

# AR-Assisted Remote Support for Field Services

A COVID-19 Imperative | Aerospace & Defense



## About The Solution

COVID-19 impact has been felt hardest by aircraft carriers and OEMs, as international travel remains suspended and most flights remain grounded. As businesses globally begin their transition into a post-COVID world, travel restrictions will lift, and aircraft carriers will begin making their flights operational. This will require OEMs to rapidly make their MRO services operational as they continue their operations with reduced deployed workforce and lower operational costs. While organizations will look to cut down on training and travel costs of workforce, they will have to ensure high fix-rates and optimized operational costs.

The **AR-assisted Remote Support for Field Services solution** by IoT WoRKS™ enables 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. It ensures workforce safety with AR assisted in-situ training, support and rapid troubleshooting of site 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

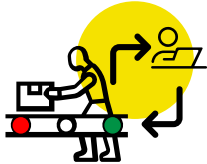


**Reduction in workforce training costs,** error rates, downtime, unplanned maintenance/repair

## 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

