



# Enhancing Construction Site Safety

MODJOUL'S ULTRA-WIDEBAND TECHNOLOGY

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## Modjoul's Crane Safety Initiative

**Construction sites are dynamic environments with inherent risks, especially concerning crane operations.**

One of the most critical safety considerations is the risk of falling objects or the failure of crane masts. Between 2011 and 2017, the US Bureau of Labor and Statistics reported 297 crane-related deaths, averaging 42 fatalities per year over this period.

To address these risks, a comprehensive approach to overhead risk elimination is crucial. This approach includes eliminating or substituting hazards, designing passive systems such as guardrails, mesh netting, and tool canopies, implementing tool restraints like closure systems on transport buckets, and utilizing on and off-body anchoring systems. Additionally, administrative controls such as creating dropped object zones and warning workers about overhead falling object risks are essential.

The constant movement, lifting, and manipulation of materials at construction sites introduce another set of risks. Objects dropped from height can cause severe injuries or fatalities, especially given the weight and nature of construction materials. The movement of materials overhead can destabilize loads, leading to accidents such as collapses or spills.

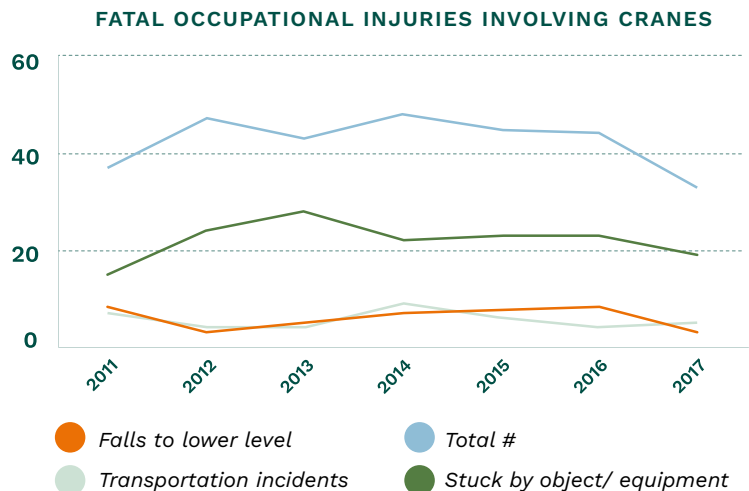
These risks underscore the critical importance of implementing effective safety measures to prevent accidents and protect workers and equipment on construction sites. Modjoul's innovative Crane Safety System, including CraneGuard and wearables, addresses these challenges by enhancing safety and mitigating risks in crane operations.



## Modjoul's Ongoing Commitment to Crane Safety

**Injuries and deaths associated with crane accidents not only have a human cost but also impact business operations.**

According to the Occupational Safety and Health Administration (OSHA), there is an average of 42 deaths per year involving cranes, with an average cost of \$4 million per fatality when considering both direct and indirect costs. Modjoul is dedicated to advancing crane safety standards and providing innovative solutions to mitigate risks. Our commitment extends beyond regulatory compliance to ensuring the safety and well-being of all personnel on construction sites.



# Benefits of Modjoul's CraneGuard Safety System

CraneGuard plays a crucial role in our Crane Safety System as a primary component.



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For individual worker alerts, a wearable device detects the UWB signal emitted from the crane's mast. This wearable delivers real-time alerts to workers, in the form of haptic feedback and audible tones. Notifying them when they are entering hazardous zones with overhead construction risks. To protect a defined area, CraneGuard is strategically positioned around the perimeter of the restricted zone. Equipped with a light and adjustable sounder, the CraneGuard system responds to the mast's UWB signal by activating a high-intensity hazard light and warning sound.

The portability of the CraneGuard system enables easy relocation to different areas on the construction site. By delivering timely alerts to personnel, the CraneGuard system and wearables collaborate seamlessly, effectively preventing accidents related to falling materials or mast heads. This heightened awareness of overhead risks translates to reduced downtime and costs. Discover more about our innovative technology by reaching out to us. Learn how CraneGuard can safeguard your personnel and equipment through cutting-edge safety solutions.

To find out more about how to partner with Modjoul, please contact:

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