

TECHNOLOGY FOR CONSTRUCTION SAFETY



It's no surprise that technology has impacted almost every industry, including construction. However, according to BLS, construction is one of the deadliest occupations, with more than 900 deaths over the past few years. Although, with more companies adopting this technology and improving safety performance metrics, there could be a potential decline in the number of deaths by a significant amount.

Let's take a look at the different tech that is already being used at construction sites to increase safety for workers.



1

WEARABLES

Wearables are any "smart" devices that can be worn. These devices have sensors embedded into them which allows them to collect and transmit data to and from the wearer to the app. The information that is collected is transmitted to a system that collects biometric data, GPS, RFID location and much more.

Some companies have already introduced wearable technology such as smart bands and PPE such as boots and vests. These wearables are all wired with a different technology such as motion sensors, GPS and RTLS (real-time location system) that help to monitor fatigue level of workers, track vitals, alert workers if they are in unsafe environmental conditions, track asset location and alert workers of hazardous areas.



2

DRONES

Drones are unmanned aerial vehicles that are controlled by an onboard computer system or remote control. Over the past few years, the construction industry has seen the largest increase in the use of drones on the job site.

Many companies who have started using drone technology use them to monitor the progress on construction sites, identify problems before they develop, facilitate communication and surveillance, assist search operations and increase the scope of inspections. Since drones are equipped with infrared cameras and radars, it helps in monitoring everything that is going on more quickly and efficiently from up above as opposed to on-ground management.



3

SENSORS

Many construction sites have enabled sensors on construction sites to assist with a number of things to improve efficiency and improve business operations. the use of drones on the job site.

Sensors help to monitor site conditions as they can detect changes in environmental conditions or the presence of toxins that could potentially harm the construction site and its workers. These detection alerts help to improve working conditions and overall construction site performance. The use of sensors on the construction site also helps in enhancing equipment and material management. This is because sensors have the ability to track materials through the supply chain, which allows companies to stay on top of things in real-time. This helps to improve overall business operations.



4

VIRTUAL REALITY (VR)

With the use of VR in the construction industry, there could be an improvement in site and worker safety. Some companies have a virtual reality training program. Through this program, workers are able to interact with the work environment and get heavy equipment safety training before stepping on to an actual construction site.

Ultimately, VR can help in creating 3-D scenarios which helps in reducing training costs, working in a safer environment and the opportunity to experience different scenarios.

These technologies will find their way into all construction sites sooner or later. However, if you are looking to enter a construction site either way, why not do so at Heavy Equipment Colleges of America.

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