

Style and Design of FREED

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ABSTRACT

Developed in pursuit of “Free life creation”, the FREED might be described as the world’s smallest full-scale minivan. While keeping the vehicle both convenient for city drivers and relatively affordable, we have succeeded in combining the roominess of larger utility minivans with the styling of sporty wagons.

The dynamic exterior fuses the frames of a utility minivan (such as the STEPWGN) and a multi-passenger vehicle (such as the STREAM) in a shape combining a triangle and square enveloped in graceful curving surfaces.

Inside, visual cues around the cabin create the illusion of greater space affording a sense of comfort, convenience, and expansiveness. The stimulating ambiance of an open-air café is captured in an enclosed space for a pleasant and enjoyable interior environment.

1. Introduction

When the MOBILIO was introduced in 2001, it offered consumers the benefits of a minivan with three rows of seats in a short body only 4.07 m long. Beyond the groundbreaking concept, the MOBILIO represented revolutionary technology and design, and this winning combination of features was soon emulated by other automakers.

But our commitment to a shorter overall length also

limited the vehicle’s spaciousness which seemed less generous than that of conventional minivans. This limited our opportunity to provide passengers all the advantages of a compact minivan. Our desire to take this concept to the next level inspired the idea of creating the smallest full-scale minivan that comfortably accommodates three rows of seating for adults (about 185-cm tall) in a compact space (Fig.1).

Figure 2 shows the development concept and design of the FREED.

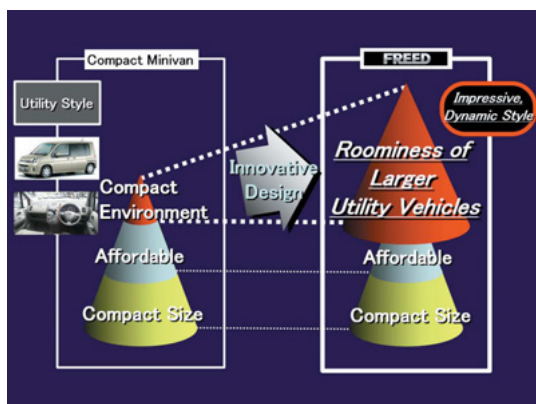


Fig. 1 Approach to development



Fig. 2 Development concept

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Many compact minivans on the road are convenient and affordable; advantages deriving from their size. At the same time, some seat seven passengers and enable a highly customizable seating arrangement. Despite their small size, the vehicles have therefore earned a reputation for spaciousness and usability.

Yet research reveals that passengers feel cramped riding at full capacity, and owners rarely use some seating arrangements. In short, existing models have not fully met owners' expectations. This conclusion prompted us to go back to the drawing board and reevaluate the benefits people seek from compact minivans. Our solution: to set our sights on maximum spaciousness and convenience in a package of minimal size.

Making it happen meant offering a vehicle that seats seven adults comfortably in a compact body, and allowing free access to any seat from any door simply by walking through the cabin. These conditions formed the framework for design development.

2. Package Layout

For maximum spaciousness and convenience (quintessential minivan advantages) in a compact body, we designed a new, lower floor (Fig. 3).

Combined with other revisions such as a slim fuel tank, this allows a convenient height for children getting in or out by themselves. Inside, it is roomy enough for seven passengers, and captain's seats are arranged for a walk-through layout.

Lowering the floor in front a little more provides just the right elevation for all three rows of passengers. This affords a good view from any seat, and a liberating, pleasant ride for everyone.

For easier navigation through city streets, blind spots are reduced by carefully positioned front pillars. A clearer view in all directions was our priority, and forward-sloping side windows, angled rear pillars, and a downward-curving rear window give a reassuring

command of the road for all drivers (Fig. 4).

We also aimed for perfect utility in the cargo area; indispensable in a minivan. Here, owners will find the FREED a very handy vehicle. It is versatile and spacious for easy loading and unloading of everything from daily groceries to bicycles. Low floors and sufficient opening height demonstrate our attention to detail for efficient loading [Figs. 5 (a), (b)].

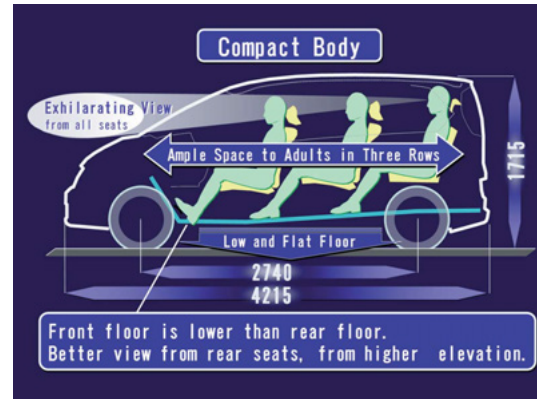


Fig. 4 Vehicle package highlights

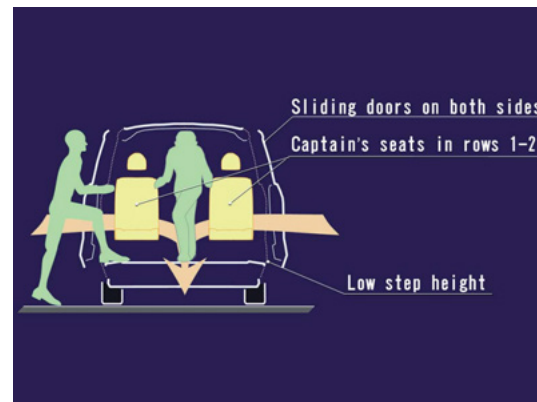


Fig. 5 (a) Easily access to rows 1-3



Fig. 3 Approach to vehicle package



Fig. 5 (b) Cargo area accommodates bicycles

3. Exterior Design

To make the “Free life creation” a reality, we sought a frame unlike any other compact minivan on the road.

In essence, the FREED looks somewhat like a triangle fused to a square. The triangle is formed by the front of the FREED from the first row of seats forward. This section of the frame is reminiscent of a wagon or MPV. The square is formed by the latter section; from the second row back. For optimal utility in the main passenger space and cargo area, we chose a cubic frame (Fig. 6).

This fresh triangular and square frame was just the beginning, however, and to animate the appearance we wrapped it in organic, flowing surfaces everywhere. Even when the vehicle is still, its dynamic appearance makes

it look as if it were in motion.

Sharp accent lines cut into the body, and richly expressive surfaces that make these lines more prominent set the FREED apart from other cars, and impart quite a distinctive look.

At first glance, these carefully drawn character lines stand out from surfaces, appear to deepen, and then gradually fade into the surfaces. In effect, the gradations of shading they produce make the vehicle seem like a sculpture. The design team poured much effort into these panels, and just a touch reveals how richly they embellish the FREED with a sense of workmanship (Figs. 7, 8).

Ultimately, we have distilled satisfying and reassuring driving performance into a compact body with impressive styling that holds its own even against the most refined cityscapes (Fig. 9).

Figures 10 and 11 show the final exterior design.

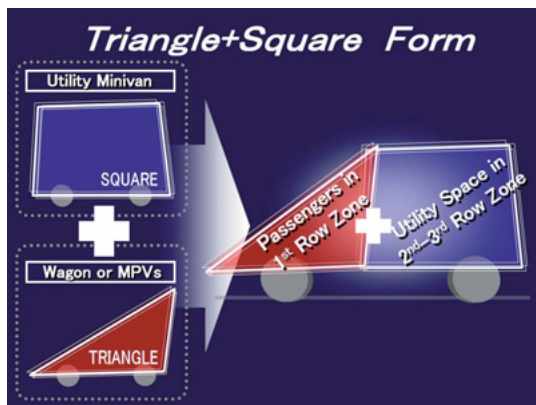


Fig. 6 Exterior design highlights (1)



Fig. 7 Final rendering



Fig. 8 Final rendering



Fig. 9 Exterior design highlights (2)



Fig. 10 Final exterior



Fig. 11 Final exterior

4. Interior Design

In a comfortable interior environment where visual cues and other subtle touches make the FREED seem more spacious than it actually is, we have added features reinforcing usability. Overall, the interior design was developed to call to mind a stimulating and enjoyable open-air café despite the enclosed space (Fig. 12).

The dashboard forms a visually welcoming background. From an open shape with the top half curving around as if to embrace passengers, and the bottom half curving the opposite way to suggest an expansive space. Instrument panel controls are arranged for easy and intuitive operation; audio controls are neatly grouped on top and climate controls on bottom. Additionally, the



Fig. 12 Approach to interior design



Fig. 13 Instrument panel



Fig. 14 Door lining

speedometer and other gauges lie outside the steering wheel. In this position, the instrument panel contributes to a spacious environment around the driver. Gauges can be read instantly while drivers keep their line of sight near the road (Fig. 13).

By dividing the door lining into two separate zones — a forward section visually connected to the dash, and a back section with arm rests, large, low pockets, and other features passengers access — we have focused on a sense of roominess and clearly organized the layout into functional zones (Fig. 14).

Passengers will find the seats as comfortable as those in upscale vehicles. In fact, the seats are built on frames of models in a higher class. More legroom has been provided by making the backs of the first and second rows of seats convex (as if extra material had been carved away), and the headrests appear to float above the seats. Through many details such as these, the interior is designed to feel more spacious.

Conveniences around the cabin include trays, cup holders (carefully sized to hold typical take-out beverage cups), and pockets in handy positions. Large pockets on the bottom of the front doors can hold folding umbrellas and small bags, which can easily be slipped into the wide opening.

Above passengers, the roof is as flat as possible, shaped to let light in from each window and colored in light tones, making it seem brighter and more cheerful as a whole while appearing expansive.

5. Color Design

5.1. Exterior

The first consideration when proposing exterior colors was which colors would enhance its dynamic styling. This led to a range of luxurious, refined colors that assert the FREED's presence even in the most sophisticated cityscapes of Europe, for example (Fig. 15).

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Fig. 15 Exterior color options

Premium Night Blue Pearl was chosen as a standard color for its beauty by day under sunny skies and by night under city lights. Flakes of glass in the paint create a rich gleam, and because a characteristic of this coating is to take on subtly different hues of the same color, it



Fig. 16 Inspirations for exterior colors



Fig. 17 Interior inspirations

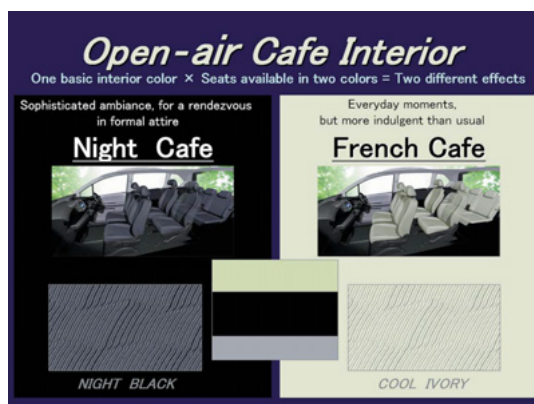


Fig. 18 Coordinated interior color scheme

highlights the graceful body contours of the FREED well by producing a transparent radiance (Fig. 16).

Other color options include an upscale yet brilliant Basque Red, a special black called Blackish Pearl that seems tinged with violet under some lighting conditions, bright and vivacious Luminous Blue Pearl, White Pearl, a light silver, Alabaster Silver, and Polished Metallic Black resembling gunmetal.

5.2. Interior

In choosing interior colors, we followed our general interior design concept of creating a welcoming environment like one's favorite café. For coordinated color schemes with a subtle sense of style, we used a delicate touch in color selection while focusing on basic colors. This aesthetic is reflected throughout the cabin, in the layered pattern on the front of seats, in roof tones, and elsewhere (Fig. 17).

Interior color

Black and gray set the scene inside as the base colors. Other elements are cool ivory for the pillars and roof, and gray for the floor. The vertical design in the door lining called for an alternating black and gray color scheme up to the rear side lining. This approach brings a nice sense of contrast to the spacious cabin area extending from the front to the back, creating a contemporary ambiance (Fig. 18).

Roof color

New French Cool Ivory reflects incident light to brighten the cabin and enhancing the sense of roominess.

Seat fabric

Seats are available in two colors - Cool Ivory or Bluish Black (both introduced especially for the FREED). They contrast with the single color serving as the basic interior color. Cool Ivory is reminiscent of a French café while Bluish Black is quite the opposite; more like a café for an evening rendezvous. Again, a layered pattern in this suede-like tricot material suggests spaciousness.

6. Conclusion

In the FREED, we introduce an unprecedented full-scale minivan that is compact yet spacious and user-friendly. Passengers can drive away their stress, so to speak, in a vehicle that feels liberating in all respects. Its advanced styling is captivating, and our attention to detail extends to superior driving performance. The advantages of compact vehicles in greater convenience and affordability are now more apparent.

The FREED is the first demonstration of the Honda minivan ideal — offering all passengers a pleasant,

exceptionally convenient environment from the beginning to the end of their drive — in a smaller package.

It represents a new beginning in this category as the world's smallest full-scale minivan that captures the advantages of traditional minivans in a more compact format.

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