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THE ROLE OF DRONES IN MODERN CONSTRUCTION

Drones have become indispensable tools across various sectors of the construction industry, from jobsite surveying and project monitoring to safety inspections and more. To feed the construction workforce pipeline, we must lean into real-world examples of how drones have already led to cost savings and increased safety on construction jobsites. Drone use has also improved accuracy in jobsite assessments, reduced material waste, and provided better monitoring of hazardous areas to protect workers. Companies that use drones for progress monitoring have reported a reduction in project time by up to 20%, according to Aerial Decisions. Drones have also enabled a reduction in workplace accidents ɞ especially those related to falls, which account for 34% of fatalities in the construction industry.

The ability to capture high-resolution aerial images and real-time data has also transformed traditional construction

methods, making processes more ef cient and accurate. For students, this presents a unique opportunity to engage with cutting-edge technology and witness the tangible impact of their work on real-world projects. Moreover, as the construction industry faces an aging workforce ɷ with nearly 40% of workers aged 45-64 and a signi cant portion expected to retire within the next decade ɷ the need to attract younger talent becomes even more critical. Drones offer a way to make

TODAY'S CLASSROOMS, TOMORROW'S CONSTRUCTION

Integrating drone technology into K-12 education offers a promising pathway to address the construction industry's labor shortage. By engaging students with drones, we can showcase the tech-enabled nature of modern construction, solve real-world problems, broaden career horizons, and inspire future innovation.

For those interested in learning more about incorporating drone technology into construction education, several resources are available. The Association for Unmanned Vehicle Systems International (AUVSI) provides guidelines and best practices for using drones in education. Additionally, the Construction Industry Institute (CII) offers resources on workforce development and the integration of technology in construction. Providers can also partner directly with schools and districts to provide drones, accompanying curricula (including construction-related lesson plans), and professional development for educators and administrators.

To effectively address the construction industry's labor shortage and propel its evolution, it is crucial to invest in initiatives that integrate hands-on technology into educational curricula, leverage industry supports, and prepare a future workforce that is well equipped to navigate and thrive in the evolving landscape of construction.

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