

Drone: Future of everything!

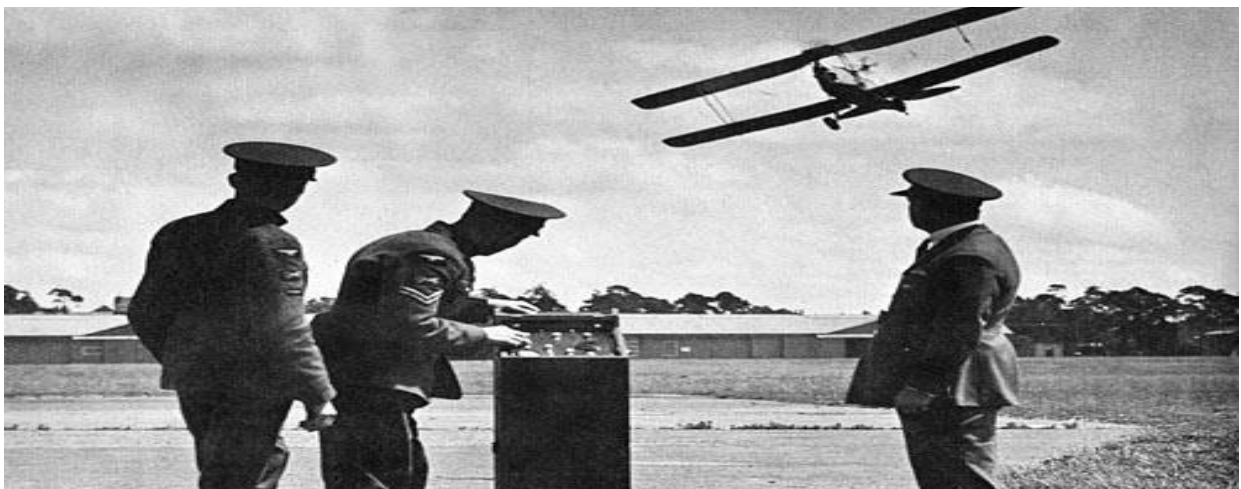
In the 21st century, technology reached a point of sophistication that the UAV- 'Unmanned aerial vehicle' (Drone) is now being given a greatly expanded role in many areas like aviation, surveillance, project monitoring, logistics, agriculture, safety and law enforcement etc. This article seeks to provide basics of drones.



An unmanned aerial vehicle, commonly known as drone and referred to as a remotely piloted vehicle is basically an aircraft that flies without a crew on board. A drone is capable of controlled, sustained level flight and is powered by a jet. A drone is controlled either by on board computers or by the remote pilot on the ground or in another vehicle.

History:

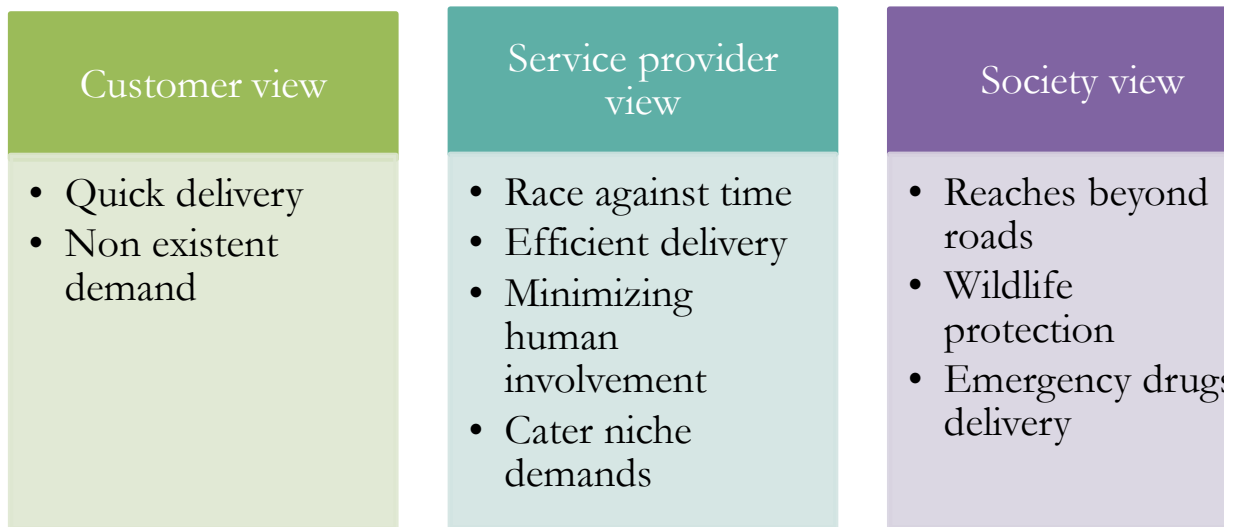
The concept of drone dates back to the mid-1880. The drone we see today started innovation in the early 1990s and was originally used for target practice to train military personnel. The earliest attempt at a powered unmanned aerial vehicle was aerial target developed in 1916. These were used both to train anti-aircraft gunner and to fly attack missions.



Scope:

The scope of the drone technology can be categorized in to three perspectives:

- Customer
- Service provider
- Society

**Existing Uses:**

- Surveillance
- Military Use
- Sports
- Search and Rescue
- Photography
- Protecting wildlife

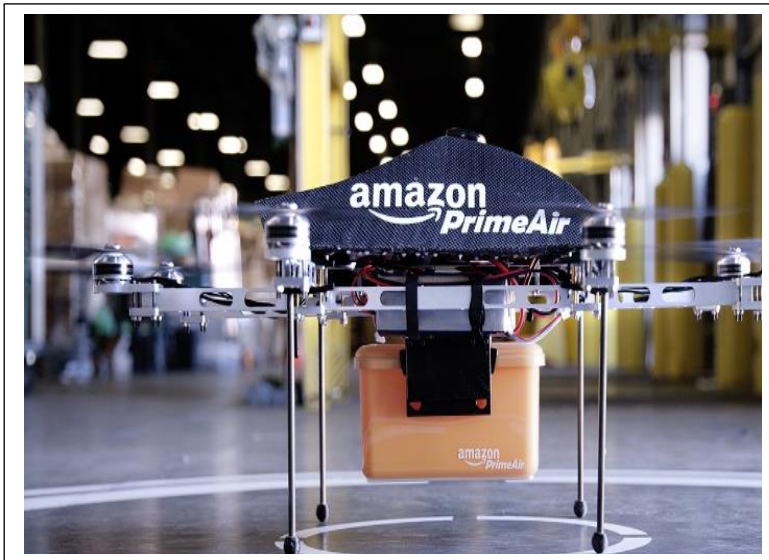
Components:

The drone has a central hub also called as control unit consists of:

- Battery pack
- Motors
- Gyroscope
- Actuator
- A receiver
- Processing Unit
- A wide array of electronic sensors
- GPS

Technical Aspects:

The drone has either 4 blades or 8 blades. The rotation of blades creates pressure difference which gives required thrust power. If the thrust force is equal to the weight of the drone, the drone will hover in the air, and the additional thrust will supply lift.



The drone used by Amazon Prime Air is an octocopter, meaning that it has eight rotor blades arranged in an octagonal manner.

Advantages:

- Surpassing the traffic
- Used in dangerous environment
- Environment friendly
- Use natural energy
- Can record high speed
- Sees no barrier of infrastructure
- Filming wildlife has become easier

Disadvantages:

- Limitation of weather
- Domestic drones violate the right to privacy
- Limited battery power
- Easy to shoot down
- Too small for transportation of materials
- GPS signal tends to drop between tall buildings

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