CES17 Demo Descriptions:

AUTOMATED DRIVING

Automated Driving Multimedia Experience
Discover how Intel is accelerating automated driving solutions in this multimedia experiential demonstration. Three transparent OLED displays surrounding a BMW* i8 will take attendees through key aspects of Intel's scalable platform that spans from car to cloud: in-vehicle computing, connectivity/5G, and cloud data centers. Then get immersive – put on a Microsoft* HoloLens headset and take an augmented reality trip deeper into the experience, both outside and inside the BMW i8.

- 5G – Intel's 5G technologies will enable vehicle-to-vehicle (V2V) and vehicle-to-everything (V2X) communication as well as to the cloud. Intel delivers both the network and data center technologies sophisticated enough to meet the demands of automated driving and is advancing end-to-end solutions that will integrate intelligence across the network.
- AI – Using Intel's deep learning assets, autonomous cars can learn from data and the experience of millions of cars, resulting in fewer accidents and safer roads, more enjoyable commutes, and reduced congestion in the world's most polluted cities.

SPORTS

Sports Human Performance and Analytics
Basketball: Watch the talent or get in the game. Using Intel® Curie™ modules placed on professional dunkers and general attendees, real-time analytics turn data captured during dunking and skills challenges into actionable intelligence.

Baseball: Watch the pro or step up to the plate. Using both the Intel® Quark™ SoC and the Majestic* Swing IQ powered by Intel technology, capture body kinetics (wrist speed, shoulder speed, hip speed) that can improve batting performance. When also using Intel's Saffron Natural Intelligence Platform™, a cognitive computing platform that enables accuracy in decision-making by combining brain-like capabilities with the power of computing, attendees can see how similar their swing is to professional players.
   [Baseball Player = Brock Stassi, first baseman for the Lehigh Valley Iron Pigs AAA team]

Immersive Sports Experience
Cameras from VOKE, an Intel company and a leader in live event virtual reality, will capture amazing feats from both basketball and baseball experiences, deliver a VR experience to captivated fan-attendees, and provide content sharable over social media. The VOKE

experience is multiplatform – PC, tablet, phone or VR headset. Experience it at CES on a 7th Gen Intel® Core™ processor-based system.

5G Live Over-the-Air Demo with Ericsson*
Action captured on court using VOKE will be transmitted over the air via pre-standard 5G technology and viewable using a VR headset in the adjacent Ericsson booth.

- 5G – Such immersive experiences are placing unprecedented demands on wireless networks. Intel is transforming both the wireless networks and infrastructure to lay the path to 5G, which will dramatically enhance real-time content delivery and provide fans uninterrupted broadband, even in crowded stadiums
- AI – Intel's Saffron Natural Intelligence Platform, a cognitive computing platform that learns in real time and uses knowledge from its memory to analyze current situations, has accuracy in decision-making by combining brain-like capabilities with the power of computing to compare an attendee's swing to a pro's swing.
- Compute – Immersive experiences powered by VOKE VR cameras and Intel data center technologies transport viewers from their couches to the stadium. These experiences rely on Intel® Xeon® processor-based high-performance and power-efficient computing platforms with integrated Intel® Iris™ Pro graphics for graphics-intensive applications and Intel® Quick Sync video for hardware-enhanced transcoding.

eSPORTS

eSports with a Professional Gamer
Team up to take on a pro from the CLG Red Team. Three against one in Counter Strike mini tournaments using a notebook and desktops based on 7th Gen Intel Core processor-based systems from Alienware*, HP*, iBuyPower* and Gigabyte*. Or, watch the action via a large monitor showcasing each of the four players on a split screen.

eSports Entertainment in 360-Degree and VR
SLIVER.tv* is a platform to record, view and stream eSports games in fully immersive, 360-degree cinematic VR video. The technology immerses the audience inside the 3D game world. Using an Oculus* Rift head-mounted-display (HMD) connected to a 7th Gen Intel Core processor-based system, watch immersive highlights from Intel® Extreme Masters in an exciting new way.

FITNESS

Oakley* Radar Pace engineered with Intel Innovation
Radar Pace is a voice-activated, real-time coaching system in smart eyewear, designed by Oakley and engineered with Intel innovation to help track and interpret key data from your

work out, help coach you to maximum performance in the moment, and dynamically respond in real-time to your questions.

New Balance* RunIQ with Intel Inside®
New Balance RunIQ with Intel Inside is an innovative collaboration between two iconic brands, both obsessed with performance, that came together to create a tool like no other that is the perfect combination of a sports watch and something to wear for the rest of your day. Intel Inside technology delivers optimized performance for an amazing watch experience.

VIRTUAL/ MERGED REALITY

Mobile VR
Watching a stunning VR video and learn how Intel is poised to drive the evolution and expansion of virtual experiences.

Mainstream VR
Intel's newly launched 7th Gen Intel Core processor-based desktop and mobile performance platforms deliver real, tangible benefits to the VR experience – especially in areas such as physics, artificial intelligence and sound processing for content creation. Immerse yourself in some of the most cutting-edge gaming, educational and cinematic experiences available today.
- **Arizona Sunshine** (gaming): Experience a unique four-player concurrent mode battling zombies across various Las Vegas landmarks
- **Smithsonian** (educational): Step into one of the world's most famous museums
- **Fistful of Stars** (cinematic): Travel through space and time with access to the Hubbell Space Telescope

Merged Reality with Project Alloy[1]
Project Alloy is a performance-based, all-in-one head-mounted display that uses Intel's VR-optimized Intel® RealSense™ technology to merge physical, real-life movement and environments with simulated virtual objects, environments and actions.

Intel® WiGig mmWave on the Path to 5G
Intel WiGig is a wireless technology that replaces wired connections between your PC and devices. It enables a completely wire-free experience for multiple head-mounted displays with desktop-level performance.

Holographic 6DOF Video
Interact with video that has holographic 6DOF. Preview the technology here: HYPEVR

- 5G – Soon, Intel-powered next-gen 5G networks will deliver the ultra-responsiveness, superfast speeds needed for untethered or mobile VR experiences by delivering innovations in the radio, the network and the cloud.

SMART HOME

Smart and Connected Home

A smart home is perceptive, responsive and autonomous, and can ease running a home, enrich daily life and provide peace of mind. Explore use cases made possible by Intel technology and iconic partnerships including making the home smarter and more secure with McAfee, easing home networking with Comcast*, and adding voice control personal assistance with the new Lenovo* Smart speaker and the Intel smart speaker reference design.

- 5G – In the future, Intel-powered 5G networks will deliver faster speeds and greater capacity to deliver wireless broadband to the home enabling faster, fuller coverage in home Wi-Fi, increased security and easy home automation.

360-DEGREE 4K CONTENT

Live 360-Degree 4K Content Creation and Consumption

Experience how consumer cameras and Intel compute enable live 4K 360-degree streaming. With Voysys* VR Producer, you can stitch a 4K 360-degree video on an Intel® NUC computer with Intel® Core™ i7 processors and Intel Iris Pro graphics. The real-time, depth-based stitching result can either be broadcasted live directly or sent to a central computer, also running Voysys VR Producer, allowing you to switch between several 360-degree camera positions, and render additional graphics and virtual screens on to the spherical video before being broadcasted live.

Live 360-Degree VR Broadcast

Spherical 4K video is captured by the Nokia* Ozo camera, stitched and streamed live to YouTube* for a 360-degree VR broadcast using the power of Intel data center technology with the latest Intel Xeon processors.

- 5G – Soon, Intel-powered next-gen 5G networks will deliver the ultra-responsiveness, superfast speeds needed for live 360-degree 4K content based experiences by delivering innovations in the radio, the network and the cloud.

AUGMENTED REALITY

DAQRI* Smart Glasses: Augmented Reality

DAQRI's tools enhance human capabilities. Its enterprise-grade computer vision combines with software-defined light breakthroughs to make powerful augmented reality platforms. The DAQRI Smart Glasses, a wearable device for industrial applications built on a 6th Generation

Intel Core processor platform, superimposes instructions over a worker's field of vision. Wearing the glasses, attendees will complete a timed, reactor calibration sequence using instructions in augmented reality.

- 5G – In the future, Intel-powered next-gen 5G networks will deliver the ultra-responsiveness, superfast speeds required for mobile experiences by delivering innovations in the radio, the network and the cloud.

ARTIFICIAL INTELLIGENCE

Create Art Using Artificial Intelligence
Pikazo* is a universal art machine that uses neural style transfer algorithms, Intel Xeon processing and machine learning to paint any image in the style of any other, producing sometimes-beautiful, sometimes-funny, always-surprising artworks. Make your photo a piece of art and share on social media

- AI – Used in this demonstration in a very creative way, artificial intelligence (AI) is the next big wave of computing and is poised to usher in a better world. Intel is uniquely positioned to drive the AI computing era. Today, Intel processors are used in 97 percent of servers deployed to support machine learning workloads, and we are continually improving our comprehensive technology portfolio to take AI to the next level.

[1] This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained.

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