



# Challenges for Universal Design in Vehicle Development

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## The “RAUM” & “PORTE”

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**TOYOTA**















# RAUM

Debut on May 2003



## Index I Ergo-Index

## Index II SSI

Interior configuration	Ease of ingress and egress	Posture, comfort	Field of view, maneuverability	Visibility of meter, indicators	Instrument panel, switches	
 	   			 		  

# Keywords



安

Reliable

Safe

Reasonable

楽

Fun

Comfortable

Exciting

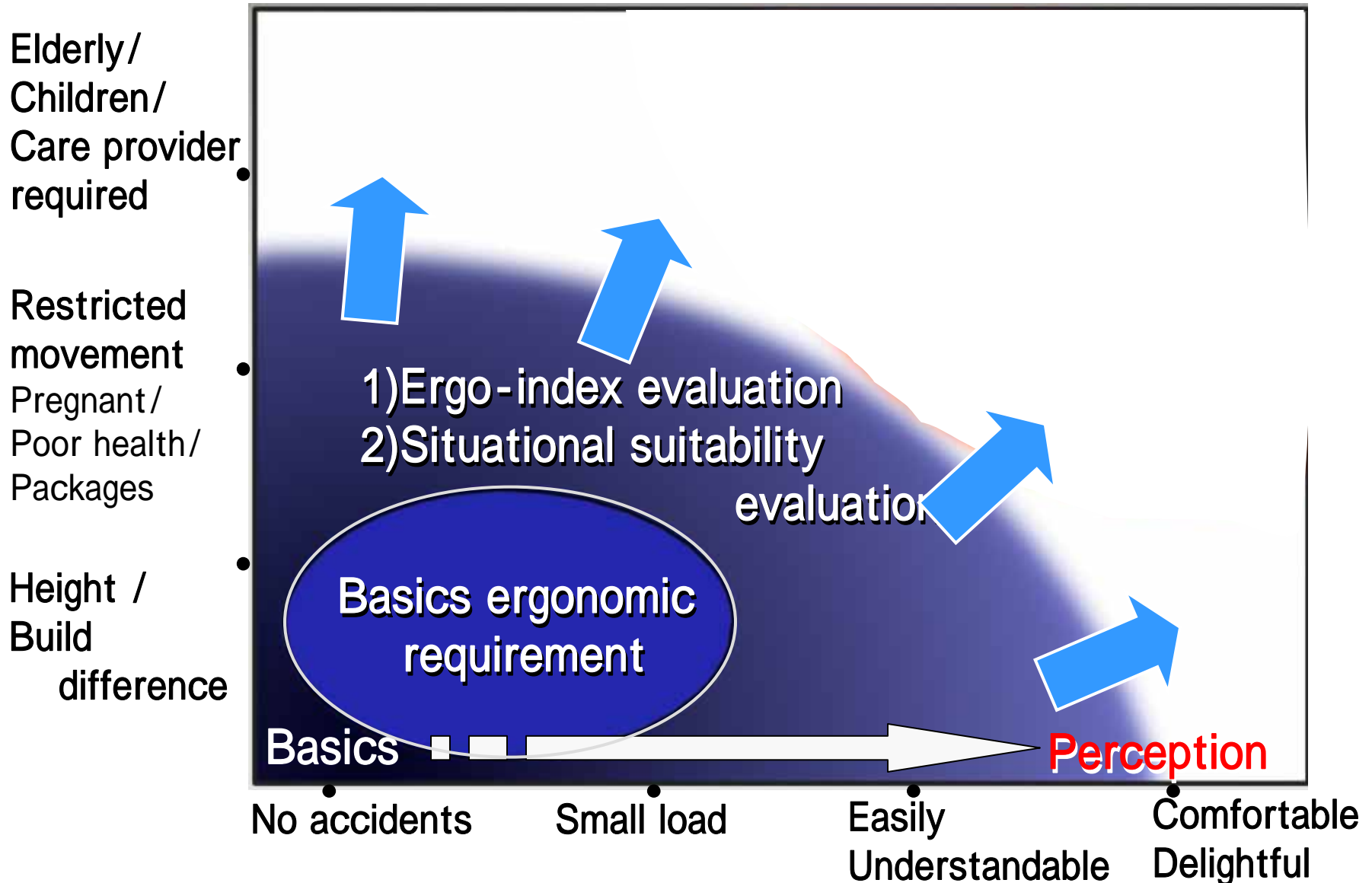
単

Simple

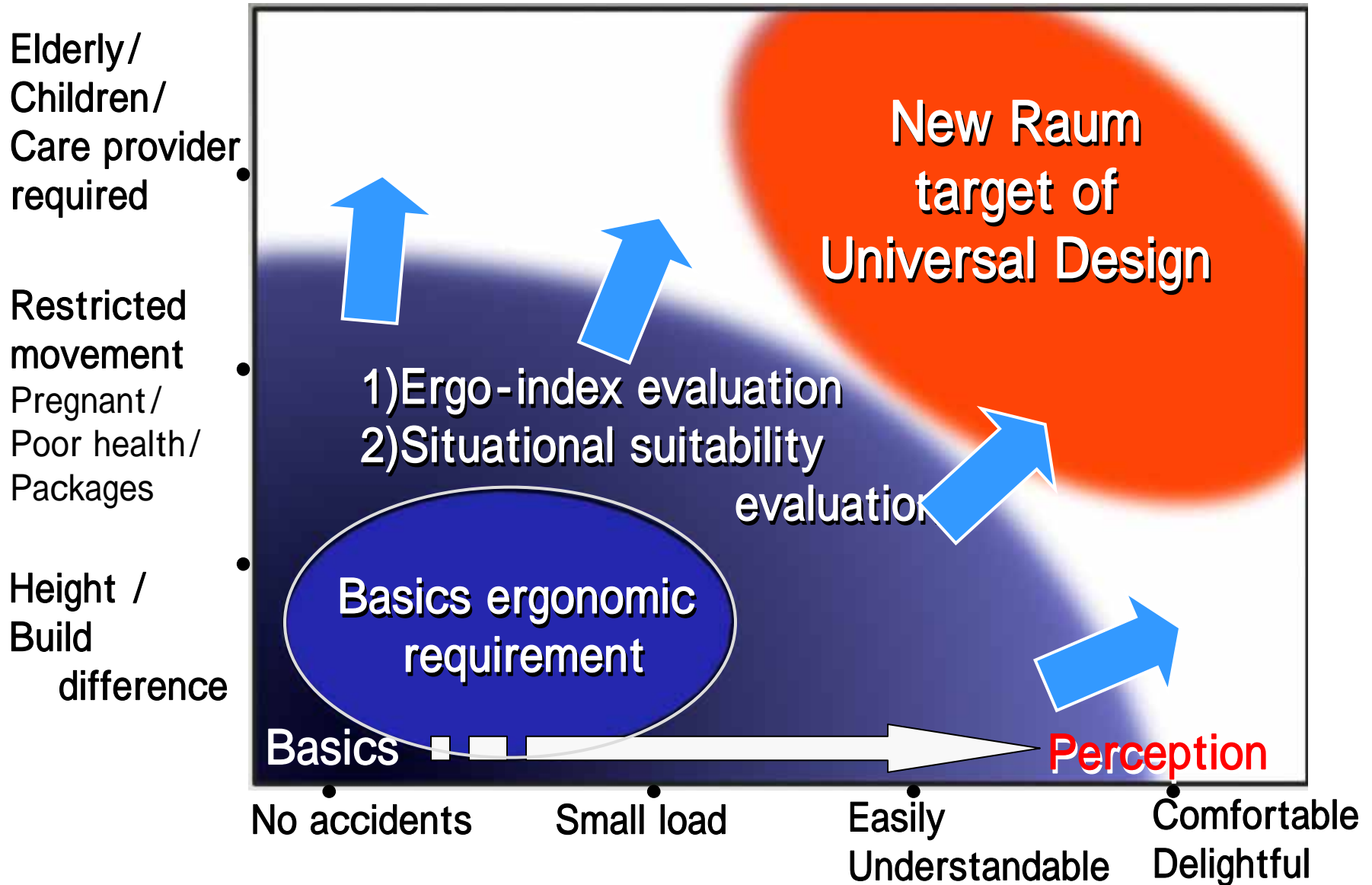
Straight Forward

Free

# Universal Design Goal of RAUM

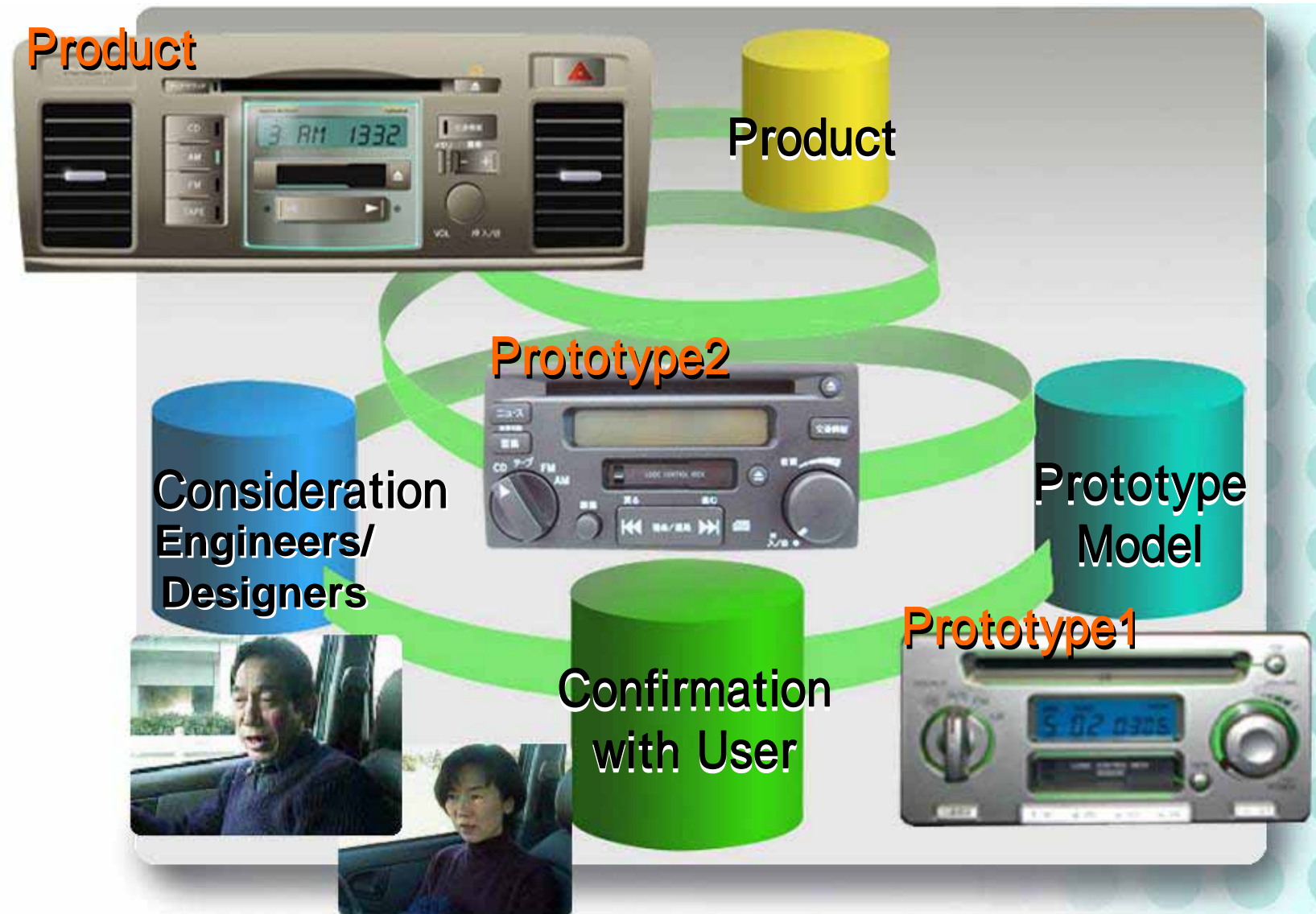


# Universal Design Goal of RAUM





# Spiral-up of Development



# Spiral-up of Development

## Door Handle Height



## Back Door



## Air-conditioner



## Audio





# Spiral-up of Development

## Door Prototype with Built-in Pillar



## User with Wheelchair



## User with Guide dog





# Product "RAUM" (Dimensions)



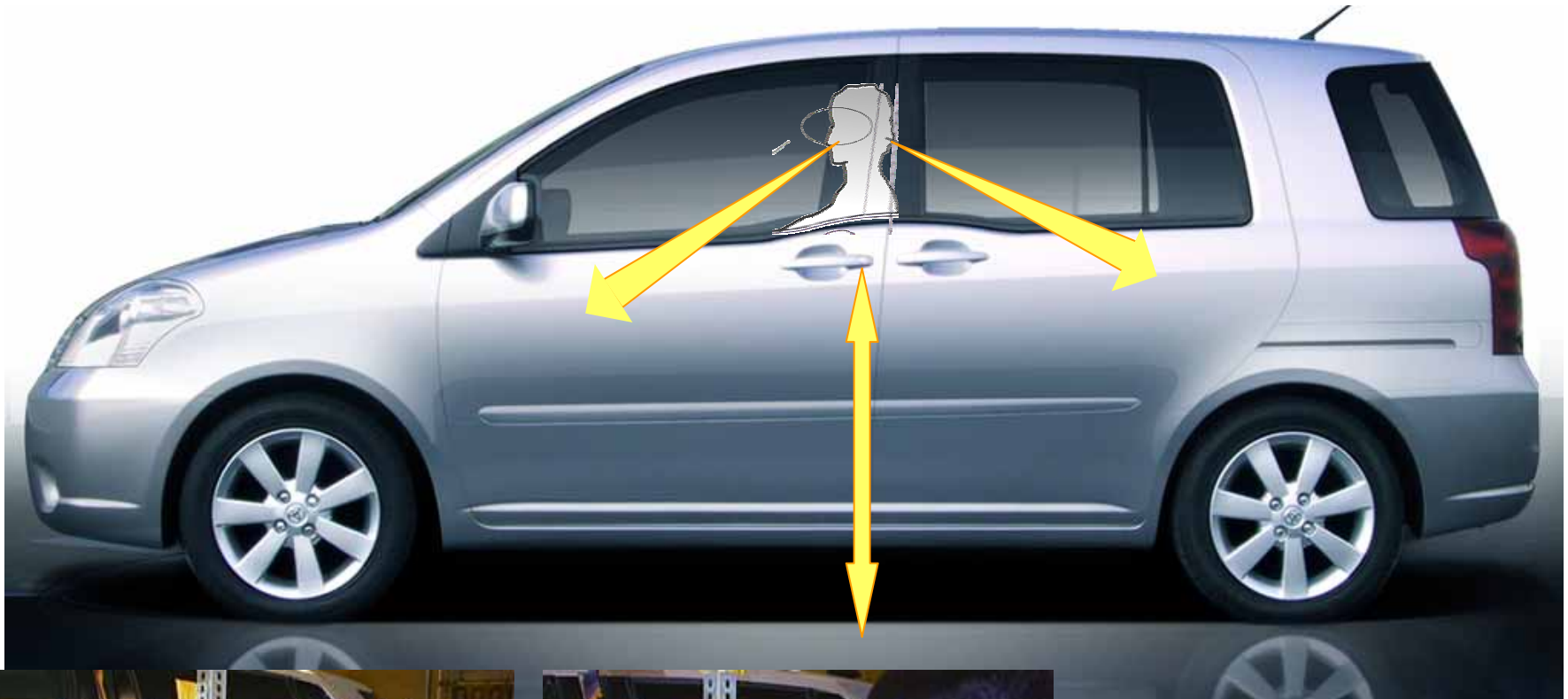
OAL 159.2in(4045mm) × OAW 66.5in(1690mm) × OAH 60.4in(1535mm)

5 passenger compact 2-box

ENGINE DISPLACEMENT 1.5liters

JAPAN DOMESTIC sales only

# Exterior Design



# Exterior Design





# Interior Design



# Assist Grips





# Speedometer ,Warning Indicator



Speedometer (center layout meter)



Warning Indicator ( front of steering wheel )



# Meter Dial Development

Day1



Day2



Day3



Night1



Night2



Night3



## Meter typeface

1. TOYOTA CROWN	0	1	2	3	4	5	6	7	8	9
2. TOYOTA CROWN bold	0	1	2	3	4	5	6	7	8	9
3. TOYOTA F1a	0	1	2	3	4	5	6	7	8	9
4. TOYOTA F3a	0	1	2	3	4	5	6	7	8	9
5. TOYOTA standard	0	1	2	3	4	5	6	7	8	9
6. GEO579 (Bold化)	0	1	2	3	4	5	6	7	8	9
7. Helvetica	0	1	2	3	4	5	6	7	8	9
8. Eurostile Demi	0	1	2	3	4	5	6	7	8	9
9. Hanzel Extended	0	1	2	3	4	5	6	7	8	9

# Audio & Air Conditioner Panel

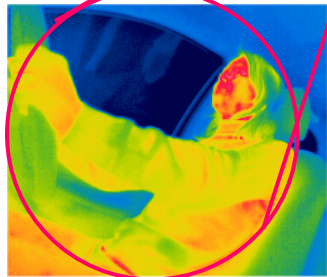
Mode selection

Source adjuster

Volume



IR sensor



Blower

Temp

Shift Knob

# Panoramic Opening Door & Tumble Seat



Tumble Seat





# Panoramic Opening Door & Tumble Seat



Tumble Seat



# Panoramic Opening Door & Mobility Vehicle



Front Passenger Lift-up Seat



Rear Swivel Slide Seat



















# Porte

Debut on August 2004



## Index I Ergo-Index

## Index II SSI

Interior configuration	Ease of ingress and egress	Posture, comfort	Field of view, maneuverability	Visibility of meter, indicators	Instrument panel, switches	
	   	  				  



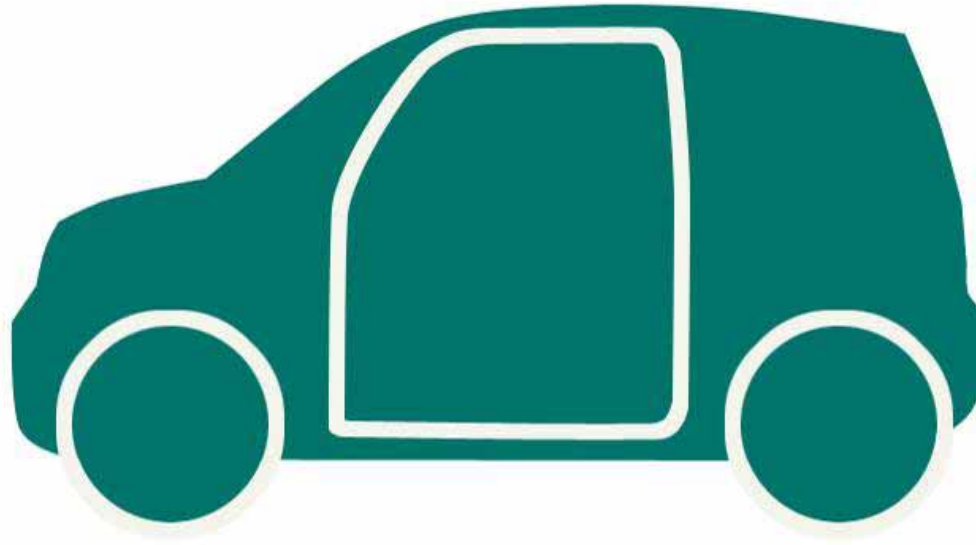
# Research and Development



Shopping with Baby

Concept Mockup Model

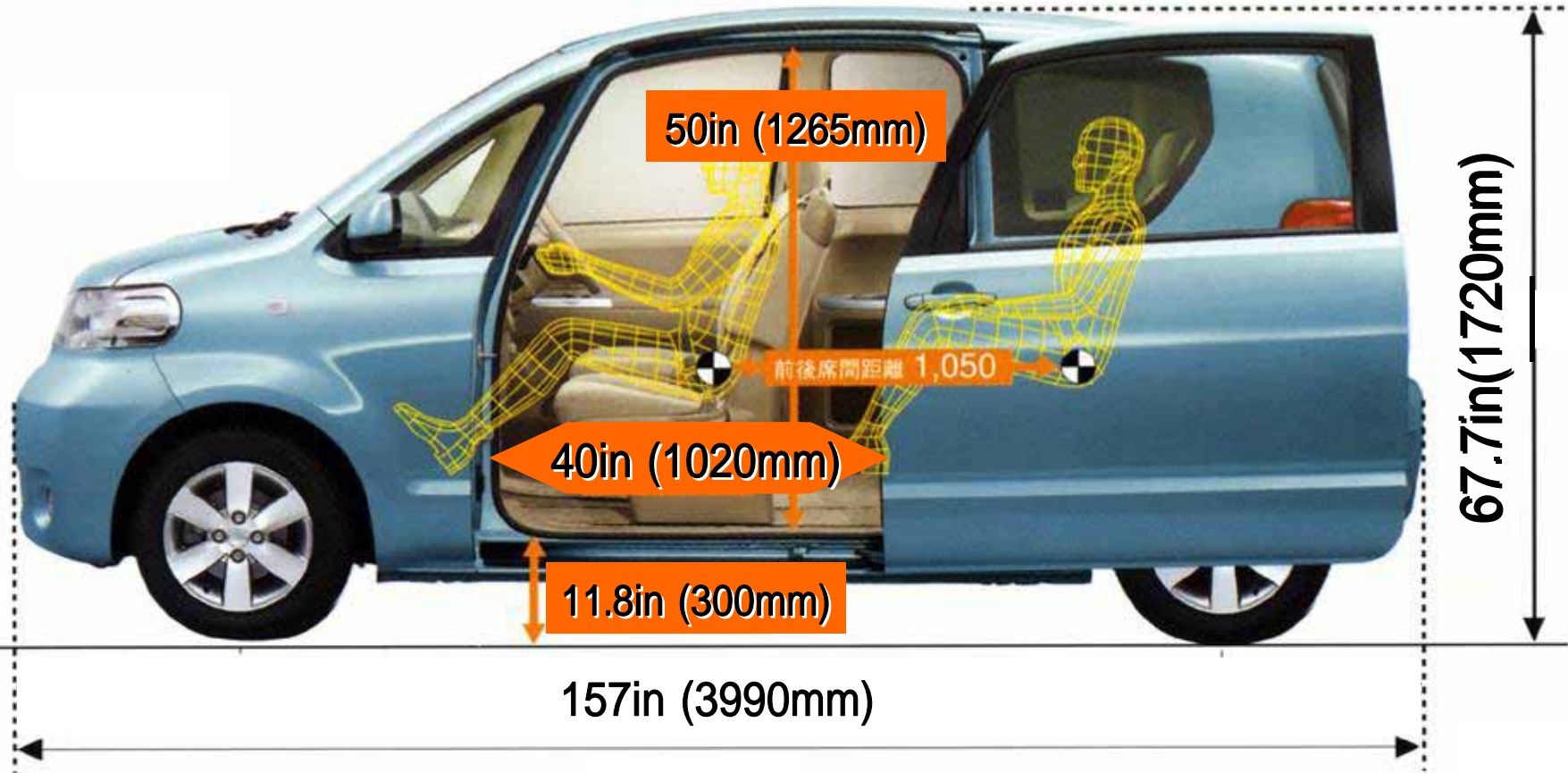




## Smart Life Supporter

New Category of Family Vehicle Like Casual Wear

# Exterior Dimensions



OAL 157in(3990mm) × OAW 66.5in(1690mm) × OAH 67.7in(1720mm)

5 Passenger compact 2-box

ENGINE DISPLACEMENT 1.3 - 1.5liters

JAPAN DOMESTIC sales only



# Wide Opening Door and Low Steps



Easy Egress with Umbrella Open



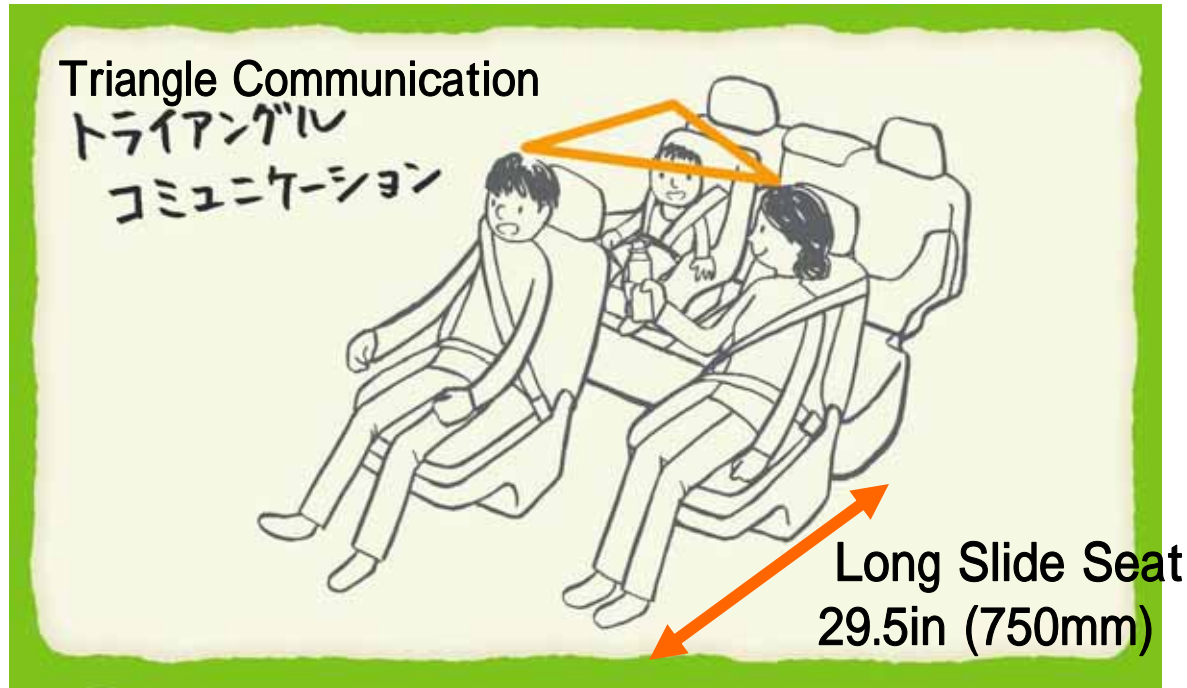
Low Steps and Flat Floor



Mama Can Ingress with Children



# Seat Arrangement



Triangle Communication



Free Space



Large Space



# Wide Opening Door & Mobility Vehicle

## Lift-up Seat with Special Wheelchair



## Lift-up seat with Removable Seat



## Front Passenger Lift-up Seat





# Universal Design Show Case

## 2004 TOKYO





**PRIUS**

**ISIS**



2004 TOKYO MOTOR SHOW  
**Welcab concept**

