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## (57) Abstract :

ABSTRACT Drone (Unmanned aerial vehicle) is an electronic device which is remote controlled based aircraft used to achieve vertical flight with stability using KK2.1.5 Flight Controller Board and it can be used for live streaming and also for capturing images using camera and as technology advances increase the performance and reduces the cost of microcontroller so that general public can design their own drone. The main aim of this project is for agricultural spraying (Pesticides, Fertilizers). This drone includes a frame, flight control board, motors, electronic speed controllers, a transmitter, a receiver, a Lithium -Polymer battery and water pump interfaced with the microcontroller. Individual components were tested and verified. The tuning and calibration of the PID controller were done to obtain stabilization on each axis. Currently, the drone can properly stabilize itself. On the quadcopter is attached a temperature and humidity sensor which gives the readings of a particular place. These readings are being sent from the quadcopter to a base station using a server-client concept. For this, a Wi-Fi module, namely ESP8266 has been used. The aim of the project has been achieved, resulting in stable and spraying purposes.

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