ALL-NEW LEXUS LX PREMIERES AS THE 2ND MODEL OF LEXUS NEXT GENERATION FOLLOWING NX

Lexus' flagship SUV aims to provide an exceptional driving experience and expand our customers' diverse life experiences

- A true flagship SUV that combines reliability, durability, and rough-road driving performance cultivated over many years with Lexus refinement and craftsmanship
- Drivability and ride comfort achieved based on the concept of "ease and quality on any road in the world"
- Proportions in line with Lexus' next-generation design language, which harmonizes functionality and elegance
- Expanded lineup of various grades, including a new "EXECUTIVE" grade which has four independent seats, demonstrates Lexus intent for a more personal luxury experience
- Improved security with Lexus' first fingerprint-authentication push-button start switch

Lexus LX (Prototype)

As the second model of the next-generation of Lexus following the NX, Lexus held the world premiere of the new LX today in the Kingdom of Saudi Arabia and the United Arab Emirates and the reveal video is available online. The new LX, which embodies the brand's commitment to meeting the diversifying needs and lifestyles of customers, is scheduled to go on sale in Japan in early 2022.

Since its establishment in 1989, Lexus has always been committed to the spirit of innovation and has continued to take up the challenge of providing new technologies and value to its customers. Since its launch in 1996, the LX has been well received as Lexus' flagship SUV due to its high-quality, ride comfort, and driving performance that can withstand all kinds of roads around the world. This has been achieved by refining the founding concepts of the LX: "reliability", "durability", and "rough-road driving performance". The LX has sold a cumulative total of approximately 500,000 units in more than 50 countries and regions as of the end of August 2021.

The new LX is designed to provide vehicle occupants with exceptional comfort and enrich their life experiences. While maintaining a traditional body-on-frame structure to ensure reliability, durability, and d driving performance, it renews its characteristics by adopting the new GA-F platform, realizing a weight reduction of approximately 200 kg, and achieving a digitally-developed high-rigidity body. The new LX will be available with either a high-output, high-torque 3.5-liter V6 twin-turbo gasoline engine. Electronically controlled brakes (ECB) and an electric power steering system (EPS) are also adopted to ensure customers will be able to enjoy Lexus-unique driving performance to the fullest, both on-road and off-road. These innovations, plus the adoption of two new available powertrains, will also contribute to improved environmental performance, reducing annual CO_2 emissions when the vehicle is in use by approximately 20 percent on a global cumulative basis compared to the previous model, thus contributing to the realization of a carbon-neutral society. In harsh off-road environments, to promote a safer and more comfortable driving experience, the instrument panel features Lexus' first dual display with a 12.3-inch upper screen and 7-inch lower screen, as well as Back Underfloor View, which displays the area beneath the rear part of the vehicle as a world first*. The new LX is more personalized, with the newly added "EXECUTIVE" grade, which is specially designed with four independent seats for elegant and safe travel on all kinds of roads, and the "OFFROAD" grade which is dedicated to Japanese market. In terms of styling, while pursuing a design that contributes to athletic performance and function (a design perspective that began with the new NX), ideal proportions are expressed through a blending of sophistication, power, and presence befitting a flagship SUV. Among other featured technologies, Lexus' first fingerprint-authentication push-start switch contributes to reducing the risk of theft.

<MAIN PRODUCT FEATURES OF THE ALL NEW LX>

1. Achievement of high-quality driving through renewed vehicle fundamentals
   - The new GA-F platform has been adopted for the first time by Lexus in pursuit of an ideal inertia factor. The vehicle's front/rear center of gravity has been optimized by placing the engine further back.
   - In addition to downsizing from a larger displacement engine and employing a lighter new Active Height Control (AHC) suspension, the roof material, which is high above the vehicle's center of gravity, has been replaced with lightweight aluminum. This has resulted in a lowering of the center of gravity and a weight reduction of approximately 200 kg.
   - The power plant is a newly employed 3.5-liter V6 twin-turbo gasoline engine achieve high-quality driving performance.

2. On-road driving performance in pursuit of the Lexus Driving Signature
   - The newly developed high-output and high-torque twin-turbo engines generate seamless and linear acceleration.
   - The first-ever use of EPS and the application of structural adhesives in the body achieve a straightforward response for both steering and use of the accelerator pedal.

3. Refined off-road driving performance
   - The 2,850-mm wheelbase, which has been inherited since the first generation, and the ground clearance angles (approach angle, departure angle, and ramp break angle), which are equivalent to those of the previous model, provide both rough-road driving performance and outstanding interior space.
   - In addition to the evolution of Multi-Terrain Select and Crawl Control, various technologies have been introduced to support off-road driving, such as a Multi-Terrain Monitor function and a dual display.

4. New grade lineup for meeting the diversifying needs of customers
   - The EXECUTIVE grade, with four independent seats, is equipped with rear seats that can be reclined up to 48 degrees and have a dedicated rear-seat console, providing the highest level of comfort on all road surfaces.
   - With a design that evokes powerful driving performance and front and rear differential locks, the "OFFROAD" proposes a new off-road image for LEXUS.

5. Proportions in line with Lexus' next-generation design language, which harmonizes functionality and elegance
   - The "unchanging golden ratio" creates an appearance that combines sophistication with a powerful and overwhelming presence befitting a flagship.
   - The new spindle grille, which pursues the new, function-rooted design language of the next generation of Lexus, is three-dimensional and chrome-frame-free, accentuating its sense of unity with the body and expressing a sense of mass while fulfilling functions such as cooling and rectification efficiency.
   - Based on the Tazuna Concept, which generates dialogue between driver and vehicle, display and other switches are arranged to create a cockpit space that allows the driver to control the vehicle at will with minimal posture change, even on rough roads.

6. Advanced safety technologies and enhanced convenience based on a human-centered approach
   - Lexus' first fingerprint-authentication push-start switch reduces the risk of theft.
   - Adoption of the latest in multimedia systems provides even greater convenience.
   - The functions of the Lexus Safety System +, which contributes to safe and secure driving, have been expanded.

<TAKAMI YOKOO, CHIEF ENGINEER, LEXUS INTERNATIONAL>

To meet the diversified lifestyles of our customers, we established the new LX's driving concept to be: "Ease and quality on any road in the world". We aimed to create a vehicle that, while possessing exceptional off-road performance, can be driven without hesitation on any road, whether in town, on the highway, or in a harsh environment, and that allows all occupants to travel in comfort. To raise its basic elements to a high level of quality, we focused on "real roads" and "aspiration". We refined the LX's traditional off-road performance through repeated "breaking and fixing" on harsh road, and our development team and drive-meister worked together to refine on-road performance through an uncompromising approach to building in the "Lexus Driving Signature", which provides a unique Lexus driving sensation that delivers linear response faithful to the driver's intentions. In doing so, we have achieved the highest level ever of compatibility between these two contradictory elements of vehicle performance. Also, to meet the diverse needs of our customers around the world, we are making available a four-seat EXECUTIVE grade and an OFFROAD grade. Each trim level, including the standard model, embodies the fruits of labor of the development team's passion and attention to detail. We invite you to experience the new LX on real roads, built by the hands and aspirations of real people.

<YOSHIAKI ITO, LEXUS INTERNATIONAL DRIVE-MEISTER>

Through the use of a renewed platform and EPS, we have achieved on-road driving performance that lets you experience the Lexus character the moment you get behind the wheel and start driving. Especially, the steering sensation from the moment the vehicle begins to move and the way the vehicle handles from winding roads to high-speed driving were developed in cooperation with an off-road master drive to reflect the concept of rough-road driving control and to apply the knowledge gained from off-road driving to the improvement of on-road driving performance. Also, we repeatedly drove the vehicle off-road both within and beyond company premises to see if what we were doing would affect its driving capabilities on rough roads, as we aimed to achieve characteristic Lexus driving performance on any kind of road. The greatly evolved LX will add even more color to the daily lives of our customers. Please look forward to it.

<KAZUYUKI UENO, LEXUS INTERNATIONAL DRIVE-MEISTER (OFF-ROAD)>

To make off-road driving safe and secure, and to allow customers to experience the high quality and comfort that is characteristic of Lexus, we repeated numerous test runs on various rough roads to create the off-road driving performance of the new LX. To ensure that all occupants can travel comfortably, AHC and AVS have been finely tuned to provide an improved sense of contact with the ground on rough roads and a high-quality ride. Also, from the way the multi-terrain monitor is viewed to how Crawl Control is controlled, we have put much thought and care into making sure that our customers can enjoy their time with the LX even in off-road environments. We hope that everyone can enjoy the driving performance of the LX, which allows for the comfortable enjoyment of all kinds of roads around the world, both on-road and off-road.

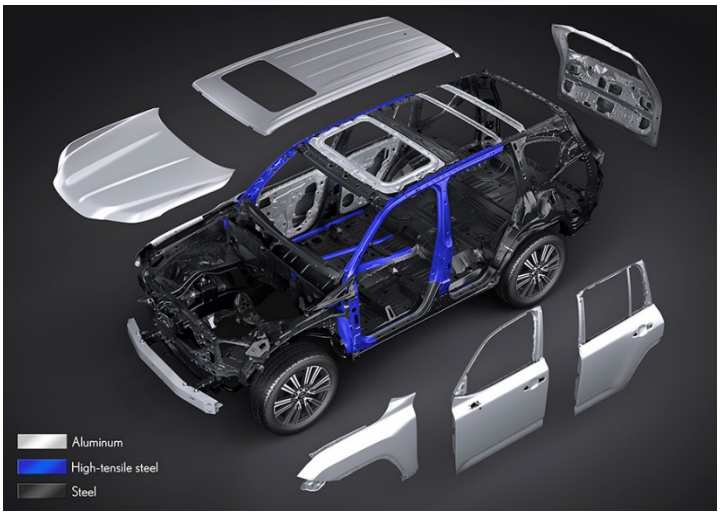
*Based on a Lexus survey of vehicle models announced as of October 2021

RENEWAL OF FUNDAMENTAL CHARACTERISTICS THROUGH THE USE OF THE NEW GA-F PLATFORM AND WEIGHT REDUCTION OF 200KG

To provide customers with "ease and a high level of quality on any road in the world" while driving, the new LX maintains its traditional body-on-frame structure and has undergone a fundamental review of the basic elements that support the evolution of driving. By adopting the new GA-F platform and reviewing the entire framework of the vehicle from the ground up, which led to the renewal of the vehicle's fundamental characteristics such as a low center of gravity, weight reduction, and improved body rigidity, a drastic improvement in driving performance has been achieved.

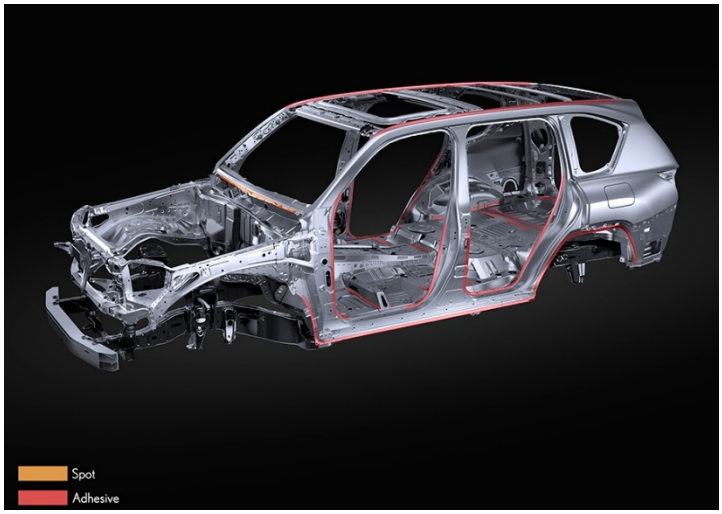
<NEW PLATFORM AND LIGHTWEIGHT AND HIGH-RIGIDITY BODY AND FRAME>

- With the new LX, Lexus has adopted for the first time the new GA-F platform and has renewed the traditional ladder frame. By utilizing the latest welding technology, the frame has been made more rigid (+20 percent compared to the previous model) and lighter, improving collision safety performance, quietness, and driving quality. For the body, the use of high-tensile steel sheets has been expanded, and the hood, roof, and all door panels have been made of aluminum (with this being the first time for Lexus to use aluminum for a vehicle's roof). Also, the powertrain has been shifted 70 mm toward the rear of the vehicle and 28 mm downward. All of this has resulted in a vehicle weight reduction of approximately 200 kg compared to the previous model, a lower center of gravity, and improved front/rear weight distribution. These innovations coupled with an improved driving position have contributed to achieving driving that is more in line with the driver's intentions. Also, the achieved weight reduction contributes to improved environmental performance.



Lexus LX (Prototype)

- Body deformation behavior during steering was computer analyzed, and torsional deformation has been suppressed by increasing the number of spot weld points and optimizing the placement of structural adhesives around the door openings and on the floor to achieve superior body rigidity. This ensures not only excellent off-road performance but also on-road steering response and responsiveness, rear grip, excellent ride comfort, and driving quality that is distinctive of Lexus.



Lexus LX (Prototype)

- Excellent robustness has been built in to protect components such as the engine and fuel tank, as well as the occupants' space. The cross-sectional characteristics of the side rails in the areas that are subject to stress when driving on rough roads have been optimized, and the frame's nine cross-members have been optimally positioned to balance performance against inputs from the road surface, in terms of strength, rigidity, and collision safety. Furthermore, thick steel plates of up to five millimeters and thick high-tensile steel plates have been optimally positioned to minimize the impact of shocks on the vehicle body, thus reducing the impact on handling stability and ride comfort, even when driving on rough roads.

- Significant weight reduction while maintaining strength and rigidity has been achieved by using the world's first* curved tailored welded blank technology, in which thick and thin steel plates are joined by laser welding and then press-formed. This technology has been applied to sections of the side rails that have been increased in height and some cross-members.

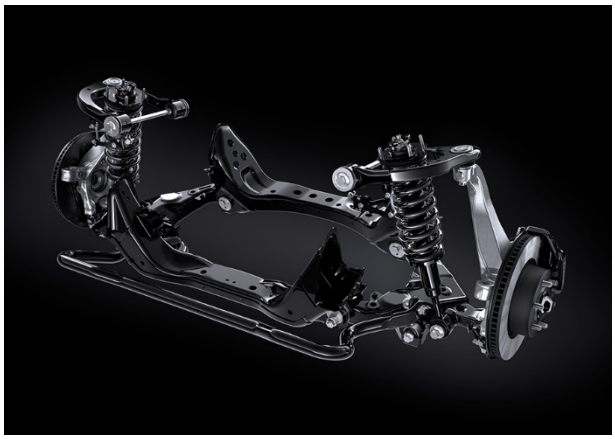
- The LX's body-on-frame structure, in which the body is mounted on the frame via cab mounts, means that even if the body is damaged during off-road driving, the frame, which supports the basic driving performance of the vehicle, will not be affected, thus enabling vehicle occupants to continue traveling to their destination with their vehicle.

<SUSPENSIONS THAT REALIZES DRIVE-TRHOUGH PERFORMANCE AND HANDLING STABILITY ON ALL KINDS OF ROADS>

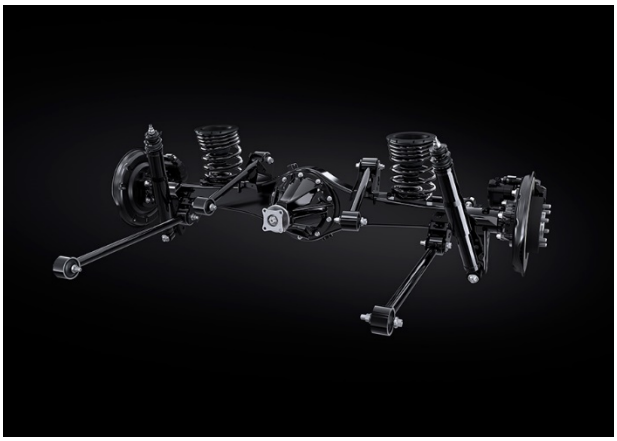
- To achieve both a high level of off-road driving performance and on-road handling stability, the front features a high-mounted double wishbone suspension. Suspension geometry and spring constant of the coil springs has also been optimized, resulting in both excellent vehicle stability and ride comfort. The suspension stroke, which is an important factor for off-road driving performance, has been made sufficiently long with 15 mm more rebound to achieve excellent road-following performance and rough-road driving performance.

- In the rear, the highly reliable trailing-link axle-type suspension has been inherited from the previous model, while the suspension arms and shock absorber layout and characteristics have been refined to facilitate control of axle movement, resulting in both excellent vehicle stability and ride comfort. The rebound stroke has been increased by 20 mm compared to the previous model to ensure excellent road-following performance.

- The rear shock absorber has been placed outside the lower control arm, and the shock absorber mounting angle has been adjusted to match the angle at which the axle moves. This makes it easier for the shock absorbers to follow the vertical movement of the wheels, increasing their damping effect and, thus, better absorbing shocks and vibrations from the road surface to provide excellent vehicle stability.



Front Suspension (Prototype)



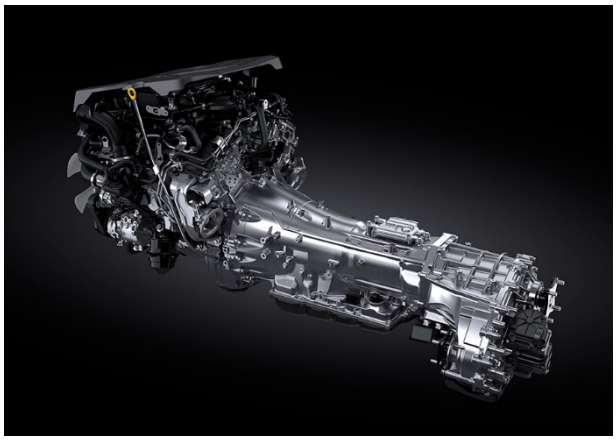
Rear Suspension (Prototype)

<NEW POWERTRAINS ACHIEVE LINEAR AND SEAMLESS ACCELERATION>

- The 3.5-liter V6 twin-turbo gasoline engine (V35A-FTS) delivers maximum output of 305 kW (415 PS) and maximum torque of 650 Nm, while the use of D-4ST (direct-injection 4-stroke gasoline engine superior version with turbo) with multi-hole direct-injection injectors, combined with the use of a longer stroke and high-speed-combustion and high-efficiency twin turbochargers, which were made possible by optimizing the valve pinching angle, produces powerful low-speed torque and excellent boost response.

Engine (Gasoline) (Prototype)

- Lockup is activated in almost all speed ranges except when starting, for a more direct response. Also, the adoption of a 10-speed transmission has resulted in crossed gear steps and a wider range of overall gear ratios, producing a cadenced and comfortable driving rhythm, as well as improved high-speed fuel economy and, at the same time, enhanced starting acceleration and off-road performance. Furthermore, both the gasoline engines feature optimized driving force characteristics and gear shift timing. The gasoline engine provides a pleasant acceleration feeling that draws out the extended torque characteristics up to the high rpm range.



Transmission (Gasoline) (Prototype)

- When the oil level drops significantly due to excessive tilting of the vehicle body, the oil level sensor detects the drop and alerts the driver by turning on a warning light. This ensures oil supply performance up to 45 degrees of both up and down inclinations and right and left body tilts. Also, bearings and oil seals with high waterproof and dustproof performance are used in anticipation of SUV-unique usage in river crossings and dusty environments.

*Based on a Lexus survey of vehicle models announced as of October 2021

ON-ROAD DRIVING PERFORMANCE THAT PURSUES THE LEXUS DRIVING SIGNATURE

To enjoy a high-quality drive even in urban settings, the vehicle's fundamental characteristics have been enhanced, including Lexus's first adoption of the GA-F platform and a weight reduction of approximately 200 kg. Also, the high-output, high-torque twin-turbocharged engine, ECB, and EPS further deepen the Lexus Driving Signature by delivering driving performance that seamlessly connects deceleration, steering, and acceleration in all situations, while the use of a new AHC suspension and AVS system provides a sense of contact with the ground, as well as a sense of strength and security. Although it is a frame-based vehicle that retains its predecessor's traditional off-road driving performance and vehicle stability, the new LX offers a high level of vehicle control, along with excellent on-road ride comfort.

<AHC FOR DRIVING AND A SENSE OF SECURITY ON ALL ROADS AROUND THE WORLD>

- The AHC suspension, which allows the ride height to be adjusted according to the driving environment, now comes with an expanded range of ride height positions. Also, while ride height is still adjusted through the use of shock absorbers, gas and hydraulic springs, and metal springs, a spring rate switching device, which was previously only used for the front wheels, is now used for the rear wheels as well, reducing the time needed to adjust ride height. There are three settings for vehicle height while the vehicle is in motion—Normal, Hi1, and Hi2—and a Low setting for vehicle ingress and egress. The system automatically and optimally adjusts vehicle height depending on the activation of Drive Mode Select or Multi-Terrain Select and the selection status of the transfer case. Ride height status can now be displayed not only on the gauge panel but also on the 7-inch touch display. Additionally, AHC not only adjusts the vehicle height but also responds to changes in vehicle posture, such as the amount of pitch and roll, and it stabilizes vehicle posture during turning, acceleration, and deceleration by optimizing the spring rate as needed.

- The suspension automatically adjusts to Hi1 or Hi2 in line with the road environment in coordination with the transfer case being in the L4 range or with the mode selected during the use of Multi-Terrain Select. When Hi1 or Hi2 is selected, the system automatically adjusts the vehicle height to the optimum level according to the vehicle's speed to avoid interference with the road surface and to improve handling stability.

- The ride height status is displayed on the center console display and gauges to facilitate confirmation. The springs are softened to provide a comfortable ride when overcoming bumps during in-town driving and are stiffened to ensure a flat and stable ride when going around curves. Also, vehicle height automatically adjusts for vehicle ingress and egress and when the vehicle is in motion.

AHC (Active Height Control) (Prototype)

<AVS SYSTEM FOR A HIGH-QUALITY RIDE>

- Changing to a linear solenoid valve system has resulted in excellent damping force switching response, providing intricate and smooth control according to the road surface and driving conditions. The damping force can be set low to provide a comfortable ride when going over bumps during in-town driving, while it can be set high to provide a flat and stable feeling when going around curves. Also, the damping force can be changed in line with the drive mode, contributing to driving that is in line with the driver's preference.

<EPS THAT CONTRIBUTES TO DRIVING THAT IS FAITHFUL TO THE DRIVER'S INTENTIONS>

- The new EPS uses the motor and reduction gear instead of conventional hydraulics. It enables subtle tuning and provides a light steering sensation at low speeds, such as when driving off-road, and the feedback of full steering range at high speeds. The system provides a sense of security, as the vehicle responds faithfully and linearly to steering operations, as well as a sense of ease of driving, as the system helps prevent the driver from feeling that the vehicle is large. At low speeds, such as in parking lots and at intersections, the light steering sensation contributes to reducing driver burden, and at high speeds, a moderate steering force in line with the vehicle's speed provides a driving experience that is faithful to the driver's intentions and a responsive steering sensation that is distinctive of Lexus.

<ECB SYSTEM FOR ENHANCED SAFETY AND SECURITY>

- The electronically controlled brake system employs a sensor to detect the degree of brake pedal depression and creates the optimum braking force with the hydraulic brakes for more linear braking characteristics. When Multi-Terrain Select is selected for off-road driving, the system provides the driver with a sense of security by ensuring a high level of driving stability through detailed braking control to counter slipping or spinning wheels.

<IMPROVED TIRE PERFORMANCE FOR EVOLVED VEHICLE PERFORMANCE>

- In addition to off-road driving performance, 22-inch tires, the largest in the Lexus lineup, have been adopted for the first time to improve on-road performance. The unsprung weight of all tires, including the available 18-inch and 20-inch tires, has been reduced for optimized rolling resistance values, contributing to improved fuel efficiency. Also, in addition to optimum tread patterns and structures having been pursued to ensure handling stability, ride comfort, and quietness, different tires, such as those suited for use on dry road surfaces and those suited for use on wet road surfaces, are being used to ensure handling stability and braking performance taking into account driving environments in different parts of the world and how customers use their vehicles.

ROUGH-ROAD DRIVE TRHOUGH PERFORMANCE REFINED BY COMBINING TRADITION AND TECHNOLOGY TO MAKE DRIVING ENJOYABLE EVEN IN HARSH ENVIRONMENTS

The new LX has further evolved its proven ability to handle rough roads. In addition to refining "hardware" performance features such as its traditional body-on-frame structure and rear rigid suspension, the new LX boasts evolved software features such as Multi-Terrain Select and Crawl Control. Furthermore, the introduction of various advanced technologies that support off-road driving, such as a Multi-Terrain Monitor and the LX's first dual display, enables the new LX to be driven with a greater sense of security even in harsh environments.

<INHERITANCE OF HERITAGE>

- The new LX inherits the golden ratio of a 2,850 mm wheelbase, which has been inherited from generation to generation and which provides both high-level performance on rough terrain and a spacious interior. As a full-fledged off-roader, the vehicle has excellent dimensions.

- The ground obstacle angle (approach angle, departure angle, ramp break angle), maximum stable inclination angle of 44 degrees, climbing ability of 45 degrees, and maximum river crossing performance of 700 mm are maintained at the same level as the previous model. As a full-scale off-road vehicle, it has an excellent dimension.

<EVOLVED MULTI-TERRAIN SELECT>

- The new model also features Multi-Terrain Select, which allows the driver to select from six modes—Auto, Dirt, Sand, Mud, Deep Snow, and Rock—to support off-road driving according to road conditions. In addition to conventional brake hydraulics, the drive power and suspension are integrated and controlled for optimization according to the selected mode, making it possible to extract driving performance best suited to the immediate road conditions. In addition, the operating range of Multi-Terrain Select, which was previously limited to the low range (L4), has been extended to the high range (H4). From extremely low-speed driving on rocky roads to high-speed driving on unpaved roads, the function has evolved to provide easy and high-quality driving on any road in the world. Furthermore, the Auto mode, which Lexus has adopted for the first time, uses information from various sensors to estimate the road conditions while driving and to optimize brake hydraulic pressure, driving force, and suspension control. This enables the driver to obtain the best driving performance for each driving situation without having to switch modes.

Multi Terrain Select (Rock / Prototype)

Multi Terrain Select (Dirt / Prototype)

Multi Terrain Select (Sand / Prototype)

Multi Terrain Select (Deep Snow / Prototype)

Multi Terrain Select (Mud / Prototype)

<CRAWL CONTROL FOR OFF-ROAD DRIVING SUPPORT>

- Drive power and brake hydraulic pressure are automatically controlled according to the five speed settings selected by the driver. When driving on highly uneven off-road surfaces or slippery road surfaces, Crawl Control enables the driver to drive at extremely low speeds without accelerating or braking, just by operating the steering wheel. The function is highly capable of freeing the vehicle from being stuck because it inhibits wheel spin and wheel lock, reducing the load on the drivetrain.

- While inheriting the high level of rough terrain driving performance of the previous generation LX, the new LX has been improved by adopting an electronic brake system that maximizes the linear hydraulic control of the brakes, resulting in a significant improvement in quietness. Even in off-road driving, the system has evolved into a function that realizes the high-quality driving that is distinctive of Lexus. Also, when the driver operates the gas pedal while Crawl Control is activated, seamless drive force and brake hydraulic control are achieved without interfering with acceleration by the driver. Depending on the road conditions, the driver can also operate the accelerator pedal when acceleration is desired, contributing to stress-free off-road driving.

Crawl Control (Prototype)

<DOWNHILL ASSIST CONTROL FOR REDUCING DRIVING BURDEN ON THE STEEP HILLS*[1]>

- When descending a steep slope for which engine braking alone is not sufficient to slow down the vehicle, the system automatically controls the hydraulic pressure of the brakes on all four wheels to support stable descent without locking the wheels. Because the selected vehicle speed is maintained through the operation of a switch, the driver can concentrate on steering operations without worrying about braking and accelerating, thus reducing the burden on the driver.

<DUAL DISPLAY WITH ADVANCED DESIGN AND FUNCTIONALITY FOR OFF-ROAD DRIVING>

- The instrument panel features a vertically aligned dual display as a Lexus first. The upper part is a 12.3-inch touch display that shows navigation and audio controls and that serves as the Multi-Terrain Monitor during off-road driving. The lower 7-inch touch display shows the heater control screen and serves as a driving-support screen for Multi-Terrain Select, selecting drive modes, etc. Displaying the camera image on the upper screen while simultaneously displaying the vehicle status in real time on the lower screen makes it possible for the driver to grasp the situation during off-road driving without switching the screen display.

<MULTI-TERRAIN MONITOR FOR A SENSE OF SECURITY IN OFF-ROAD DRIVING>

- The Multi-Terrain Monitor uses four cameras to help the driver check the situation around the vehicle. The images captured by the front, side, left and right, and rear cameras can be changed via a camera switch and are shown on the entire 12.3-inch display, allowing the driver to check the road conditions around the vehicle, which are often in the driver's blind spots. Also, by switching to Back Underfloor View, images of the foreground taken in advance are provided to the driver as transparent-underfloor images. By superimposing the vehicle and wheel position over this image, the driver can check underfloor conditions and front-wheel position. A new view is also available: the vehicle is made transparent, and an image showing the area around the rear wheels is magnified. This enables the driver to ascertain conditions around the rear wheels, and estimate distances to obstacles—invaluable when trying to free the vehicle from a stuck position or exit a dead end.

- As the world's first[*2] application of such technology, the Back Underfloor View, which displays the area around the rear wheels by simulating the vehicle through a composite of images taken while the vehicle was backing up, helps the driver to understand the position of obstacles behind the vehicle and to check the rear wheels and road surface, contributing to driving performance on woodland roads, moguls, and rocky roads.

- By synthesizing camera images that are appropriate for the vehicle's height when driving off-road, the system provides the driver with a clearer picture of the surrounding environment and a sense of security.

Multi Terrain Monitor (Prototype)

<STEERING WHEEL AND PEDAL LAYOUT THAT SUPPORTS A STABLE DRIVING POSTURE EVEN WHEN DRIVING ON ROUGH ROADS>

- Aiming for a driving position that allows the natural placement of the hands on the steering wheel and the feet on the pedals once seated, the steering wheel mounting angle, pedal tread angle, footrest position and mounting angle, hip-point height, and seat shape and hold characteristics have all been improved.

- The distance between the accelerator pedal and brake pedal has been increased compared to the previous model to support precise pedal operation. The accelerator pedal incorporates increased rigidity of the arm and other parts and a shorter stroke to achieve both response and operation.

<ELECTRONIC DIFFERENTIAL LOCK>

- Electronic differential lock for both the front and rear wheels contributes to improved performance in a variety of off-road environments.

[*1] Downhill Assist Control is activated when the vehicle speed is 30km/h or lower and the vehicle is descending a hill in the H4 range of the transfer case.

[*2] Based on a Lexus survey of vehicle models announced as of October 2021

A NEW GRADE LINEUP IN RESPONSE TO CUSTOMERS' DIVERSIFYING NEEDS

Developed with the aim of providing a more personal experience and better meet the diversifying needs of various customers, the new LX, which is the second model to symbolize the next generation of Lexus, comes in an EXECUTIVE grade and OFFROAD grade, in addition to a base grade. The EXECUTIVE grade is equipped with features that provide comfort not only during on-road use but also when driving on rough roads, for mobility that offers a sense of security. Meanwhile, the OFFROAD grade propose a new off-road image for LEXUS with exclusive equipment that enhances driving performance on rough roads.

<EXECUTIVE GRADE FOR COMFORTABLE MOBILITY EVEN ON ROUGH ROADS>

- A new four-seat EXECUTIVE grade has been added to the lineup, focusing on increased rear-seat space and comfort. The goal was to create a space in which people can relax even when traveling long distances across cities or over rough roads.

- Taking a cue from the neutral body posture advocated by NASA, the front passenger seat has been moved forward to ensure a wide forward view, while the seat reclining angle can be controlled up to 48 degrees. Additionally, the rear seat display behind the front passenger seat can be folded down to ensure forward visibility, creating a sense of openness and a relaxing space with a maximum leg space of 1,000 mm. This seating posture can be achieved in a single action using the relax mode button on the rear control panel. Also, a footrest behind the front passenger seat can be deployed to provide a more strain-free posture from head to toe.

- The rear seats, exclusive to the EXECUTIVE grade, feature concave headrests, seatbacks, and cushions that gently wrap around the head, hips, and lower body. This ensures a high level of hold against lateral g-forces and road surface inputs when driving around curves. Also, the seat cushion and seatback are shaped to maintain a secure posture, while the use of soft urethane with superior vibration absorption performance effectively suppresses unpleasant vibrations even during off-road driving.

- An effort was made to create a comfortable private space for relaxing in the same environment regardless of the situation. Comfort features such as special reading lights, audio system and a rear seat display come as standard. The EXECUTIVE grade's exclusive ceiling air conditioner vents diffuse a breeze from above in a shower-like air conditioning function to comfortably envelop rear-seat passengers. Furthermore, air conditioning vents have been added to the sides of the base of the rear-seat exclusive center console to blow out a warm air curtain when needed to further enhance overall comfort.

- The rear control panel, which centrally manages the various functions and equipment of the rear seat, and its surrounding areas have been carefully designed with usability as the top priority, down to the smallest detail in terms of placement and shape. The rear control panel is set at an angle, and in combination with a palm rest, is easy to access and operate in any position. The space for wireless charging of smartphones has been lowered to prevent unintended operation and to ensure visibility while seated in a reclined position. Cup holders are equipped with a lid, and, with the lid closed, the resulting surface, which is coated with a scratch-resistant self-healing paint, can be used as a note table. The large console box provides ample storage space, and the DC power supply, USB, and headphone jacks located within provide functionality for a variety of uses.

Lexus LX "EXECUTIVE" (Prototype)

<"OFFROAD" GRADE IMPROVED PERFORMANCE ON ROUGH ROADS>

- The new "OFFROAD" model is exclusive to Japan and offers a new off-road image for LEXUS.

- For higher off-road driving performance, three differential locks (front, center and rear) are standard equipment. By locking the differentials as needed, escape is enhanced. In addition, 18-inch tires with a high flatness ratio are equipped to enhance road-following performance on rough roads.

- Exclusive exterior features such as matte gray painted wheels, black painted wheel arch moldings, and a dark gray metallic painted front grille create a unique design that asserts powerful driving performance.

PROPORTIONS IN LINE WITH LEXUS'S NEXT-GENERATION DESIGN LANGUAGE, WHICH HARMONIZES FUNCTIONALITY AND ELEGANCE

With "Dignified Sophistication" as the styling concept, the aim was to give the new LX high-quality, sophisticated proportions. The LX's styling is rooted in functional essentials. Its exterior allows the vehicle's strength to be felt in a form that displays attention to detail, while its interior provides a sense of security and comfort to the vehicle's occupants. Also, combining the functionality that Lexus has thus far cultivated and the Tazuna Concept, which is a cockpit concept that allows the vehicle and driver to intuitively connect so that the driver can focus more on driving, has resulted in excellent visibility and operability.

Also pursued was a sense of balance and openness when driving off-road. And the Tazuna Concept, a new cockpit concept that allows the driver to connect more intuitively with the vehicle and to better concentrate on driving, has been incorporated, following the NX.

<FORM THAT COMBINES STRENGTH AND OVERWHELMING PRESENCE WITH REFINEMENT>

- The front pillars have been pulled toward the rear to create a cab-backward design, and a stout torso and 22-inch tires, which are the largest in the Lexus lineup, are used to create a dynamic and smart expression. Also, while having a newly developed platform, the new LX inherits the golden ratio of the 2,850 mm wheelbase and ground obstacle angles cultivated from the driving performance of previous models.

Lexus LX Exterior Color Sonic Titanium (Prototype)

<FASCIA WITH BOTH STYLE AND FUNCTION>

- As an expression of the new spindle grille suitable for the LX, a three-dimensional shape was created with seven sets of floating bars to create a seamless and frame-free structure. Fine-tuning the thickness of each bar to the millimeter has achieved both a stylish look and the high-level cooling performance needed for a twin-turbo engine. The side radiator grilles also have large openings for ensuring cooling performance and a shape that provides a high-level rectifying effect, achieving styling for the LX that is rooted in function.

- For the headlamps, the L-shaped clearance lamps (with daytime running lamp function) have evolved into a three-dimensional shape, and their inner lenses have been doubled, with each having a different level to give a sense of depth and change depending on the viewing angle.

Lexus LX Exterior Color Sonic Titanium (Prototype)

<REFINED SIDE AND REAR VIEWS THAT ASSERT A SENSE OF MASS>

- The sides express a strong sense of unity and mass, with a thick, horizontal torso that starts at the front and runs through to the rear, quarter pillars that narrow from the roof to the back window, and a flow from the underside of the vehicle that runs up from the lower edge of the rocker panels to behind the rear tires.

- Following the NX, the Lexus brand badge placed in the center of the rear has been renewed from the conventional L-shaped logo to the new "LEXUS" logo to symbolize the next generation of Lexus. For the rear combination lamps, tail lamps have been adopted that combine an L-shape and a continuous axial flow from the front to the shoulders and then to the rear silhouette. The styling emphasizes the new LX's lively and sharp design and expresses Lexus consistency.

Lexus LX Exterior Color Sonic Titanium (Prototype)

Lexus LX Exterior Color Sonic Titanium (Prototype)

<22-INCH FORGED ALLOY WHEELS, LEXUS'S LARGEST>

- New 22-inch forged alloy wheels employ the high contrast of black and machined brilliance to emphasize that they are the largest ever offered by Lexus. For the EXECUTIVE grade, a deep three-dimensional effect is expressed by high-gloss paint, giving the tires and wheels a presence appropriate to the vehicle's size.

Lexus LX 22inch Aluminum Wheels Gross (Prototype)

<COCKPIT THAT CREATES A DEEPER DIALOGUE BETWEEN VEHICLE AND DRIVER, FROM ON-ROAD TO OFF-ROAD>

- The Tazuna Concept, a new cockpit concept that allows the driver to connect more intuitively with the vehicle and better concentrate on driving, has been incorporated.

- The longitudinal layout of information displays, from the head-up display positioned toward the road ahead to the gauges, and the use of a 12.3-inch touch display as the navigation screen allow for smooth eye movement while driving.

- Switches for driving systems, such as Multi-Terrain Select, are placed in an easy-to-reach position in the center cluster, while switches for climate control and other functions are functionally organized from an ergonomic perspective and placed under the 7-inch touch display. In addition, the dials, toggle switches, and push switches are varied in their operation methods and shapes to ensure intuitive operability. These features reduce the possibility of the driver pressing the wrong buttons, even during off-road driving, and help the driver select the desired driving mode and adjust the temperature.

- A driving information display system that leads from the road ahead to the head-up display and gauges. The top edge of the 12.3-inch touch display has been positioned horizontally to allow the driver to maintain a sense of balance even when driving on rough roads.

Lexus LX Interior Color "EXECTIVE" Sun Flare (Prototype)

<INTERIOR SPACE THAT PROVIDE A SENSE OF SECURITY AND COMFORT EVEN DURING OFF-ROAD DRIVING>

- To provide a comfortable space that allows the driver to concentrate on driving, the driving space has been given a "moderate sense of envelopment". Specifically, the instrument panel has been given a two-level structure to make it appear thinner, and, in the upper level, the air conditioner vents are overhung to the left and right to create a stronger horizontal tone and a sense of spaciousness. In the lower level, the lower part of the instrument panel is connected to the left and right door assist grips to provide a sense of security that envelops the occupants.

- In the front seat space, assist grips are carefully designed in terms of thickness and angle to provide both ease of posture maintenance during off-road driving and aesthetic beauty that embraces the occupants. Also, soft padding has been placed on the shoulder and lumbar areas of the front door trim to emphasize protection and provide comfort and security for passengers.

- For the front seats, a material with high stability and pressure dispersion is used for the cushion pads to provide excellent hold and ride comfort. Optimized hardness distribution suppresses lateral swaying of the hips and reduces upper body tilt to ensure good holding performance in low g-force situations.

- For the rear seats, while maintaining ease of ingress and egress, the height and cushioning of the side supports have been optimized to improve hold. Soft pads have been placed on the shoulders of the door trim to express a sense of quality and security. The rear door windows are equipped with sunshades, while a black ceramic treatment has been applied between the sunshades and the trim to enhance light shielding and to bring a peaceful space to the rear seats. In addition, the center armrest, which can be used by folding down the center backrest of the rear seat, has been optimized in terms of height from the seat surface, and the cup holders at its edge are easy to use. For ease of vehicle ingress and egress, the center pillar garnish has been made thinner, and the corners of the rear seat cushion have been rounded to make it easier to get one's feet in and out of the cabin. Also, the size and position of the side steps have been designed so that they do not interfere with the vehicle's ability to drive over rough roads while ensuring excellent ease of ingress and egress.

- The third-row seats of the new LX's seven-seat version can be electrically reclined to adjust the cargo space according to the customer's needs. For seat arrangement, Lexus's first Multi-Seat Auto Arrange comes with an auto-arrange switch in the cargo area. Operating the switch moves all the seats, including the front seats, to create a vast cargo space. A "walk-in" function that activates by pressing a switch on the shoulder of the second-row seats electrically folds and raises the second-row seats to make it easier to get in and out of the third-row seats.

ADVANCED SAFETY TECHNOLOGIES AND ENHANCED CONVENIENCE BASED ON A HUMAN-CENTERED APPROACH

<LEXUS'S FIRST FINGERPRINT-AUTHENTICATION PUSH-START SWITCH>

- Fingerprint authentication, a Lexus first, is standard on all models. A fingerprint sensor is installed in the center of the push-start switch. When the driver has the smart key and touches the fingerprint sensor on the push-start switch while pressing the brake, the fingerprint information is checked against the fingerprint information registered in the vehicle. The engine will not start unless the fingerprint information matches.

Fingerpoint Authentication (Prototype)

<MULTIMEDIA SYSTEM DESIGNED FOR ENHANCED CONVENIENCE AND EASE OF OPERATION>

- Displaying content on the driver's side of the screen keeps posture changes and eye movement to a minimum. The system is designed to be intuitive and to provide easy-to-see information so that it can be operated as easily as a familiar smartphone or tablet.

- The system includes a hybrid navigation system that combines a conventional in-vehicle navigation system with a connected navigation system that utilizes cloud-based map information.

- An anti-reflection coating on the display's front glass panel and the use of bonding technology[*1] enable low reflection and a clear screen display.

- The LX offers a state-of-the-art multimedia system that is intuitive and easy to use. A variety of menu selection switches are always displayed as icons on the driver's side for superior accessibility. The layout of the entire screen is divided into display areas according to the granularity of the information, while the operation flow for navigation, music, and vehicle settings is unified for ease of use. For instance, a function that allows front passengers to easily call up frequently used controls has been installed.

- The color and font of the navigation screen can be selected from five different themes according to the user's preference.

- The latest voice-recognition function enables activation by operating the microphone icon on the display or by voice, in addition to activation by operating the talk switch on the steering wheel. By saying a pre-defined activation word or words (e.g., "Hey Lexus!"), the system can be activated by voice recognition without having to operate switches or stop playing music. In addition, the system supports natural speech operation as if you were talking to the car.

- Apple CarPlay[*2] and Android Auto[*3] can be configured to use the exclusive functions of iPhone[*2] and Android[*3] devices on the in-vehicle display. In addition to a conventional USB connection, a wireless connection via Wi-Fi is scheduled to be supported through an OTA software update.

- A new web browser function has been set up that allows users to browse websites (news, blogs, streaming music, YouTube[*3] videos, etc.) through an Internet connection using the vehicle's DCM (Data Communication Module).

- The My Settings function, which allows the user to register personal settings to the vehicle, now supports multimedia settings such as navigation and audio, in addition to the conventional vehicle settings (driving position, illumination, doors, etc.). Users can be identified not only by their smart keys but also by their smartphones. In addition, multimedia settings are stored in a data center and can be used in another vehicle.

- The Lexus Premium Sound System consists of 10 speakers, including a large-capacity subwoofer box, utilizing the bass reflex structure of the rear speakers and the body framework (lower back) to achieve rich and crisp low-frequency reproduction. Meanwhile, the Mark Levinson[*4] Premium Surround Sound System is based on the Mark Levinson[*4] PurePlay concept. Twenty-five speakers, the highest number ever in a Lexus including a large-capacity subwoofer box that utilizes the body frame, are optimally placed to create a distortion-free stage sensation that extends from front to back and left to right. The aim is to achieve a sense of stage and pure, distortion-free sound. Both sound systems also support the playback of high-resolution sound sources (96kHz/24bit), which contain more information than CD sound sources (44.1kHz/16bit).

- Available in the new LX is a new-generation rear entertainment system with an intuitive touch panel that uses glass bonding technology to provide a clear, low-reflective display. The EXECUTIVE grade includes a horizontal tilt mechanism for the screen. The system can be operated from the front display or the rear seat center console panel, contributing to forward visibility for rear-seat passengers.

<LEXUS SAFETY SYSTEM +: ADVANCED PREVENTIVE SAFETY TECHNOLOGIES>

Lexus is advancing the development of safety technologies to eliminate traffic casualties, which is the ultimate wish of a mobility-based society. Based on its belief that it is important to develop world-leading advanced safety technologies as quickly as possible and disseminate them through as many vehicles as possible, Lexus has adopted the Lexus Safety System + for the new LX.

- The performance of the single-lens camera and millimeter-wave radar has been improved to expand the response range of the Pre-Collision System, which is designed to detect daytime bicyclists and pedestrians in low-light conditions and, at intersections, to detect oncoming vehicles before right turns and pedestrians crossing the street from the direction toward which the vehicle was traveling before it started to make a right or left turn. Also featured are functions such as Emergency Steering Assist, which assists steering within the vehicle's lane as cued by the driver, and Low-speed acceleration control, which helps prevent accidents at low speeds, have been added.

- AI technology has been applied to expand the range of support provided by the lane-recognition functions of Lane Tracing Assist (LTA), which is an advanced driving support function that supports steering to keep the vehicle in the center of the lane, resulting in smoother and less disruptive steering assist.

- Dynamic Radar Cruise Control (with an all-tracking function), which controls acceleration and deceleration to maintain a constant distance from an immediately preceding vehicle within the limit of the set speed when driving on motor-vehicle-only roadways and others, has been enhanced by the addition of a curve speed control function that decelerates the vehicle in advance according to the size of an approaching curve.

- Road Sign Assist (RSA) uses a camera to capture major road signs and displays them on the vehicle's multi-information display.

- BladeScan™*5 AHS (Adaptive High Beam) System is used again on a Lexus. BladeScan™ AHS is an advanced AHS in which LED-sourced light shines onto blade mirrors spinning at high speed and is transferred to a lens to illuminate the road ahead. A residual image effect prevents the light from appearing to be moving, and BladeScan™ AHS precisely controls light distribution by synchronizing the rotation of the blade mirrors and switching the LED lights on and off. Capable of more-delicate shielding of light than in the case of conventional AHS, it broadens the range of high beam illumination, enabling the driver to recognize pedestrians and road signs without impeding the visibility of the proceeding driver or drivers approaching from the opposite direction.

*1 A technology that fills in the gaps between a glass panel and a liquid crystal display and then attaches them. It minimizes the refractive index of light and reduces screen glare.

*2 Apple, Apple CarPlay, and iPhone are trademarks of Apple Inc. The iPhone trademark is used under license from Aiphone Co., Ltd.

*3 Android™, Android Auto™, and YouTube are registered trademarks of Google LLC.

*4 Mark Levinson is a trademark of Harman International Industries, Inc.

*5 BladeScan™ is a trademark of Koito Manufacturing Co., Ltd.

SUSTAINABLE DEVELOPMENT GOALS

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SDGs Initiatives: https://globaltoyota/en/sustainability/sdgs/

SDGs goals that this project makes particular contribution to: