

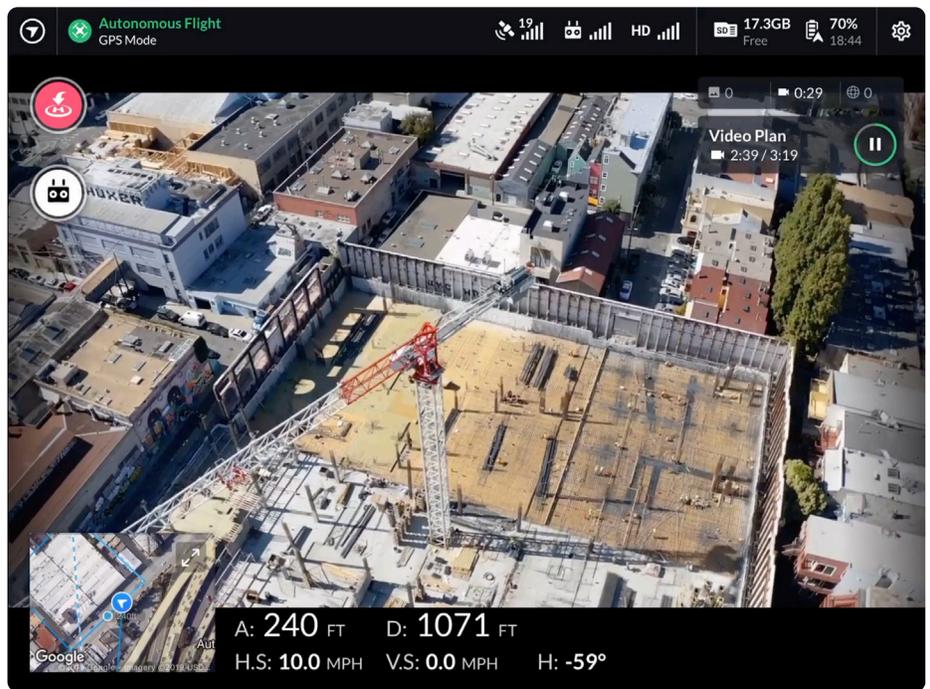


# DroneDeploy's Ultimate Drone **Glossary**

An A-Z Guide for Drone Professionals  
and Enthusiasts



# Aa



## **Accelerometer**

An instrument within the drone's central processing unit that measures acceleration. This is primarily used for flight stabilization purposes.

## **AGL (Above Ground Level)**

In aviation, AGL refers to the height or altitude of the drone as compared to the ground surface. If a drone is flying 250 feet above a 100-foot building, the AGL is 150 feet.

## **Altitude Hold function**

In this flight mode, the drone maintains a consistent altitude through its onboard barometric pressure sensor. However, the pilot can still control the roll, pitch, and yaw in this setting.

## **AMA (Academy of Model Aeronautics)**

A nonprofit, self-supporting organization that promotes model aviation, including drones, and drone use as a recreational activity.

## **A Mode**

Abbreviation for Atti or Attitude Mode, wherein the drone will maintain a consistent altitude

## **ARTF or ARF (Almost Ready to Fly)**

The standard for drone operations, drones that are pre-built, or require minimal assembly before flying.

## **ATC/ATM (Air Traffic Control or Management)**

A service in which air traffic controllers on the ground direct traffic within controlled airspace, and advise those in

non-controlled airspace. These individuals are trained and administered by the FAA.

## **AUW (All Up Weight)**

The maximum weight of the drone, including batteries and other add-ons.

## **Autonomous Aircraft**

The International Civil Aviation Organization classifies autonomous aircraft as, "unmanned aircraft that does not allow pilot intervention in the management of the flight."

## **Autonomous Flight**

In the drone world, this is flight guided by GPS, without intervention from the pilot.

## **Autopilot**

Drone feature that allows the flight to continue without manual control by the pilot.

# Bb Cc

## **Balanced Battery Charger**

Smart technology used to charge and balance Lipo batteries internally.

## **Barometric Pressure Sensor**

Device used to measure the pressure of the atmosphere. In aircraft, this, combined with barometric readings, measures the drone's altitude.

## **Bind**

The process of enabling the controller to communicate with the selected drone.

## **BVLOS (Beyond Visual Line of Sight)**

Requiring a specific permit from the FAA, this is the ability to fly a drone beyond the pilot's line of sight.

## **CG or CoG (Center of Gravity)**

The drone's center of balance.

## **CoAs (Certificate of Authorizations)**

An authorization granted by the FAA that allows a public operator to perform a selected drone flight or activity. This process can take up to 60 days and undergo an operational review.

## **Collision/obstacle Avoidance**

A feature built-in to some drones that allow the aircraft to sense and avoid obstacles, minimizing collisions.

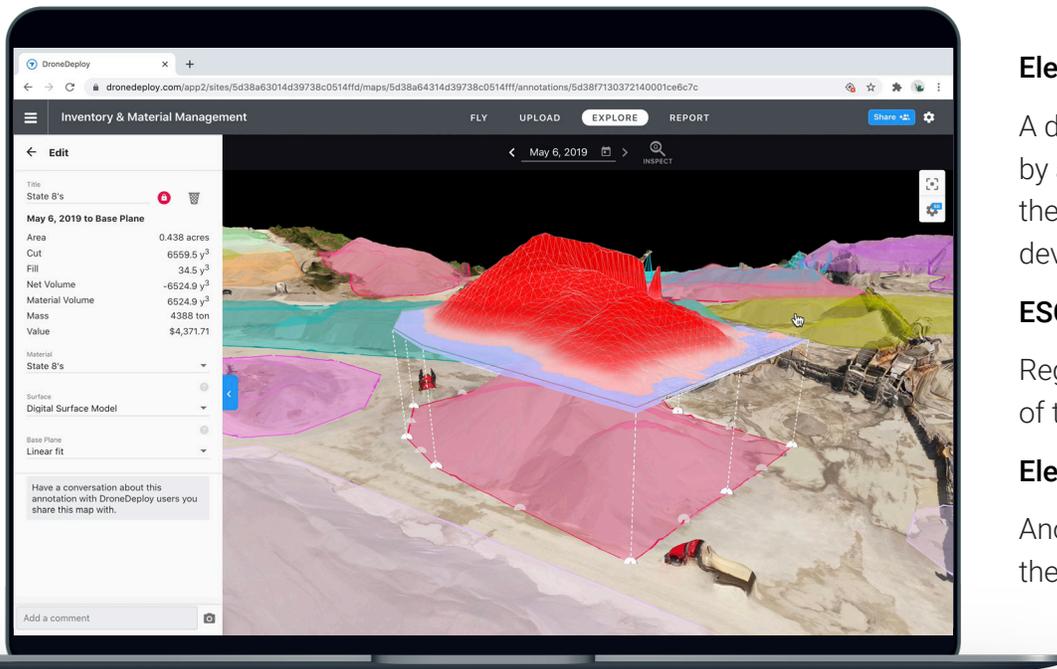
## **Commercial Drones**

A drone that is used for business or profit.

## **Controlled Airspace**

A type of airspace in which air traffic control services are offered depending on the defined dimensions and classification.

# DdEE



## Daisy Chain

Visual observers assisting the pilot when the drone goes beyond visual line of sight.

## DJI

The largest drone manufacturer in the world, located in Shenzhen, China. Compatible with DroneDeploy.

## DJI Drone Flight Modes

Flight modes specific to DJI drones that enable pilots to perform their duties safely and intelligently.

## Drone

Another term for “unmanned aerial vehicles” (UAVs) or “remotely piloted aircraft” (RPA), covering a wide range of functions.

## Electromagnetic interference

A disturbance in radio frequency by an external source that disrupts the operation of electronic devices.

## ESC (Electronic Speed Control)

Regulates the speed and direction of the drone’s motors.

## Elevator

Another term for “pitch” - moving the drone up or down.



**FAA  
(Federal Aviation  
Administration)**

Regulatory agency under the US Department of Transportation that enforces air safety, installs control facilities, and maintains proper air navigation.

**FHSS  
(Frequency Hopping Spread  
Spectrum)**

To avoid interference and avoid eavesdropping, this method of transmitting radio signals switches carriers amongst numerous frequency channels.

**Firmware**

Located in a drone's flight controller, this is permanent software updated solely by manufacturers.

**Fixed wing drones**

Similar to airplanes but without a human pilot on board, these are drones that have a non-detachable wing that make the aircraft capable of flight. These are typically larger and more powerful than commercial drones.

**Flight Controller**

Device used to control how the drone moves, by receiving and processing information from the drone's sensors.

**Flight Envelope**

The limits to ranges of motion to ensure that the aircraft remains stable.

**Fly Away**

Accidental flight outside of the set boundaries of operation.

**Fly-Away Protection System**

When the communication between pilot and drone is lost, this system will return the drone to the pre-selected area.

**FOV  
(Field of View)**

The "drone's-eye" view.

**FPV  
(First Person View)**

Piloting a drone in real-time through the drone's camera. Pilots often wear goggles with footage streamed inside.

**Frequency**

To maintain communication with the pilot and drone through FPV, both pieces of equipment will need to be on the same radio frequency.

**GCS (Ground Control Station)**

A command center on-the-ground that controls airborne drones.

**Geofencing**

A predefined set of virtual geographic boundaries that prevents drones from crossing into restricted areas.

**Gimbal**

A device that allows the drone's camera to remain stable while moving.

**GIS (Geographic Information System)**

Technology that captures, analyzes, and manages spatial and geographic data.

**GLONASS (Global Navigation Satellite System)**

An alternative to GPS technology that defines a drone's location.

**GPS (Global Positioning System)**

A satellite-based navigation system owned by the U.S. government.

**Gyroscope**

A circular device connected to the drone's flight controller that allows the drone to remain level.

**Headless Mode**

Feature that allows the drone to remember the orientation in which it took off last.

**Hexacopter or Hexicopter**

A drone with 6 rotor arms.

**Hobby Drone or Hobby-Grade**

Typically ready-to-fly drones designed for the drone enthusiast.

## IMU (Inertial Measurement Unit)

Measuring device that relies on accelerometers, gyroscopes, and magnetometers to report the drone's orientation.

## INS (Inertial Navigation System)

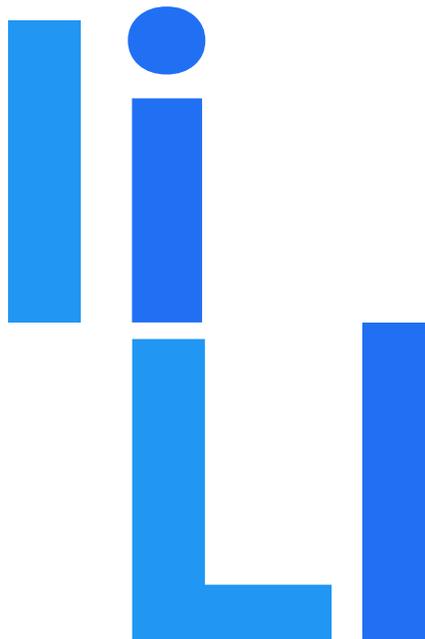
Internal method by which a drone determines its own position.

## IOC (Intelligent Orientation Control)

Another term for "Headless Mode," this allows the drone to remember its prior orientation on its next flight.

## IP Rating or Code

A rating system that codifies the level of protection a drone has against the physical elements.



## LAANC system (Low Altitude Authorization and Notification Capability system)

A beta program offered by the FAA that facilitates controlled airspace access to drone pilots.

## LiDAR (Light Detection and Ranging)

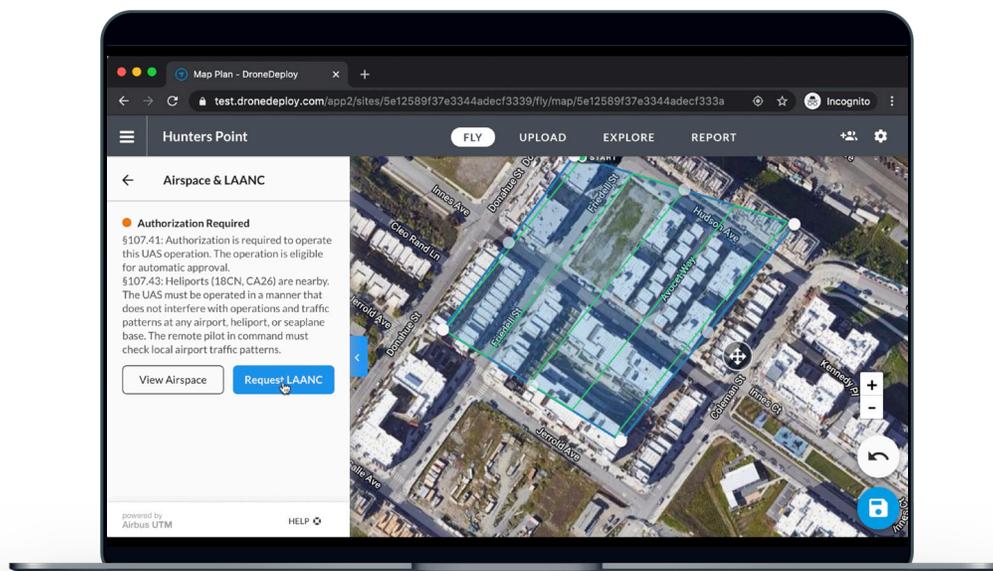
LiDAR is used for measuring distances by their light reflection with a laser.

## LiPo (Lithium Polymer)

The type of battery most commonly found in drones.

## LOS (Line of Sight)

An FAA requirement for drone operation, this states that the drone must be visible from the pilot's operating position at all times.



# Mm

## **Magnetometer**

A device inside the flight controller that acts as a compass by measuring the Earth's magnetic field to determine its orientation.

## **mAh (Milliampere Hours)**

This is used to measure the power in drone batteries.

## **MAVLink (Micro Air Vehicle Link)**

Most commonly found as protocols for communication between drones and ground control systems (GCS) to convey orientation, speed, etc.

## **METAR (Meteorological Terminal Aviation Routine Weather Report)**

Format used to report specific weather information.

## **Micro-air vehicle**

A small drone. Many have size restrictions.

## **Mode 1 transmitters**

This throttle is located on the right transmitter stick, and is most commonly found in the U.K.

## **Mode 2 transmitters**

This throttle is located on the left transmitter stick, and is most commonly found in the U.S.

## **MSL (Mean Sea Level)**

A drone's altitude/elevation in reference to the average height of the sea.

## **Multicopter**

A drone with 2 or more rotor arms.

## **Multispectral Imagery**

A type of imagery commonly used in agriculture, this is captured by a multispectral camera which detects light humans can not see.

## **No Fly Zone**

An FAA restricted area where drones are not allowed to fly. Above airports and government buildings are prime examples.

## **NOTAM (Notice to Airmen)**

Information given to drone operators that warns them of immediate hazards or restrictions not yet published.

# Nn

**OAS**  
**(Obstacle Avoidance System)**

System pre-programmed into a drone that alerts pilots to obstacles and collision dangers.

**Octocopter**

A drone with 8 motor arms.

**Orthomosaic**

A drone map comprised of a collection of photos from the selected area that have been stitched together.

**OSD**  
**(On Screen Display)**

On a drone, this projects flight data like speed, battery life, and the like on-screen.

Oo

**Part 107**

FAA regulations that all drone operators must follow. Pilots can obtain a Part 107 license that demonstrates their knowledge in drone safety, FAA regulations, and operating procedures.

**Payload**

This is the capacity at which a drone can handle additional weight, such as cameras.

**PDB**  
**(Power Distribution Board)**

The link between a drone's battery and other aircraft components.

**Photogrammetry**

Drone photography that measures the distance between objects.

**PIC**  
**(Pilot in Command)**

The drone operator.

Pp

**Pitch**

A term for moving the drone up or down.

**P Mode**  
**(Positioning Mode)**

The most popular flight mode, this activates all sensors to ensure stability while hovering.

**POI**  
**(Point of Interest)**

Available on most drone models, this flight mode keeps the drone's camera trained on an area or object.

**PPK**  
**(Post-Processing Kinematic)**

A satellite positioning technology similar to RTK.

**Pre Flight Planning**

A set of activities recommended by the FAA before takeoff, including checking the weather, equipment, and flight path.

**Props**  
**(Propellers)**

An essential component of a drone, featuring angled blades that allow it to fly.

**Quadcopter**

A drone with 4 rotor arms.

Qq



### **Radio**

This transmitter controls the drone's movements such as pitch, yaw, and roll.

### **R/C or RC (Radio Controlled)**

Operating a drone via radio waves.

### **Receiver**

In FPV, this is what links the drone camera's live stream to the goggles. Also called a "video receiver" (RX), "transmitter" (Tx) or "video transmitter" (VTX).

### **(The) Roadmap**

A document released in 2013 by the FAA detailing safety guidelines for drone flight in national airspace.

### **Roll**

Moving the drone side to side laterally.

### **Rotorcraft**

A drone that generates lift through rotor blades instead of wings.

### **RPAS (Remotely Piloted Aerial/Aircraft System)**

A combination of a drone, pilot, and its command systems.

### **RPM (Revolutions Per Minute)**

The unit of measurement used to determine the number of times the drone's motors turn in 1 minute.

### **RSSI (Received Signal Strength Indicator)**

The unit of measurement used to estimate the radio signal strength between a controller and a drone.

### **RTF (Ready-to-Fly)**

Great for beginners, this drone requires no (or minimal) assembly and can be flown right out of the box.

### **RTH (Return to Home) or RTL (Return to Launch)**

An automated drone feature that grounds the drone at the selected home point.

### **RTK (Real-Time Kinetics)**

Satellite positioning technology that draws on GPS and GLONASS data to precisely pinpoint a drone's location.

### **Rudder**

Another term for "yaw." This is rotating the drone clockwise or counterclockwise.

### **Rx (Receiver)**

Component built-in to a drone that receives and interprets radio signals.

## Sense And Avoid

If a drone is enabled with this technology, it will automatically steer away from obstacles and other aircraft.

## Servo (Servomotor or Servomechanism)

Drone component that assists with positioning and acceleration. Sometimes also called an “actuator.”

## Skydio

Drone manufacturer located in Redwood City, California. Compatible with DroneDeploy.

## S Mode (Sport Mode)

DJI drone setting that allows the pilot to fly at the fastest speed possible for that model.

## Spatial Awareness

The capability of a drone to be aware of its boundaries and positioning.

## Spotter

When flying in FPV, this person keeps the drone in their visual line of sight (VLOS).

## sUAS (Small Unmanned Aircraft System)

A small drone that weighs less than 55 lbs. Can also be a micro-air vehicle.



## Telemetry

The communications stream between a drone and its ground control system (GCS).

## TFR (Temporary Flight Restriction)

A notice given to drone pilots by the FAA that restricts airspace temporarily. This is commonly because of natural disasters or large events.

## Throttle

This control gives the propellers and motor power.

## Thrust

The amount of force driven by the throttle that generates lift.

## Trim

The buttons on the side of a drone's remote control that manage roll, pitch, yaw, and throttle.

## Tx (Transmitter)

In FPV, this is what links the drone camera's live stream to the goggles. Also called a “video transmitter” (VTX), “receiver” (RX), or “video receiver” (VRX).

**UAS  
(Unmanned Aircraft System)**

An FAA term for unmanned aircraft, operated by a pilot on the ground. This includes drones. Also called an “unmanned aerial vehicle” (UAV).

**UAV  
(Unmanned Aerial Vehicle)**

An FAA term for unmanned aircraft, operated by a pilot on the ground. This includes drones. Also called an “unmanned aircraft system” (UAS).

**Ultrasonic sensors**

On a drone, these sensors calculate height and balance.

**Upright Launch**

This is the ability of the drone to take off upright, as opposed to fixed wing aircraft. Also called “vertical takeoff” (VTOL).

**Uncontrolled Airspace**

Term used by the FAA to indicate class F and G airspace, unregulated by air traffic control (ATC).

**UTM (Unmanned Traffic Management)**

An air traffic management system under development by NASA, the FAA, and other government agencies that will traffic low altitude drone flights.

**Video Latency**

The lag in video streaming between a drone’s camera and pilot’s goggles or monitor.

**VLOS (Visual Line of Sight)**

An FAA requirement that the drone in operation remains visible by the pilot’s naked eye, unaided by devices.

**VO (Visual Observer)**

An optional teammate that aids the pilot by scanning the airspace for hazards while the drone is in flight. Can also be called a “spotter.”

**VTOL (Vertical Takeoff)**

This is the ability of the drone to take off upright, as opposed to fixed wing aircraft. Also called “upright launch.”

**WAAS (Wide Area Augmentation System)**

A satellite navigation system developed by the FAA that enhances GPS signals for better positioning accuracy.

**Waypoints**

Helpful in creating flight paths, these are GPS coordinates used to define a point in space.

**WiFi FPV**

This type of FPV is common with more inexpensive drones. Typically, the pilot connects to a mobile app to receive the drone’s live stream.

**XWing**

Refers to the x design on a drone’s framework.

**Yaw**

Rotating the drone clockwise or counterclockwise. Another term is “rudder.”

**YWing**

Refers to the y design on a drone’s framework.





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