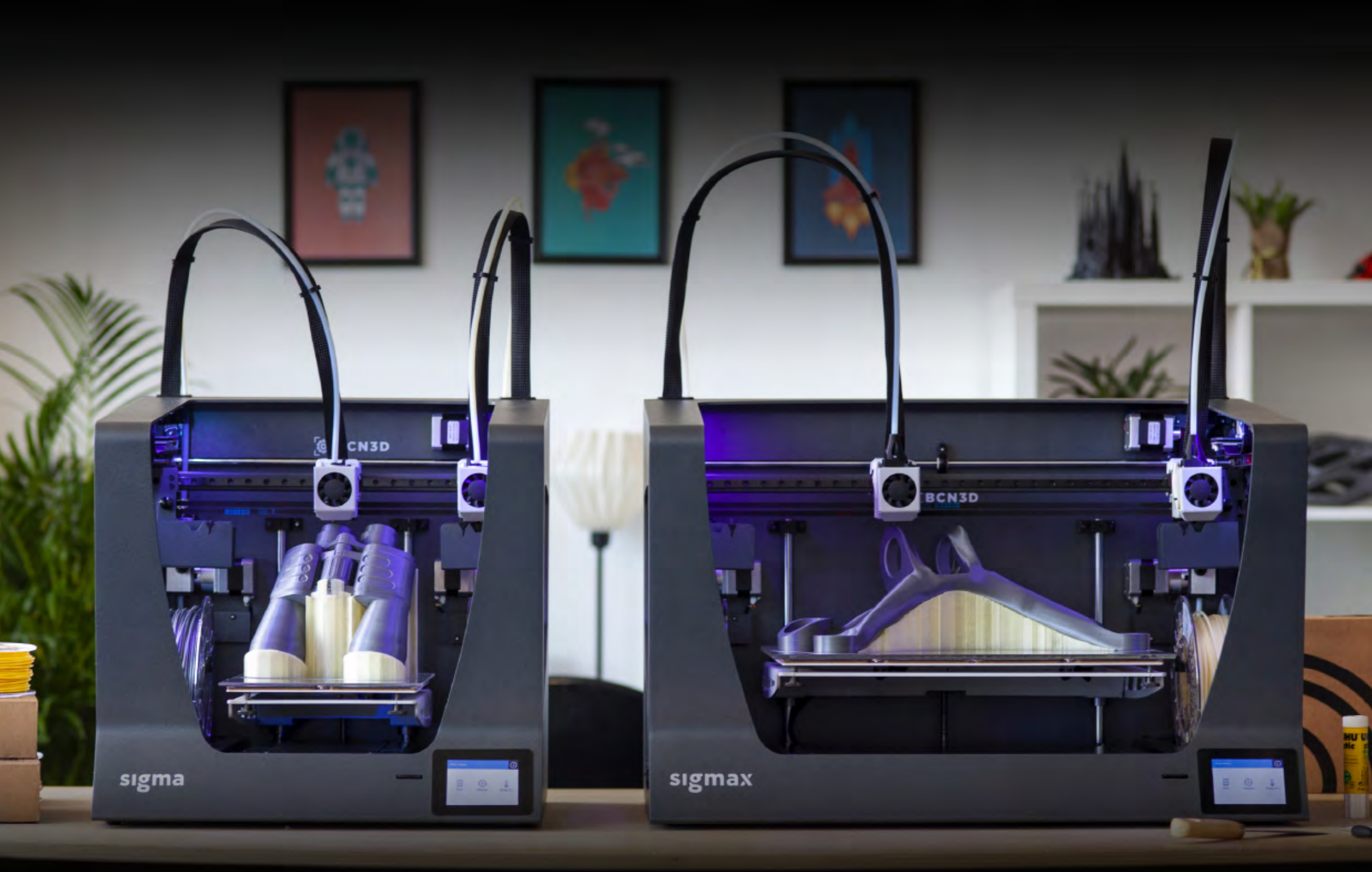


MAXIMIZING PRODUCTIVITY WITH THE MOST VERSATILE **3D PRINTERS**

BCN3D

BCN3D ECOSYSTEM

BCN3D Technologies products are a complete package of integrated solutions

A combination of professional tools, compatible materials and customer support. Thanks to this, our products achieve high quality results, maximum reliability and a flawless user experience.

BCN3D PRINTERS

Professional desktop FFF 3D printers (Fused Filament Fabrication) characterized by its IDEX (Independent Dual Extruder) system.

FILAMENTS

Industrial-grade materials specially designed to deliver outstanding results while ensuring the highest print quality.

ADDS-ON

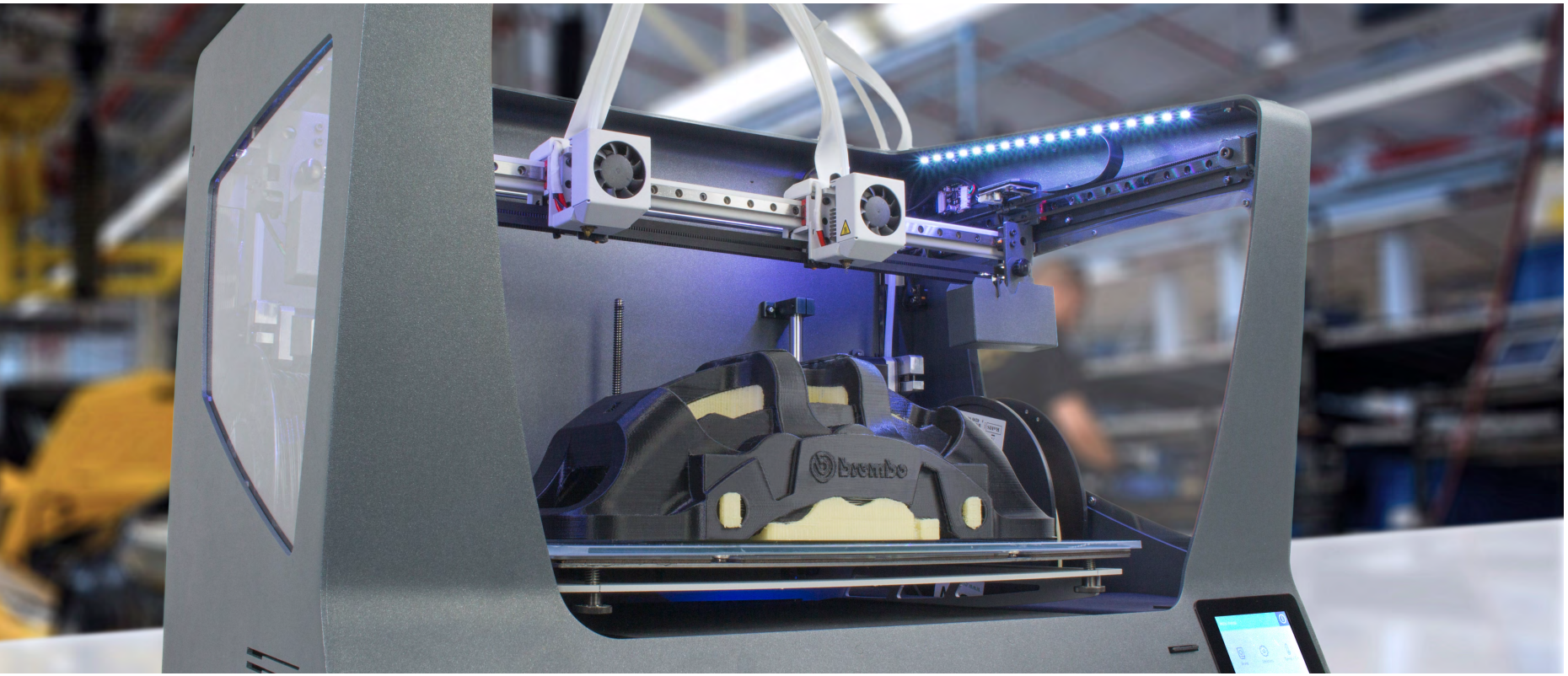
Enhance the versatility and capabilities of BCN3D printers by adding optional components to satisfy your specific needs.

BCN3D CURA

Free and easy-to-use slicing software that prepares your model for 3D printing.

SUPPORT

BCN3D Printers come with access to our experienced customer support engineers. We are here to help!



BCN3D TECHNOLOGY

IDEX
A NEW STANDARD

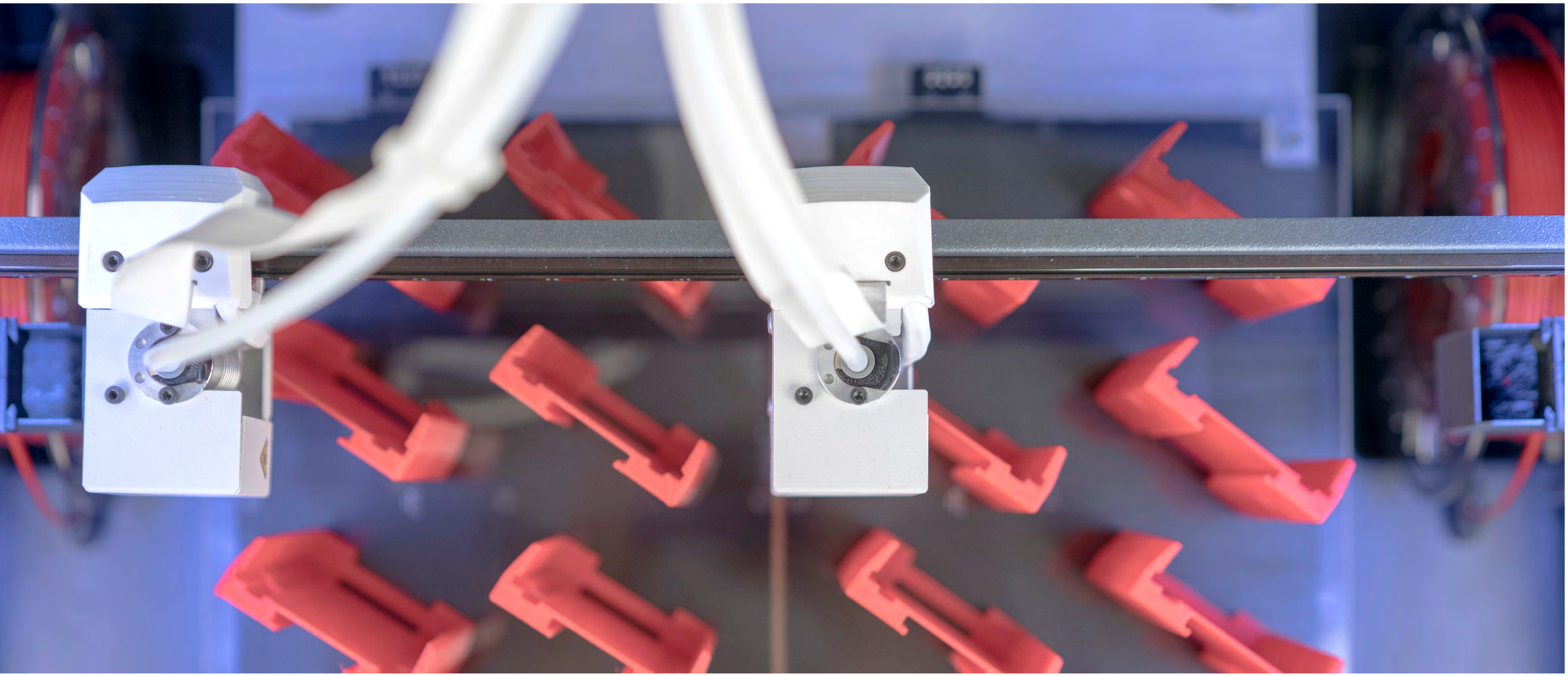
The unique Independent Dual Extruder system allows to print 2 different materials or colours while ensures the finest surface finish. The idle toolhead remains parked, preventing the dripping of molten plastic onto the part.

PRINT FURTHER, PRINT SOLUBLE SUPPORTS

Avoid geometric limitations and print the most challenging parts thanks to soluble supports. Just immerse the model into water and watch the supports vanish.

YOU CHOOSE MULTIMATERIAL OR MULTICOLOR

Create functional parts by combining the properties of two different materials, like rigid and flexible filaments. Or make your designs more attractive by printing with two colours.



BCN3D TECHNOLOGY

Boost your productivity

Print the same model with both toolheads simultaneously and, therefore double the printing capacity with the new Mirror and Duplication modes.

MIRROR MODE

Print the model and its symmetrical part at once, increasing iteration speed and shortening design times.

DUPLICATION MODE

Print the same model with both toolheads simultaneously and double the printing capacity.

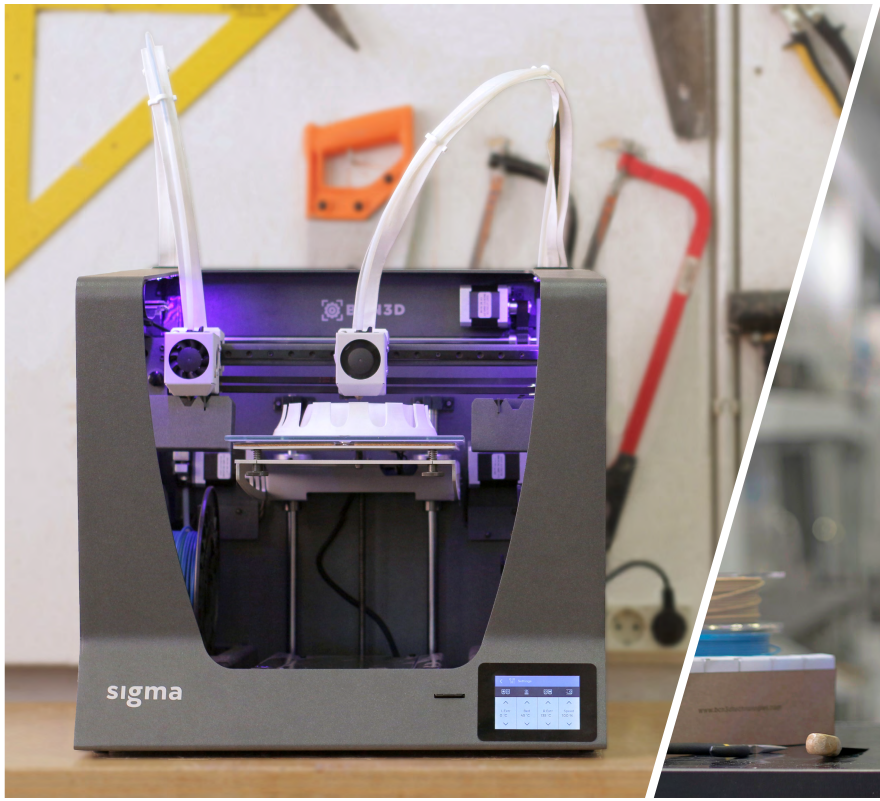
BCN3D
3D PRINTERS

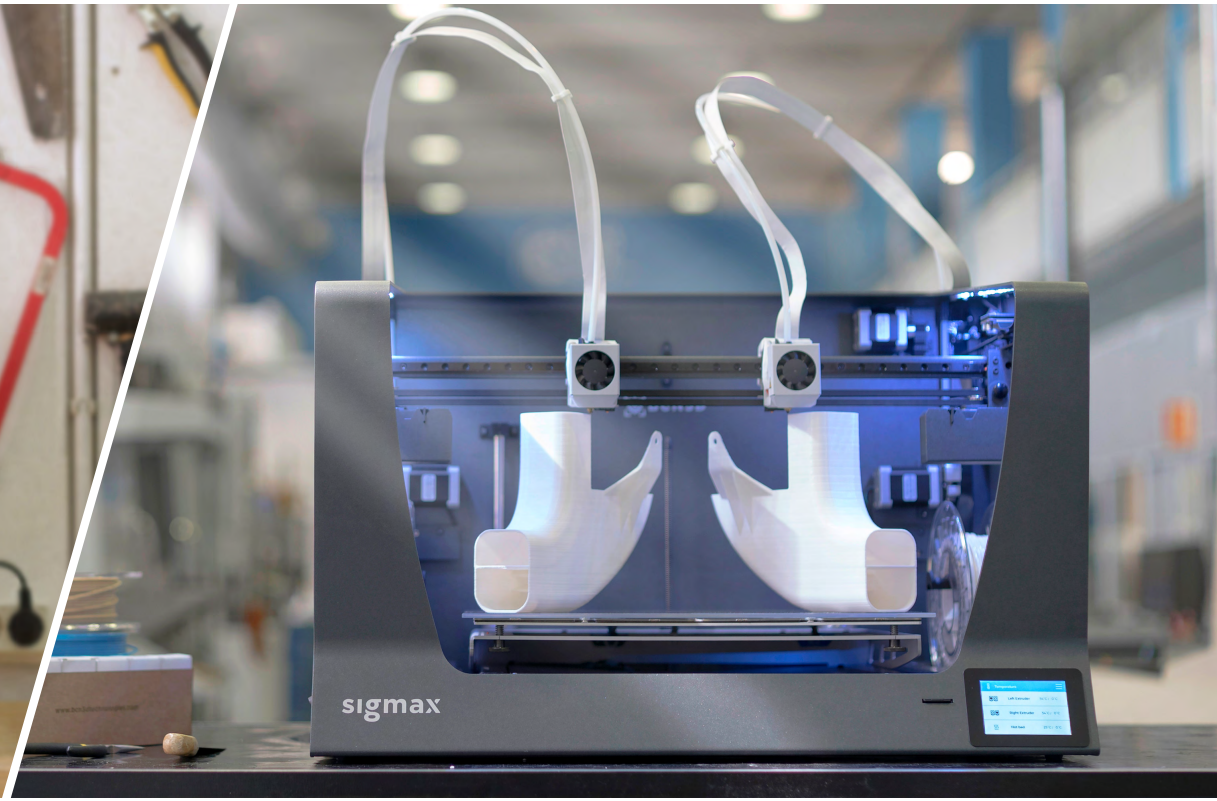
sigma

Reliable and easy-to-use desktop 3D Printer with Independent Dual Extruder system that delivers high-resolution multi-material parts in a simple and effective way.

sigmax

Professional 3D printer with Independent Dual Extruder system and a massive printing volume, ideal for those who need to increase their production capacity and manufacture industrial-grade parts.





BCN3D
3D PRINTERS

Features

BCN3D printers are equipped with one of the most powerful extrusion systems so far, composed by the top-grade components available nowadays in the 3D printing industry.

EXTRUDER by BONDTECH™

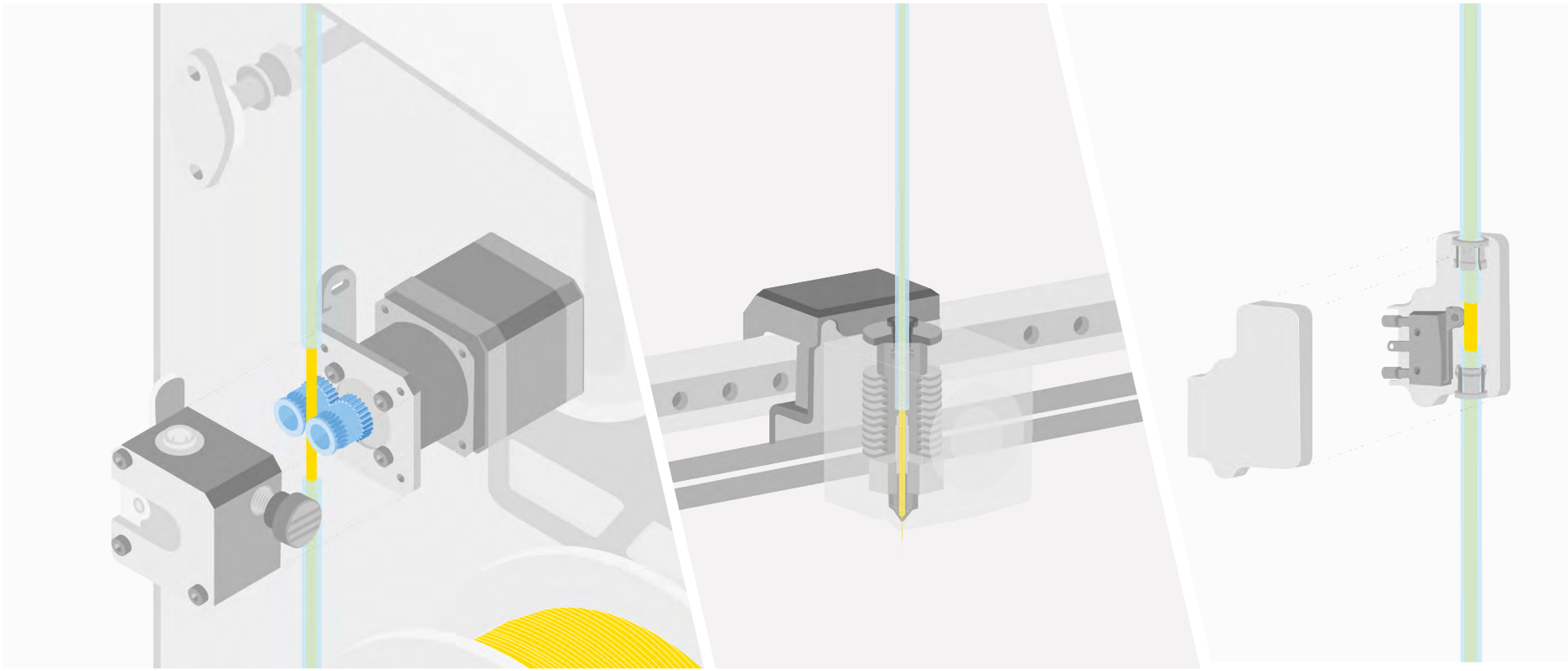
The new extruder is made with aluminum CNC machined body and hardened steel drive gears powered by Bondtech. It provides an incredible grip thanks to its high-tech dual drive gears.

HOTENDS optimized by e3D™

The Sigma & Sigmax R19 are equipped with new hotends designed and manufactured by the global specialist e3D, including the know-how acquired by them in terms of machining and engineering. This ensures the highest quality standards, providing a smooth and reliable extrusion under different printing environments.

FILAMENT runout sensor

A simple yet effective subsystem: a mechanical switch to detect filament presence allows preventing from one of the most common and frustrating failure reasons.



BCN3D
3D PRINTERS

Features

TOUCHSCREEN

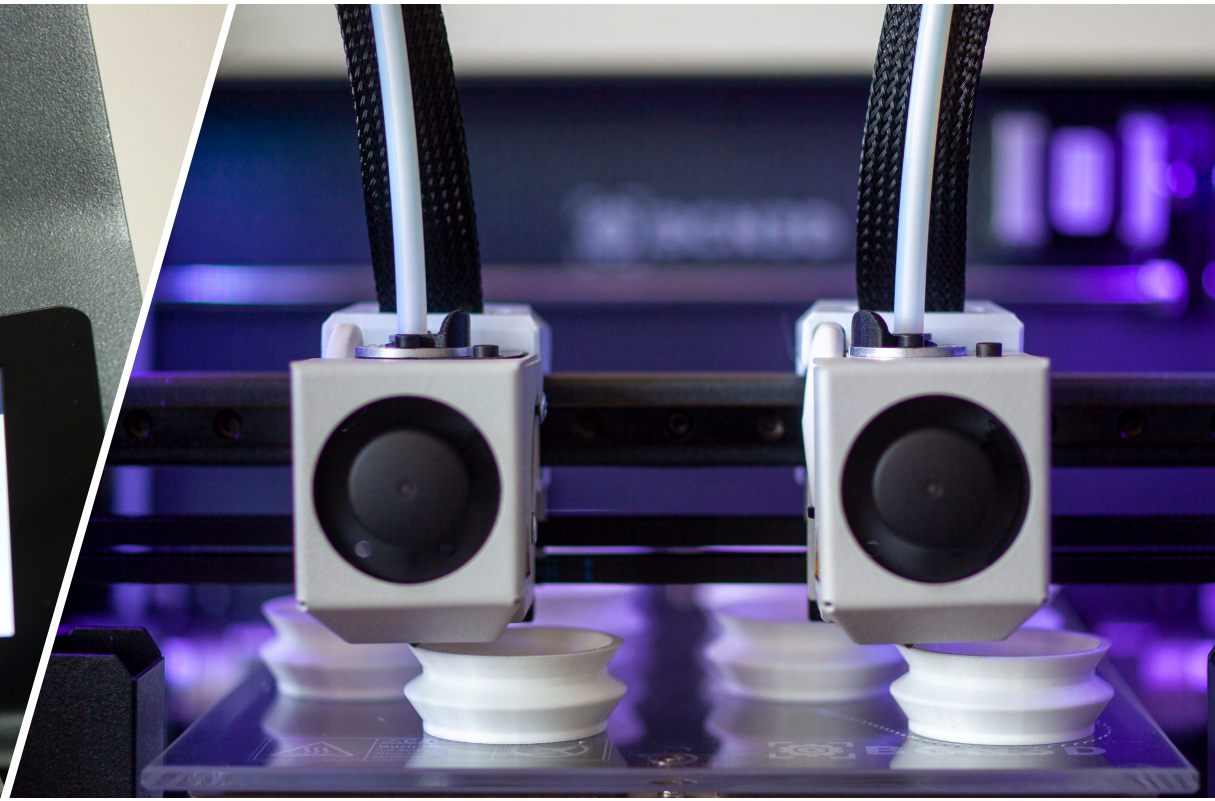
Operate flawlessly the printer via its full colour touchscreen. The attractive and intuitive interface is fully equipped with advanced features that guides the user step by step.

ACCURACY REDEFINED

Redesigned stepper drivers and improved power management set a new milestone in the accuracy of FFF 3D printers.

QUIET LIKE A BREEZE

Reengineered cooling strategies allow to keep up the performance while reduce drastically the operating sound. Put a BCN3D printer on your desktop!



BCN3D
3D PRINTERS

Comparative of our 3D printers

COMMON SPECS

Fused Filament Fabrication (FFF)

Independent Dual Extruder (IDEX)

Printing modes
Regular / IDEX
Duplication / Mirror

Compatible materials
PLA / ABS / Nylon / PET-G / TPU / PVA / Composites / Others

Compatible Nozzle diameters
0.3 / 0.4 / 0.5 Special / 0.6 Standard / 0.8 / 1.0 mm

Minimum layer height
0.05 mm

Certificates
CE / FCC

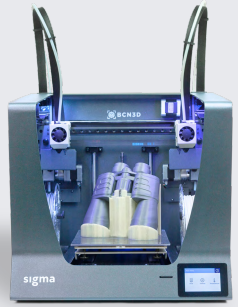
Extruder System
Bondtech high-tech dual drive gears

Maximum Hot Bed temperature
100ºC

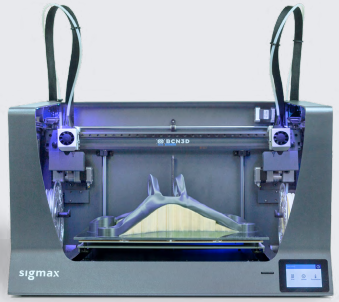
Professional software
BCN3D Cura

Touchscreen

Maximum printing temperature
280ºC



Sigma printing volume
210 x 297 x 210 mm



Sigmax printing volume
420 x 297 x 210 mm

BCN3D
3D PRINTERS

Speed up your product development and accelerate creative processes with a 3D printer on your desktop.

3D PRINTING SERVICE COMPARISON:
DUAL ROOK SAMPLE PRINT EXAMPLE

	Service Bureau	BCN3D Printers	Industrial FFF Printer
Turnaround time	1-2 weeks	**<24 hours**	<24 hours
Upfront cost	0€	**2.655€ - 4.470€**	40k€ - 250k€
Cost print BCN3D Dual Rook sample print	20€	**0.50€**	2€
Print cost vs. BCN3D Printers	40x	**1x**	4x
Long term costs	N/A	**Free two-years warranty***	Mandatory service contract (~ 10k€)
Accessibility	External, third party	**Internal, desktop, anyone can use**	Internal, workshop, run by a technician, often projects will be billed for use.

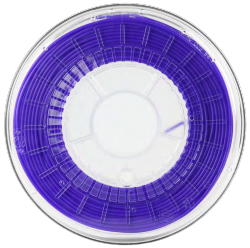
*Except for non-EU countries, which is one year

BCN3D FILAMENTS

With its optimized full metal hotends, BCN3D printers can print any material you need to fit your requirements, from the common PLA to the most advanced technical plastics like Nylon, ABS, TPU or PET-G, independently the manufacturer. Check out BCN3D Filaments, our industrial-grade materials portfolio designed to deliver outstanding results.

PLA

Simple, safe, fast and reliable



The most common used filament in FFF 3D printers for its ease of use and wide range of applications, specially those not mechanically or thermally demanding.

Category: General Purpose

Application: Architectural mockups/ Aesthetic, concept models/ Investment casting molds/ Low mechanically demanding prototypes.

Colors:

ABS

Impact resistant and durable

One of the most common technical materials in several industries around the globe. Its great mechanical and thermal behaviour make ABS the ideal polymer for countless applications.

Category: Technical

Application: Parts under high mechanical stress/ Strong prototypes and end-use parts/ Aesthetic models.

Colors:

TPU

Flexible, wear and tear resistant

TPU is a versatile rubber-like flexible material. With Shore-A hardness of 95, TPU is a resistant material for several industrial applications, both mechanical or chemical.

Category: Flexible

Application: Industrial seals, gaskets, sleeves or hinges/ Functional prototypes, soft-touch multi-material models/ Flexible-joined multi-material models/ Protective cases and insoles.

Colors:

NYLON

Durable and abrasion-resistant

Thanks to characteristics like durability, flexibility and resistance to corrosion, Nylon is ideal for multiple applications in the 3D printing field, like end-use parts or custom jigs and fixtures.

Category: Technical

Application: Strong and flexible parts/ Parts demanding high fatigue endurance/ Snap fits and sliding components/ End-use parts in enviroments with chemical substances.

Colors:

PVA

Water soluble support material

Water-soluble support material designed to print complex geometries in dual extrusion with PLA, Nylon, TPU, PET-G and Composites.

Category: Support

Application: Exceptional adhesion with PLA/ Also great in combination with PET-G, TPU and Nylon/ For not very demanding geometries can also work with ABS.

Colors:

PET-G

Chemical resistant and tough

PET-G provides good mechanical properties and improved chemical and thermal behaviours than PLA but with similar ease of use.

Category: Technical

Application: Parts in contact with salts, acids and alkalis/ Models requiring high geometrical and dimensional accuracy/ Functional prototypes and mechanical parts.

Colors:

COMPOSITES

Polymeric base infused with other particles

Composites are materials with a polymeric base infused with other particles or fibres in different proportion.

Category: Composite

Application: Figurines and aesthetic models/ Finishing components/ Mechanical components/ End-use parts.

Finishes: Wood, Metal and Carbon fiber

BCN3D FILAMENTS

Supported material combinations

Matrix of supported materials combinations when printing a part using dual extrusion on the Sigma and Sigmax R19 3D printers when using BCN3D Filaments.

Take control to get the best finishes.

✓ Supported

⚗ Experimental

✗ Not Supported

SUPPORTED COMBINATIONS	PLA	NYLON	PET-G	ABS	TPU	PVA	COMPOSITES
PLA	✓	✗	✗	✗	⚗	✓	✓
NYLON	✗	⚗	✗	✗	✗	✓	✗
PET-G	✗	✗	⚗	✗	✗	✓	✗
ABS	✗	✗	✗	✓	✗	✗	✗
TPU	⚗	✗	✗	✗	✓	✓	⚗
PVA	✓	✓	✓	✗	✓	✗	✓
COMPOSITES	✓	✗	✗	✗	⚗	✓	✓

BCN3D CURA

BCN3D Cura is a free and easy-to-use 3D printing software that prepares your model for 3D printing. It provides an intuitive user interface and an improved workflow, both for newcomers and expert users. It is based on the renowned Open Source slicer and is compatible with all BCN3D printers.

OPTIMIZED FOR BCN3D PRINTERS

BCN3D Cura converts a digital 3D model into a set of instructions for the 3D printer. Such a complex process has been carefully optimized and tested for BCN3D products. As a result, the user enjoys a flawless 3D printing experience while increases the reliability of the process.

USE IDEX AT ITS FULLEST

BCN3D Cura takes profit easily of all the benefits of IDEX system: simply merge multi-material models, generate support structures or even cut down printing times by combining hotends with different nozzle sizes.

INTEGRATED PRINTING PROFILES

BCN3D Cura includes validated printing profiles to increase the printing success rate. Just select the installed hotends and materials on the printer to get the right set of parameters. And, of course, those experts users still can tweak more than 200 parameters.

MIRROR AND DUPLICATION MODES

BCN3D Cura features custom printing modes for BCN3D printers. Only a couple of clicks are needed to double the production capacity!

BCN3D ADDS-ON

HOTEND FAMILY

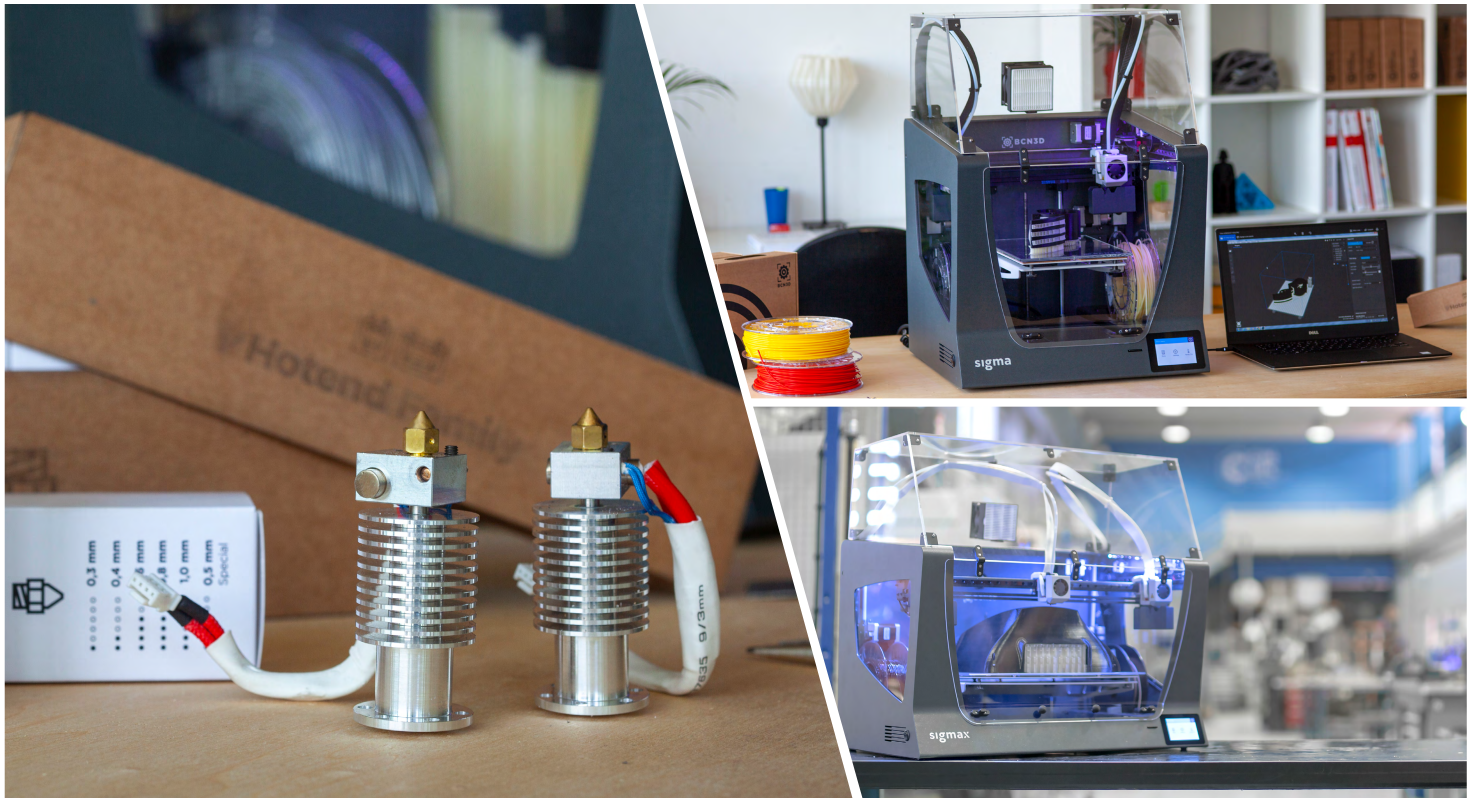
The hotend family covers a wide range of nozzle sizes, allowing you to print from tiny and detailed objects to massive and solid parts in less time. It also includes a special hotend with a 0,5mm nozzle made of hardened stainless steel, ideal to print with abrasive materials.

Each hotend can also be purchased individually.

Compatible Nozzle Ø sizes:

0.3mm 0.4mm 0.5mm

0.6mm 0.8mm 1.0mm



BCN3D ENCLOSURE

The enclosure allows to get a constant interior temperature to prevent warping in technical materials such as ABS, Nylon and PET-G. Furthermore, protects your working environment from potentially harmful particles thanks to the HEPA filter. The enclosure also increases the success print ratio, so it is highly recommended for those users that are going to print big parts.

CUSTOMER SUPPORT

BCN3D Printers are designed and manufactured in Barcelona

2 YEARS WARRANTY

BCN3D Printers include a two year warranty period, except for non-EU countries, which is one year.

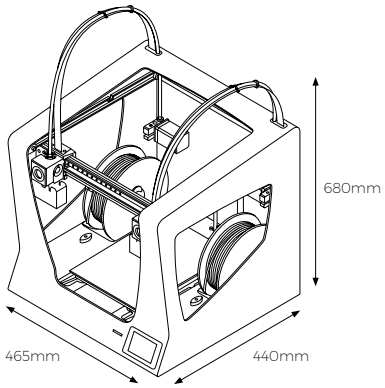
TECHNICAL SUPPORT

BCN3D Printers came with access to our experienced customer support engineers. Get the help you need quickly and efficiently.

ONLINE RESOURCES

Our online support section is filled with articles, use cases, videos and downloads to guide you through your 3D printing experience.

SIGMA R19
SPECIFICATIONS



PRINTER PROPERTIES

Technology
Fused Filament Fabrication (FFF)

Architecture
Independent Dual Extruder
(IDEX)

Printing volume
210mm x 297mm x 210mm

Extruders
2

Warranty
2 years for EU countries.
1 year for non-EU countries.

Extruder system
Extruder Bondtech™ hight-tech dual drive gears.
Hotends: Optimized and manufactured by e3D™.

Printing Models
Regular
Dual-IDEX
Duplication
Mirror

Electronics
BCN3D Electronics v1.0
Independent Stepper Drivers

Firmware
BCN3D Sigma – Marlin

Heated bed
PCB

Screen
Full Color Capacitive Touchscreen

Supported files
gcode

Operating Sound
50 dB(A)

Nozzle diameter
0,3mm / **0,4mm (Standard)** / **0,5mm (Special)** / **0,6mm** / **0,8mm** / **1,0mm**

Certifications
CE / FCC

Connectivity
SD Card (autonomous)
USB

PHYSICAL DIMENSIONS

Overall dimensions
465mm x 440mm x 680mm
(Including cables)

Weight: **15 kg**
(without filament spools)

Shipping box dimensions
550mm x 570mm x 674mm

Shipping weight: **21 kg**

PRINTING PROPERTIES

Layer height
0,05 – 0,5mm
(depending on the nozzle diameter)

Positioning resolution (X/Y/Z)
1,25µm / **1,25µm** / **1µm**

Operating temperature
15°C - **35°C**

Extruder maximum temperature
290°C

Heated bed maximum temperature
100°C

MATERIALS

Filament diameter
2,85 ± 0,05 mm

Compatible Materials
PLA
NYLON
PET-G
ABS
TPU
PVA
Composites
Others

SOFTWARE

File preparation software
BCN3D Cura (recommended), Simplify3D, Slic3r

Operative Systems
Windows, Mac, Linux

Supported files
STL, OBJ, AMF

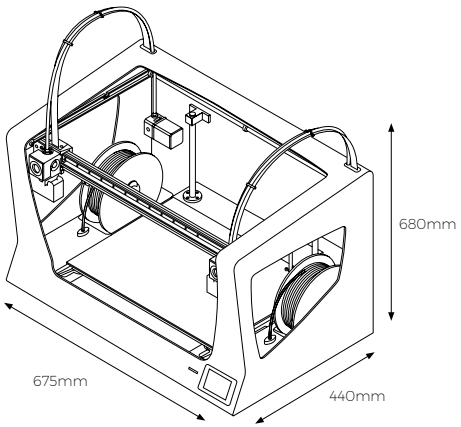
ELECTRIC PROPERTIES

Input
AC 84-240V, AC 3,6-1,3A, 50-60Hz

Output
24V DC, 13A

Power Consumption
240W

SIGMAX R19
SPECIFICATIONS



PRINTER PROPERTIES

Technology
Fused Filament Fabrication (FFF)

Architecture
Independent Dual Extruder
(IDEX)

Printing volume
420mm x 297mm x 210mm

Extruders
2

Warranty
2 years for EU countries.
1 year for non-EU countries.

Extruder system
Extruder Bondtech™ hight-tech dual drive gears.
Hotends: Optimized and manufactured by e3D™.

Printing Models
Regular
Dual-IDEX
Duplication
Mirror

Electronics
BCN3D Electronics v1.0
Independent Stepper Drivers

Firmware
BCN3D Sigmax – Marlin

Heated bed
PCB

Screen
Full Color Capacitive Touchscreen

Supported files
gcode

Operating Sound
50 dB(A)

Nozzle diameter
0,3mm / **0,4mm** / **0,5mm (Special)** / **0,6mm** (**Standard**) / **0,8mm** / **1,0mm**

Certifications
CE / FCC

Connectivity
SD Card (autonomous)
USB

PHYSICAL DIMENSIONS

Overall dimensions
675mm x 440mm x 680mm
(Including cables)

Weight: **20 kg**
(without filament spools)

Shipping box dimensions
550mm x 790mm x 674mm

Shipping weight: **24 kg**

MATERIALS

Filament diameter
2,85 ± 0,05 mm

Compatible Materials
PLA
NYLON
PET-G
ABS
TPU
PVA
Composites
Others

PRINTING PROPERTIES

Layer height
0,05 – 0,5mm
(depending on the nozzle diameter)

Positioning resolution (X/Y/Z)
1,25µm / **1,25µm** / **1µm**

Operating temperature
15°C - **35°C**

Extruder maximum temperature
290°C

Heated bed maximum temperature
100°C

SOFTWARE

File preparation software
BCN3D Cura (recommended),
Simplify3D, Slic3r

Operative Systems
Windows, Mac, Linux

Supported files
STL, OBJ, AMF

ELECTRIC PROPERTIES

Input
AC 84-240V, AC 3,6-1,3A, 50-60Hz

Output
24V DC, 26A

Power Consumption
370W

BCN3D
CONTACT

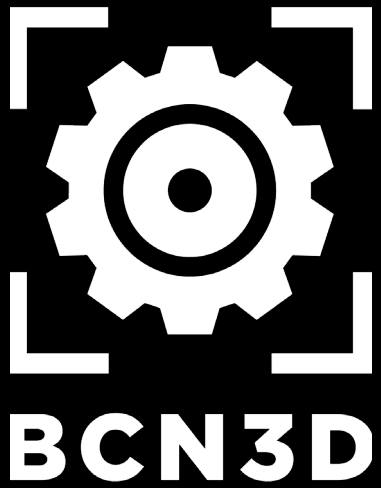
+(51) 1 2413047

CONTACT THE SALES TEAM

info@3dprint.pe

QUESTIONS?

sat@3dprint.pe



ww.bcn3dtechnologies.com