

## Airplane MRO Industry Safety

By leveraging advanced sensors and real-time algorithms, significantly reduces collision risks between large equipment and aircraft structures, ensuring personnel safety and asset integrity.

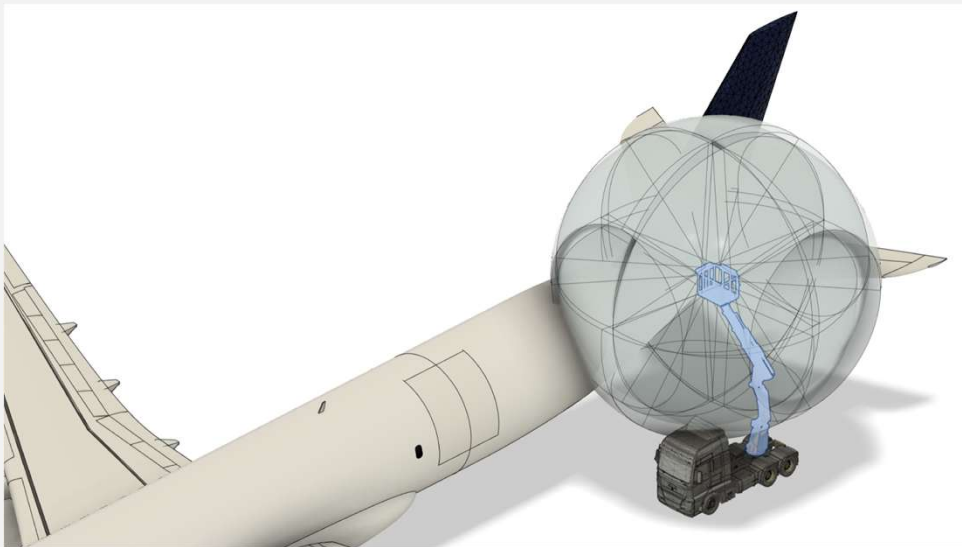
- Millimeter-level real-time detection
- 90%+ collision risk reduction
- Certified & Proven in MRO Industry

## Background

- Aviation maintenance services Industry operates various large-scale equipment daily (aerial working platforms, bay bridges, etc.)
- The risk of collisions between equipment and aircraft persists, potentially leading to costly structural damage, downtime losses, and even safety incidents.
- We developed three customized intelligent anti-collision systems tailored for three typical scenarios, significantly enhancing operational safety and efficiency.



## Project1: Aerial Working Platform Anti-Collision



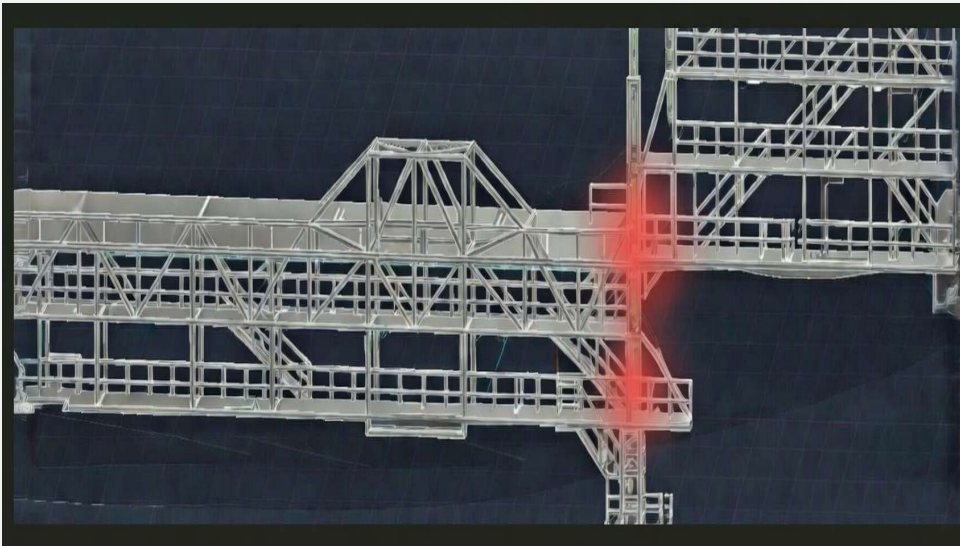
- Scenario Challenge: Aerial work platforms operating near aircraft components face confined spaces, where blind spots may cause collisions.
- Solution: Multiple LiDARs are deployed for 360° perception; AI algorithms calculate the distance between platform to aircraft in real time, enabling warning and braking via the control system.
- Value: Improves operational efficiency by enabling safer, more confident maneuvering in confined spaces, shortening maintenance turnaround time.

## Project2: Bay Bridges Anti-Collision(Fuselage Bridge & Aircraft Wing)

- Scenario Challenge: When Fuselage Bridge operates near aircraft wings, lifting and traversing may lead to collisions.
- Solution: Single LiDAR covers the wing and the bridge, performs 3D modeling and calculates the minimum distance; Multi-level warnings (lights, alarms) are linked with the bridge control system for emergency stop.
- Value: Multi-aircraft auto-adaptation(B787, A330, A350, etc.); Enhance confidence and efficiency in bridge operations, reducing aircraft turnaround time.

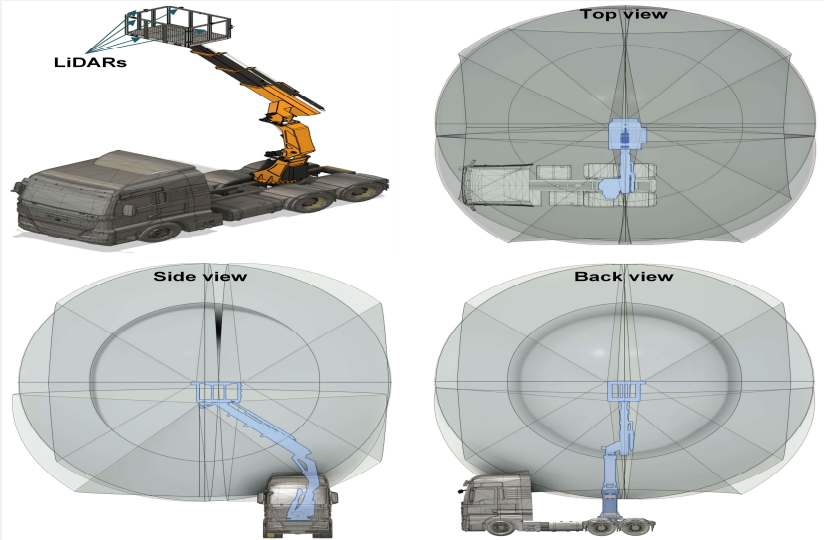


## Project3: Bay Bridges Anti-Collision(Fuselage Bridge & Tail Bridge)

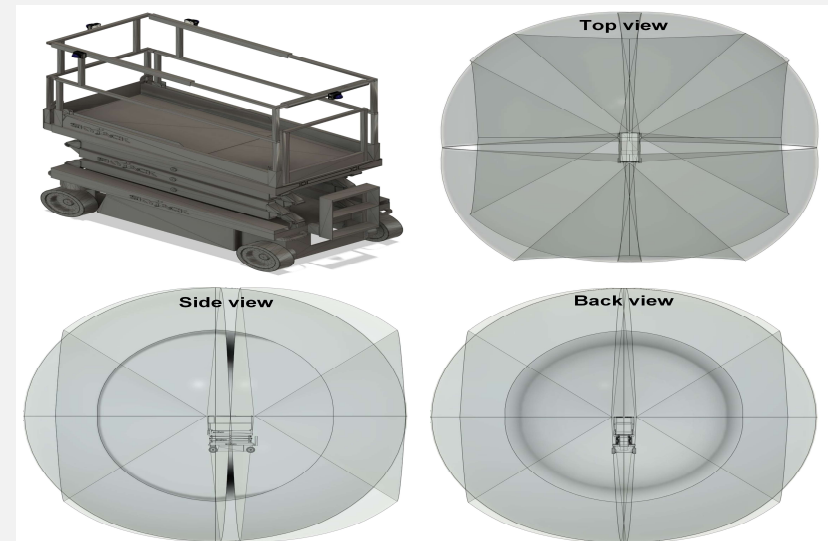


- Scenario Challenge: The Fuselage Bridge and Tail Bridge are highly prone to collisions due to manual observation.
- Solution: Multiple array LiDARs are deployed for precise positioning. Multi-level warnings (lights, alarms) are linked with the bridge control system for emergency stop..
- Value: Zero-contact secure docking; Enhance bridge mobility and positioning efficiency.

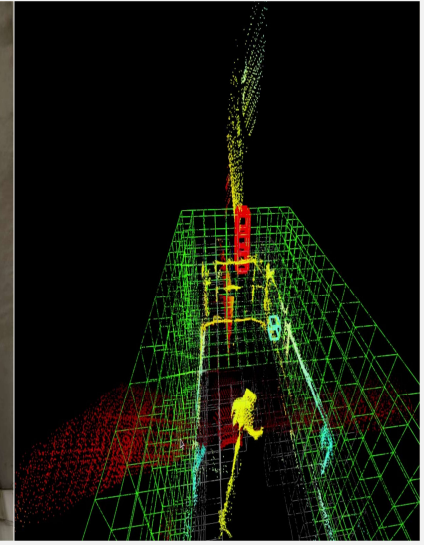
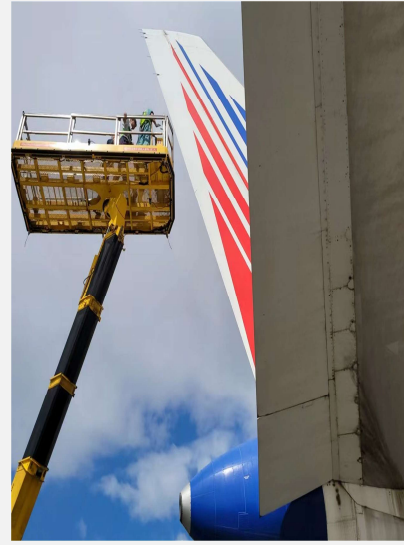
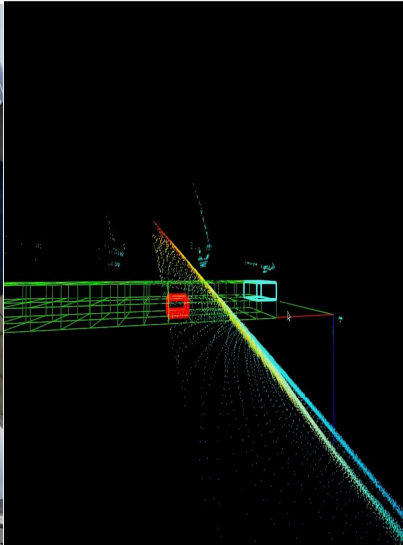
# Proven in Live Operations



## Proven in Live Operations



## Proven in Live Operations



## Proven in Live Operations

