

Corvus

An Advanced, Tilt-Wing, Autonomous, Electric Drone Delivery Vehicle and
Business Model



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Abstract

Unmanned Aerial Vehicles (UAVs) are expanding in prevalence, finding use in daily applications. Moving beyond their introduction as simplistic RC hobby aircraft, UAVs are rapidly being deployed across the civilian and military sectors. A common example of a civilian application is UAV “camera drones.” In contrast, military UAVs fill expanded, versatile roles, to include reconnaissance and kinetic combat applications. These purposes of use often require military UAVs to be much larger than commercial products in order to accommodate duration of flight and equipment requirements. These added specifications thereby make them impractical and/or unfeasible for use within civilian sectors.

The entrepreneurial spirit and push for innovations across civilian markets are creating demands for UAV advancements that accommodate new applications. This demand includes delivery service providers who are particularly interested in using UAVs to expedite and simplify the logistics of delivering goods. To meet the growing call for UAVs to fill newly identified service roles within commercial industries, more robust UAVs, that break free of current miniature hobbyist roles, are required. The pioneering enhancements of quad-rotors and small-scale airframes are integral requirements in fulfilling UAVs promise and use.

The fully autonomous Corvus drone is a UAV design capable of meeting or exceeding the needs of logistics companies in drone package delivery applications. Corvus utilizes a cutting-edge tandem tilt-wing design in order to maximize its performance potential in a variety of situations, including adverse weather conditions. In addition, Corvus is capable of performing two or more consecutive package deliveries, all without any human interaction. Corvus is the solution to a safe, efficient, fast, and reliable autonomous drone delivery system.