

Discover Hallmark Engineering Group

Your Gateway to Engineering Excellence



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hallmarkengineeringgroup.co.uk



HALLMARK
ENGINEERING GROUP



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Hallmark Engineering Group

The parent company, pioneering integrated engineering solutions across industries

EES Solutions

Offers specialised engineering consultancy and technical services

Hadfield Services

Specialises in harnesses, mass reflashings, and prototype development, providing precise and high-quality products

Group of Businesses

About us

Hallmark Engineering Group, a privately-held group of businesses, is dedicated to enhancing our clients' customer value by following our "In Engineering We Trust" philosophy.

We excel in comprehensive engineering design and development across diverse sectors, facilitating the progression of intricate systems from initial concept to mass production and specialised manufacturing.

A VISION CRAFTED FOR EXCELLENCE AND A MISSION FUELED BY INNOVATION



Vision

To be the global leader in engineering excellence, pushing the limits of technology and innovation to create a sustainable future for all



Mission

By fostering innovation, collaboration, and sustainability, to empower our team to deliver cutting-edge engineering solutions across industries.

Milestones of Excellence

Hallmark Engineering Group Board Members

Strategic Talent Acquisition

In September 2023, Hallmark Engineering Group, under the visionary leadership of Spencer Thomas, Chief Executive Officer, marked a significant milestone by bringing together a group of companies that are embracing sustainable engineering, the group has become a beacon of innovation in the engineering world.



Spencer Thomas

Chief Executive Officer

Spencer champions quality and client satisfaction with a people-centric approach. With 35 years of engineering and management experience, Spencer combines strategic leadership with a strong sense of humour and care.

We pride ourselves on a sustainable approach to engineering, driving innovation into design and process with a view to delivering cost efficiency by eliminating waste. With a commitment to environmental stewardship and technological advancement, the group is poised to lead the industry towards a more sustainable, efficient, and innovative future.



Spencer's leadership, marked by flexibility, exceptional quality, and a focus on client satisfaction, places people at the heart of the company's success.

A Foundation of Expertise

Meet our other board members - seasoned professionals each bringing a wealth of experience from various sectors including automotive engineering, commercial strategy, human resources, and financial management. This team of leaders collaborates to guide our company through strategic decisions, fostering innovation, growth, and excellence.



Damien Wilson
Chief Operating Officer

A seasoned automotive and defence professional with 27 years of expertise in engineering delivery, project management, and strategic leadership



Alex Hampton
Commercial Director

A key figure on the Senior Board with extensive experience in commercial operations, engineering, customer service, and business development



Joanne Perkins
Head of People and Culture

Joanne brings 18 years of HR expertise, driving team growth and a learning culture, with a unique insight into aligning HR strategies with corporate goals.



Donna Elliott
Finance Director

Donna brings expertise in financial planning, analysis, and management with a track record of enhancing business efficiency for sustained growth.

Milestones of Excellence

Our Impact in Numbers

A Snapshot of Success

Delve into the significant milestones that define our journey. With over 15 years of pioneering engineering, achieving unwavering client satisfaction, and fostering a vibrant community, we've delivered over 80 bespoke projects and established more than 15 industry partnerships. Together, these achievements underscore our relentless pursuit of innovation and excellence, anchoring our legacy in the engineering domain.



15+

years in the business



60+

Employees



80+

Bespoke projects delivered



15+

Industry partnerships

Beyond Automotive

Versatile Expertise Across Sectors



Automotive

Insights, project support, and innovative engineering solutions using the latest technology for automotive engineering projects.



Aerospace

Enhancing aerospace operations and integrating new technologies through specialised engineering and consulting services.



Marine

Supports maritime industry capabilities enhancement and new technology adoption with engineering solutions and recruitment in marine technology and architecture.



Defence

Complete project management, design, development, testing, verification, certification support, supply chain management, and technical documentation for the defence industry.



Rail

Innovative rail solutions, systems architecture and transport modernisation, including rail electrification, network signaling, and train control systems. We enhance the efficiency of rail infrastructure and rolling stock.



Utilities

Involves improving utility infrastructure and services, ensuring reliability and sustainability in energy and water supply systems.



Energy

Sustainable energy solutions, supporting projects in renewable energy, efficiency improvements, and innovative energy technologies.



Feel free to reach out to us for more information.

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Services



HADFIELD
MANUFACTURING

Innovating Automotive

From Innovation to Manufacture

At Hadfield Services, our focus on innovative Harnesses and Mass Reflashing drives the automotive industry forward. By tailoring our services from design to manufacture, we ensure precision and quality in every solution, establishing ourselves as leaders in automotive electrical engineering.



***WHERE INNOVATION
MEETS EXECUTION***

Innovation

Hadfield Services specialises in developing bespoke prototypes for electronics, software, and mechanical housings, ensuring they meet your exact requirements from concept to production.

Manufacturing

Hadfield Services excels in bespoke harnesses, test rig harnesses, test rigs, and mass reflashing, delivering precision-engineered solutions to the automotive industry.

Pioneering Excellence

Mastering Electrical Innovation and Reliability

Hadfield Services, situated in Burton on Trent, is essential to our pursuit of engineering excellence, specialising in wiring harnesses, electronic test rigs, mass software updates, and pioneering electrical innovations. Our dedication to robustness and continuous improvement guarantees that our partners consistently receive unmatched service and solutions.



Damien Wilson

Managing Director

Damien's expertise with 27 years in automotive and defence spans engineering delivery, ADAS development, and strategic leadership. He is dedicated to innovation and excellence.

Innovation isn't just a goal, it's our guiding principle. Excellence, our constant pursuit. Leading this team, my mission is to instil these values deeply, ensuring we always aim beyond the horizon and turn visionary ideas into tangible realities. Our focus on robustness and continuous improvement is what sets us apart.



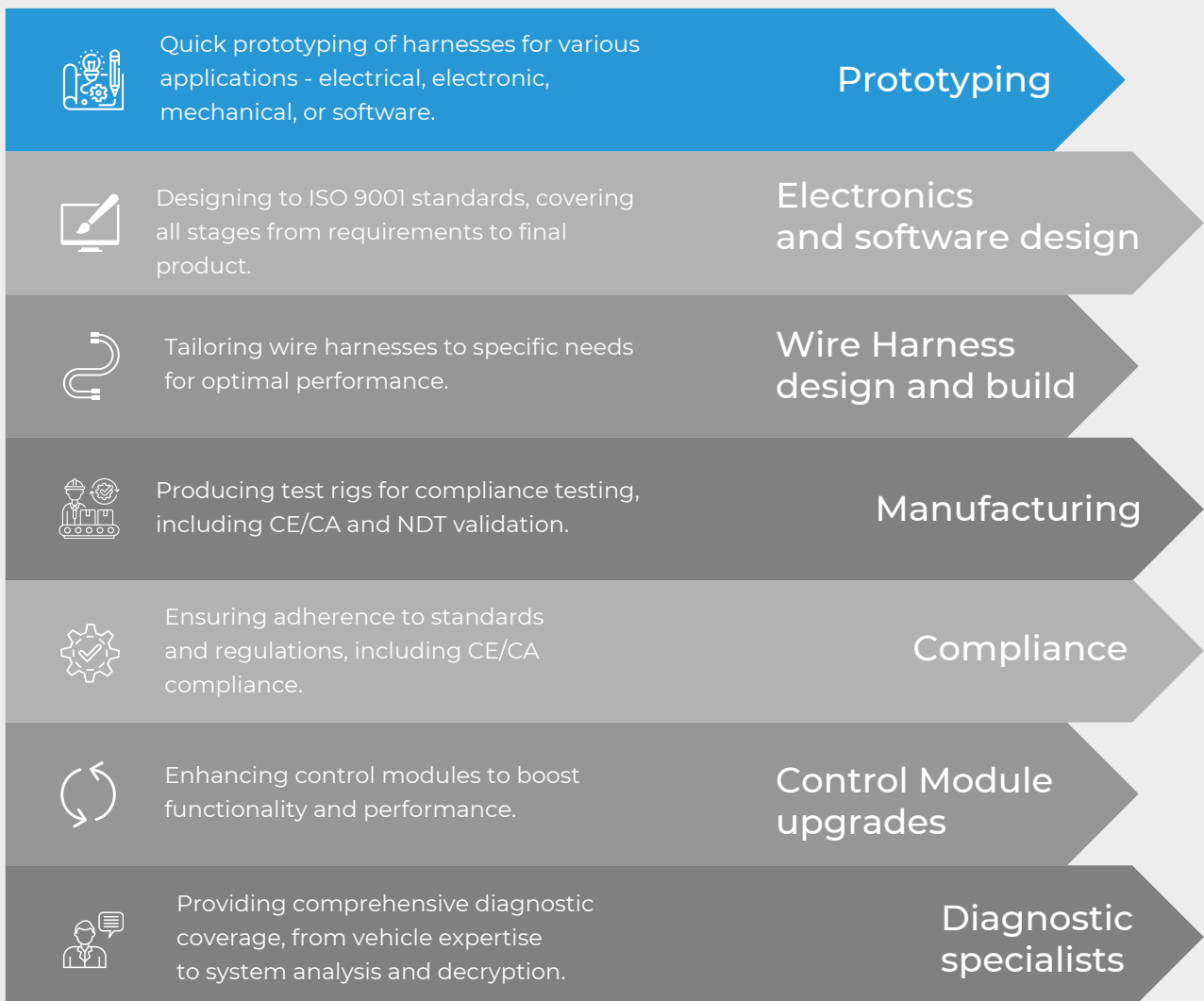
Previously holding key positions at EES Solutions and leading major projects for Range Rover and Land Rover, Damien's career is marked by a commitment to excellence in product development and organisational management.

Our Specialised Services

Navigating Time-Critical Environments

Ensuring Quality and Compliance

At Hadfield Services, we pride ourselves on our ability to excel in time-critical business environments. With a proven track record, we offer a range of integrated solutions. From rapid prototyping to comprehensive diagnostics, our services are built on a sustainable process designed to deliver results efficiently. Explore how we can support your operations in even the most demanding situations.



Diverse Capabilities

Advanced Manufacturing Streamline Processes

Explore our comprehensive manufacturing capabilities designed to streamline processes and ensure precision across applications.

Manufacturing Processes:

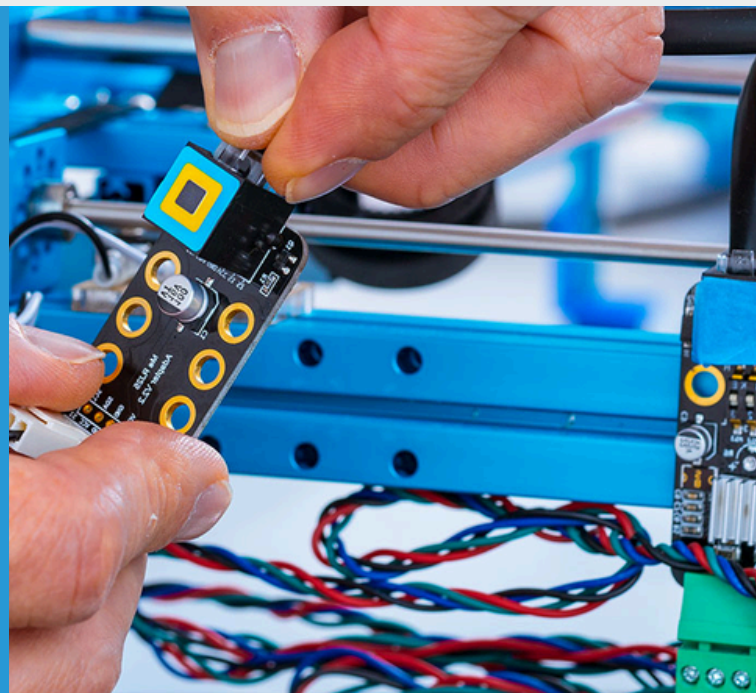
- Electric terminal stamping
- Automated cable cutting
- Ultrasonic welding (up to 30mm)
- Cable cutting & crimping (up to 300mm)
- Soldering and desoldering Systems
- Automated heatshrink system - HaloBlaze
- Label printing
- 3D resin printing for fixtures and manufacturing aids

Testing and Quality Assurance:

- Terminal pull testing facility
- Automated 4-wire harness testing
- High power test rigs (up to 1KV, 1KA)
- Functional testing rigs
- Interface rigs for communications and power
- Software reflashing - 70 setups with CAN/Flexray/LIN/BRR download
- Automated ECU logging/test facilities - fully traceable

Design and Engineering:

- Automated identification system
- Wire harnesses - high voltage (HV), low voltage (LV), communications, fibreoptic
- CAD modelling - Solidworks and Fusion 360
- Electronic design and layout - peer review and blueprint-based build
- Software design - embedded systems, Windows GUIs, prototyping
- Proof of concept - mechanical, electrical, software, and wire harnesses



Case Study

Customised Harness Systems for Vehicles

Explore the synergy of precision in engineering and tailored electrical systems. Our project showcases the pinnacle of aftermarket ingenuity.

Project:

Tailored Electrical Dynamics:
Harnessing Performance

Service Duration:

Dec 2023

Team Size:

3 Engineers



Service delivery

We delivered customised wiring solutions that not only meet the demands of aftermarket requests but also elevate the performance of vehicle systems. This includes the precise manufacturing of test rig harnesses for powertrain evaluation and the integration of mechanical and electronic assemblies for scaled electric car prototype.

Aims of the Project:

- Develop robust connectors, seals, and wiring harnesses tailored for aftermarket enhancement.
- Construct and validate a powertrain test rig harness for superior testing and performance evaluation.
- Engineer bespoke mechanical and electronic assemblies for a 2/3 scale electric car, demonstrating adaptability and precision.

Case Study

Control Systems and Software Integration

This case study delves into the intricacies of augmenting control systems and software to streamline electronic module operations.

Project:

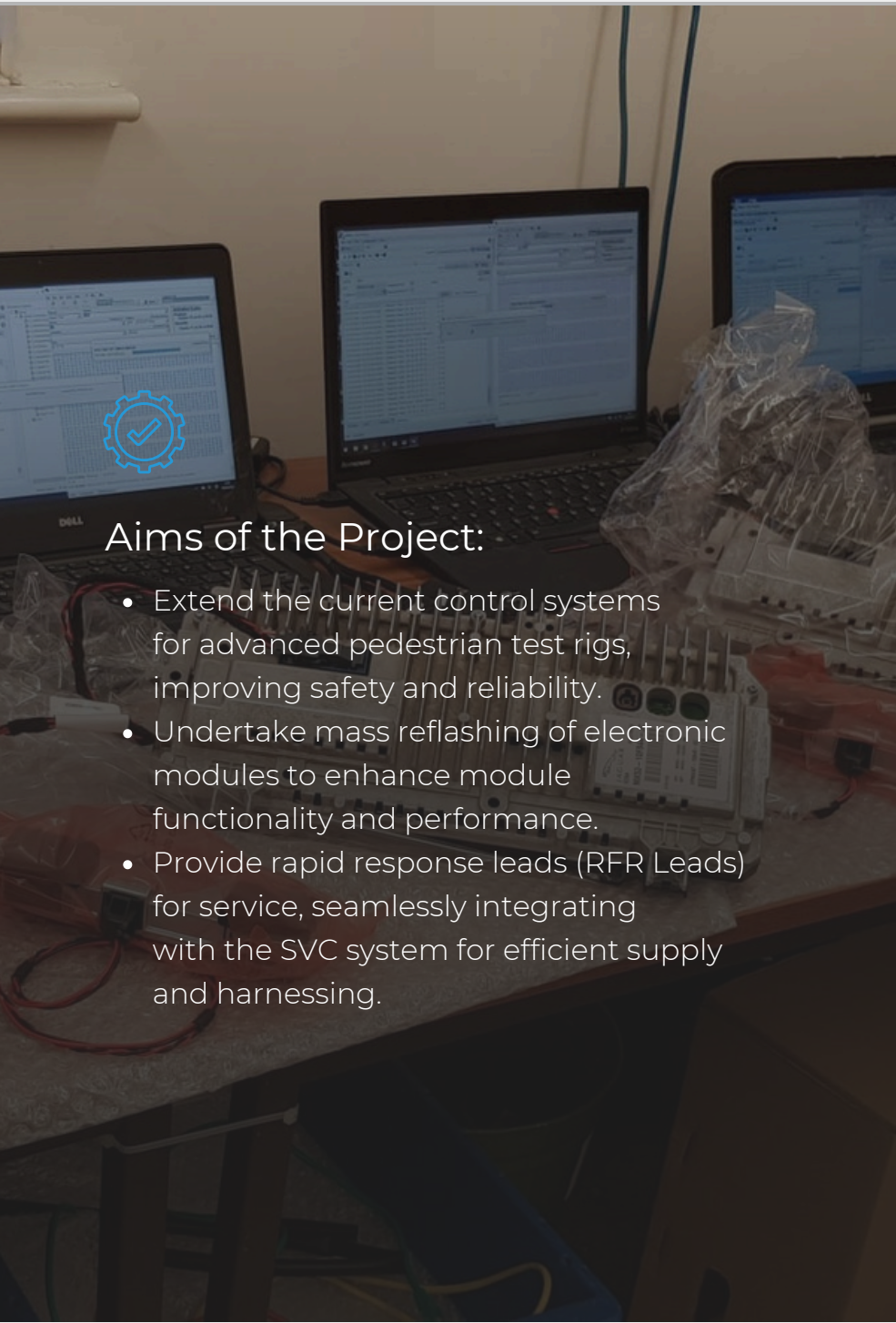
Advanced Control Extensions
and Mass Reflashing Initiative

Service Duration:

Feb 2024

Team Size:

2 Engineers



Aims of the Project:

- Extend the current control systems for advanced pedestrian test rigs, improving safety and reliability.
- Undertake mass reflashing of electronic modules to enhance module functionality and performance.
- Provide rapid response leads (RFR Leads) for service, seamlessly integrating with the SVC system for efficient supply and harnessing.

Service delivery

We've extended control panel systems, enabling mass reflashing of electronic modules for improved functionality, and implementing a fast turnaround service for RFR leads. This led to a notable boost in operational efficiency, evident through the sophisticated IPC and switchgear test interface with versatile voltage and connectivity options.

Case Study

Advanced Testing and Performance

03

In this case study, we explore the intersection of bespoke design and high-quality manufacturing in the creation of specialised testing units and wire harnesses.



Project:

Precision-Crafted Encoder and Harness Solutions

Service Duration:

Jan 2024

Team Size:

5 Engineers



Service delivery

This project has culminated in the handcrafted assembly of encoder testing units, the meticulous construction of wire harnesses for scaled electric vehicles, and the creation of high-power communication interfaces. With adherence to high-quality standards and custom specifications, the project has delivered exceptional, tailored solutions.



Aims of the Project:

- Construct tailored encoder testing units with a focus on custom mechanical and electronic components.
- Design and build wire harnesses for a 2/3 scale electric car, ensuring both mechanical and electronic components meet exact specifications.
- Develop specialist wire harnesses adhering to AS 610-620 quality standards.
- Create high-power and communications interfaces for device under test (DUT), combining Hadfield's meticulous design with DSPACE's robust delivery systems.

Case Study

Next-Generation Interface and Programming

This case study highlights the advancements in electronic interfaces and programming, optimising performance and streamlining processes.

Project:

Connective Innovation:
Interface and Programming

Service Duration:

August 2022

Team Size:

6 Engineers



Aims of the Project:

- Develop an instrument cluster interface rig equipped with a 10A power supply unit featuring CAN, LIN, and Ethernet interfaces.
- Create power conditioning modules that are modular and upgradable.
- Design and implement an Ethernet to Broad-R-Reach module that consolidates high-speed data conversion requirements.
- Revolutionise the programming process with a Common Architecture Programmer that drastically reduces the time required for programming CCAs.

Service delivery

The project has delivered a versatile instrument cluster interface rig, cutting-edge power conditioning modules, a unified high-speed data conversion Ethernet module, and a high-efficiency programming system that significantly reduces manufacturing times for electronic components and a suite of high-performance harnesses.

Case Study

Testing Solutions with Advanced Rig Systems

This final case study in the series demonstrates the pinnacle of mobile testing innovation and high-power interface systems.

Project:

Rigs for Optimised Testing Environments

Service Duration:

Sept 2023

Team Size:

4 Engineers



Service delivery

The project has successfully rolled out testing rigs with high-power supplies and sophisticated conditioning modules. With the integration of advanced digital and analog interfaces, we've delivered robust and versatile testing platforms that redefine efficiency and performance in dynamic testing environments.



Aims of the Project:

- Equip a mobile test rig with multiple high-power supplies and robust power conditioning capabilities.
- Integrate both digital and analog interfaces with a concurrent computer system for comprehensive testing scenarios.
- Implement Hadfield's expert design and assembly in developing high-power communication interfaces for device under test (DUT) systems, supplied to JLR through DSPACE.

Turning Ideas into Reality

Prototyping Excellence at Hadfield Services

Whether you need electronic prototypes, software prototypes, or mechanical housings, we're here to turn your concepts into tangible products. With a focus on proof of concept and meticulous attention to customer specifications, we ensure that your prototype functions exactly as intended. If desired, we can seamlessly transition from prototype to production, sourcing cost-effective and high-quality parts and collaborating with manufacturing companies for the final build.

Our Approach:

- **Proof of Concept:** We work closely with you to understand your vision and design a prototype that meets your exact requirements.
- **Transition to Production:** Upon successful prototype development, we can assist in sourcing cost-effective parts and collaborating with manufacturing companies for final production.



Electronic Prototypes

Designing and developing prototypes for electronic devices and systems.



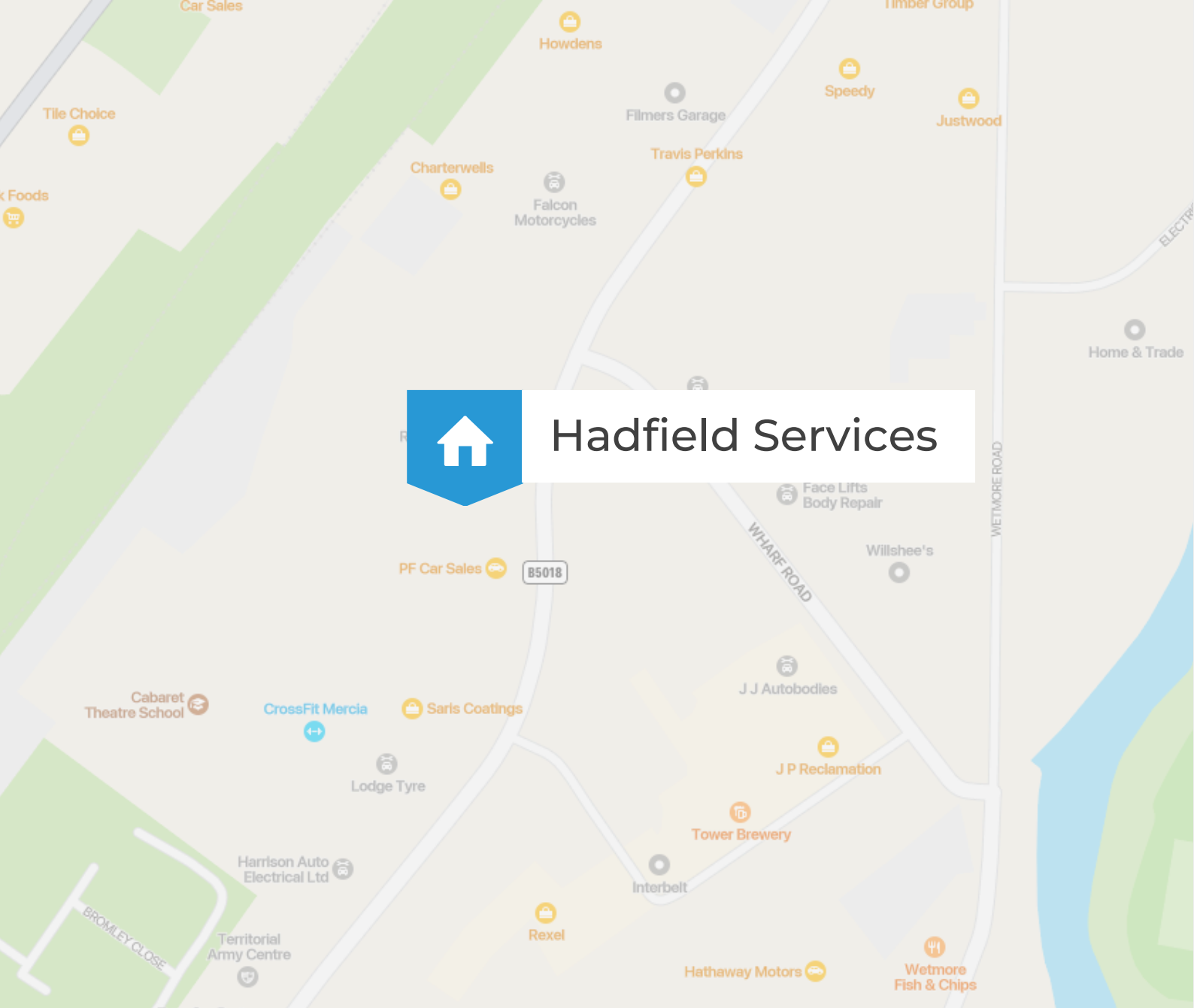
Software Prototypes

Creating prototypes to demonstrate software functionality and user interface design.



Mechanical Housings

Constructing prototypes for mechanical enclosures and housing components.



Feel free to reach out to us for more information.



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