

Smart Surveillance Drone – Warehouse Operations

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Abstract: Drones have recently gained in popularity and are now frequently used for a variety of purposes. The majority of commercially available drones are generally non-self-governing and require the assistance of a human operator. However, advances in computer vision and artificial intelligence in general have drastically altered the situation. The growing scale of warehouses, as well as the difficulty in hiring trained workers, rising demand for customer services, and the rise of e-commerce, have heightened the need for warehouse operations to be more efficient through automation. In warehouses, drones may be a feasible alternative to manual inspections and surveillance activities. They can also be used for intralogistics, such as transferring parts from warehouses to assembly lines in factories. Multiple organizations throughout the world have been doing product delivery studies, but the focus of this article will be on the use of drones in warehouses for inventory management, which is gaining traction every day. Inventory management, stock inspection, and visual feedback will be the project's main applications. Manually inspecting the condition of things or confirming the contents of a product is common. The system makes it possible to do so fast and efficiently. The method allows still photographs to be collected for subsequent processing or a live video feed for FPV viewing because the drones are equipped with cameras. The report contains a thorough examination of the done systems and their application in warehouse management.

Keywords: Drones, Logistics, Warehouse, Stock Inspection, Inventory Management, Visual Feedback, Cameras Drones, Logistics, Warehouse, Stock Inspection, Inventory Management, Visual Feedback, Cameras

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