

PRODUCT AND FURNITURE DESIGN – BA|BSc

M6X01787 ADVANCED CREATIVE ENQUIRY

TEACHING, LEARNING & ASSESSMENT: SEMESTER 1 | 2024-25

PRODUCT DESIGN SPECIFICATION

Project Title:	Innovative Van Life Design Solutions
Student Name:	patrick
Category	Specification
Performance	• Functionality: The design must optimise limited space in the van, offering multi-functional furniture and storage solutions that are easy to assemble and adjust. • Adaptability: Furniture should be modular and flexible, allowing users to reconfigure spaces easily (e.g., transforming a bed into a seating area or a storage area). • Ease of Use: Solutions must require minimal effort for setup and installation, particularly for users with limited DIY skills.
Environment	• Indoor and Outdoor Use: Designed primarily for indoor use within the van, but must also consider adaptability for expanding into the outdoor space when parked (e.g., barn door expansion). • Sustainability: Materials should be eco-friendly, with a focus on durability and recyclability to align with the values of the van life community.
Product Life	• Longevity: The product should have a long lifespan, able to withstand the wear and tear associated with frequent use in a mobile environment. • Durability: The furniture and design elements should withstand constant shifting, temperature changes, and occasional bumps while driving.
Maintenance	• Ease of Cleaning: Materials should be resistant to dirt, dust, and stains. Easy-to-clean surfaces (e.g., wipeable finishes) are essential for maintaining a clean and comfortable space. • Minimal Maintenance: The product should require minimal upkeep, with simple mechanisms that are easy to repair if necessary.
Target Product Cost	• Affordable: The target product cost should be within a range accessible to the van life community, especially targeting users who are looking for affordable solutions for their van conversions. • Competitive Price Point: Keep costs lower than premium, bespoke van conversion products while ensuring a balance of quality and value for money.
Competition	• Existing Solutions: Competing products include modular van furniture, collapsible or foldable seating and storage solutions, and custom van conversion kits. • Differentiation: The primary differentiators will be ease of use, adaptability, and innovative use of hidden space (e.g., floor-embedded or transforming cupboard furniture), along with a focus on non-DIY user accessibility.
Quantity	• Production Volume: The initial production run should be designed for moderate quantity, with scalability to meet the growing demand of the van life market. • Market Penetration: The product should be introduced in key markets with a strong van life community, potentially expanding globally as demand increases.
Manufacturing	• Process: Manufacturing should focus on efficiency and cost-effectiveness, using modern techniques such as CNC cutting for precision, while maintaining affordability.

	• Assembly: Easy assembly methods, possibly flat-packed or pre-assembled components, ensuring minimal complexity for users.
Materials	• Primary Materials: Lightweight but durable materials, such as plywood, MDF, and aluminium for frames, with sustainable wood finishes and eco-friendly fabrics for upholstery. • Recyclability: Use materials that are recyclable and have a minimal environmental footprint. • Durability: Materials must withstand changes in temperature, humidity, and regular use in a mobile environment.
Size	• Modular Dimensions: Designs must fit within the typical dimensions of van interiors (generally between 1.5m to 1.8m in width, and up to 3m in length, depending on the van model). • Adjustable Furniture: Furniture components should be adaptable in size to allow users to adjust configurations based on available space.
Weight	• Lightweight: Furniture and components must be lightweight enough to not heavily affect the van's mobility or require additional modifications to the vehicle. • Portability: All items should be easy to move and set up by one person, with minimal effort.
Aesthetics Influence	• Modern Minimalism: The design should embrace modern, minimalist aesthetics, with clean lines and neutral colours to appeal to a broad range of users. • Versatility: The furniture and interior designs should blend well with different van interior styles (e.g., rustic, contemporary, or industrial).
Ergonomics	• User Comfort: Furniture must be comfortable for extended use, with proper support for sitting, sleeping, and lounging. • Ease of Access: Storage solutions should be designed so users can easily access their belongings, even in compact spaces.
Target Customer	• Demographics: Young professionals, digital nomads, retirees, families, and weekend adventurers who seek flexible and space-efficient living solutions in their vans. • Psychographics: Customers are likely to value sustainability, adventure, simplicity, and the ability to customise their space according to their needs.
Quality & Reliability	• Build Quality: High-quality craftsmanship with attention to detail, ensuring durability and a premium feel while keeping the cost reasonable. • Reliability: All components must be built to withstand constant use and the rigours of travelling.
Safety	• Structural Integrity: The furniture and van components must be securely fastened to prevent movement while driving, ensuring safety during transit. • Non-toxic Materials: Materials used should be free of harmful chemicals, particularly in upholstery or finishes that come into direct contact with users. • Regulations Compliance: Must comply with automotive safety standards for interior products, ensuring that they do not compromise the safety features of the vehicle.
Legal	• Compliance: The product must meet local and international regulations for products used in vehicles, including any relevant standards for safety, fire resistance, and material toxicity. • Warranty: Offer a warranty for parts and manufacturing defects, ensuring consumer confidence.
Disposal: End of Life	• Eco-friendly Disposal: The product should be designed with the end of life in mind, ensuring that components can be easily dismantled and recycled or repurposed. • Durability & Longevity: The product's long lifespan will minimise the need for early disposal, supporting sustainability.

Notes:

Consider all of the above design parameters in regard to your research exploration, add/remove any you feel are/are not necessary for your project focus. You should refer to the PDS hand-outs for definitions from Level 5. These should all be informed by your design research, we will be expecting to see the core evidence used to define your PDS.