

Unmanned Aerial
Vehicles


a.k.a

DRONES

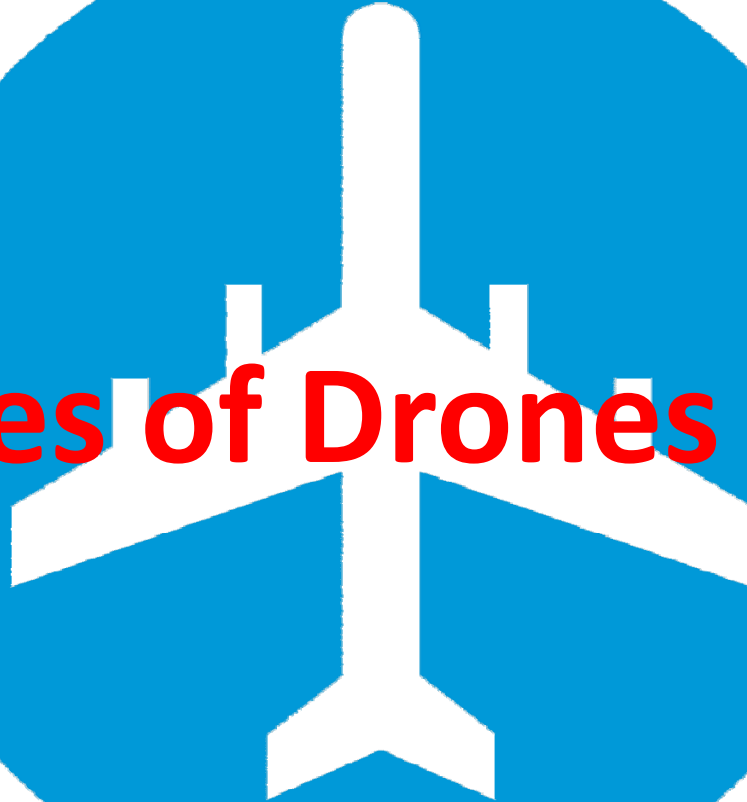


What are drones?



- 
- **Unmanned Aerial Vehicle (UAV).** Informally known as the Drone, it is a flying aircraft with no pilot inside .
 - **Can navigate autonomously by onboard computers or by using a remote controller in the hands of a pilot on the ground.**

Types of Drones



Multicopters and Planes



Types of Multicopter

TriCopter

Quadcopter



Hexacopter



Electronics not included

Octacopter



Types of Planes

Fixed wing drone



Flapping wing drone



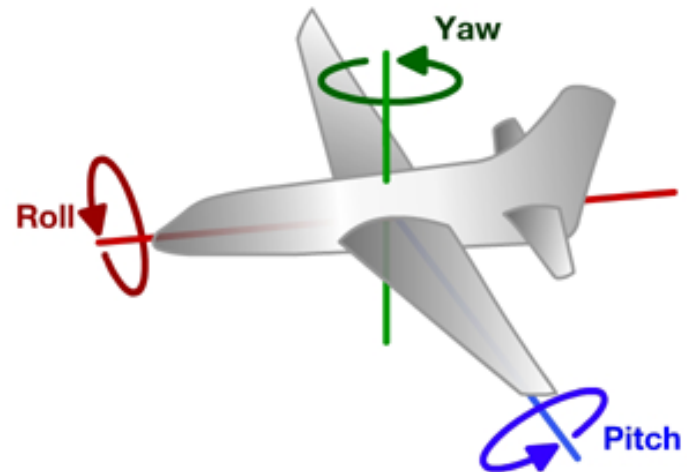
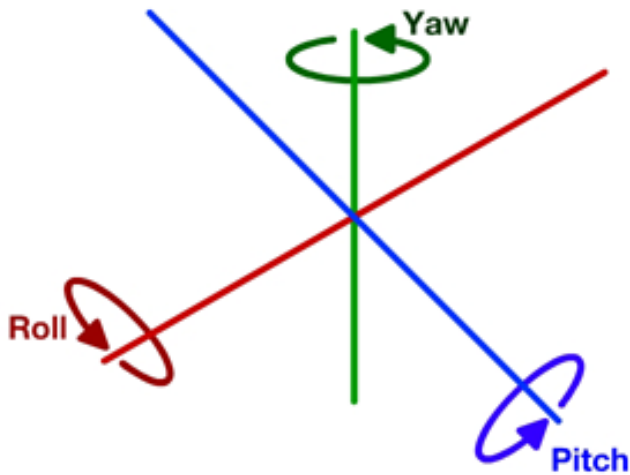
The Hybrid

Vtol

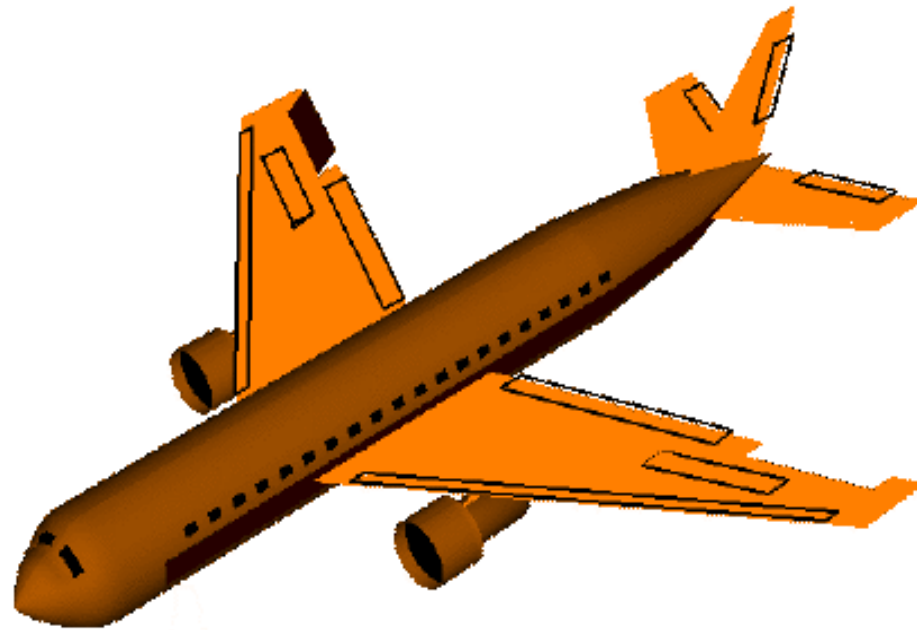


Different types of motions

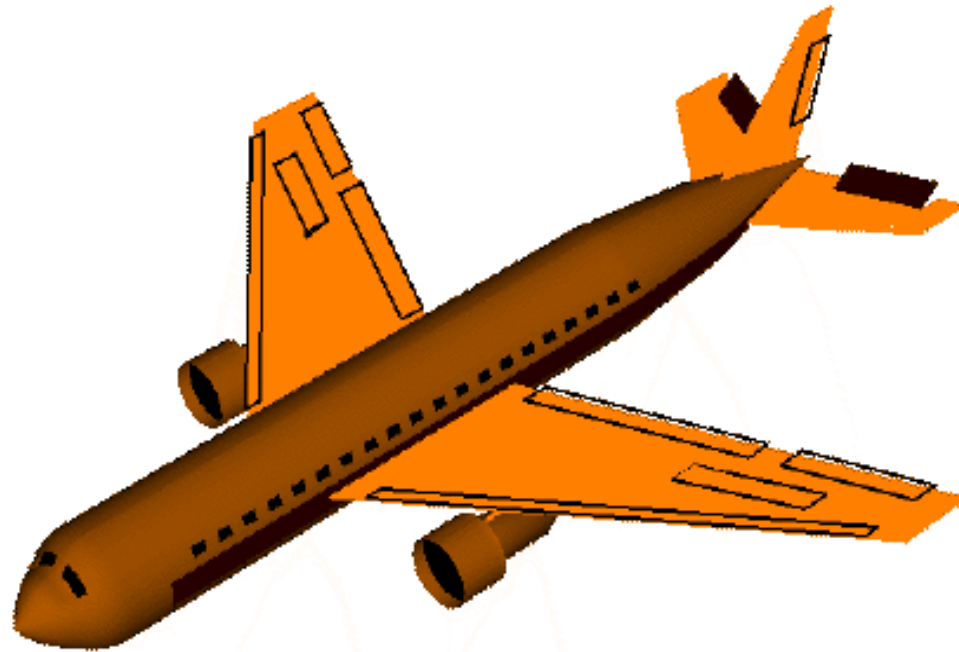
- Roll
- Pitch
- Yaw



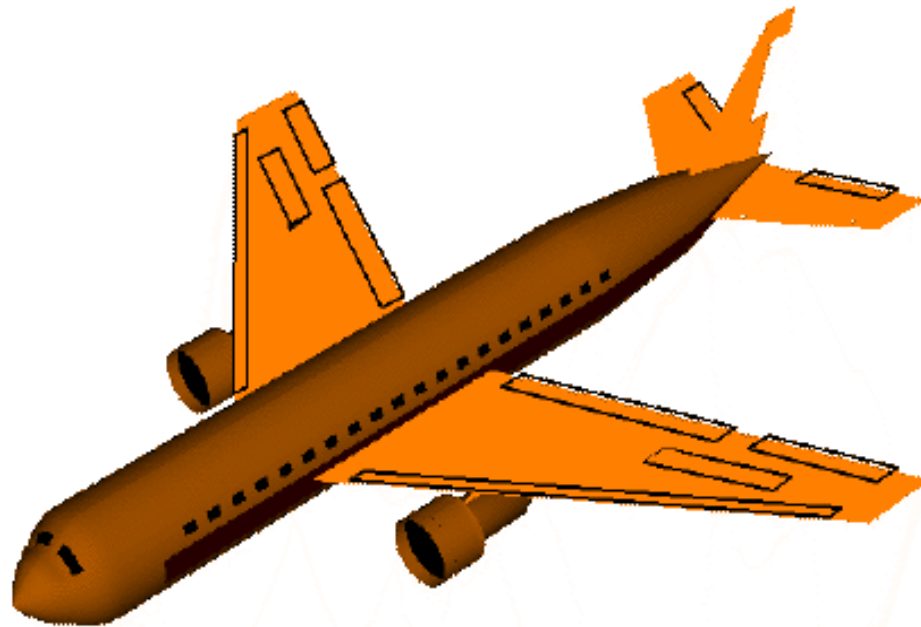
Roll



Pitch



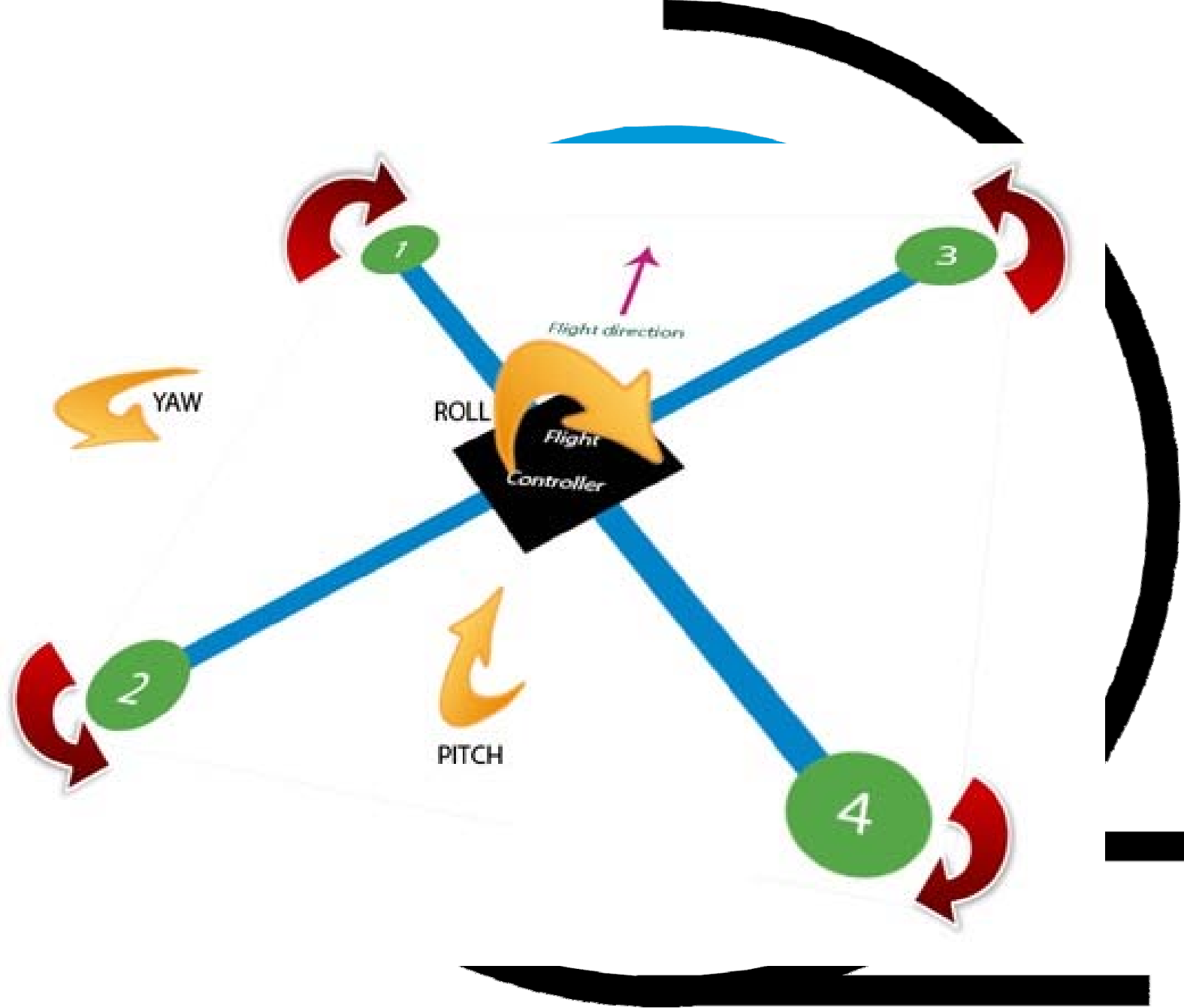
Yaw



How does a drone fly?

- Vertical motion
- Horizontal motion
- Heading





Benefits of using drones

- Low Risk
- Low Cost
- Long Operational Hours
- Pinpoint accuracy
- Easy deployment



Applications of Drones



Application areas

- **Military**
- **Package delivery**
- **Surveillance**
- **Agriculture**
- **Photography**
- **Disaster management**
- **Image processing**
- **Traffic monitoring**



How can drones help?

- They can give media access to hard-to-reach places
- They can save lives
- They can support law enforcement
- They can contribute to safe infrastructure maintenance and management
- They can streamline agriculture management



Companies using drones



Amazon's Prime Air



Google's Project Wing



Facebook

