

Toyota Provides Immersive Experience into the Woven City at CES 2020

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LAS VEGAS (January 7, 2020) – Toyota is launching a major initiative to accelerate the way society will live, work and play in the interconnected and smart cities of the future. At CES 2020, Toyota is providing a glimpse into this future via a 360-degree immersive experience of the “Woven City” along with a variety of advanced mobility vehicles and products. As part of its transition from a transportation company to a mobility company, Toyota has announced its intent to build the Woven City, at a 175-acre site at the base of Mt. Fuji in Japan. In addition to the featured display, Toyota is showcasing two additional technology offerings. The first, Toyota AI Ventures, which is Toyota’s US-based venture capital firm, is issuing a “Call for Innovation” for startups to apply for funding. The second is Toyota IP Solutions, a new patent licensing program, that offers access to Toyota’s impressive array of intellectual properties in a variety of areas, including: bio-active materials, nanoparticle processing, multi-dimensional paints and electronics thermal management.

Overview of Woven City

Visitors to the Toyota display walk into a circular theater and are immediately immersed into what life will be like in Woven City when it is completed. Viewers will see striking visuals of a living and working environment that embraces and interweaves both nature and technology. Automated technology moves freely and safely

throughout the city and serves to liberate the residents from basic tasks. The city is planned to be fully sustainable, with buildings made mostly of wood to help minimize the carbon footprint and using traditional Japanese wood joinery, combined with robotic production methods. The rooftops will be covered in photovoltaic panels to generate solar power in addition to power generated by hydrogen fuel cells. Toyota plans to weave in the outdoors throughout the city, with native vegetation and hydroponics.

Overview of Mobility Products

The Toyota display includes examples of the types of mobility products that may be found throughout Woven City. They include: e-Palette, Micro-Palette, LQ, Walking Area BEVs and HSR.

e-Palette

- Toyota's first battery electric vehicle developed specifically for Mobility as a Service (MaaS) applications. The vehicle will feature automated driving capability. In addition, it offers a low-floor and open concept interior, providing endless configuration options.

Micro-Palette

- Autonomous delivery robot that utilizes omni-directional wheels for maximum maneuverability. It is intended to be a multi-use device for product and package handling. It allows for truck to doorstep delivery, warehouse inventory movement, building-to-building transport of goods and neighborhood delivery of products.

LQ

- A next-generation, battery electric advanced technology concept vehicle with automated level 4 SAE driving capability
- Features a new artificial intelligence system called "Yui" that learns from the driver and provides a personalized mobility experience based on driving preferences and tastes

Walking Area BEVs

- Three types for different applications: standing BEV, sitting BEV and wheelchair-link BEV
- Standing BEV allows for travel along pedestrian pathways supporting short trips and last-mile needs.
- The sitting-type and wheelchair-link personal mobility devices are designed for those who have difficulty walking and those in wheelchairs

HSR

- Robot designed to support basic needs. It uses automated functionality and AI technology to learn surrounding environments and to recognize objects and avoid obstacles. It has voice control capability to allow for simple commands.

Overview of TAIIV Call to Action and Display

The Toyota AI Ventures team is on-site to launch a global "call for innovation" today at CES 2020 to find and fund early-stage startups building solutions for smart and connected cities. The call invites qualified entrepreneurs from around the world to apply for an opportunity to receive between \$500,000 and \$2 million in funding from Toyota AI Ventures.

Toyota AI Ventures' exhibit will also feature three of its portfolio companies:

Intuition Robotics, May Mobility, and Perceptive Automata.

Overview of Toyota IP Solutions and Display

The IP Solutions team is showcasing their new program to license its Intellectual Property to interested parties. The program helps promote and serves as an access point for the licensing of patents to US and global companies. Toyota has extensive research and development programs that have amassed a wide scope of patents. Interested parties can benefit from Toyota's development investment averaging over \$1 million per hour, every hour, daily.