

Japan: A great nation PART - 4

# Takaoka plant stands witness to the inspiring success story of Toyota



A group photo shows Mohammed Bassam Al-Husseini, Kayesuki Sato, Yushitomo Kanihara and guide Natsuku Moramatso

By Mohammed Bassam Al-Husseini

When the name Toyota is mentioned, we think of sleek and high-quality cars that are spread in world markets and have gained admiration for having the most advanced technologies. Toyota tops the list of major carmakers around the

world. These distinguished cars are the product of an integrated world that forms an inspiring story of success. History stands witness to the Toyota group. Our visit to Japan gave us the opportunity to visit Toyota city in Aichi Prefecture, which took its name from the company. There are around 400,000 people living in the city, and around 70,000 work

in the Toyota group, half of them living in the city. Among the buildings is the main premises of the group, and a center for field work in which 8,000 engineers work on developing the most modern technologies.

Besides 12 factories in Japan, Toyota has 54 plants in 28 countries and regions in the world. The famous Takaoka plant in Toyota city manufactures 1,400 Harrier, iQ, and Yaris cars, and operates five days a week according to shifts, as there are 4,400 workers besides the maintenance workers who work round-the-clock with robots, that play a large part in the four stages of manufacturing cars - formation, welding, painting and assembly.

Plant visitors get the opportunity to see the manufacturing of cars in various stages

all the way to testing it to make sure it meets the standards and readiness for delivery, in a scene that is a true joy, and an example of management effectiveness at the production line level and caring for the environment and economy in consuming energy, besides the two general rules Toyota presented to the management science: Jidoka, which means machines will automatically stop when a defect is detected to prevent any faults; and Just-in-Time, which aims at producing what meets needs in time of need. This besides its famous motto: "The customer is first", and adopting kaizen or the continued development of human resources "We create high goals for ourselves, then push ourselves towards achieving them" is what is written on a banner at Toyota.

Stages of a car production process go through four major steps:

**Formation**

Metal sheets are cut to form the car body parts, and this is done to the highest accuracy level and productivity due to the use of the best metal formation systems and high-speed robots.

**Welding**

A robot welds nearly 400 parts of the body to form the car, as state-of-the-art welding lines deal with different models in each production line, so complete car frames are produced with high accuracy.

**Painting**

After washing the car's body, a foundation layer of paint is applied, then a middle layer, before the final coat to become of high quality. This process has become environment-friendly due to the use of most modern painting with water techniques.

**Assembly**

Engines are installed and fixed on the assembling line, designed to match workers' situation. Other parts are also installed here, followed by tests, then making sure about the guarantees during the final inspection process before approving the shipment of manufactured cars.

**More than nine million cars in 2014**

Toyota plants in Japan produced 3,266,805 vehicles in Japan during 2014, and 5,738,020 in the rest of the world, so it supplied the market with 9,004,825 vehicles.

**Thanks**

We thank the assistant director at the strategic planning department at Toyota Kayesuki Sato and his colleague, the deputy group director at the sales and marketing department Yushitomo Kanihara for coming to Toyota city to receive us and joining us during our tour of the plant.

## Clarification

In the first part it was reported that in the meeting with the Foreign Ministry spokeswoman Takako Ito she indicated that president Putin would attend the Group of Seven conference in Ise Shima next May. In fact she did not mention the participation of the Russian president in the summit and spoke about the relations with Russia separately from her comments on the Group meeting.

## Memorial Museum in Nagoya displays the glorious history of Toyota



Part of the Toyota's museum that shows some of Toyota's most outstanding vintage vehicles.

Nagoya has a museum that has more than 4,000 pieces, and a large part of them are original, through which the visitor learns about Toyota's history. The start was with the textile industry, as Sakichi Toyoda (the father of Toyota Motors' founder), invented the first manual fabric knitting machine in 1890 after being inspired by his mother's work and wanted to give her rest as she got older. He then developed it in stages. He visited the United States, where he liked the manufacturing of cars and wished to take it to Japan, so his son took on the mission after graduating from university in 1920 to join the company's technicians.

Visitors of the exhibition will see some of the most magnificent cars that shone in the history of Toyota, including the AA model, which was the first car produced by the company in April 1936, and had great success in the following decades around the world, and presented itself among the car industry giants.



Photo shows robots that are considered to be one of Toyota's specialties. (Inset) A robot plays music before the audience.



Mural showing how vehicles used to be assembled.



An AA sedan car, first vehicles produced by Toyota in 1936.



Kids briefed by their parents about how automobiles are manufactured during a museum visit.



A weaving machine developed by Sakichi Toyoda.

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# Toyota Kaikan Museum: An eye on the present, and another on the future



Kayesuki Sito and his colleague Yushitomo Kanihara in front of the Toyota logo.



Photo shows the automobile manufacturing in four stages.



The Lexus section



Following the tour of Takaoka plant, we went to the Toyota Kaikan museum, which has seven halls:

- 1- A hall introducing Toyota's various means to produce an environmentally ideal car.
- 2- Safety and movement flexibility hall explains the group's efforts towards producing safe cars of the highest level.
- 3- A hall explaining how Toyota manufactures quality cars under the slogan "good thinking...good products".
- 4- "Toyota in Society" hall sheds light on the history of the group's social responsibility activities.
- 5- Sports car hall that achieved success, happiness, dreams and victories.
- 6- A hall that displays the most modern models of Toyota and Lexus.

7- Children's hall that educates them on car manufacturing.

The museum has a shopping center to buy souvenirs that have the Toyota trademark. The most enjoyable hall in the museum is one which simulates the future by finding car designs that may be needed in the market, even if not approved for production yet. Among the models are the Road-1 car and "partner robots" that can make people's lives easier in societies where the need for electric cars is on the increase, and move freely in smart cities where energy efficiency is managed carefully.

In order for a comfortable life, Toyota is working on developing clean and safe cars. In addition to its main concentration on hybrid cars, Toyota is working on increasing the efficiency of gasoline and diesel vehicles, and is promoting fuel cell cars that run on hydrogen, which does not emit any carbon dioxide.



A special zone to show kids how cars are manufactured.



A miniature of the Toyota factory.



A prototype of Road-1 car

## Landmarks in the history of Toyota

- 1867: Sakichi Toyoda generator.
- 1924: Toyoda invents the G model.
- 1929: Selling the automatic loom to a British company.
- 1930: Kiichiro Toyoda starts research on a small engine that operates on gasoline.
- 1933: Establishing the car division at Toyoda Automatic Loom Ltd.
- 1936: Completion of the AA sedan car.
- 1937: Establishing Toyota Motor Co Ltd.
- 1938: Production starts at Honsha plant.
- 1955: Launching Toyota Crown as the first complete passenger car.
- 1957: Exporting the first models of Crown to the United States.
- 1959: Production starts at Motomachi plant (the first passenger car plant in Japan).
- 1966: Launching Corolla, and Takaoka plant starts production.
- 1975: The start of prefab residences.
- 1988: Start of production at Toyota Car Manufacturing Co in Kentucky.
- 1989: Launching the trademark for Lexus cars in the United States.
- 1992: Production starts at the Toyota Car Manufacturing Co in the United Kingdom.
- 1997: Launch of Prius, the first mass-produced hybrid car in the world.
- 1999: The total national production exceeds 100 million cars; Toyota Kirloskar Pvt Co begins production in India.
- 2000: Sichuan Faw Toyota Motor Co begins production in China.
- 2001: Toyota Car Manufacturing Co begins production in France.
- 2002: Tianjin Faw Toyota Car Co begins production in China.
- 2006: JAC Toyota Car Co Ltd starts production in China.
- 2012: Total world production exceeds 200 million cars.
- 2014: Launch of Mirai, the first car to operate with fuel cells and marketed to the public.