



Industrial Strength 3D Printing



Q

Are your projects slowed by long turnaround times from a machine shop or service bureau?

Is the time or cost of machined aluminum parts getting in your way?

Are you tired of having to say “no” to potential customers because your machining resources are tied up?

**Duncan
+ Parnell**

Successful Projects Start Here

800.849.7708

duncan-parnell.com



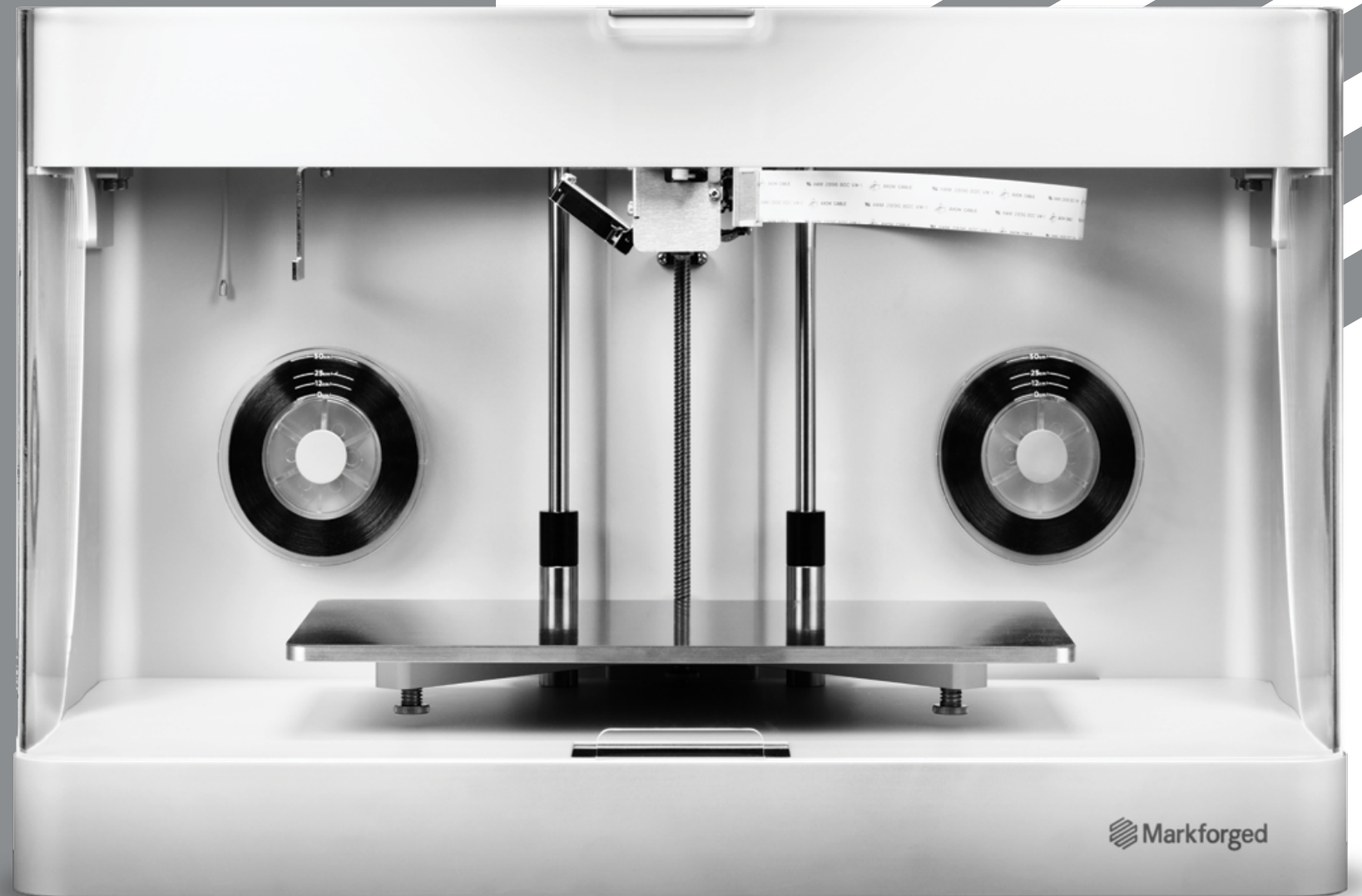
Markforged. The Strongest Parts. For Every Engineer.

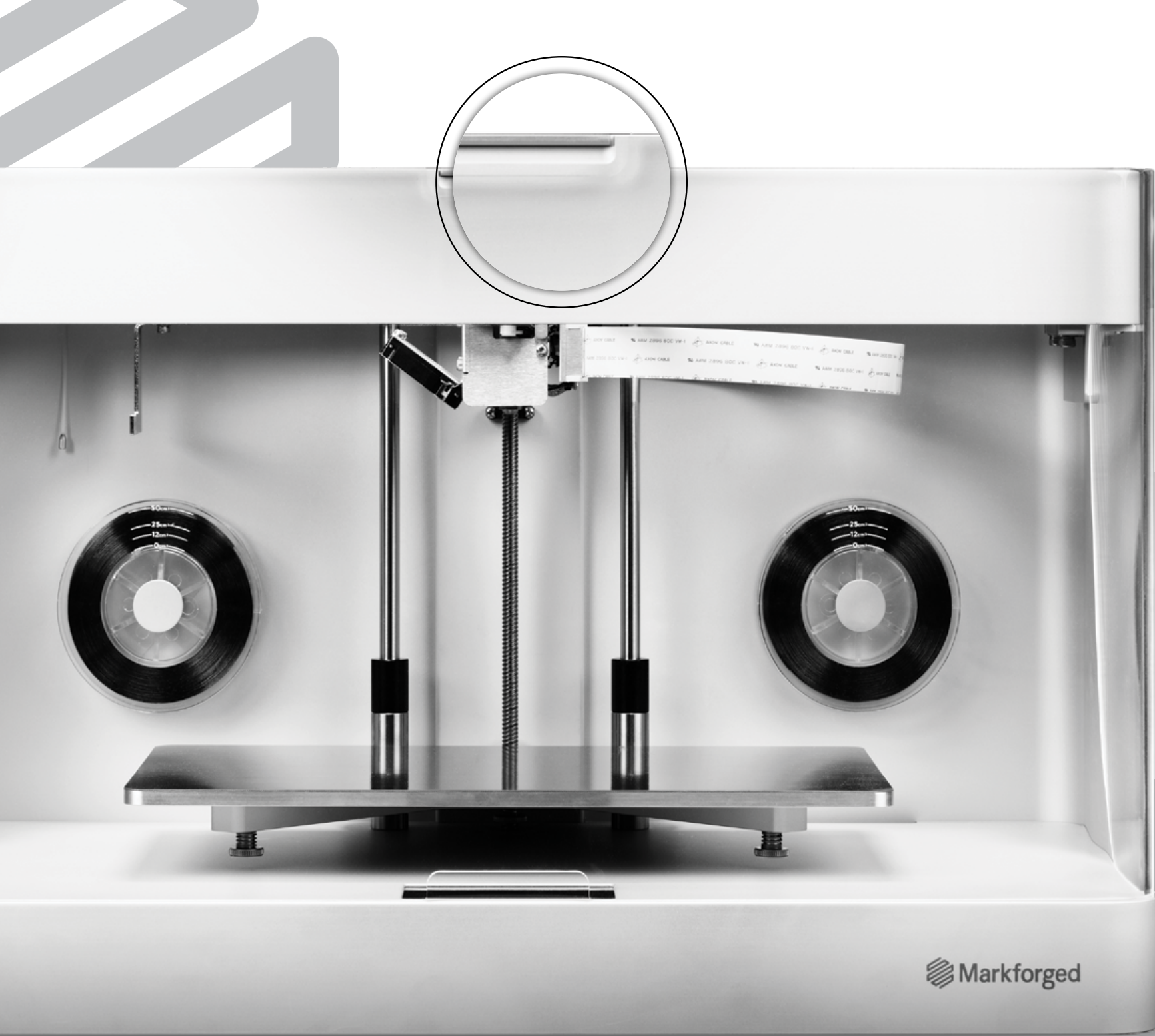
Design and print uniquely and automatically reinforced plastic parts you couldn't before.

“27X stiffer than 3D printed ABS”

Markforged's Mark Two Industrial Strength 3D Printer is the only 3D printer on the market today that gives you the ability to go from CAD to strong, stiff parts you can trust to meet your design goals...

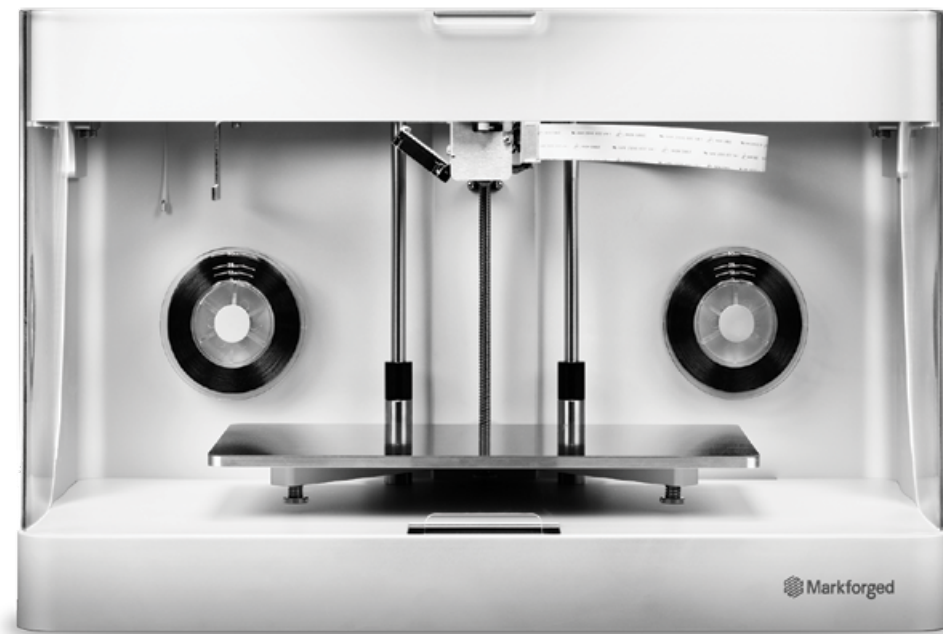
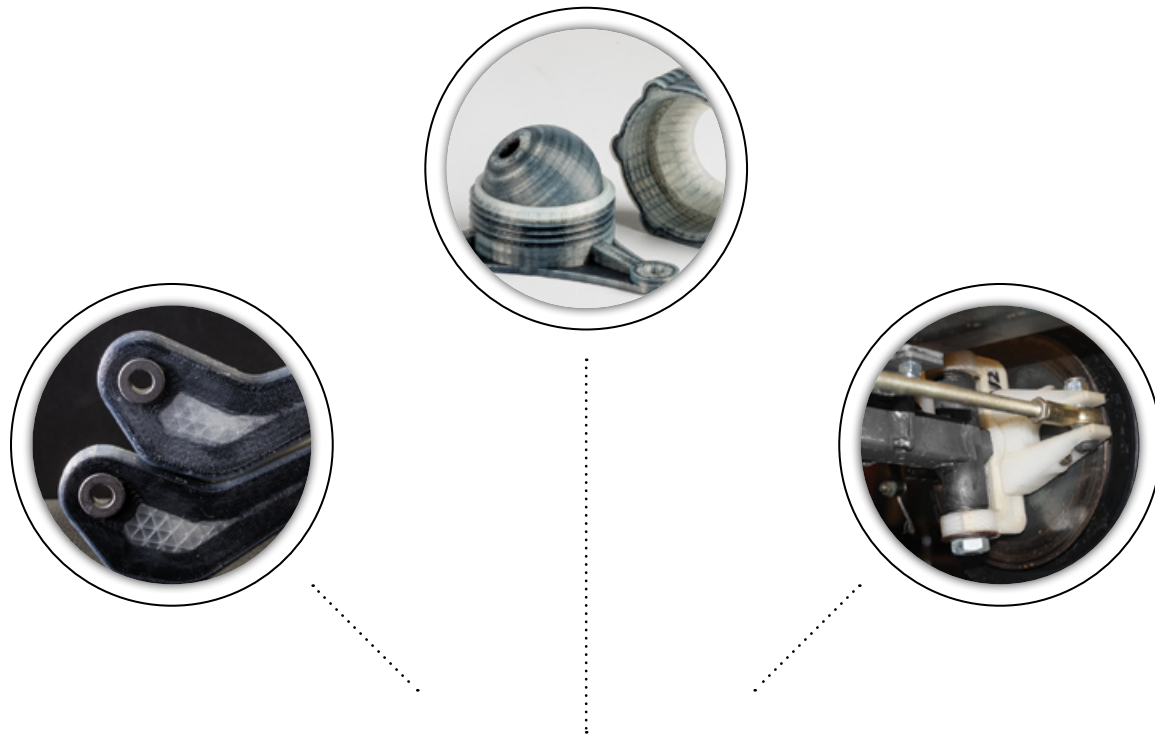
far faster than internal or external 3D printing or machining services... without breaking the bank...





Print with precision.

The aluminum unibody construction provides the high stiffness and rigidity you'd expect in a precision machine



The Mark Two combines the design flexibility of 3D printing with the remarkable strength of in carbon fiber, fiberglass, and Kevlar® for:

- Jigs, fixtures, and other tooling
- Custom end-use production parts
- Functional prototyping
- Structural parts

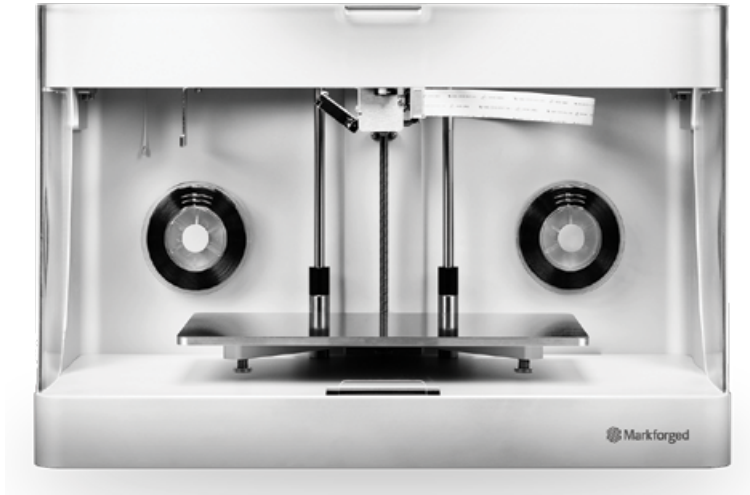
...any instance where stronger-than-plastic parts are needed fast and without costing a fortune

Two years ago we released a revolutionary printer - the Mark One - which empowers every engineer to print parts stronger than plastic, often the same day. Since then, we've been listening closely to customer feedback and used it to define the Mark Two.

The Mark Two offers:

- A **40% faster** fiber printing process than the Mark One
- The ability to reinforce features **15 times smaller than before**
- A new Enterprise Bundle with High Strength, High Temperature Fiberglass, ideal for aerospace and automotive customers

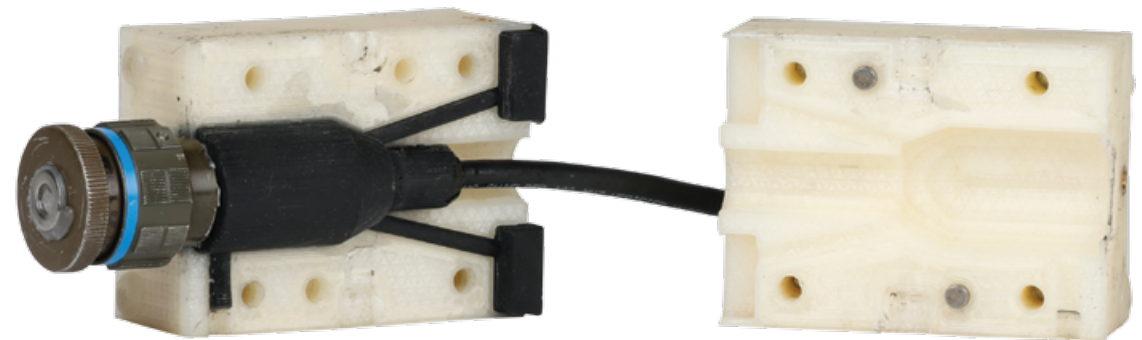




The Mark Two uses a patented Continuous Filament Fabrication (CFF) process to reinforce 3D printed nylon parts with automatically contoured and optimized toolpaths of continuous strand carbon fiber, Kevlar, and fiberglass. Utilizing a dual head system with a CFF print head and an FFF (Fused Filament Fabrication) extrusion head, the Mark Two can create astonishingly robust parts by leveraging the properties of composite materials with a higher strength-to-weight ratio than 6061-T6 Aluminum.

We don't just focus on the hardware; we also offer high quality, strong materials, with no fluid waste:

- Carbon Fiber – highest strength-to-weight
- Kevlar – highest abrasion resistance
- Fiberglass – highest strength-to-cost
- Nylon – tough engineering plastic
- High Temperature Fiberglass – ideal for automotive, aerospace, and other industries that need material with a higher temperature deflection point



One part. Thousands of Continuous Carbon Fibers

The incredible strength of carbon fiber comes from the long, continuous strands that carry load down the entire part. This is why space shuttles, rockets, and Formula 1 cars are constructed from continuous strand carbon, and it's how we print.

This CFF 3D Printed part is packed with tens of thousands of full length, continuous carbon fiber strands.



PRINTING

Printing Technology	Fused Filament Fabrication (FFF) Continuous Filament Fabrication (CFF)
Build Size (X, Y, Z)	320mm x 132mm x 154mm
Material Compatibility	Carbon Fiber, Kevlar®, Fiberglass, Nylon
Highest Layer Resolution	100 Microns (FFF)
Extruders / Nozzles	Dual / Quick Change
Pause / Resume Prints	Yes

MECHANICAL

Chassis	Anodized Aluminum Unibody
Build Platform	Kinematically Coupled
Draft Blocking Enclosure	Yes
Interface	4" Touchscreen

SOFTWARE

Software	Cloud Based
Supported OS	Mac OS 10.7 Lion +, Win 7+, Linux*
Supported Browser	Chrome 30+
Supported files	.STL
Connectivity	WiFi, Ethernet, USB Flash Drive

ALL FEATURES SUBJECT TO CHANGE WITHOUT NOTICE.

*LIMITED SUPPORT.



Markforged

© 2016 Markforged, Inc.

MarkForged's mission is to bring high strength 3D printing to everyday engineering. Offering the world's only 3D printing systems capable of automatically reinforcing engineering plastics to aluminum levels of performance and beyond, MarkForged enables every business to easily manufacture parts with structural strength right on the desktop. The Mark Two Industrial Strength 3D Printer empowers professional users to affordably create workhorse 3D parts that solve real problems, as well as realize reinforced structures never before possible. MarkForged technologies are delivered with thoughtful, powerful software designed for collaboration, sharing, and scaling. For more information, visit <https://www.MarkForged.com>.