Modix
Large 3D Printers

Modix BIG-60 V3

Product Brochure

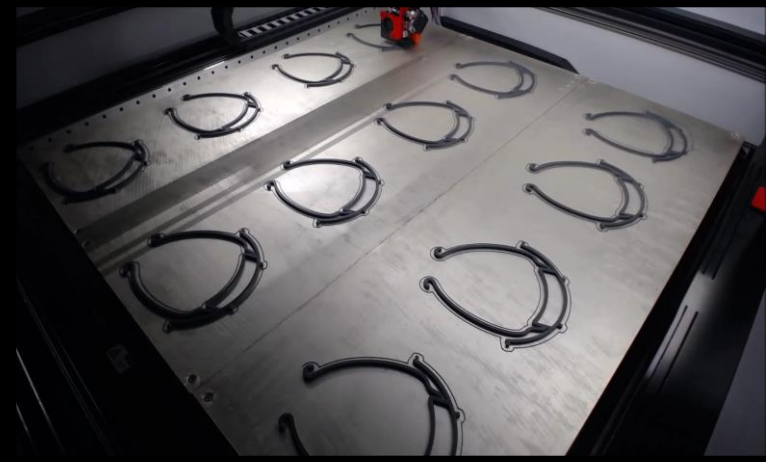
Technical Specifications

Modix
Large 3D Printers

Why a Large 3D Printer?

Printing large models as one object makes them stronger and saves time on post processing. Use cases include:

- Customized large enclosures
- Manufacturing jigs
- Prototyping
- Cast molds
- Composite plugs
- Batch production - Modix 3D printers are capable of printing multiple small items in a single sequenced 3D print job.



Modix
Large 3D Printers

Premium Components

Print Head - UK

Controller - UK

Aluminum Bed - USA

Power Supply - Taiwan

Motion Rails - Taiwan

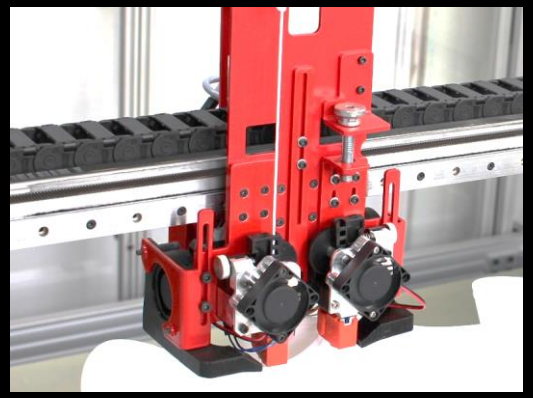
Signal Wires - Germany

Timing Belts - USA

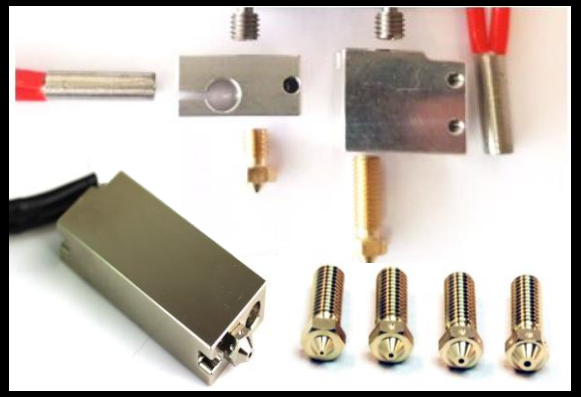
Motor Driver - Germany

Modix
Large 3D Printers

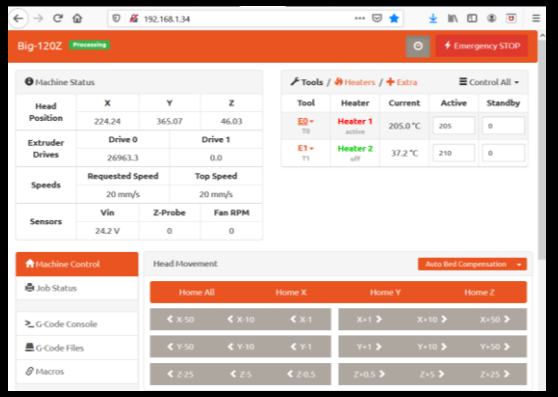
Features & Highlights



Dual E3D Aero Extruder

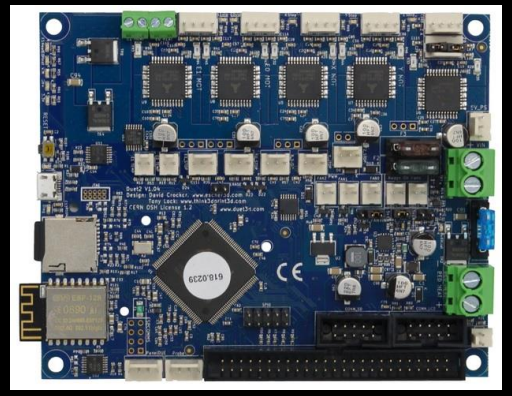


Wide hotend Selection

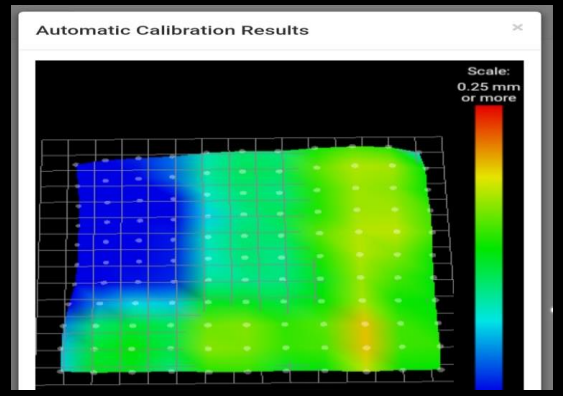


Web Interface (WiFi)

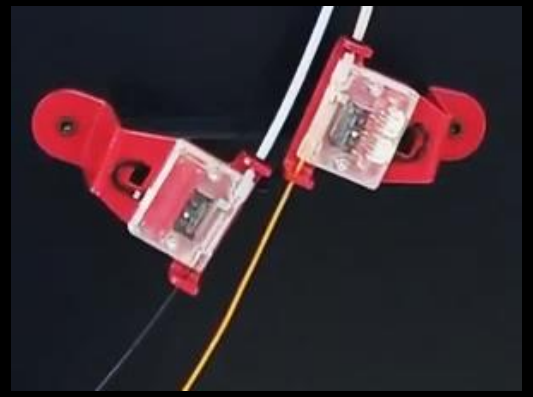
7-inch touchscreen



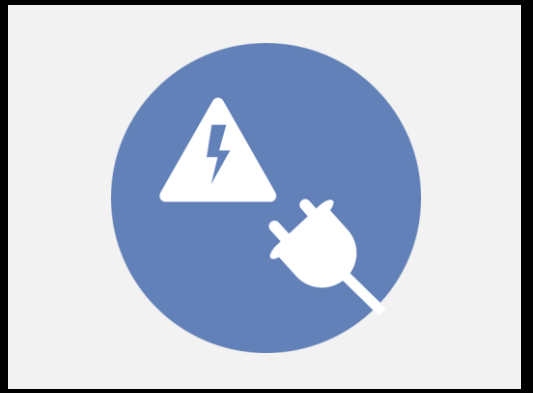
Duet WiFi 32-Bit board



Automatic Bed Leveling



Filament Runout Sensors



Power Failure Resume

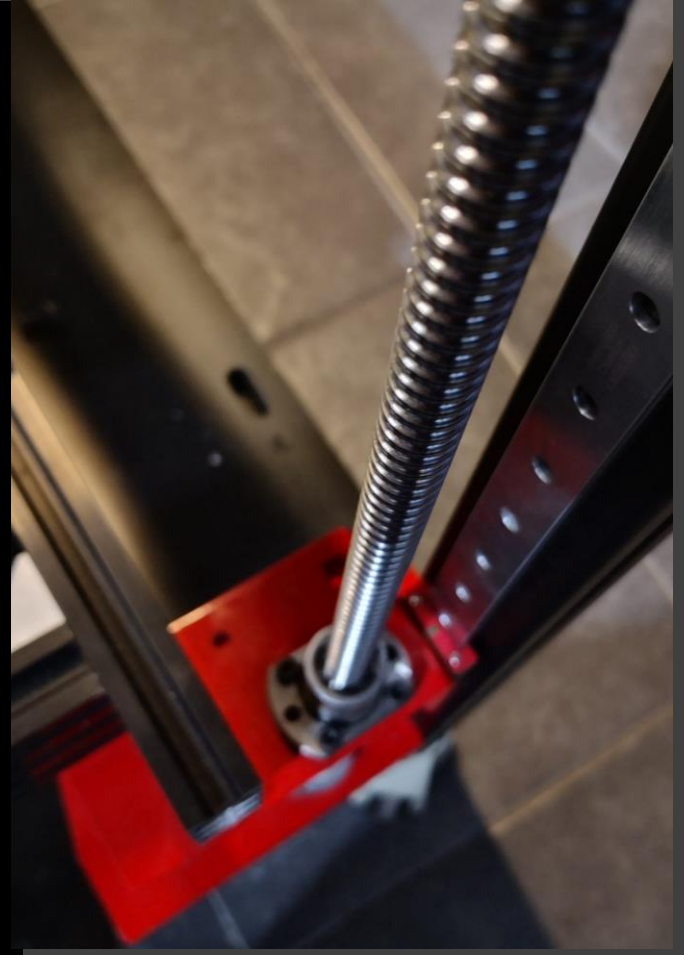
Modix
Large 3D Printers

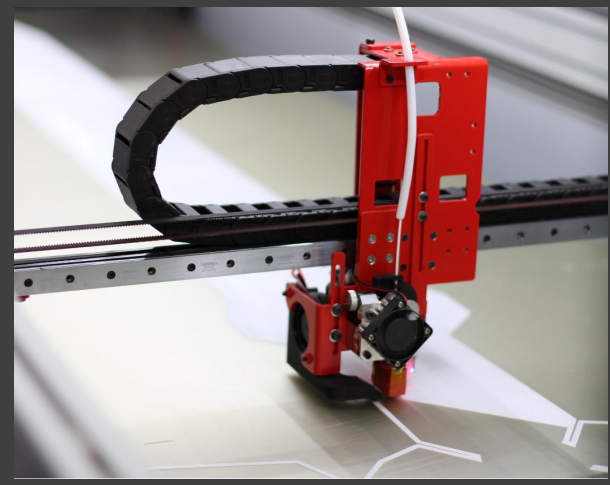
Heavy Duty Design

Printing quality and reliability are determined not only by the quality of the machine's components, yet also by its design.

Modix machine design guidelines:

- Robustness of chassis and motion system
- Reduced electromagnetic noise
- Safe operation and safe assembly
- Easy assembly
- Easy maintenance
- Time between maintenance cycles
- Long-lasting calibration
- Ergonomics





Modix
Large 3D Printers

Future Ready

Modix 3D printers are designed for future upgrades and new technologies. When a new version is released, an upgrade is offered to our customers.

As creators, we believe that products should be designed to serve for long period of time, not to be replaced when a new model is coming out.

Modix
Large 3D Printers

Self Assembly

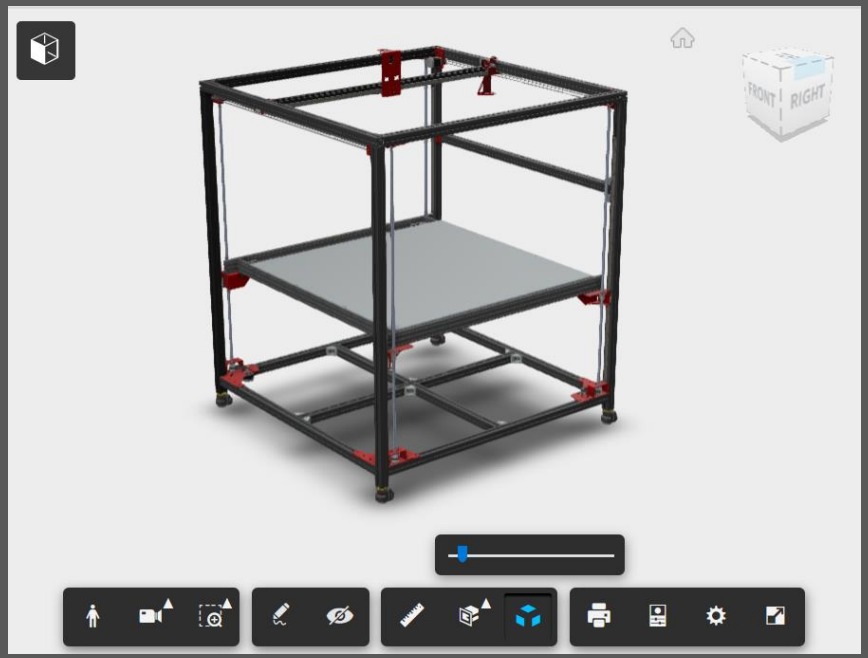
Modix 3D printers are delivered as self-assembly kits.
The advantages for the customers are:

- In-depth knowledge of the machine
- Easier to customize, maintain and upgrade
- Independency
- Cost saving on assembly and shipment
- Compact packing allows flexibility in selecting assembly location
- Great learning experience

Online assembly guides contain:

- Detailed textual and visual step-by-step instructions
- Video demonstration for every step
- Rotatable online 3D models of sub-assemblies

Video for each assembly step



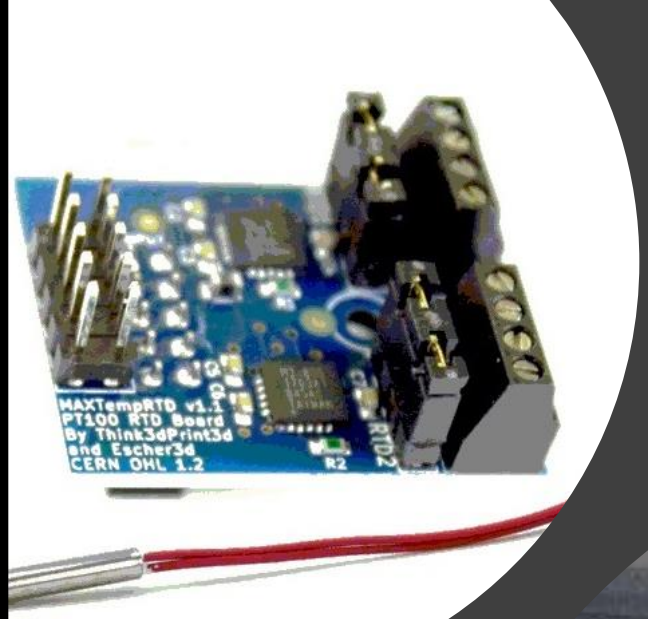
Online 3D models

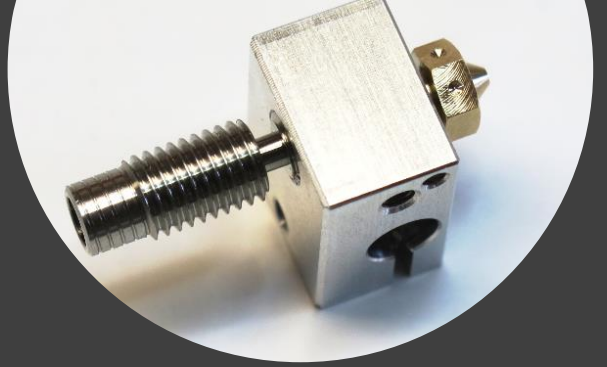
Modix
Large 3D Printers

Modularity

Modix 3D printers are modular by nature. Users can easily change the configuration of the printer based on a large selection of add-ons including:

- Three different hot-ends to select from including: E3D Volcano (default), E3D V6 for detailed printing and E3D Super-Volcano for high flow extrusion rates.
- Active air filter add-on that circulates the chamber air through a filtering system including a HEPA filter for small particles and active Carbon for removal of fumes.
- High Temperature by using the PT-100 sensor add-on.
- And more…





Modix
Large 3D Printers

Filament

Modix default print head supports a wide line of filament with print temperatures of up to 285°c including:

PLA, ABS, PET-G, PVA, ASA, HIPS, Nylon (PA), Polypropylene (PP), TPU/TPE (flexibles) and more.

Carbon filled filaments and other particle filled filaments such as wood or metal filled filaments require a special nozzle that can handle the abrasive nature of these filaments. Please refer to “E3D Nozzle X” or “The Olsson Ruby” third party alternatives.

By using the “PT-100 thermisitor” add-on available in our online shop, customers may increase the print head maximum temperature to 500°c.

Modix
Large 3D Printers

Open Architecture

Our customers are not locked in! Users can select filament from any source and make a use of various modeling and slicing software solutions, to their own preferences.

As our components are sourced from leading vendors, owners of Modix printers enjoy a wide line of add-ons, after market modifications and enthusiastic user communities.
i.e. user forums of Duet electronics, E3D print heads, etc.

Modix
Large 3D Printers

Premium support since 2015

We at Modix believe that hardware is just another form of service. Therefore, we spare no efforts to walk the extra mile towards our customers.
We provide:

- 1-year warranty to all our products
- Lifetime free support
- Email support requests, cleared daily
- Video support sessions upon request

Modix is proud of its prompt and professional support services!

Modix
Large 3D Printers

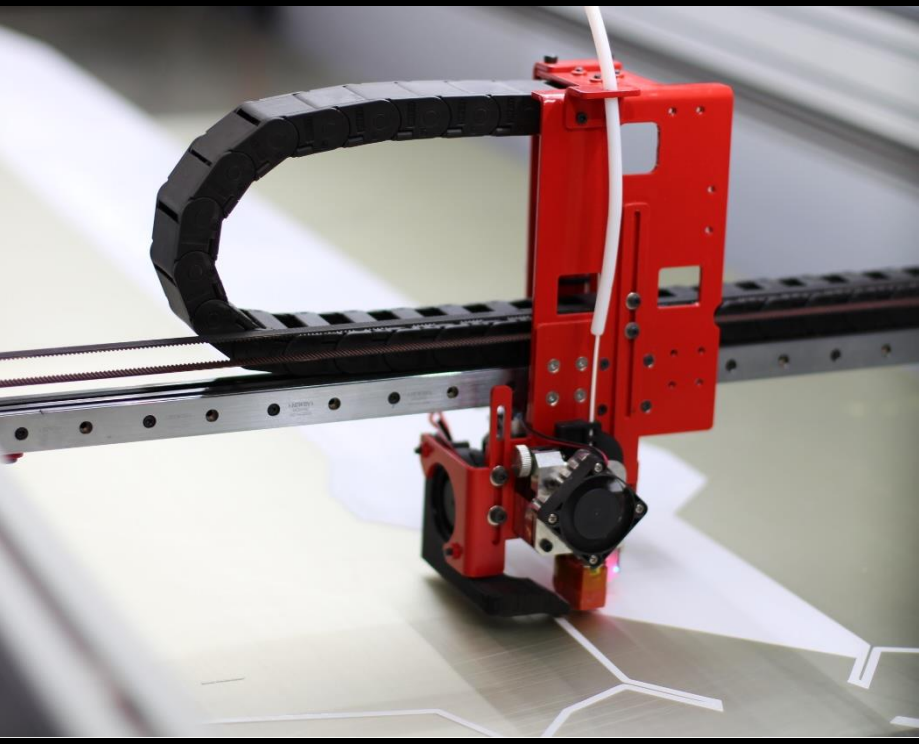
Technical Specifications

Modix
Large 3D Printers

General

Technology	FFF: Fused Filament Fabrication
Print volume metric (XYZ)	600 x 600 x 660 mm / ~23 x 23 x 25 inch
Machine size (WxDxH) with enclosure	906x1060x1,356 mm / 35.6 x 41.7 X 53.4 inch
Shipping weight	120 KG
Assembly	Self-Assembly
Closed print chamber	Optional
Enclosure type	Aluminum composite panels (ACP), 3mm thick. Polycarbonate doors and top lid
Feet	Articulated leveling feet included Casters optional

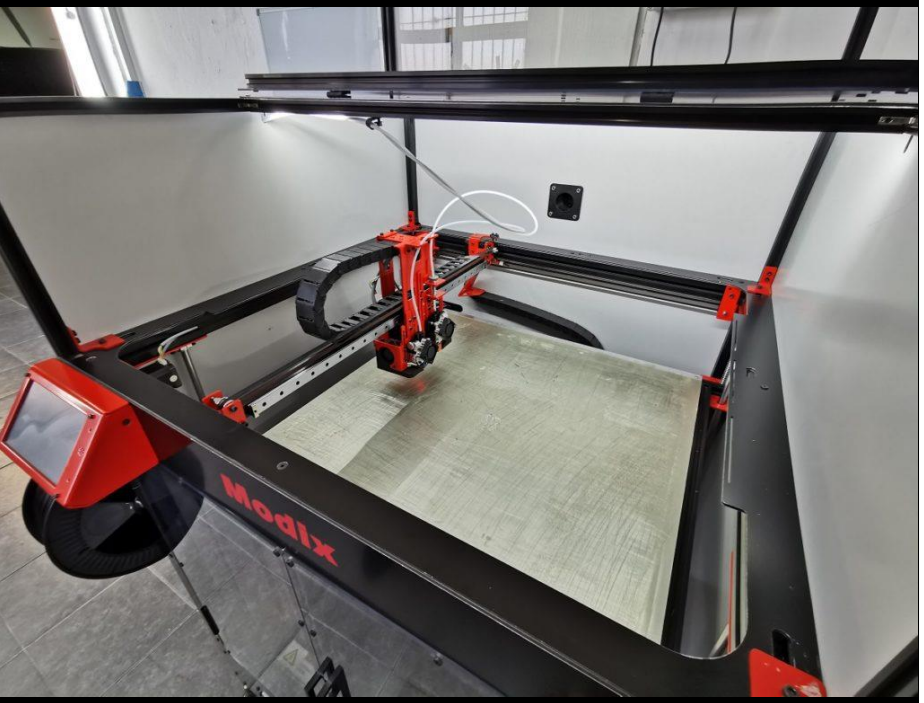
Modix
Large 3D Printers



Print Head

Number of print heads	One print head is included, secondary - optional
Default filament diameter	1.75mm, can be converted to 3mm by the user
Extruder brand & model	E3D Aero Extruder (direct drive)
Hotend brand & model	E3D Volcano, optional add-ons: V6 (detailed) and E3D Super-Volcano (high flow)
Included nozzles (mm)	0.4, 0.6, 0.8 Primary hotend 0.4 for Secondary hotend
Hotend max. temperature	285°c
Optional max hotend temp.	500°c, requires PT100 thermistor add-on
Extruder motors	Motech MT-1703HS168A Direct drive extruders gear reduction of 1:3
Filament runout sensor	Dedicated sensor per extruder

Modix
Large 3D Printers



Motion

X & Y axis linear guides	HIWIN MGW9
Z axis guides	Smooth Rods included. HIWIN MGW9 optional
X & Y axis drive system	Gates GT2 width: 9mm, fiberglass reinforced
Z axis drive system	SFU1204 Ball screw 2:5 belt gear reduction
X axis motors	2 X Motech MT-1705HS200A
Y axis motor	1 X Motech MT-1705HS200A
Z axis motors	4 X Motech MT-1705HS200A
Resolution (XYZ)	4 X 4 X 0.5 micron
Printing speed	Up to 150mm/s Depends on nozzle & layer height
Printing acceleration	Up to 1000 mm/s^2

Modix
Large 3D Printers

Print Bed

Bed plate	Alcoa Mic-6, 6.35mm milled cast aluminum plate
Number of heaters	AC heater, 1,350 Watt , dual zone
Temperature controller	Autonics TCN4 PID controller
Maximum bed temperature	120^{o}c
Bed leveling probe	BL touch probe
Bed leveling	Automatic. Bed shape is measured by probing 100 different points.
Bed tilt leveling	Semi-Automatic, guided by an on-screen macro
Bed motion system	4 x ball-nut screws. Each screw is mounted to a dedicated stepper motor with a belt gear system

Modix
Large 3D Printers

Electronics

Electronic controller	Duet3D: Duet2 Wifi
User interface	7” Touch screen – PanelDue from Duet3D
Remote control (WiFi)	Upload Gcode files right from your desktop
Direct connectivity	SD Card, USB cable
Ethernet	Optional with Duet3D Ethernet board. Should be purchased and replaced by customer
Electronics (DC) power	Meanwell 24V/280Watt power supply powering the electronic and motion system. Universal AC input: 110-230V, 50/60 Hz
Bed heaters (AC) power	Direct AC feed, 1370W Silicone pad heater. Two versions are available: 110V and 230V. We supply according to shipping destination. Power requirement for bed heater in North America is a dedicated 15A outlet.
AC power cords	We supply the required AC cords for each country