

2016

DAuto Newsletter

MARCH EDITION



Design engineers turn designs into reality. Without them, a great idea but nothing more than, well, a great idea.

TOYOTA TO PRESENT A WOODEN CONCEPT CAR AT MILAN DESIGN WEEK

At the upcoming Milan Design Week Toyota will officially unveil Setsuna, an experimental show car made primarily of wood.



The goal of this material choice is to “be able to capture the developing relationship between people and their cars in the way it changes in appearance over the years.”

Toyota designers picked a variety of types of wood for different parts of the car, including the exterior panels, frame, floor and seats. The design blends a two-seater, open wheel layout with a look influenced by the sport scar of the early 19th Century, while the wooden surfaces showcase a clear inspiration from the boat world.

While the idea of a long-lasting family car could be fascinating, the concept appears to be a designers' 'divertissement', without any actual connection with the actual production line-up of the company. The name Setsuna – which means ‘moment’ in Japanese – was chosen to reflect how people can experience special and memorable experiences with their cars. Toyota believes that, over time, these collective moments can give cars a significant place in their owners' lives. “(Setsuna) can last for many generations, if properly looked after, and its color and texture will change in response to its environment, particularly to temperature and humidity, and how it is used.”

Equipped with an electric motor, Setsuna is 3,030mm long and 1,480mm wide, 970mm. It will be on public view at 31 Via Tortona in Milan from 12 to 17 April with media day viewing on 11 April.

MORGAN EV3 IS A RETRO-FUTURISTIC ELECTRIC 3 WHEELER

The Morgan EV3 is the pre-production version of a new all-electric three-wheeler, with a retro futuristic design, a weight under 500kg and a range of 150 miles.

Presented at the **2016 Geneva Motor Show**, the Morgan EV3 aims at combining a zero-emissions drivetrain with a bespoke, fun to drive vehicle, and follows the concept revealed in 2015.



The distinctive face features brass conductive cooling fins that encase the batteries and an off-centre tri-bar headlight which adds to the overall asymmetry of the design.



The retro-futuristic look takes inspiration from 1930's aero-engine race cars, classic motorcycles and 1950's fantasy automatons.

The EV3 sprints from 0 to 62mph in less than 9 seconds and reaches a top speed in excess of 90mph.



The EV3 is the first **Morgan vehicle** to make use of composite carbon panels for the body construction: the carbon hood, tonneau cover and side pods are made in the UK, and much like the remaining aluminum panels, are hand worked over an ash wood frame.

BUGATTI CHIRON

Bugatti has presented the Veyron successor, an extreme sports car with 1,500 hp and a top speed of 420 km/h. It will be launched this fall with a starting price of 2.4€ million.



Like for the Veyron in 2005, the launch of the Chiron marks a new records for production vehicles: the GT delivers 1,500 HP and 1,600 Nm, and can reach a top speed 420 km/h, a value which is electronically limited for road use.



At the 2016 Geneva Motor Show Bugatti has revealed the much anticipated Chiron, successor to the Veyron model, produced from 2005 to 2015.

The design of the Chiron appears to be very close to the **Vision Gran Turismo Concept** – minus the racetrack-oriented details and with a less extreme surface treatment of the sides.

Iconic design elements include the C-shaped side line that defines the two-color scheme, the trademark grille and the central character line that runs from the front end to the tail, taking inspiration from legendary models such as the Type 57 Atlantic.



The main technical features include a carbon fiber monocoque chassis and a 8 liter W16 engine with four new, larger turbochargers controlled by a two-stage turbocharging system.



BUGATTI CHIRON

The luxurious interior echoes the flowing lines of the exterior as well as the C-shaped graphic theme of the flanks, which is adopted for the design of the distinctive transition between the center tunnel and the ceiling.

The basic price is €2.4 million net. Currently, advance orders have been received for one third of the total production run.

The most distinctive design features of the Chiron are the Bugatti horseshoe with the eight-eyed front end, the C-bar on the side (also known as the "Bugatti line"), which is also used as a design element in the interior, the central fin as a reminiscence of the central seam on the Bugatti Atlantic, which extends over the entire vehicle to the rear, and the redesigned rear end with the newly developed rear light, which is unique in the automobile industry and gives the Chiron its distinctive Bugatti signature.

Like the Veyron, the Chiron will be built at the company's headquarters in Molsheim, with a total production volume limited to 500 units.



The name Chiron pays homage to Louis Alexandre Chiron, a Monegasque racing driver who competed in rallies, sports car races, and Grands Prix, and the oldest driver ever to have raced in Formula One, at 55 years of age.



Illuminated C-bar in the interior is the longest light conductor in the automobile industry. The interior reflects the stylistic themes of the exterior including the central fin inspired by the Bugatti Atlantic. This approach ensures a symmetrical layout in the interior.

LAMBORGHINI CENTENARIO

Presented at the 2016 Geneva Motor Show, the Lamborghini Centenario is a limited edition 770 hp supercar with a futuristic design and advanced technological solutions.

The Centenario embodies all the core values of the brand: it features an extreme, aggressive design combined with advanced technologies and performances.

The Centenario will be produced in a limited series of 40 units – 20 coupes and 20 roadsters, all already sold – with a starting price of 1.75 million euros plus tax.

The Centenario measures 4.924 m long and 1.143 m high.



The car's silhouette is characterized by the "mono line" that stretches from front to back, giving the Centenario the distinctive mono-body shape of Lamborghini's recent models.



Among the distinctive technical features are the 770hp V12 engine, a rear-wheel steering system, and a full carbon fiber monocoque and bodywork, which helps limiting the overall weight to just 1,520 kg.

The body features numerous aerodynamic-driven elements, with inlets made of several fins strongly characterizing both front and rear.

A single line from front to back defines the recognizable Lamborghini contours, with long, low overhangs front and rear creating a clean, mono-body shape.

LAMBORGHINI CENTENARIO

The large air scoops in the hood, reminiscent of 1970s sports cars, contribute to the downforce on the front axle.

The aeronautic-inspired roof integrates air scoops and a hexagonal carbon fibre and glass engine cover. The body of the Centenario is finished in gloss carbon fiber, while the lower, "technical parts" like the front splitter, side skirts, wheel arches and rear diffuser are in matt carbon fiber. A number of bold yellow accents contribute to the distinctive look of the car.



A distinctive design element is the irregular design of the wheel arches, both front and rear, which aims at highlighting the aerodynamic design and – at the rear end – the exclusive rear-wheel steering.

The rear end is visually dominated by the large, integrated rear diffuser. It also incorporates a rear wing which extends 150mm and rotates up to 15 degrees at high speeds.

The interior – mostly finished in carbon fiber with Alcantara accents – integrates a futuristic touchscreen on the center console.

The main performances are a 0-100 km/h time of 2.8 seconds, and a 0-300 km/h time of just 23.5 seconds with a top speed of more than 350 km/h. Braking from 100 km/h to standstill is achieved in 30 meters.

GENESIS NEW YORK CONCEPT: THE DESIGN

At the 2016 New York Auto Show Genesis has presented the New York Concept, a show car that anticipates the design of the upcoming G70 D-segment premium sedan.

The New York Concept aims at defining the styling direction for the whole premium brand, which already includes the G80 and G90 models. The powertrain is a 2.0 GDi 245ps hybrid with an 8-speed automatic transmission.

The exterior proportions is characterized by a long hood and large dash-to-axle ratio, and a contrast between short front overhangs and longer rear overhangs: all these elements underline the car's performance-oriented nature and athletic stance.

Air flow guides sit below the lamps, channeling air through the forward wheel housing. Pronounced front fender volumes, enhanced with longitudinal crease lines, complete the concept's road-focused attitude.

From the side, the sleek and tapered cabin emphasizes powerful shoulders, bringing visual power over the rear wheels and quarter panels.

The rear end features a low and sleek rear deck, further enhanced by strongly tapered body flanks. The slim, elongated tail-lamps echo the headlamps design.



GENESIS NEW YORK CONCEPT: THE DESIGN

The interior of the New York Concept further projects the future design direction of GENESIS. It expresses a high-tech and sophisticated ambience, emphasized by the use of an advanced information control unit with a distinctively curved display.

A 21-inch floating, curved screen incorporates driver instruments and multimedia functions, creating potential for new, sculpted forms for the front seat occupants.

The open steering wheel design is ergonomically formed to facilitate visibility of the instruments while enhancing handling control.



A logical and spacious center console divides the interior space through its length axis into two separate halves. Combined with the curved, floating screen, the Central Control Panel (CCP) creates a new user experience through a tactile and considered control lay-out.

Eliminating some of the negatives often associated with increased technological content in a luxury vehicle, the design team took an innovative direction for the instrument panel design.



The concept's interior showcases full leather interior, with accents of anthracite contrasted with rich tan leather on seats and doors, while sliced suede leather used on the headrest brings a soft tactile accent.

The digital display is combined with classic analog driver instruments. The concave screen and the convex instrument panel complement each other in an aesthetic interaction while transmitting visual lightness to the interior.

Copper-toned, stainless-steel mesh echoes the copper accents of the exterior and demonstrates a new, lightweight textile approach.

DS E-TENSE CONCEPT

Presented at this year's Geneva Show, the E-Tense signals the direction for the future of the premium brand.

The E-Tense Concept is a luxury two-seater GT with generous dimensions (4.72 L x 2.08 W x 1.29 H) and an all-electric 402 hp drivetrain.



As with all the models in the DS line-up, particular attention was paid in the development of a unique, stylish interior, with a bold look and exclusive materials.

The car is based on a carbon fiber monocoque chassis with independent superimposed double wishbone suspensions with low center of gravity, achieved also thanks to the position of the batteries, located beneath the floor.

Among the main design elements are the absence of the rear screen (as already seen in the **Divine DS Concept**) and the central chrome-plated spine, which runs from the hood to the end of the roof.



Overall, the exterior appears to be well proportioned and with a number of interesting and original solutions, partly diluted due to the complexity of the surface treatment and the resulting high number of details.

In particular, the absence of the rear windscreen in combination with the distinctive air outtakes and tail lights give the E-Tense Concept a very distinctive rear view.



DS E-TENSE CONCEPT



The intricate, complex shapes of the surfaces have been developed using generative algorithms and parametric modeling – a technique recently adopted on the **BMW Vision Next 100** for the design of the *Alive Geometry* feature.

The best example of this process at work is the futuristic design of the dashboard. It took DS upholsterers 800 hours to design, test and produce the interior, with particular emphasis on the upgraded watch-strap seat design and the dashboard.



The helmet harness by Moynat, inspired by the Y-shaped straps that used to secure the trunk holding the spare tire to the back of an automobile.



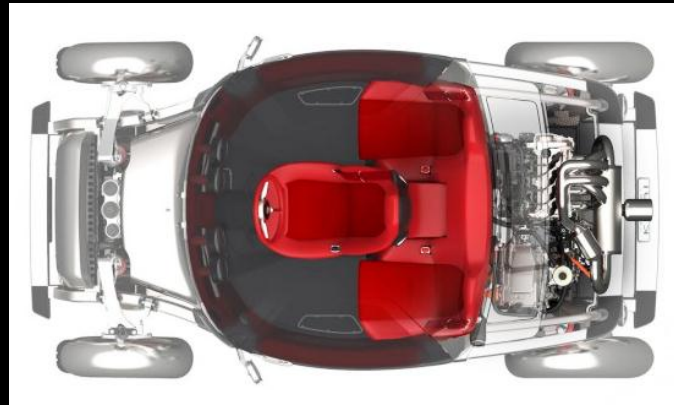
The cabin was also enriched with some bespoke accessories created in collaboration with French luxury brands.

Among the interior features are the cold steel used for the dashboard, which contributes to the futuristic look, and the strongly marked tulip-shape of the steering wheel.

The one-off edition watch by BRM Chronographes Watchmaking technology can be worn on the wrist or affixed to the car's central console.

GENEVA 2016: TOYOTA KIKAI CONCEPT MAKES EUROPEAN DEBUT

First introduced at the 2015 Tokyo Motor Show, the Kikai Concept explores and underlines the inherent beauty of machines.



Among the distinctively designed elements are the fuel tank, reserve tank, and exhaust pipes, the analog-style meters and switches offer an engaging dialog with the machinery.

Toyota Kikai Concept – Dimensions

- Length: 3,400 mm
- Width: 1,800 mm
- Height: 1,550 mm
- Wheelbase: 2,450 mm
- Seat Capacity: 3

The Toyota Kikai, which makes its European debut at the Geneva Show, showcases all the components normally hidden beneath the vehicle body, aiming at a different type of appeal and making the inner workings become part of the exterior.

The interior has a 3-seat triangular layout, with a central driver seat, which places the driver at the heart of the car, gives a more instinctive sensory connection with the vehicle. The expansive side window reaches up to the roof and maximizes visibility.

The idea is further strengthened by the presence of a small window at the driver's feet which lets him/her see the movements of the tires and suspension and the rush of speed along the road surface.

According to Toyota, "This provides a novel driving sensation in which the machinery that supports the operations of cruising, turning, and stopping in ordinary everyday driving can be directly perceived with the senses."

MAZDA REVEALS THE MX-5 RF, A FASTBACK WITH RETRACTABLE HARDTOP

At the 2016 New York Auto Show Mazda has unveiled a fastback version of the MX-5 featuring an evolved version of the retractable hardtop.



Compared to the hard top of the previous generation MX-5, which was completely retractable, the new MX-5 features a fixed fastback body style and a limited open configuration – more similar to a targa model than a true roadster.

While the range of drivetrain and transmissions has been maintained, the MX-5 RF offers a new body color: the *Machine Grey*. This features a special paint application – the same Takuminuri painting technology originally created for Soul Red, a premium color with a high-quality finish that looks as if it were hand-painted.



The system uses a three-coat paint structure consisting of color, reflective and clear coats. The reflective layer, which contains extremely thin, high-brightness aluminium flakes, shrinks during the drying process to about one-quarter the thickness of most reflective layers.

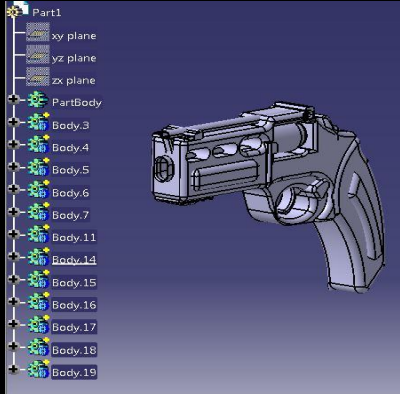
This causes the flakes to lie flat with regular spacing between each flake for a high-density finish that gives the entire surface a sheen when illuminated and a genuine metallic look. Jet black pigment, meanwhile, is used in both the reflective and color layers.

It is visible through the spaces between the aluminium flakes, giving them a black hue and thus heightening the contrast. Machine Grey will be available on a range of Mazda models, including the all-new Mazda CX-9 slated to go on sale in North America this spring.

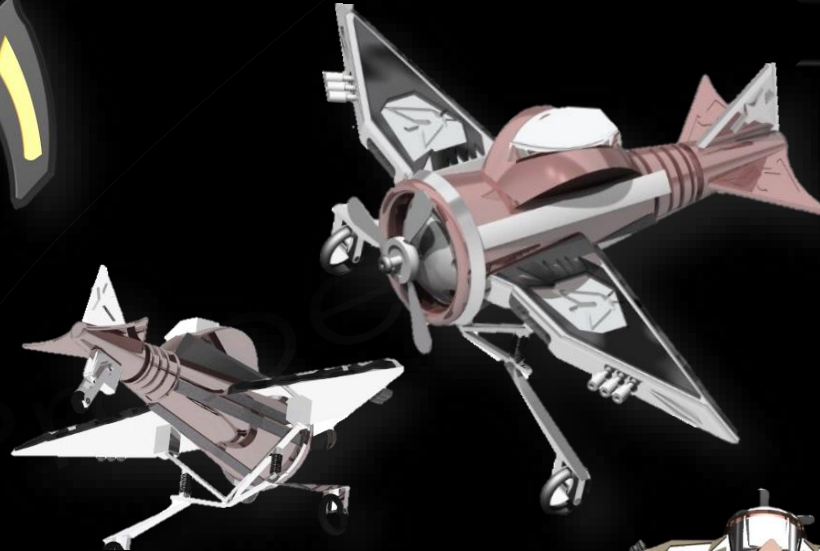


The power roof opens and closes with the press of a button while moving at speeds of up to 10km/h. Thanks to the folding system, the MX-5 RF offers the same trunk space as the **soft-top model**.

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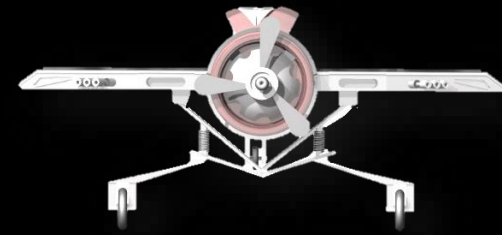
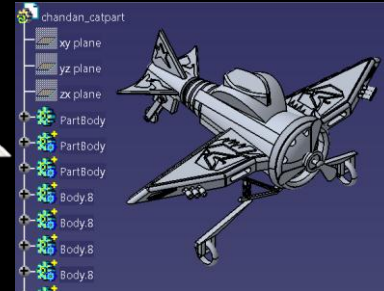


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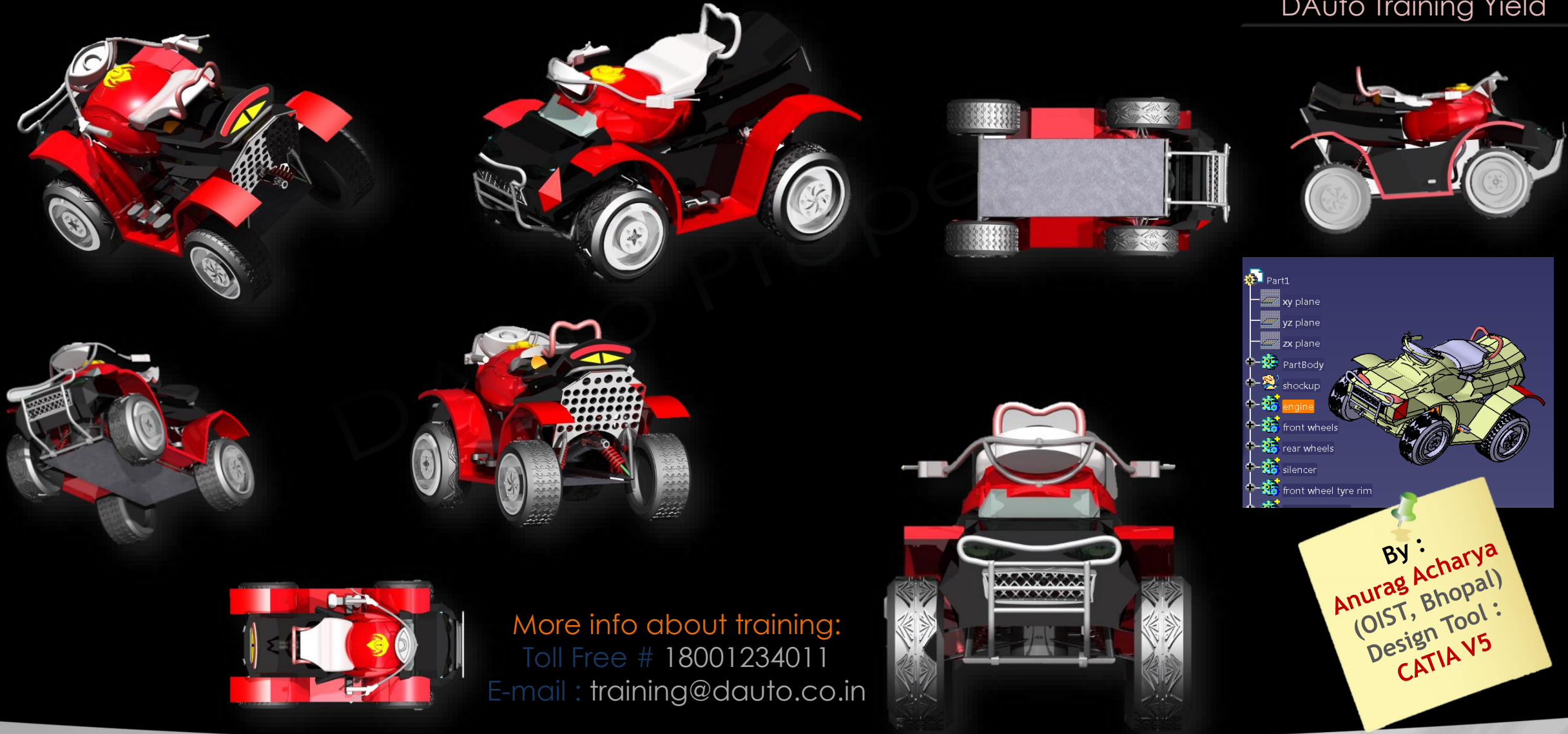
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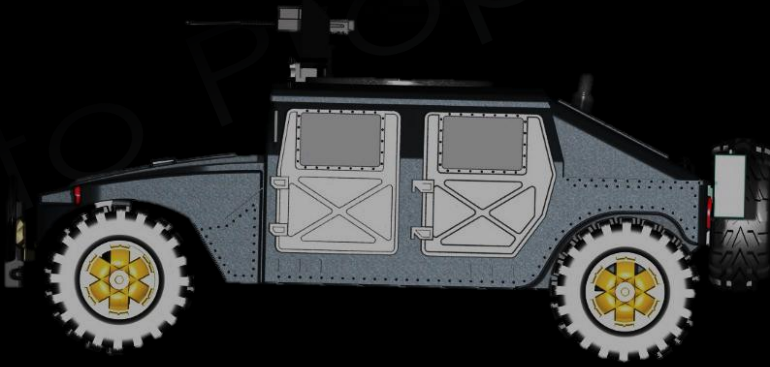
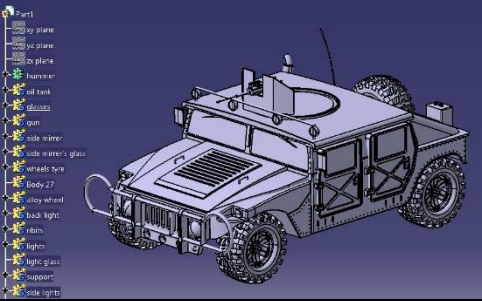
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