

PRINTING TECHNOLOGY

Fused Filament Fabrication (FFF)

Print size: 300mmx327mmx400mm (X/Y/Z)

Print chamber: laminar-flow temperature control up to 230°C in an insulated enclosure

Printing bed: aluminum plate with vacuum suction and active heating to 230°C

Max. extruder temperature: 500°C

Compatible filament diameter: 1.75mm

PRINT HEAD

2 extruders

2 coils per extruder

2 pairs of filament extrusion gears per extruder

200W heating per extruder

Rapid heating block cooling to prevent oozing after printing

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MATERIALS

All materials in 1.75mm diameter filament form

High-temperature polymers: PEI, PEEK, PEKK, PPSU and +.

Filled polymers: PEEK-CF, PEI-CF, Metals, Ceramics, Nanoparticles and more

Advanced polymers: PC, PA12, PA6, POM, PC-ABS, TPU and +.

Common polymers: ABS, ASA, PP, HIPS, PETG, PLA and +.

REPRODUCIBILITY

Accelerometer on printhead

Probe direct: nozzle on printing table

Powerful, well-cooled X/Y/Z motors

Filament extrusion with 4 contact points

Printing bed mesh at different temperatures

Thermocouple for printing table

Heated pedestal with humidity sensor to ensure filament quality

AUTOMATION

HOMING and automatic PROBE

Automatic filament change during printing

Sensor for presence of filament in extruders

Filament sensor in pedestal

Filament movement sensor for clogging detection

Ome click print job starting

Wifi/Ethernet control via printer screen or any device (computer, tablet, cell phone, etc.)

Sensor for presence of printing plate on printing table

Air pressure sensor

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MAINTENANCE

Easy-to-remove and install extruders

Easy-to-remove and install nozzle

Printing table requiring no glue or other materials: plastic sheet held in place by vacuum

Easy-access HEPA filter

Easy-to-access and use belt tensioner (with tension confirmation algorithm)

X/Y homing without special sensors, thus eliminating the possibility of mechanical failure of limit switches

Use of recognized brands for critical components to ensure long service life and replacement stocks even years down the line. (IKO, SMC, SKF, etc.)

SECURITY

Ventilation and filtration to capture all odours and particles

Safety thermostats

Contactor to cut power in the event of a fault

Print chamber door and cover with closing sensor and electronic print lock

Electronic circuit breaker in the event of a heating fault

Electronic verification to reduce human error

CONNECTIONS

Electrical: 200 to 240 Vac, 20A

Air (minimum): 4CFM at 100psi

Ethernet

WiFi

DIMENSIONS

80 x 80 x 180 cm

200 kg

