

OSD Foreign Comparative Test – Product Template

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Product: Airvinci Drone

Company Name: AirVinci

Country: Canada

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Short Description:

The Airvinci Drone is the most powerful drone for its size. It is 100hp, 6ft diameter, vertical take off and landing (VTOL) Drone. It is remotely piloted and capable of carrying a over 120kg of payload for at least 1 hour. It is highly efficient and safe to operate around personnel and structures. It also has onboard flight stabilization for easy flight control. It also has no tail rotor which adds to the safety and maneuverability.

Technology Readiness Level (fielded, lab tested, operational test): TRL 6. The Airvinci Drone is in developmental prototype stage.

Countries using this product: None

Application: (the so what?)

The Arivinci Drone is specifically designed to highly versatile heavy payload drone. It can autonomously airlift 120kg payloads in and out of danger zones such as combat zones and contaminated areas without endangering the lives of airmen. Its small size makes it ideal to operate in confined spaces such as small vessels for ship to shore operations. Several units can be transported as cargo onboard of a larger aircrafts into the field for multi unit operations.

The protected blades make it capable of low level flying in between light bushes and safe to operate around personnel, antennas and tall structures. The simple design and low number of moving parts reduces maintenance costs. It is VTOL capable which means it can take off and land vertically requiring 8ft diameter from unprepared surfaces.

Science (how it works):

2 x 50hp internal combustion engines provide power to 2 coaxial counter rotating rotors. Control surfaces below the rotors provide stability and directional control. The onboard flight computer provides stability and flight control. The onboard radio transceiver receives commands from the ground station and sends flight status data back. The duct around the rotors improves efficiency increasing flight and reducing fuel consumption.

Data (key tested performance metrics):

Lifting capacity: MTOW 145kg at 50% power

U.S. Partners: None

Previous work with DoD: None

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