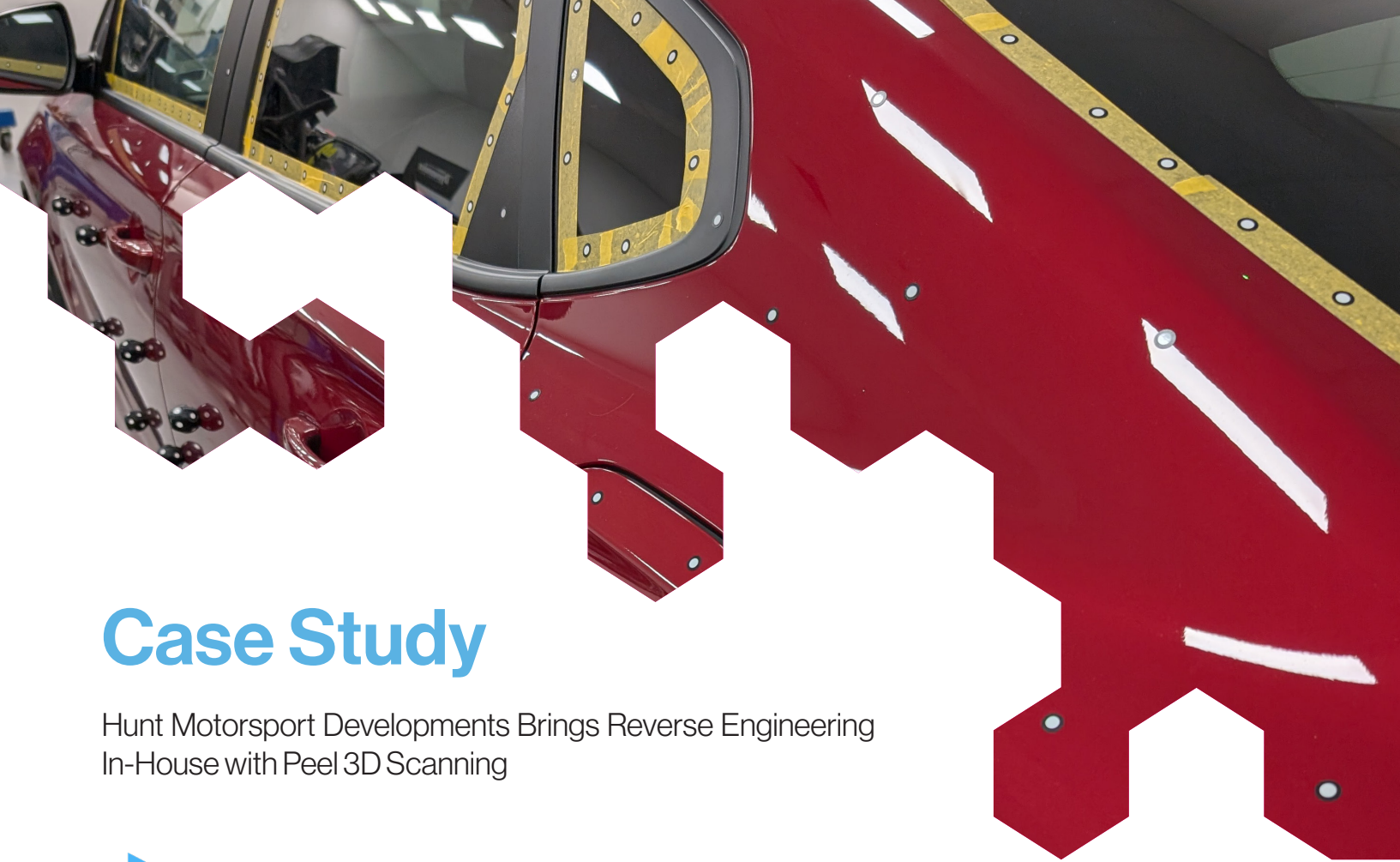




Case Study

Hunt Motorsport Developments Brings Reverse Engineering
In-House with Peel 3D Scanning



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Introduction

Founded by experienced motorsport design engineer Thomas Hunt, Hunt Motorsport Developments provides specialist CAD design, reverse engineering and engineering consultancy services to customers across British motorsport and the wider automotive sector.

Before establishing the business Thomas spent more than 11 years with team dynamics motorsport, one of the UK's most successful British touring car championship teams, where he gained extensive experience in race engineering, vehicle design and product development. Today, that expertise is applied across a diverse range of projects, from modern race car development to bespoke automotive engineering.

As demand grew for reverse engineering and bespoke design work, Hunt Motorsport Developments invested in a Peel 3D scanner, supplied by Measurement Solutions Ltd (MSL). Bringing 3D scanning in-house has enabled the business to capture accurate digital data, expand its engineering capabilities and take on a wider range of customer projects.

Objective

The decision to invest in portable 3D scanning was driven by a desire to bring reverse engineering capabilities in-house and offer customers a more complete engineering service.

Previously, projects requiring scan data relied either on customers supplying CAD models or on third-party scanning companies. This introduced additional lead times, reduced flexibility and limited the range of projects the business could undertake, particularly when working on one-off race cars or historic vehicles where no digital information existed.

One of the first major projects following the investment involved redesigning the front end of a British Touring Car Championship car. The customer wanted to introduce a facelift incorporating a new bumper and grille, but no CAD data existed for the vehicle. Capturing accurate geometry was essential before any modifications could begin.

By integrating portable 3D scanning into its existing workflow, the business now undertakes reverse engineering projects entirely in-house, reducing reliance on outsourced scanning providers.

The Solution

To support this workflow, Hunt Motorsport Developments invested in a Peel 3D scanner, supplied by Measurement Solutions Ltd (MSL).

The Peel 3D scanner enables accurate digital capture of complete vehicles and individual components, creating precise scan data for CAD design, product development and reverse engineering.

Integrated with Hunt Motorsport Developments' existing CAD design and additive manufacturing capabilities, it provides a fully integrated digital workflow from scan through to design, prototyping and manufacture, reducing reliance on manual measurement while giving the business greater control over project quality, lead times and customer delivery.



Professional 3D Scanning Without the Complexity

The Peel 3 is a professional handheld 3D scanner designed for engineers, designers, and manufacturers who need reliable scan data without the complexity or cost of metrology-grade systems.

Built for real-world workshops and engineering environments, Peel 3 delivers accurate, repeatable results with a simple, guided workflow, making it an ideal step up from entry-level scanners.

If you need dependable 3D data for reverse engineering, inspection, or design, Peel 3 fits naturally into your workflow.

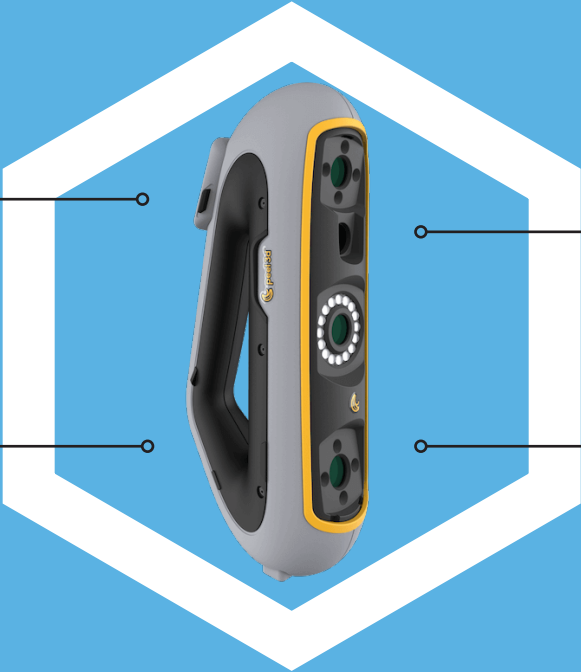


Scanning Area: 340x475mm

Accuracy: Up to 0.050mm

Scan Speed: 80 sec/m2

Light weight: 950g



Application Examples

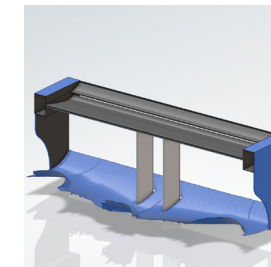
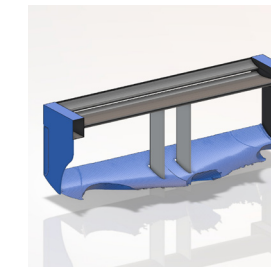
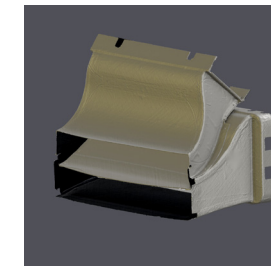
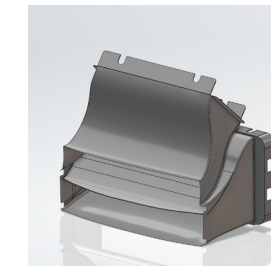
Today, portable 3D scanning supports a wide range of engineering applications across Hunt Motorsport Developments' workflow.

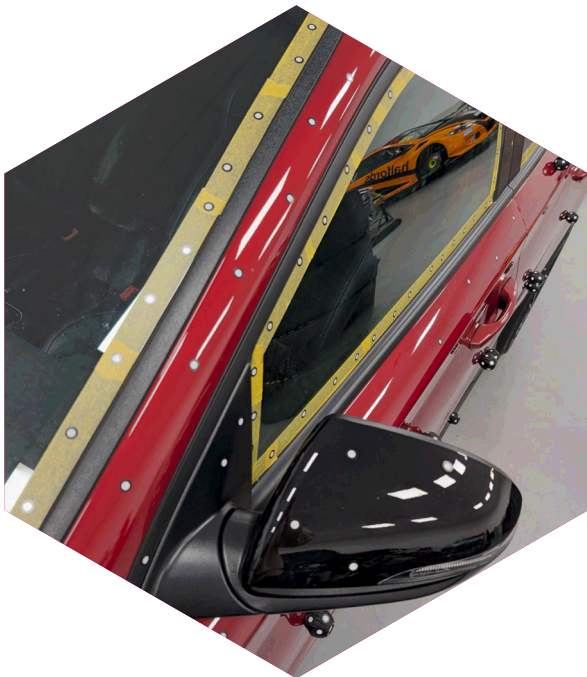
One of the scanner's first major projects involved capturing a complete race car to support the redesign of its front-end bodywork. Accurate scan data provided the reference geometry needed to redesign new components with confidence before manufacturing began.

The technology is also widely used within historic motorsport, where original CAD models, tooling and engineering drawings are often unavailable. Components can be scanned, reverse-engineered, and recreated, enabling obsolete or damaged parts to be reproduced without relying on the limited number of suppliers that may hold the original data.

Beyond complete vehicle projects, the scanner supports the development of bespoke brackets, steering components, suspension parts and mounting features. Capturing accurate geometry allows new designs to be developed digitally before prototype components are produced using 3D printing, significantly reducing the number of physical iterations required.

While many modern race programmes already have comprehensive CAD assemblies, portable 3D scanning has enabled Hunt Motorsport Developments to support an increasing number of historic motorsport projects where digital data simply does not exist.





Challenges

Working across both modern and historic motorsport presents very different engineering challenges.

While current race programmes often include comprehensive CAD models, many specialist vehicles have no digital records, requiring components and assemblies to be digitally recreated from physical parts.

Before introducing portable 3D scanning, this process relied heavily on manual measurement and multiple prototype iterations to achieve the correct fit. Outsourcing scan work was an option, but it reduced flexibility, increased project costs and extended development times.

As the business continued to grow, Hunt Motorsport Developments needed a faster, more reliable method for capturing complex geometry while maintaining complete control over the engineering process and expanding the services it could offer customers.

Benefits

Bringing portable 3D scanning in-house has transformed the way Hunt Motorsport Developments approaches reverse engineering and product development.

Instead of relying on manual measurements and repeated trial-and-error, projects now begin with accurate digital data that can be taken directly into CAD. This has significantly improved confidence in first-time fit while reducing the number of prototype iterations required.

As Thomas Hunt explains:

"Before we had the scanner, it could take four or five 3D printed prototypes to get the fitment right. Having accurate scan data allows us to make design changes with much greater confidence before producing a prototype."

Bringing scanning in-house has also enabled Hunt Motorsport Developments to undertake projects that would previously have been outsourced, or, in some cases, turned away altogether. The business now offers customers a fully integrated design, reverse engineering and development service, while maintaining greater control over quality, lead times and project delivery.

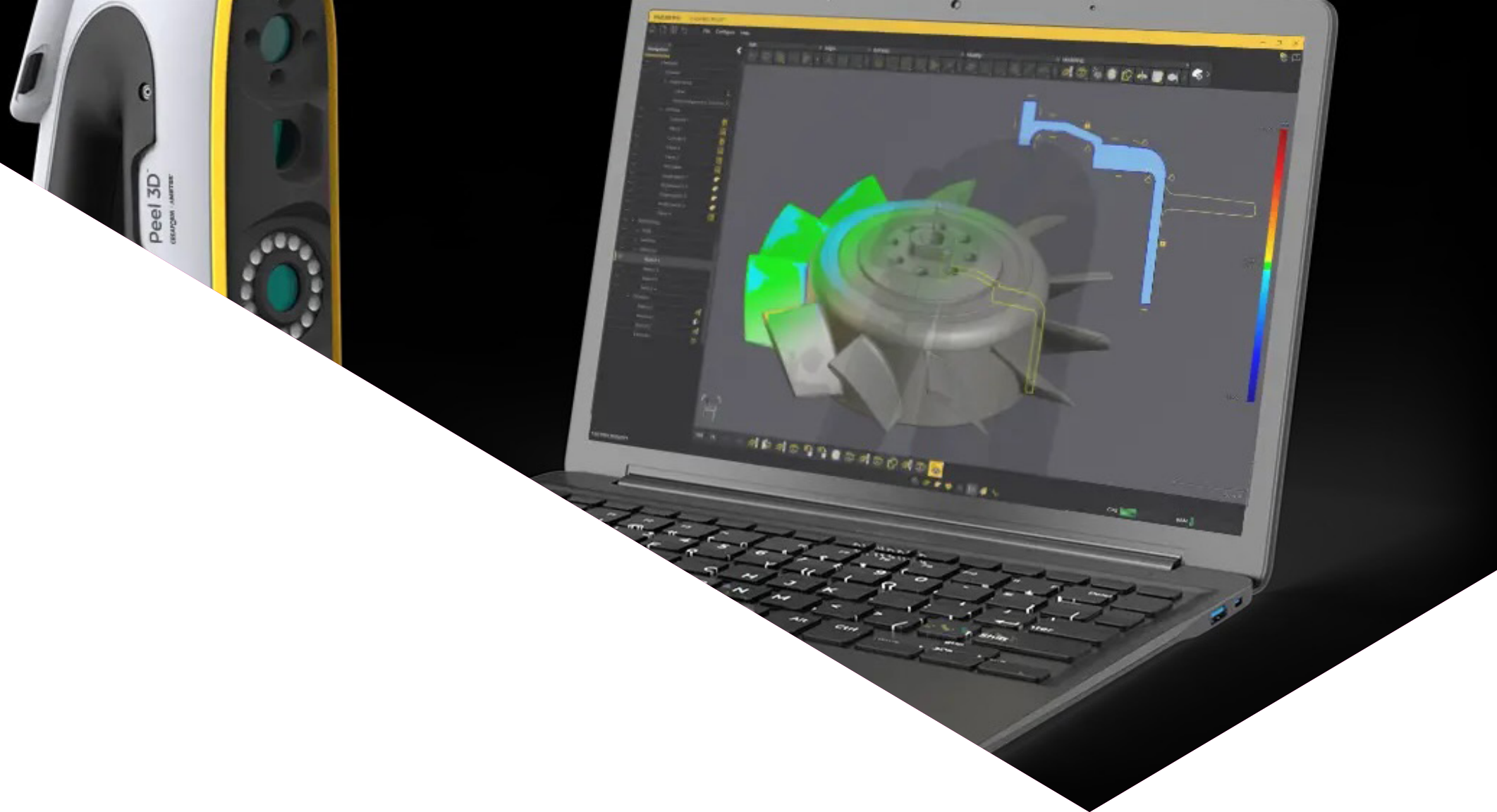
For a growing engineering consultancy, the Peel 3D scanner has become far more than a measurement tool; it has expanded the company's capabilities, strengthened its service offering and created new opportunities across both modern and historic motorsport.

Results

Since introducing the Peel 3D scanner, Hunt Motorsport Developments has significantly expanded its engineering capabilities and strengthened the range of services it can offer.

Portable 3D scanning now forms an integral part of the company's workflow, supporting reverse engineering, bespoke component design and historic motorsport projects. By combining accurate scan data with CAD design and rapid prototyping, Hunt Motorsport Developments has improved first-time fit and brought the reverse engineering process entirely in-house.

What began as an investment to support a single vehicle development project has evolved into a core engineering capability, enabling Hunt Motorsport Developments to undertake more complex projects while continuing to support customers across the motorsport and specialist automotive sectors.





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