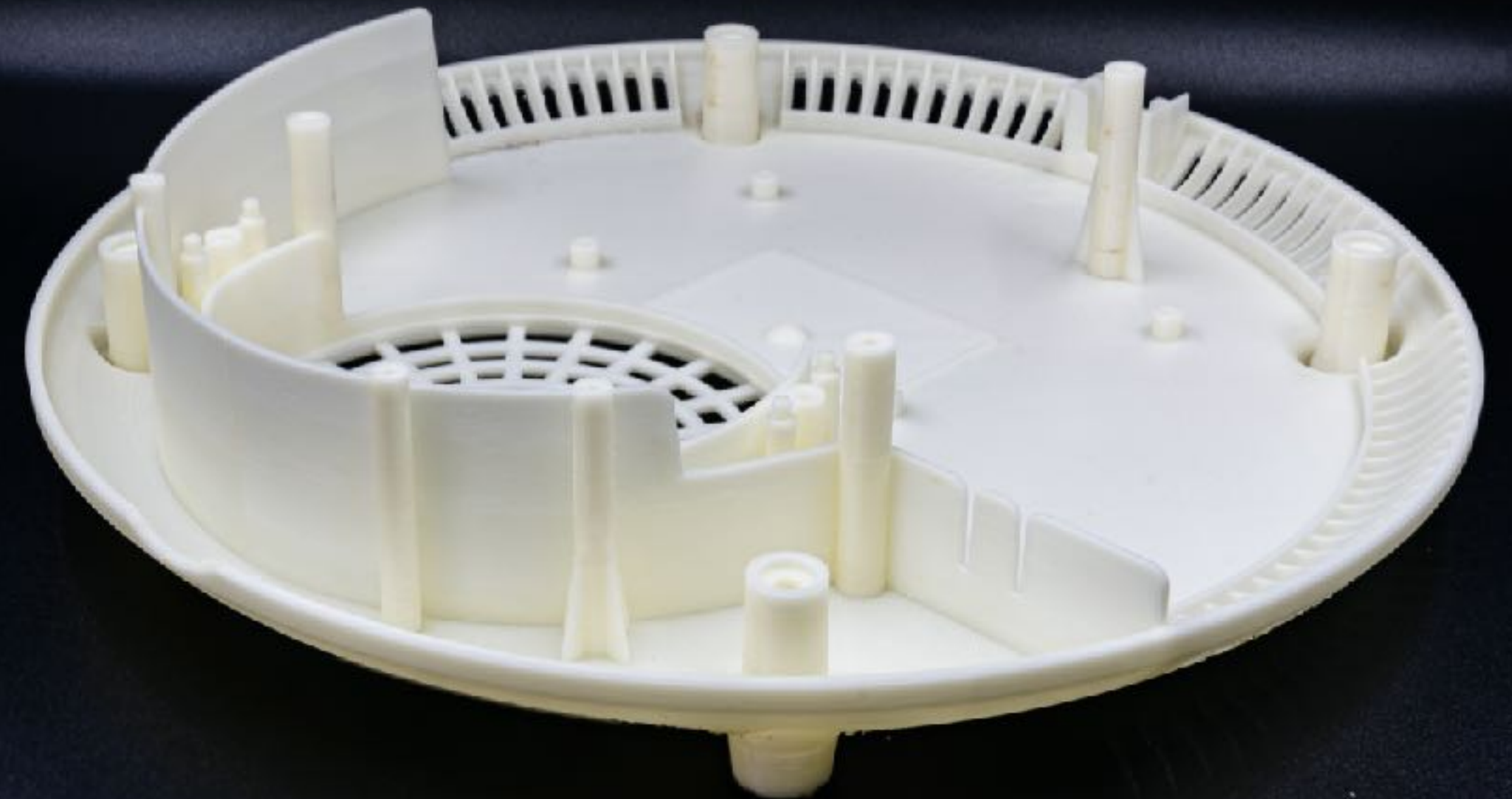
MODEL-PLA

Medical model

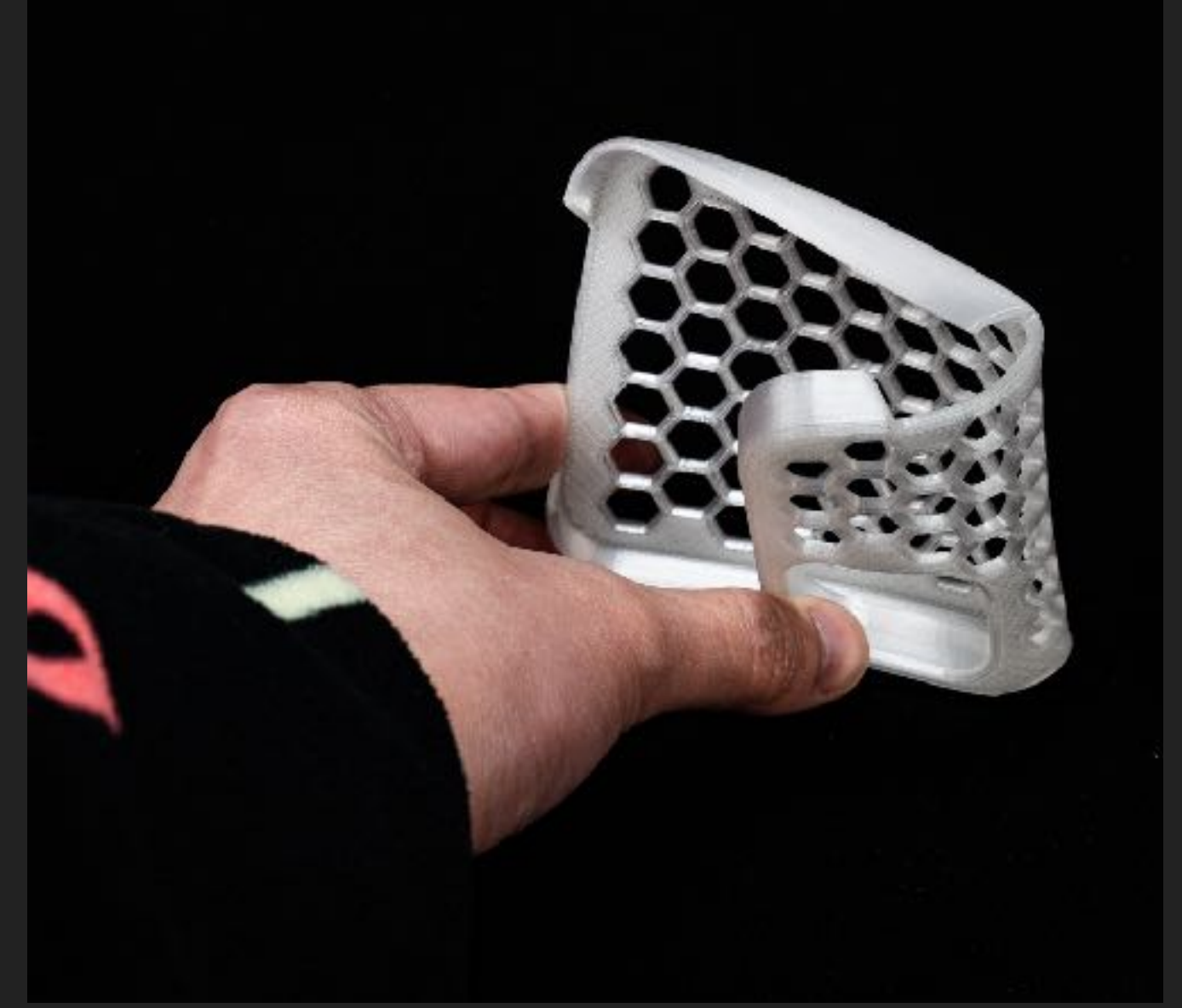


MODEL-ABS

Prototype of induction cooker part



TPU



TPU: FOR SHOES OR SOME FPV PARTS

3D Printing Factory



FILAMENT DATA OF PA-CF

	The tensile strength(MPa)	Elongation at Break (%)	Modulus of elasticity(MPa)	Bending Strength (MPa)	Izod Impact Strength (kJ/m2)
Flashforge PA12-CF 9891 (15%carbon fiber)	52.7203	3.9105	1395.7129	93.516075	3.899
Kexcelled PAHT K7CF LM Professional (15%carbon fiber)	49.9631	3.5979	1397.0718	92.4182	3.617
Polymaker PolyMide PA12-CF (10%carbon fiber)	54.4147	5.4498	962.9548	73.6036	9.961

Both Flashforge PA12-CF 9891 filament and Kexcelled PA12-CF filament are made of LUVOCOM PAHT 9891BK, so their properties are similar. The carbon fiber content of Polymaker PA12-CF filament is only 10%, thus the elastic modulus and bending strength are 20-30% lower than those of the other two brands, so the rigidity and hardness of the material are relatively worse; however, the impact resistance and tensile strength of the material are higher, so the toughness of the material is better.

FILAMENT DATA

Filament type	The tensile strength(MPa)	Fracture force (N)	Elongation at Break (%)	Modulus of elasticity(MPa)	Izod Impact Strength (kJ/m²)
FLASHFORGE (ASACF)	37.81	1512.44	7.72%	2357.32	7.46
FLASHFORGE (PET CF)	48.83	1953.18	6.52%	3792.81	5.45
FLASHFORGE (PET G CF)	41.7	1668	8.04%	2275.61	3.23