

# aha!3D

Enabling Innovations



Proudly Made in India



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DRDO



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संस्कृतम्  
Department of science  
and Technology,  
Govt. of Rajasthan



MNIT,  
Jaipur



Geometric



Adobe





Aha 3D was founded in 2010 with a mission to carry out fundamental development on 3D printing technologies. Certified for quality under ISO 9001 : 2008, Aha 3D machines are uniquely evolved to bring true value in the Indian context, while offering globally competitive features.

Our core strength is specialization in all aspects of machine design, including embedded firmware, application software, core electronics and mechatronics. The machines are manufactured in India by our complementary network of manufacturing partners. In addition, our external consultants network ensures design for manufacturability and ergonomics.

We have a pan India presence through our distributors and customer support network. We have signed research agreements with IIT Bombay for the development of next generation 3D printers.

Aha 3D machine users include several prestigious organizations like DRDO, ISRO, IIT Hyderabad, IIT Delhi, DST ( Rajasthan), JCB, Adobe Systems, Geometric Limited and several NITs.

We launched India's First fully indigenous 3D printer in 2012 and the first dual extruder soluble support 3D printer in Oct. 2013. The present product line fulfils various requirements with fused plastic deposition 3D printers. The offerings include Desktop, Industrial and custom built size 3D printers. The features set of machines include cutting edge features like network monitoring and control, advanced self diagnostics and remote maintenance of machines

Going forward, the company plans to continue indigenous research and development of 3D printing domain, and catering to the upcoming requirements with cutting-edge technology and local market know-how.

# ProtoCentre 999

## Functional Specifications

Technology	Fused Filament Fabrication
Build volume ( XYZ )	230 X 230 X 230 mm cube
Printer Dimensions ( XYZ)	500 X 500 X 550 mm
Printing material	ABS,PLA,HIPS,Nylon,PC ( All engineering thermoplastics)
Accepted filament diameter	1.75 mm ( Standard filament spool)
No. of extruders	Two
Nozzle bore	0.4 mm ( main extruder) , 0.4 mm ( support extruder)
Layer Resolution	100 microns
Max. extrusion temperature	300 degrees C
Built platform	Heated type
Supprot material printing	Available , Auto generated
Dual colour printing	Available
Multi material printing	Available

## Interface Specifications

Connectivity	USB, Standalone
Print form	USB, SD Card

## Electrical Specifications

Power requirement	220 V AC, Single phase, 6A
Power consumption	350 Watts

## Mechanical Specifications

XY positioning system	Belt driven precision H-Bolt XY drive
Z positioning	Lead screw
Chassis	MS and Aluminium sheet metal, powder coated
Positional accuracy	< 28 microns
Print speed	100 mm/s max. , 60 mm/s typical

## Software Specifications

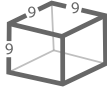
Accepted CAD input formats	STL, OBJ
Pre-processing software licensing	Single Node
Workstation compatibility	Windows XP, Windows 7, Linux
Print Protect (TM)	Exclusive

# ProtoCentre 999

## Professional Desktop 3D Printer



Dual Extruder  
Print Head



9" X 9" X 9"  
Built Volume



Capable of printing  
dual colour or  
soluble support



Low moving mass  
allows faster  
printing speeds



Print Protect™



Enclosed  
chamber



"We have been using the Aha 3D printer for a variety of applications and have found the machine to be very practical and sturdy, especially given the rough usage that it is subjected to."

**Ayush Kasliwal, AKFD Studio**

"We're pleased with the Protocentre's performance. It is an excellent machine for research. We've also found the Aha 3D team prompt and knowledgeable with their customer support."

**Dr. A.A. Shaikh, SVNIT, Surat**

"We're using an Aha 3D printer since 2012 and having an in house option for RP is very handy. Designers can freely experiment and management approvals are a cakewalk with a 3D printed part."

**Bhupesh Upadhyay, Genus Power Infrastructures Ltd.**

"Aha 3D's ProtoCentre 999 is a brilliant machine thanks to its stable all metal chassis and unique soluble support feature. This is the first of many steps that Aha 3D has taken towards building the manufacturing industry leading to reduced imports and self-reliance in India."

**Dr. Ravi Dwivedi, M A N I T, Bhopal, India**

# ProtoCentre 1M

## Functional Specifications

Technology	Fused Filament Fabrication
Build volume ( XYZ )	750 X 500 X 1000 mm cube
Printer Dimensions ( XYZ)	1550 X 1000 X 1850 mm
Printing material	ABS,PLA,HIPS,Nylon,PC ( All engineering thermoplastics)
Accepted filament diameter	1.75 mm ( Standard filament spool)
No. of extruders	Four
Nozzle bore	0.4 mm ( perimeter extruder ) , 0.8 mm ( infill extruder ) 0.6 mm ( support extruder ) 0.4 mm ( alternate extruder)
Layer Resolution	100 microns
Max. extrusion temperature	> 300 degrees C
Built platform	Heated type
Support material printing	Available , Auto generated
Dual colour printing	Available
Multi material printing	Available

## Interface Specifications

Connectivity	WiFi, Ethernet
Print form	USB, Network

## Electrical Specifications

Power requirement	220 V AC, Single phase, 16A
Power consumption	1800 Watts

## Mechanical Specifications

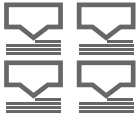
XY positioning system	Belt driven precision Core XY drive
Z positioning	Ball screw
Chassis	MS and Aluminium sheet metal, powder coated
Positional accuracy	< 28 microns
Print speed	100 mm/s max. , 60 mm/s typical

## Software Specifications

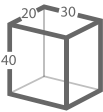
Data import format	STL, OBJ
Pre-processing software licensing	Single Node
Workstation compatibility	Windows XP, Windows 7, Linux
Print Protect (TM)	Exclusive

# ProtoCentre 1M

## Industrial Shop-Floor 3D Printer



Quad Extruder  
Print Head



30" X 20" X 40"  
Built Volume



Touch Screen  
HMI



Wi-Fi, Ethernet,  
USB Connectivity



Print Protect™



On Board  
Camera



The ProtoCentre 1M, our flagship industrial 3D printer, is the first in its class which can build objects upto 1 metre tall. Its water-cooled quad extruders print head ensures that the right tool is used for the right job, resulting in upto 60% reduction in time while maintaining the overall surface finish and accuracy.

It is loaded with cutting-edge features to ensure that your print never fails. It takes care of filament running empty, filament jams, and even power outages. If power fails during the print, the print resumes from the same position when the power is restored.

In addition, operator can manually resume the print job from any Z height.

The machine catches potential problems before they happen. Its intelligent diagnostics software reminds you of periodic maintenance tasks, and regularly checks all functions of the machine thoroughly to consistently ensure the best output from the machine.

In addition, all the standard interfaces like touch screen, WiFi, remote monitoring come standard with the ProtoCentre 1M.

# aha!3D

## Printing Services

Get your parts 3D printed on our in-house 3D printers farm, and achieve huge cost benefits like many other corporations.

It is as easy as :



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Upload you design and  
place your order



Receive you 3D print  
as soon as next day!

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**Aha 3D Innovations Private Limited**  
**Registered Office : 166 Janakpuri II, Imly Phatak,**  
**Jaipur 302015, India**

[www.aha3d.in](http://www.aha3d.in) | [info@aha3d.in](mailto:info@aha3d.in)  
**+91 141 4026 649 | +91 8003 944 400**