



Rapid

MANUFACTURING TECHNOLOGY



3D Printing

Turn Your Dreams Into Reality

You Dream It,
We Make It!

ABOUT US

*RMT is a Professional & Custom 3D Printing Service Provider –
Shaping Your Idea Into a Real Product.*

As a pioneering rapid manufacturing provider in Kuwait, we specialize in 3D printing services, with the latest technologies of industrial 3D printers and scanners. Our focus is to deliver reliable, high-quality models and customized products to all our clients, ensuring high precision and time efficiency.

Our company designs and creates end-products, responding to the rapid prototyping and manufacturing needs of our clients. We assist in evaluating mechanical designs and help to improve and advance the final solutions. The production process is now; from a simple vision to creating a 3D model and printing your product – only a matter of a few days.

By applying cutting-edge additive manufacturing technology, RMT fulfills the unique demands of all clients, offering leading services in terms of efficiency, quality, reliability, affordability, and attention to detail.

Our company brings innovative dreams of passionate entrepreneurs to life.

But that's not all – visit us and pick from our wide range of custom-made services, including but not limited to high-performance products, end-user parts, and low-volume production runs.

SERVICES

Rapid Manufacturing Technology

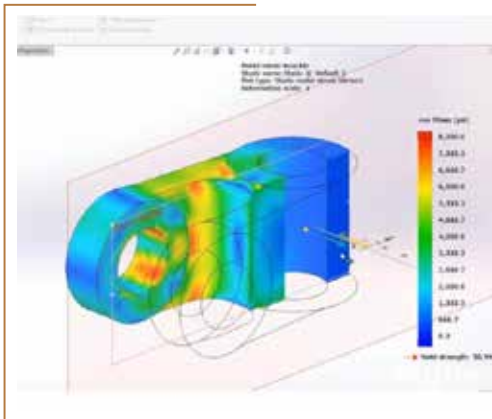
Rapid Manufacturing Technology understand the individual needs of each client, therefore, we provide 3D Printing & Scanner services that are customized according to the specified requirements of our clients. We offer flexible services where each prototype is produced using 3D printing according to the product specifications given by the client. From using latest design software, pioneering 3D printing technologies, durable & high quality material/ resources, to flexible work processes and a hassle-free shipping for local orders, we ensure to offer our clients with innovative 3D solutions. Reach us and manufacture your idea into a real product as promptly and efficiently as you need.



3D PRINTERS

Markforged offers a range of printers that create functional end use parts for a wide range of Industries from Automotive all the way to Educational tools. Whether you rely on our composite printers that produce parts that are as strong as Aluminum using Carbon Fiber Filament or printing directly in metal, Markforged got you covered. With our office safe Metal 3D printers that requires no PPE to handle.

RMT is an authorized reseller of MarkForged



DESIGNING AND DESIGN EVALUATION

A Broad Spectrum of 3D Design Services for Your Business Needs

RMT offers a comprehensive range of 3D design services that involve robust design solutions for clients. With our latest 3D printing technology, we optimize models for their functionality, purpose, and value for use.

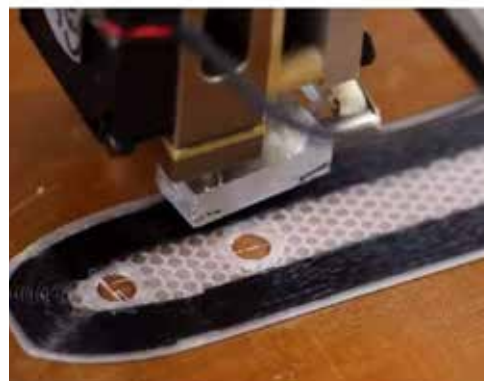
Careful Quality Check of 3D Designs

Our experts offer seamless services from 3D designs to product manufacturing. We deliver well-researched, precisely developed and customized 3D scanning solutions, and streamline the design-to-product process through careful evaluation, approval, and modification. Our experience allows us to undergo any complex additive manufacturing challenge and execute unique and intricate 3D designs.

3D PRINTING

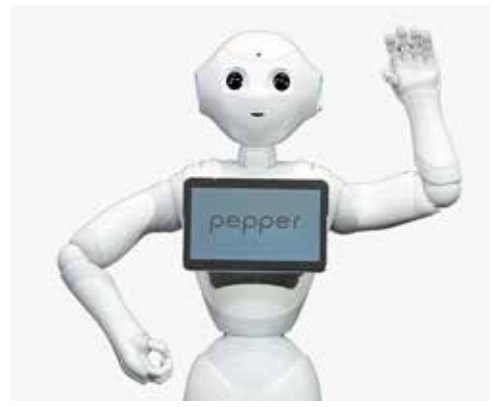
Our Prime Expertise in Cutting-Edge 3D Printing Solutions

RMT reduces your manufacturing time by transforming 3D designs into finished products within the shortest possible time. Our experts focus on achieving the desired result within half the time of outdated manufacturing processes, with higher quality and precision.



HUMANOID ROBOTICS (EDUCATIONAL AND PRESENTATION)

With the current pandemic, social distancing is a must. RMT offers Humanoid Robots Nao and Pepper. Dual language Nao (60 c.m in height) can be used for educational purposes and keep both students and teachers in a safe distant. Pepper Robot (120 c.m in height) can be used for retail, presentations and educational purposes as well. Visit us to have a see these robots in action. For the best experience please book an appointment.



2D WALL IMAGE PRINTING

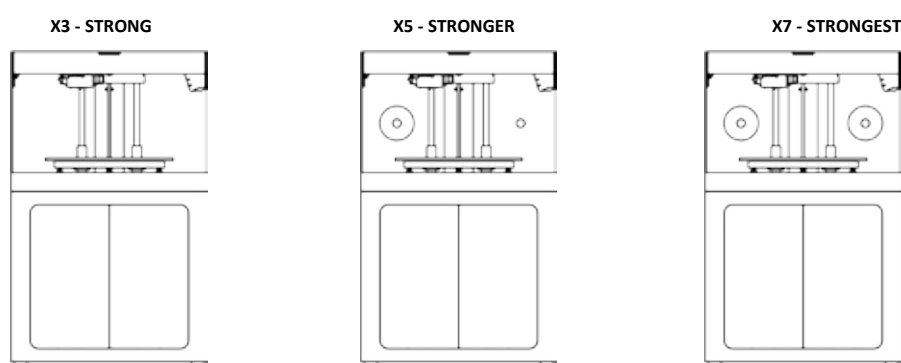
Printing on the wall is now easier than ever. With "The Wall Printer" from "Chinese wall pen" now it is possible to accomplish what you need in both 3D and 2D with RMT using the latest and most advanced machines.



3D SCANNING

Using high end scanners, RMT can transfer your physical item into CAD (Computer-Aided Design) for redesigning or reverse-engineering your damaged part to fabricate it again. Whether it is a legacy part or new, intricate or simple, the scanner capabilities can fulfill all your CAD needs.

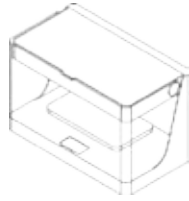
MARKFORGED INDUSTRIAL SERIES



FEATURE LIST

Part Ultimate Tensile Strength	36 MPa (1.2x ABS)	590 MPa (19.0x ABS)	700 MPa (22.6x ABS)
Max Flexural Stiffness	2.9 GPa (1.4x ABS)	22 GPa (10.7x ABS)	51 GPa (24.8x ABS)
Material: Plastic	Onyx	Onyx	Onyx
Material: Continuous Fiber	None	Fiberglass	Carbon Fiber, Kevlar, Fiberglass, HSHT Fiberglass
Print Head	1 nozzle	2 nozzle	2 nozzle, hardened for abrasive materials
Laser Operations	Laser Assisted Leveling, Active Print Calibration		Laser Assisted Leveling, In-Process Inspection
Build Volume	330 x 270 x 200 mm (13 x 10.6 x 7.9 in) Volume =17820 cu cm.		
Print Bed	Kinematic Magnetic Coupling, 10um Bed Location Repeatability		
Bed Flatness	Precision ground to 80um Peak to Peak Flatness		
Machine Gantry	Reinforced Hardened Steel, 80um Peak to Peak Flatness		
Laser Specs	Accurate to 1um in Z, 25um in XY		
Live build inspection	Built in camera, photos viewable through eiger		
Adaptive Bed Leveling	Laser Bed Level dynamically adapts for first layers of part based on bed scan		
Electronics and Sensing	High Frequency Motion Control Silent Stepper Motors - Encoder feedback on drive and extruder motor - Full out of material detection		
Weight	46kg (102 lbs)	48kg (106 lbs)	48kg (106 lbs)

Markforged Composite Printer Comparison



DESKTOP SERIES

Reliable entry level machines
Accurate parts with good surface finish
Prints with standard materials



INDUSTRIAL SERIES

Industrial grade machines with large build envelope
Superior accuracy, resolution, and speed
Full industrial material portfolio

	Onyx One	Onyx Pro	Mark Two	X3	X5	X7	
Process							Material Variety
Fused Filament Fabrication	x	x	x	x	x	x	
Continuous Fiber Reinforcement		x	x		x	x	
Base Materials							
Onyx(Micro carbon fiber filled nylon)	x	x	x	x	x	x	
Onyx FR				x	x	x	
Nylon			x			x	
Continuous Fibers							
Continuous Fiberglass		x	x		x	x	
Continuous Carbon Fiber			x			x	
Continuous HSHF Fiberglass			x			x	
Continuous Kevlar®			x			x	
Features							Automation + Usability
Adaptive Bed Leveling				x	x	x	
Fiber Jam Detection		x	x		x	x	
Out-of-Plastic Detection	x	x	x	x	x	x	
Out-of-Fiber Detection					x	x	
Turbo Print(up to 4x faster)						x	
In-Process Laser Inspection*						x	
Hardware							Part Quality
Build Volume	320 x 132 x 154 mm (12.6 x 5.2 x 6.0 in)			330 x 270 x 200 mm (13.0 x 10.6 x 7.9 in) (2.7x larger)			
Bed Flatness	Flat to within 160 µm; Kinematic coupling			Flat to within 80 µm; Kinematic coupling			
Best Z Resolution	100 µm			50 µm			
Supports	Same material peel away; Turbo supports available (supports print 2x faster)						
Infill	Closed-cell infill; Multiple geometries available						
Specifications							+
Storage	Cloud or Local included; On-Premise available						
Security	Two-factor authentication; Org admin access; Single sign-on						
Power	100-240 VAC, 150W (2A peak)						
Weight	16 kg (35 lb)			48 kg (106 lb)			
Footprint	584 x 330 x 355 mm (23 x 13 x 14 in)			584 x 483 x 914 mm (23 x 19 x 36 in)			

*accuracy of Z = 1µm, XY = 25 µm

MarkForged Software

Eiger is a Digital Part Repository

A simple part library that enables you to dynamically manage engineering projects of any size complete with versioning, permissioning, and advanced security features.

Powerful Prep and Print Software

Eiger is built to be the world's most advanced 3D printing slicer. Effortlessly print metal, continuous fiber, and composite base parts on a single cloud-based interface.

Global Fleet Management Platform

A single place to manage your printer fleet in real time, whether in one spot or worldwide. Get analytics, usage data, and live telemetry in a single place.

MarkForged Materials (Composites)

Onyx Flexural Strength: 81 MPa

Onyx is a chopped carbon fiber reinforced nylon. It's 1.4 times stronger and stiffer than ABS and can be reinforced with any continuous fiber. Onyx sets the bar for surface finish, chemical resistivity, and heat tolerance.

Carbon Fiber Flexural Strength: 540 MPa

Carbon Fiber has the highest strength-to-weight ratio of our reinforcing fibers. Six times stronger and eighteen times stiffer than Onyx, Carbon Fiber reinforcement is commonly used for parts that replace machined aluminum.

Onyx FR Flexural Strength: 79 MPa

Onyx FR achieves V-0 rating on the UL94 flammability test while possessing similar mechanical properties to Onyx. It's best for applications in which flame retardancy, light weight, and strength are required.

Fiberglass Flexural Strength: 200 MPa

Fiberglass is our entry level continuous fiber, providing high strength at an accessible price. 2.5 times stronger and eight times stiffer than Onyx, Fiberglass reinforcement results in strong, robust tools.

Onyx ESD Flexural Strength: 83 MPa

Onyx ESD is a static dissipative safe variant of Onyx — meeting stringent ESD safety requirements while offering excellent strength, stiffness, and surface finish. It is best used in applications that require ESD safe materials.

Kevlar® Flexural Strength: 240 MPa

Kevlar® possesses excellent durability, making it optimal for parts that experience repeated and sudden loading. As stiff as fiberglass and much more ductile, it can be used for a wide variety of applications.

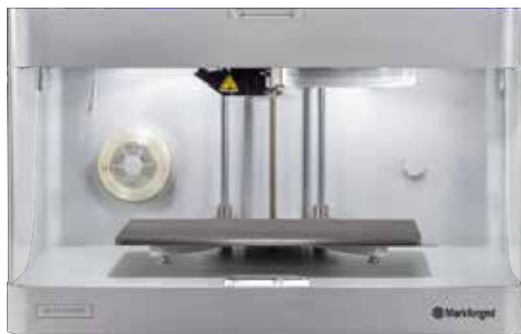
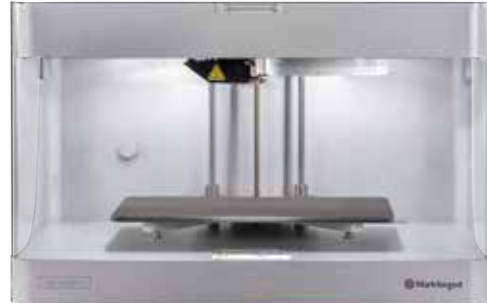
Nylon White Flexural Strength: 50 MPa

Nylon White parts are smooth, non-abrasive, and easily painted. They can be reinforced with any continuous fiber and work best for non-marring work holding, repeated handling, and cosmetic parts.

HSHT Fiberglass Flexural Strength: 420 MPa

High Strength High Temperature (HSHT) Fiberglass exhibits aluminium strength and high heat tolerance. Five times as strong and seven times as stiff as Onyx, it is best used for parts loaded in high operating temperatures.

The Onyx One combines industrial quality with affordability. The next generation of the Onyx One has all the benefits of the original plus even better reliability. Onyx printers' base material is a blend of nylon and chopped carbon for stronger and stiffer parts than plastics other printers use—and that stand up to corrosive chemicals common in manufacturing. Get started with the economical Onyx One or step up to the Onyx Pro to boost part strength 10x by embedding continuous fiberglass. Industrial grade performance starts with an all-aluminum unibody enclosure built around an ultra-flat gantry system. Add a machined aluminum stage with kinematic bed coupling, and a precision ground print platform. Build Volume: 320 mm x 132 mm x 154 mm Layer Height: 100 µm Technology: FFF



The next generation of the Onyx Pro has all the benefits of the original plus even better reliability. Onyx printers' base material is a blend of nylon and chopped carbon for stronger and stiffer parts than plastics other printers use—and that stand up to corrosive chemicals common in manufacturing. The Onyx Pro, with a second print head exclusively for continuous fiberglass, is your entry to the seriously strong reinforced composite parts that Markforged is known for. Industrial grade performance starts with an all-aluminum unibody enclosure built around an ultra-flat gantry system. Add a machined aluminum stage with kinematic bed coupling, and a precision ground print platform. Build Volume: 320 mm x 132 mm x 154 mm Layer Height: 100 µm Technology: FFF

The Mark Two combines Markforged's unique continuous carbon fiber reinforcement with workhorse reliability for the strongest, most versatile parts in our portfolio. It is the only printer in the industry that enables you to go from CAD to beautiful, end-use strong parts in hours. With your choice of reinforcement and plastics, remove the time, hassle and design iterations and put your parts to use right off the printer engineered with the right material for any job. Build Volume: 320 x 132 x 154 mm (12.6 x 5.2 x 6 in) Layer Height: 100µm Technology: FFF





With the powerful Industrial Series 3D Printers, you can produce industrial grade and highly stable components.

The large working space on all Industrial Series printers is ideal for robotics, automotive parts, prototype models and prosthetics. With a layer thickness of 0.05 mm, your components receive a perfect surface finish and the look and feel of an injection moulded component.

Industrial Series					
		X3	X5	X7	
3D printer Features	Print Technology	Fused Filament Fabrication (FFF)	Fused Filament Fabrication (FFF), Continuous Filament Fabrication (CFF)		
	Material	Onyx, Onyx FR	Onyx, Onyx FR and Fibreglass	Onyx, Onyx FR, Nylon White/PA 6, Fibreglass, Carbon fibre, Kevlar fibre, HSHT Fibreglass	
	Layer thickness	0,05 mm, 0,1 mm, 0,125 mm and 0,2 mm			
	Nozzle diameter	FFF-Nozzle 0,4 mm; CFF-Nozzle 0,9 mm			
	Extruder units	Plastic extruder, Fibre extruder			
	Print pause	Yes			
Technical & Software	Dimensions (W x D x H)	total: 584 x 483 x 914 mm; without base unit: 584 x 483 x 424 mm			
	Build Platform	Kinematic Coupling, Repeat positioning accuracy 0,01 mm			
	Working Space (X, Y, Z)	330 x 270 x 200 mm			
	Torsionally rigid housing	Yes			
	Interface	4" Touchscreen			
	Software	Cloud-based			
	Supported OS	Mac OS 10.7 Lion +, Win 10, Linux			
	Supported Browser	Chrome 30+			
	Supported File formats	.STL			
Networking	WiFi, Ethernet, USB				



The Metal X 3D printing system, consisting of 3D printer, washing station and sintering furnace,


significantly accelerates your design innovation and delivers metal components overnight. Forget 20th century manufacturing and create everything from industrial spare parts to injection moulds and working prototypes. Thanks to the innovative Atomic Diffusion Additive Manufacturing Technologie (or ADAM for short) the components achieve outstanding mechanical properties and enormous rigidity even in the z-direction.

Metal X		
3D printer Features	Print technology	Atomic Diffusion Additive Manufacturing (ADAM)
	Working Space (X, Y, Z)	300 x 220 x 180 mm
	Dimensions (W x D x H)	575 x 467 x 1,120 mm, 75 kg
	Power	100-240VAC, 2400W (20A peak), IEC60320 Type C20
Characteristics component	Maximum component size	250 x 183 x 150 mm
	Maximum component weight	10 kg
	Density	max. 94,5% bis 99,7% (depending on material)
	Infill	closed honeycomb structure and solid material
Software	Software	Cloud-based
	Security	Two Factor Authentication, Administrator Organization
Materials	Available Materials	1.4542 (T7-4PH); 1.2344 (H13); 1.2363 (A2); 1.2379 (D2); 1.7744 (Inconel 625); Copper
	Beta Materials	3.7165 (Ti-6Al-4V); 1.4404 (316L Stainless Steel)
	Material	Bound Powder
Washing Station		
Supported Materials	All available Materials	
Cleaning Fluid	Hexane (Temperature class according to ATEX: T3)	
Service	Manual filling of the green compacts, Solvent filling by pump	
Workholding	Stainless Steel Basket	
Washing size (W x D x H)	500 x 900 x 1635 mm	
Washing volume	28,5 l	
Sinter Furnace 2		
Supported Materials	All available Materials	
Heater element	Kanthal	
Maximum temperature	1300° C	
Sintering Capacity	Rectangle with top radius 248 mm inner diameter x 406 mm length	
Sintering Volume	12.135 cm ³	
Sintering Area	1.644 cm ²	
Gas types	Argon and ArgonHydrogen mixed gas	
Retort	High purity refractory retort (Carbon Free)	
Sintering Surface	Ceramic	
Environmental Requirements	external exhaust not included (1000 CFM)	
Input	230V, 1 Phase, 32A	
Overttemperature	Protection System included	
Dimensions (W x D x H)	1370 x 810 x 1520 mm	
Weight	350 kg	

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