

## Design and Manufacturing of Unmanned Aerial Vehicle

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**Abstract:** The use of Unmanned Aerial Vehicles (UAV) has been quite common as part of the military technology. At present UAVs are used in the civil area to obtain aerial photography, cartography, topographic analysis, monitoring borders, monitoring changes temperature, also Civil Engineering and Architecture used to create virtual sketch, monitoring particulates, etc.

For this reason and others the use of unmanned aerial vehicle (UAV) is getting common as its small size can easily replace bulky aerial vehicle such as helicopters and airplanes in performing surveillance missions. However, spacious room is need to store the UAV and the cost for an UAV is relatively high and seldom be owned by normal commercials and industries other than military forces. The purpose of this project is design an unmanned aerial vehicle to low cost manufacturing and detachable.

**Keywords:** Unmanned Aerial Vehicles (UAV), Computer-Aided Design (CAD), Computer-Aided Manufacturing (CAM), Computer-Aided Engineering (CAE), Finite Element Method (FEM), Computational Fluid Dynamics (CFD), Vacuum Assisted Resin Transfer Molding (VARTM)