



SOL-X INTRODUCES ATEX CERTIFIED SMARTWATCH CUSTOM BUILT FOR SAFETY OPERATIONS AND MANAGING WELLBEING

~ One of world's first industrial smartwatches certified for use in Zone 1 hazardous work environments with custom built safety applications

Singapore, 30 August 2021 - Seafarers face multiple risks to their health and wellbeing, which can affect safety, performance, and livelihoods. According to the European Maritime Safety Agency (EMSA) 2019 annual overview of maritime casualties and incidents study, 66% of incidents are caused by “human factors”, with crew fatigue and lack of situational awareness being major contributing causes.

Integrated with the SAFEVUE.ai⁽¹⁾ platform, the SOL-X ATEX Certified SmartWatch transforms operations by extending safety and health intelligence to the edge. It enables connected wellbeing programs, provides real time⁽²⁾ visibility to front line crew operations, and enhances crew situational awareness vessel wide. The SOL-X SmartWatch is ATEX Zone 1 Certified for use in hazardous environments.

“The SOL-X SmartWatch was developed with seafarers in mind. Our team of maritime and safety experts saw a clear need to use technology to operationalize behavior-based health and safety principles at scale,” said Nigel Koh, Chief Executive Officer of SOL-X. “Seafarers are now empowered to take ownership of health and safety outcomes, while the shore teams can gain assurance of the right job being done by the right person, at the right place and at the right time”.

Below are key health and safety areas of focus for the SOL-X SmartWatch Crew Fatigue and Situational Awareness:

Crew Fatigue

- **Pro-Active Workload Management**

Working hours act as an important data point in managing crew fatigue, however it can be difficult for crew and supervisors to keep track of these accurately with current systems. The Workload Management feature enables crew to track their Work Rest hours conveniently and accurately from their wrist. More importantly, this data is aggregated for supervisors on the SAFEVUE.ai vessel dashboard, along with proactive alerts when crew need to rest and indicating those who are available to replace them.

⁽¹⁾SAFEVUE.ai is an industry leading Behavioural Based Safety 4.0 system, centered around human factors. It combines enhanced Control Of Work with a holistic approach to Crew Wellbeing, enabled by IIoT and analytics. Our integrated hardware and software solution was designed by our internal maritime experts to meet the unique requirements of high hazard environments.

⁽²⁾Near real time, subject to ship connectivity



The wellness information captured on the SmartWatch can also help monitor compliance with corporate HSE policies and measure effectiveness. Crew activity data is aggregated (and anonymized) and can be used to baseline and then compared across vessels for the purpose of HSE program design or reviews.

- **Heat Stress Management**

Vessel environment may expose crew to high heat working conditions, resulting in heat stress. Heat stress can lead to impaired judgements, health injuries and is a contributing factor to crew fatigue. SOL-X SmartWatch records temperature and humidity of the individual's surrounding area and these measurements are mapped against Heat Index tables. If a crew member is deemed to be exposed to a dangerous level of heat over a sustained period, the individual is alerted to take necessary steps to mitigate potential heat induced injuries.

- **Heart Rate and Fitness Monitoring**

SOL-X SmartWatch empowers crew with real time⁽²⁾ wellbeing information, which they can use to manage their broader health and fatigue levels. Based on industry health standards, if their heart rate measurements are detected as being high, proactive alerts will notify workers to hydrate and rest as needed; and if feeling unwell, the crew is advised further to seek proper medical advice. There is also a fitness tracker feature in the SmartWatch to track daily step goals and promote healthy living. This data can be used to more effectively measure and track efficacy of Corporate Wellness programs.

Situational Awareness

- **Geofence High Hazard Zones**

From their SmartWatch, every crew member now has live access to information about their working environment, helping them to manage potential exposure risks. When approaching hazardous zones, crew will receive GeoFence alerts, warning them of hazardous work being performed. Similarly, when they are working in a high heat environment for extended periods, they will be proactively alerted to hydrate and take preventive actions.

- **Crew Assist and Location Tracking (in Lone Work Situations)**

When crew encounters difficulties, they can use their SmartWatch to request remote assistance. SAFEVUE.ai will automatically include their current location and job context to accelerate response times. This information is particularly important in lone worker situations when it can be difficult to locate crew.

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The SmartWatches have been equipped with custom designed hardware to withstand harsh industrial work zones - its industrial grade 1.78" touch screen, IP67 Waterproof rating and extended battery life⁽³⁾ enable crew to remain connected across the vessel. With its combination of personal and environmental sensors, the SmartWatch delivers the real time⁽²⁾ stream of wellness information that help manage their wellbeing and fatigue.

For more details, please refer to the appendix for technical data.

Note: Stay tuned for more features to come

About SOL-X

SOL-X is a leading Behavioral Based Safety company centered on human factors. Combining deep maritime knowledge with Industrial Internet of Things capabilities and predictive Artificial Intelligence, our focus is on improving safety and compliance outcomes, increasing operational productivity, and enhancing Crew Wellbeing. SAFEVUE.ai is an industry leading Behavioral Based Safety system that combines an enhanced Control Of Work with a holistic approach to Crew Wellbeing - improving worker health and safety culture.

For more information, please visit <https://sol-x.co>

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⁽³⁾ Subject to ship environment conditions



Appendix

Technical Data	
Certification	<ul style="list-style-type: none"> ▪ ATEX certified, II 2G Ex ib IIC T4 Gb, Zone 1 ▪ Radio, EMC, Safety: FCC/CE
Operating system	Android 8.1 Oreo™
Processor	Qualcomm Quad Core 1.1GHz
Memory	1GB LPDDR3, 8GB eMMC
Display	<ul style="list-style-type: none"> ▪ 1.78" AMOLED Screen ▪ Touch Panel Corning Gorilla Glass
Sensors	Accelerometer, Gyroscope, Magnetometer, Heart Rate Measurement, Temperature and Humidity Sensors
Dimensions and weight	<ul style="list-style-type: none"> ▪ 59mm x 49mm x 19.5mm ▪ Wristband: 245mm (length) x 20mm (width) ▪ 85g
Operating Environment	<ul style="list-style-type: none"> ▪ Ambient Temperature: -20°C to +60°C ▪ Relative Humidity: 5% to 95% (non-condensing)
Connectivity	<ul style="list-style-type: none"> ▪ Wi-Fi 802.11b/g/n ▪ Bluetooth® 5.1 LE & Bluetooth® 4.2
Power	Lithium-ion battery 3.7 V / 850 mAh