

Paris 08



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Today the final production model of the new iQ makes its world debut in Paris – one of the great European cities this revolutionary vehicle was created for.

Last seen as a near-final design at this year's Geneva Motor Show, few cars are so radical in the thinking behind their design, that they start to question the very nature and purpose of motorised transport as we know it today. Yet, this was the starting point for iQ, a city car so innovative that Toyota see it – like Prius – as a major milestone in future vehicle developments.

iQ turns conventional thinking on its head. It does not compromise in terms of space, fun or comfort, because when potentially conflicting requirements were identified during the design and planning stage, Toyota engineers went to extraordinary lengths to redesign, reengineer or relocate components to maintain the original goals of the concept.

iQ totally redefines what a car should be for today's congested cities and rising environmental consciousness. Its CO₂ emissions start at 99g/km. Yet it is still a fun car to drive, with outstanding dynamics and features advanced powertrain technology.



Hiroki Nakajima, Chief Engineer of the iQ project, explains, “For the development of the iQ, my search for a design concept befitting a stylish and small sophisticated car began by envisioning the customer. My theory was that the group of people most suited to this car’s style, small size and premium edge would be described as ‘post-modern’ – people who demonstrate independence in their choice of lifestyle and values.

Tomorrow’s iQ drivers will be young affluent city dwellers – either singles or couples, mostly without children, and with a taste for striking design. They will have a concern for the environment, but are not prepared to compromise on looks, style or performance. iQ’s highly individual style, urban practicality and superior performance will appeal to them emotionally as well as rationally.

The first iQ models will take to the streets early in 2009. Toyota expects yearly iQ sales volumes to be around 80,000 units in Europe.



The world's smallest four-seater less than 3 metres in length

- Ingenious packaging
- The ultimate expression of J-factor
- Refined attention to quality



Five years ago, Toyota began to work on radically improving vehicle packaging. The project focused on developing breakthrough new solutions through the miniaturisation of a vehicle's key features. The outcome of this project formed the basis for the development of the iQ.

The objective was to create a new kind of city car – one that would seat four people within an overall length of less than 3 metres. Crucially, it was to be a landmark solution – one with long-term influence on Toyota's future vehicle development. The result is iQ – the ultimate expression of refined yet environmentally friendly urban mobility.

The extraordinary interior space – in a car just 2,985mm long, 1,500mm high and 1,680mm wide – is a tribute to the determination and ingenuity of Toyota's design and engineering team.

Carrying four people, for instance 3 adults and a child, in comfort and safety at motorway speeds up to 170 km/h (1.4 litre D-4D) is just the beginning of the iQ story. By starting with a clean sheet of paper, Toyota has created an ingenious and distinctive new city car. With its proportionally large wheelbase of 2,000mm, its compact yet muscular 'super stance' look, the iQ looks like no other car before.

iQ represents the very essence of Toyota's J-factor heritage. Toyota explains the J-factor as those elements of Japanese aesthetics that are universally admired, and which inspire designers around the world. It includes the creative miniaturisation of product design and unadorned minimalism.



Most importantly, it involves bringing contradictory elements – such as ‘small yet spacious’ or ‘hi-tech yet human’ – into harmony.

J-factor is the foundation of the Toyota design philosophy – Vibrant Clarity – which enables the resolution of long-standing paradoxes: such as how to create vehicles that are both energised and dynamic, but at the same time rational and ingenious.

One of the three key elements of Vibrant Clarity design is ‘Freeform Geometrics’, which can be seen throughout the techno-organic design of iQ. A good interior example is energy of the flowing ‘Manta ray’ styling on the iQ’s centre console.

The exterior reflects another of these elements – a ‘Perfect Imbalance of Proportions’. Here, the large wheels placed on the most extreme corners of the vehicle bring about a robust stance belying the compact size of the car.

True to the aesthetic minimalism of J-factor, the launch edition of iQ will be available in three exterior colours: pearl white, metallic black and amethyst .

Attention to detail in the manufacture of iQ is reflected in every tactile contact surface, the micro-fine tolerances between components and a comprehensive feeling of sophistication.



An engineering jewel — six innovations leading to a packaging breakthrough

- 1 New front-mounted differential allowing extra space
- 2 Centre take-off steering gear for compactness
- 3 Low profile, 120mm-high under-floor fuel tank
- 4 New ultra-slim seats for greater leg room
- 5 20% smaller heater/air conditioning unit
- 6 Asymmetric dashboard design and sliding seat configuration



The explanation of the iQ's remarkable interior volume lies in its comparatively long wheelbase of 2,000mm, and short overhangs – 530mm at the front and 455mm at the rear. Interior length from the rear end of the instrument panel to the hip point of the rear seats is an impressive 1238mm. Yet to achieve this breakthrough in packaging, six space-saving engineering innovations had to be developed.



1 The **front-mounted differential** integrated in a conventional transmission layout allowed the iQ to be built with an ultra-short front overhang. This reduced the overall length while increasing the length of the passenger compartment. This ingenious solution not only reduces the space required for the engine compartment area; it also allows the large diameter front wheels to be placed at the corners of the vehicle. This also shortens the overhangs which in turn improves stability and manoeuvrability.



2 Employing **centre take-off steering gear** and placing it higher in the engine bay facilitated transmission, engine and differential repositioning. The engine compartment could then be reduced considerably, further shortening the front overhang.



3 Traditionally, **fuel tanks** are placed under the rear seats of cars. By making the fuel tank flat, reducing it to only 120mm in height, and solving the problems of rapidly varying fuel surface levels normally posed by such a design, the tank could be relocated under the floor. The capacity of the iQ under-floor fuel tank is 32 litres and this allows ample range. By also angling the rear shock absorbers backwards, the rear interior space could be increased.



4 The **slimness of iQ seat backs** frees up a further 40mm of rear passenger room at knee height, enabling rear passengers to sit more comfortably. The seats weigh up to 30% less than conventional seats, contributing to fuel efficiency and low emissions. By using extruded pipe materials rather than high tensile steel sheet, the rigidity of the structure has been ensured. The slimmer seat designs, with integrated headrest, save space, but without sacrificing ride comfort or safety.



5 By reducing the size of the **heater and air conditioning unit** by 20% in comparison to Yaris, Toyota engineers made significant space savings without sacrificing performance. This enabled the blower unit, normally found in front of the passenger, to be integrated with the main heating and air conditioning unit in a central position. This space-saving innovation allowed the front passenger area to be moved forward, freeing up cabin space and increasing legroom.



6 iQ's innovative **asymmetric dashboard** was designed to open up the whole cabin area. This provides ample legroom for the front passenger, even when the seat is set at its most forward position. The sliding seat configuration allows a 190cm tall adult to be comfortably accommodated in the rear seat behind a 190cm front passenger. iQ has a shoulder-to-shoulder distance between driver and passenger 50mm wider than Yaris - similar to that of a C-segment vehicle. This space and the unique seating configuration create ample room for three adults and, in addition, either a child or luggage behind the driver.



A serious driving machine with CO₂ emissions start at 99g/km

- Newly developed platform
- Two engines at launch, one additional engine in 2009
- Brand new Multidrive transmission
- CO₂ emissions start at 99g/km



Long before today's increased focus on environmental friendly cars, Toyota has been working on redefining the development of its vehicle range to reduce environmental impact without compromising performance and driving dynamics. iQ is the ultimate result of these efforts. With emissions as low as 99g/km*, it is clearly a city car in the right place at the right time.

iQ is much more than the world's smallest 4-seater car. It has excellent driving dynamics and delivers spirited performance.

An innovative and aerodynamic packaging has been achieved through a low overall height, low centre of gravity and wheels pushed out to the four corners of the car. In addition, this innovative combination results in agility at low speed and unprecedented stability on motorways or winding roads for a small car. A minimum turning radius of 3.9 metres further enhances its nimble handling, even in narrow city roads.

iQ is built on an all-new platform with McPherson strut front suspension, and a newly developed compact rear torsion beam. Together this provides dynamic handling performance, yet with a high degree of ride comfort. Careful suspension tuning enables the car to hug corners at speed, without losing stability.

Two engines will be available at launch – a 1.0 litre VVT-i petrol engine and a 1.4 litre D-4D engine. There is a choice of three types of transmission, including a newly developed 'Multidrive' transmission. All models conform to Euro IV regulations.

* 1.0 litre VVT-i, 5 M/T



The 1.0 VVT-i petrol engine, awarded 'Engine of the Year' in 2008 in the sub-1.0 litre class, achieves top-level power output of 68DINhp and delivers 91Nm of torque at 4,800rpm. Combined with a high ratio 5-speed manual transmission, the 3-cylinder lightweight inline unit delivers a fuel economy of 4,3l/100km* and CO₂ emissions of just 99g/km*. This allows the iQ to remain under the 100 g/km taxation threshold in major European markets, resulting in a yearly tax saving of around 0 - 1000 Euro, depending on the country. This power unit can also be specified with the new Multidrive transmission, with emissions of 110g/km.

iQ's innovative Multidrive transmission, Toyota's latest continuously variable transmission technology, delivers an incredibly smooth 'shift feel' while optimising the balance of fuel economy and performance. It continuously monitors and selects the most appropriate gear ratio and shifting speed, automatically eliminating 'shift shock' or jumps while changing gear. It maximises available engine torque without unnecessary acceleration, as well as smoothing gear ratio changes – for example, limiting uphill shifts and executing downhill shifts to achieve optimum engine brake force. Multidrive delivers the city-friendly characteristics of an automatic transmission.

Multidrive models have an ECO driving indicator lamp on the multi-information display that encourages drivers to drive more economically by signalling when fuel and therefore CO₂ are being saved. Current and average fuel consumption is also continuously shown.

The 1.4 D-4D diesel engine features the latest generation common rail technology with an intercooled turbocharger. Power output is an

* CO₂ and fuel consumption values are subject to final homologation



impressive 90DINhp and it delivers maximum torque of 190Nm at 1,800 – 3,000rpm. It is coupled with a 6-speed manual transmission for an optimum balance of acceleration and low fuel consumption. Fuel consumption is only 4.1l/100km with CO₂ emissions of 103g/km (and at 4.0l/100km and 104g/km when fitted with Diesel Particulate Filter)*.

A brand new 1.33 litre dual VVT-i petrol engine with stop-and-start-technology will be available later in 2009.

The Gear Shift Indicator fitted on manual transmission models indicates to the driver, when to shift up or down for optimal environmental performance. The system takes into account the driving conditions, including the level that the accelerator pedal is pressed and the vehicle speed. This indicator may result in a 0.5% to 3% fuel consumption reduction compared to normal gear shifting, depending on driver's personal driving habits.

All three advanced iQ engines and transmissions have been developed under the 'Toyota Optimal Drive' Philosophy of delivering extremely low fuel consumption and emissions, without compromising on power or driving pleasure.

Many of iQ's radical and innovative solutions will be adapted and evolved for future Toyota models. With its packaging innovations and advanced Toyota powertrain technologies, the iQ will form a major milestone in Toyota's environmental commitment and continuous efforts to develop technologies, that reduce emissions to much lower levels. It is an essential part of Toyota's challenge to achieve the Japanese Automobile Manufacturers Association's (JAMA) voluntary commitment of 140g/km average fleet by 2009.

* CO₂ and fuel consumption values are subject to final homologation



Outstanding active and passive safety levels

- High level of active safety features standard
- Multi load path body structure
- 9 airbags including the world's first rear window curtain shield airbag
- 360° protection approach



iQ features sophisticated active and passive safety technology, that protects driver, passengers and pedestrians with a range of breakthrough measures rarely seen in a small vehicle.

Standard active safety technology across the range includes an Anti-lock Braking System (ABS), integrated with Brake Assist (BA) and Electronic Brake force Distribution (EBD) for maximum effectiveness and stability in an emergency braking situation.

Steering assist Vehicle Stability Control (VSC+) combined with Traction Control (TRC) actively helps the driver maintain control in critical or potentially dangerous situations. It is standard throughout the iQ range and incorporates Electric Power Steering Control, which co-ordinates the VSC with the electric power steering to minimise the risk of understeer or oversteer.

A new braking system has been developed with 255mm disc brakes at the front, and 180mm drum type or 259mm disc brakes at the rear, depending on the market. The 259mm disc brakes are standard on the diesel. For optimum collision safety and 'braking feel', a link type brake pedal is fitted.

iQ's high strength body, developed under the principles of 'Multi load path body structure', is designed to efficiently absorb and disperse the energy of collision impacts. The Toyota-designed structure increases occupant protection by using 6 key elements for frontal collision impact of the body structure – including the suspension side rail and cross members, dashboard cross-member, and front tyres located as far forward as possible – to absorb and redistribute impact forces.



The front bonnet shape and height, and the collapsible cowl construction are designed to deform in the case of an impact to help mitigate potential pedestrian injury.

No fewer than 9 airbags are provided on all models to provide the ultimate safety level. Two front airbags are fitted for the driver and front passenger, the front passenger airbag being especially adapted with a twin-chamber structure with a lower pressure inflator to bridge the space between the passenger and the dashboard.

In the case of a front collision a compact knee airbag also protects the driver: by taking advantage of the short steering column, this can be located closer to the driver's knee, reducing deployment time as well as volume needed. On the passenger side there is an innovative seat cushion airbag that works with the seatbelts to reduce and disperse force to head, chest and upper body. This airbag is far more effective at restraining hip movement than conventional knee airbags, given the asymmetric dashboard design.

In order to provide protection from side impacts there are also two front side airbags, specially developed to restrain the chest and pelvis at the same time. Additionally two side curtain shield airbags protect all four occupants from side impact to the head and neck. Emergency Locking Retractor (ELR) seatbelts are fitted to the front and rear seats with pre-tensioners and force-limiters for driver and front passenger.

One key "world first" breakthrough development on the new iQ is the SRS rear window curtain shield airbag. In the case of a rear collision, the airbag is deployed from the roof lining behind the rear headrests to reduce impact to rear occupants.

Isofix child seat anchors are also fitted to the rear seats. A high tensile strength steel seat frame construction with integrated headrests provides driver and front passenger with collision safety and whiplash protection performance equal to Toyota's latest active headrest systems.

With this comprehensive 360 degree safety protection approach, Toyota aims at fulfilling the Euro NCAP 5-star rating.



Aspirational equipment features

- 2 grades available: 'iQ' and 'iQ²'
- Refined specification level



iQ is unusually well-equipped with two equipment levels: 'iQ' and 'iQ²'. The advanced equipment fitted on iQ reads like the specification list of a much larger car.

The 'iQ' grade will offer customers a very competitive specification level. The tilt function steering wheel, as well as the gearshift knob, is covered in soft, tactile black leather. The 'techno-organic' feel is underscored by high quality two tone grained trim for the dashboard and console areas, with softly textured black material in front of the passenger seat, and on the gearshift stalk.

iQ comes with a 50/50 split rear seat bench, which can increase the available load area to 242l when both seats are folded. Below the rear seat bench is an easily-accessible 'secret tray', designed for storing smaller and more valuable possessions.

Manual air conditioning is standard, as are 15" alloy wheels and electric, body-coloured outer door mirrors. Power windows, privacy glass and radio/CD audio system further add to the high degree of features.

Full audio controls are integrated on the steering wheel with an innovative joystick-like control button. Volume, audio source, track and channel selection are shown in the multi-information display right in front of the driver to minimise unnecessary eye movement. This allows the 6-speaker, MP3 and WMA (Windows Media Audio) -compatible audio system to take up minimal space, with just the CD slot and eject button



located in a low profile design on the striking 'manta ray' centre cluster. A discreet mini-jack is provided for portable MP3 players and iPods.

On the 'iQ²' grade version, the air conditioning is automatic, with just a single dial to control all functions. Smart Entry allows keyless access to driver and passenger doors and the boot area, and is coupled with a push-start button.

For maximum convenience, there are both rain sensors and dusk sensors as well as heated retractable door mirrors and an electro-chromatic rear view mirror. Further on this grade, the iQ's distinctive headlamps are enhanced by smoked outer glass with high-intensity bi-halogen bulbs. Front fog lamps are fitted, while attractive high gloss 15" alloys round off this package. The rear light design is also highlighted with a touch of chrome in the cluster.

A compact and sophisticated touch screen full map navigation system, integrated with the audio system, is optional. It features both Bluetooth for hands-free operation, MP3/iPod connection and an SD card slot to upload European countries maps. Partial leather seats – including seat heaters - are also available as an option.

The iQ – Toyota's radical new city car - will certainly soon be turning heads and stealing hearts on the streets of Rome, Paris, London, Madrid and Berlin – its playing fields.

Specifications*

Engine	1.0 litre VVT-i	1.4 litre D-4D
Engine code	1KR-FE	1ND-TV
Type	3 cylinders, in-line type	4 cylinders, in-line type
Fuel type	Premium (95 RON)	48 Cetane diesel
Valve mechanism	12-valve DOHC, chain drive with VVT-i	8-valve OHC, chain drive
Displacement	996	1,364
Bore x stroke (mm)	71 x 83.9	73.0 x 81.5
Compression ratio (:1)	10.9	16.5
Max. power (DIN hp)	68	90
KW /rpm	50/6,000	66/3,400
Max. torque (Nm/rpm)	91/4,800	190/2,000
Emissions level	EURO IV	EURO IV

* Subject to final homologation

Transmission

Engine	1.0 litre VVT-i	1.4 litre D-4D	
Gear ratios	1st	3.538	3.538
	2nd	1.913	1.913
	3rd	1.310	1.310
	4th	1.029	0.971
	5th	0.875	0.714
	6th	-	0.619
	Reverse	3.333	3.333

Brakes

Type	
Front	14 inch disc brakes
Rear	180 mm drum (std)
	15 inch built-in-disc brakes (option)
Additional features	ABS (Anti-lock Braking System)
	EBD (Electronic Brake-force Distribution)
	BA (Brake assist)
	VSC (Vehicle Stability Control)

Steering

Type	Rack and pinion, center take-off type
Ratio (:1)	15.3
Min. turning radius – tyre (m)	3.9
Additional feature	Electric Power Steering (EPS)

Suspensions

Front	MacPherson Strut
Rear	Torsion beam

Performance

	1.0 litre VVT-i		1.4 litre D-4D
Transmission	5 M/T	Multidrive	6 M/T
Max. Speed (km/h)	150	150	170
0-100 km/h	14.7	15.5	11.8

Fuel consumption *

	1.0 litre VVT-i		1.4 litre D-4D
Transmission	5 M/T	Multidrive	6 M/T
Combined (l/100km) Tentative	4.3	4.7	4.0
Urban (l/100 km)	4.9	5.7	4.8
Extra urban (l/100 km)	3.9	4.1	3.5
Tank capacity			

* According to base directive 80/1268/EEC, latest amendment 2004/3/EC

CO₂ emissions *

	1.0 litre VVT-i		1.4 litre D-4D
Transmission	5 M/T	Multidrive	6 M/T
Urban (g/km)	115	133	127
Extra-urban (g/km)	91	96	92
Combined (g/km) Tentative	99	110	103 (CCo) - 104 (DPF)

* According to base directive 80/1268/EEC, latest amendment 2004/3/EC
DPF : Diesel Particulate Filter - CCo : Oxydation Catalytic Converter

Exterior dimensions

Overall length (mm)	2,985
Overall width (mm)	1,680
Overall height (mm)	1,500
Wheelbase (mm)	2,000
Tread (mm) front	1,480
Tread (mm) rear	1,460
Front overhang (mm)	530
Rear overhang (mm)	455
Drag coefficient (Cd)	0.299

disclaimer

1. The fuel consumption and CO₂ values are measured in a controlled environment, in accordance with the requirements of Directive 80/1268/EEC incl. its amendments, on a basic production vehicle. For further information about the basic production vehicle, please contact your local PR-officer.
2. The fuel consumption and CO₂ values of your vehicle may vary from those measured. Driving behaviour as well as other factors (such as road conditions, traffic, vehicle conditions, installed equipment, load, number of passengers, ...) play a role in determining a car's fuel consumption and CO₂ emissions.

Interior dimensions

Interior length (mm)	1,238
Interior width (mm)	1,515
Interior height (mm)	1,145

Luggage compartment

VDA luggage capacity, rear seat up (l)	32
VDA luggage capacity, one rear seat folded (l)	168
VDA luggage capacity, both rear seat folded (l)	242

Weight

	1.0 litre VVT-i		1.4 litre D-4D
Transmission	5 M/T	Multidrive	6 M/T
Kerb weight (kg) (LHD models)	845-880	860-895	935-965
Gross vehicle weight (kg)	1,200	1,200	LHD:1,280, RHD:1,270

Equipment

Tyres and wheels

	IQ	IQ ²
175/65R15: 84S	std	std

Exterior

	IQ	IQ ²
15" alloys (175/65R15: 84S)	std	std
High gloss 15" alloys - 175/65R15 5J	opt	std
Outer door mirrors electric & coloured	std	std
Outer door mirrors + heated + retractable	opt	opt
Side turn indicators on outer door mirrors	std	std
Painted bumpers w corner protection moulding	std	std
LED stop lamp	std	std
Rain sensors	-	std
Dusk sensors	-	std
Electro-cromatic rear view mirror	-	std
Front fog lamps	-	std
Darkened bi-halogen headlamps	-	std
Chrome rear combi lamp	-	std

Comfort

	IQ	IQ ²
Manual A/C	std	-
Automatic A/C	-	std
Leather steering wheel with audio switches	std	std
Leather shift knob	std	std
Tilt & power steering	std	std
Gear shift indicator (M/T) & ecometer	std	std
Power door lock	std	std
Key-less entry	std	std
Power windows	std	std
Privacy glass	std	std
DIO (Hub fit) - Tonneau cover	std	std
Smart Entry (D, P, boot)	std	std
Push start	std	std

Information and audio

	IQ	IQ ²
Multi-information display: audio, average speed, clock, outside temperature, current and average fuel consumption	std	-
2DIN navigation system	-	std
Radio, CD, 6 speakers including MP3 readability	std	std

Seats

	IQ	IQ ²
Rear seat headrests (2 set)	std	std
Rear seats 50:50 split/folding	std	std

Storage compartments

	IQ	IQ ²
Dual glove box	opt	opt
Front cup holder (1) and utility space (console storage tray)	std	std
Front pockets and bottle holders	std	std

Security

	IQ	IQ ²
Immobiliser	std	std
Wireless door lock	std	std
Fuel cap locking	std	std
Interior switch for door locking	std	std

Safety

	IQ	IQ ²
Active		
ABS + EBD + BA	std	std
VSC* combined with TRC	std	std
Passive		
Body shell with high-tensile steel elements	std	std
Side impact beams	std	std
SRS front airbags: driver and passenger	std	std
SRS curtain shield airbags: driver and passenger	std	std
Driver's SRS knee airbag	std	std
SRS Seat cushion airbag	std	std
Large SRS side airbags	std	std
SRS Rear window curtain shield airbag	std	std
Front passenger airbag switch-off	std	std
Seat belt warning: driver and passenger	std	std
Front seat belts: 3-point ELR with pre-tensioners and force-limiters	std	std
Rear seat belts: 3-point ELR/ALR	std	std
Whiplash Injury Lessening (WIL) concept seat: driver and passenger	std	std
ISO FIX child restraint system	std	std



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