

AR Assisted Support for Manufacturing Operations

A COVID-19 Imperative



About The Solution

As the current pandemic forces businesses to deploy lower resources than usual and enforce social distancing at workplaces, organizations are finding it increasingly difficult to maintain business as usual (BAU). As a result, productivity and efficiency are taking a massive hit in these unprecedented times.

The AR (Augmented Reality) assisted remote maintenance and support enables your manufacturing operations to run efficiently amidst the COVID-19 crisis. This solution bridges the gap between the minimal field workforce requirements and remote expertise/technicians through user data enriched with real-time behavioral, eye tracking, and gesture tracking features. Most importantly, the solution ensures workforce safety with AR assisted in-situ training, support and troubleshooting of floor equipment.

Features



Remote mentor: Real time expert guidance to the field technician on the asset site



Guided operations: Step by step instruction to resolve any technical issue at asset location



Digitization of content: Access to digital documentation and information on required tools to fix the problems at right time



Access to repository of training videos to enable the technician prior to visiting the site



Hands-free, zero contact device with intuitive navigation and voice-enabled application



Real-time sensor/IoT data visualization of OT asset parameters



Up to 25% less time required to assemble a complex machinery with higher accuracy



Up to 25% overall productivity gains by organization due to digital assistant alone

Benefits



Minimal physical contact: Minimal and only critical deployment of workforce enabling compliance with social distancing norms, while ensuring that productivity is not hampered



Enhanced safety: Real-time sensor data such as temperature, pressure, and rotation speed can be rendered on AR devices



Reduction in service cost by 35-60%



High first time success rate and improved efficiency of service operations



Workforce optimization: Reduced field workforce requirement



Reduction in workforce training costs, error rates, downtime, unplanned maintenance/repair

Use Cases

● AR assisted remote assistance

1 Field engineer points the AR device to the conveyor motor and VFD where faulty indicators can be marked



2 Remote maintenance expert visualizes the same on his AR device and can mark faulty areas on his device



3 Both remote expert and field engineer collaborate to address the issue in real-time



● AR assisted monitoring, maintenance and installation support

1 Field engineer points the AR device to the conveyor motor, as a part of regular Preventive Maintenance check



2 Critical stats required for product maintenance activity is visible on his screen



3 Parameters off the recommended limit are highlighted on the screen



● AR assisted training and work instructions

1 A new field engineer on the conveyor points AR device to the conveyor to visualize live feed of the work instructions on his display



2 The interactive instructions are used to go through the assembly process and get an in-situ training experience, without the need of an instructor in person



3 He moves to subsequent stations with different markers and get relevant work instructions

