APPLICATION SPOTLIGHT

End-Use Product

	Time	Cost
Traditional	1 week	$3500
Markforged	5 hrs	$15
Savings	**97%**	**99%**

ARC34

Arc34 is a design and manufacturing firm that provides custom solutions to clients, from small businesses to government.

Challenge

Low-volume parts printed in ABS and PLA are too brittle, weak, and unattractive to use in finished consumer products.

Solution

Onyx reliably offers strength, stiffness, and resolution in parts without the time and cost of milling or creating molds.

Results

Arc34 can both rapidly iterate functional prototypes and deliver end-use products that hold up even through extreme sports.

Versatile GoPro Mount

Arc34 developed the PDQ Mount, a magnetic GoPro mount built to perform in all weather and environments. Their device has to be strong and secure enough to protect the camera even when speeding down ski slopes or immersed under water. Early iterations used sheet metal, ABS, and PLA for the enclosure and bracketry, but none proved to be ideal. Markforged's Onyx selectively reinforced with continuous fiberglass is the only material to succeed in real-world conditions without prohibitive cost or fabrication constraints. Co-founder Brad Hess says it is "the perfect solution to actually take the product to market. There's nothing else price point- and quality-wise" and there have been "zero returns due to defect".

Arc34 now turns to their "workhorse" Markforged 3D printer at every stage between initial concept and going to market. It runs 24/7, printing various different parts with minimal human oversight, and allowing remote kickoff of new builds via Markforged's integrated software. When it's not making PDQ Mount components, their printer produces new iterations of prototypes for clients. These parts allow Arc34 to validate not only fit, form, and design, but also fundamental principles of function.

+ Consistent Quality

Manufacturers can rely on Markforged 3D printers to consistently produce parts with exceptional quality, surface finish, and dimensional accuracy.

+ Real-World Durabilty

Onyx is robust enough to protect a body-mounted camera as it experiences snow, rain, heat, and rapid acceleration through all of life's adventures.

+ Low Machine Downtime

Markforged's free cloud software allows users to remotely queue, start, and monitor prints for nearly continuous unattended operation, even overnight.