
Press Release

Seeing Machines Announces Next Gen Embedded Product Strategy for Automotive DMS Market

CANBERRA – 2 September 2020 – Seeing Machines, the advanced computer vision technology company that designs AI-powered operator monitoring systems to improve transport safety, is pleased to announce its next generation ‘**Embedded Product Strategy**’ for the automotive market.

Highlights summary

- New “three pillar” strategy targets rapidly expanding camera-based interior monitoring market:
 - First pillar: FOVIO Chip, newly advanced with the introduction of Seeing Machines’ Occula™ Neural Processing Unit
 - Second pillar: A low-friction integration pathway into any vehicle integration point, including smart-mirrors, instrument clusters, infotainment ECUs or centralized ADAS processing systems
 - Third pillar: Occula™ is now available for license, in ASIC form, to world-leading semiconductor companies for integration with any automotive compute platform.

Representing a step-change in its delivery of Driver Monitoring System (DMS) technology to automotive Tier 1 suppliers and OEMs, Seeing Machines has unveiled an expanded strategy and product portfolio incorporating its next generation embedded processing pipeline technology. The enhanced “three pillar” offering targets the rapidly expanding camera-based interior monitoring market, extending cost, scalability and integration benefits for carmakers as well as safety and convenience for their customers.

Seeing Machines continues to grow as an automotive leader in DMS technology, now in tie-ups with six OEMs globally, across nine ongoing programs over an expanding range of vehicle models. The Seeing Machines FOVIO Chip (delivered in partnership with Xilinx) remains the highest performing, lowest cost market solution for standalone DMS vehicle integration and now represents nearly one-third of Seeing Machines booked business, and is projected to grow to approximately one half in response to Euro NCAP requirements.

OEMs today are faced with a maze of electronics, software and sensor integration options for interior monitoring systems. Coupled with market dynamics such as regulation and Euro NCAP requirements for safety (which are now driving rapid adoption and mass market penetration), the Embedded Product Strategy has been designed to support a very wide range of common integration, cost, and safety performance challenges, with the flexibility to support the unexpected.

The first pillar of the Seeing Machines strategy remains the FOVIO Chip. However, the performance of the device is newly enhanced with the introduction of Seeing Machines’ Occula™ Neural Processing Unit (“Occula™”):

- Occula™ is a custom processing design that accelerates Seeing Machines’ unique algorithmic approach to the problem of human detection and tracking, placing the Company’s technology at the “deep edge”



- Occula™ delivers a breakthrough in silicon utilization when executing Seeing Machines' highly mature driver monitoring algorithms, reducing the computational load of the FOVIO chip by over 50% while delivering the same functionality and signal performance
- Occula™ adds general-purpose acceleration capabilities required for future AI-based computer vision needs. Seeing Machines' customers will also be delighted to know that, since the FOVIO Chip utilizes FPGA technology, Occula™ is a fully field upgradable offering
- Occula™ makes way for new driver and interior monitoring features on existing FOVIO chips, further extending Seeing Machines' feature, performance, and cost leadership.

The second pillar of the embedded product strategy offers a low-friction integration pathway for the Company's driver and interior monitoring technology into any vehicle integration point, including smart-mirrors, instrument clusters, infotainment ECUs or centralized ADAS processing systems:

- This pathway is efficiently enabled via the introduction of Seeing Machines' embedded Driver Monitoring Engine (e-DME). The e-DME is the Company's core driver monitoring algorithm stack supporting both accelerated and non-accelerated compute options, over a very wide range of popular automotive compute platforms
- The e-DME includes versions which are deeply optimized and embedded for key automotive SoC platforms, leveraging the different state-of-the-art AI vision acceleration architectures in those devices.

As a third strategic pillar, Occula™ is now available for license, in ASIC form, to world-leading semiconductor companies for integration with any automotive compute platform that would benefit from world leading, highly optimized, "deep edge" driver and/or interior monitoring.

Paul McGlone, CEO of Seeing Machines commented: *"It's an exciting time in the Automotive industry and I'm delighted to be announcing our detailed technology strategy, which has been constructed to closely support OEMs as they design cars to meet mounting safety standards and deliver convenience features for their customers."*

"Seeing Machines has been leading this market for many years now and our three pillar approach is no accident. We have leveraged our teams' years of experience, deep knowledge of industry requirements, and close customer relationships to support the many and varied requirements for DMS integration into cars as demand continues to accelerate around the world."

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About Seeing Machines (LSE: SEE)

Seeing Machines Ltd., is an industry leader in vision-based monitoring technology that enable machines to see, understand and assist people. Seeing Machines' technology portfolio of AI algorithms, embedded processing and optics, power products that need to deliver reliable real-time understanding of vehicle operators. The technology spans the critical measurement of where a driver is looking, through to classification of their cognitive state as it applies to accident risk. Reliable "driver state" measurement is the end-goal of Driver Monitoring Systems (DMS) technology. Seeing Machines develops DMS technology to drive safety for Automotive, Commercial Fleet, Off-road and Aviation.



Founded in 2000 and headquartered in Australia, the Company has offices in Australia, USA, Europe and Asia, and supplies technology solutions and services to industry leaders in each market vertical.
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