

Machine learning system at the heart of Dedrone's Software

DroneDNA is Dedrone's machine learning system that recognizes drones of all kinds.

Trained on millions of data points, it can detect the difference between drones and other moving objects such as birds, planes, or other objects, and even distinguish between drone models.

FAQ on the back \rightarrow

Benefits

- → Allows for rapid updates of the system to detect new drones when they are released
- → Reduces false alarms and allows protection against a wide variety of drones
- → Allows security teams to understand the intruding drone's capabilities and estimate the potential threat level



DroneDNA Frequently Asked Questions

01. How does DroneDNA work?

DroneDNA works with Dedrone's DroneTracker software to intelligently fuse data from multiple sources, increasing reliability and reducing false-positives and false-negatives. Data from RF Sensors, video, radar, and other sensors is automatically processed to detect and classify drones.

02. What is a drone signature?

A drone signature is a set of characteristics that classifies a certain drone model, including RF protocols, shape and size. The drone signatures are saved in the DroneDNA database.

03. Why is DroneDNA so important?

Drones come in various shapes and sizes, with fixed wings or a varying number of rotors. Some even look like birds or insects. Radio frequencies also vary - many drones are controlled using common radio protocols, but others are controlled via Wi-Fi. In the future, there will be more drones that fly autonomously and aren't remotely controlled by a pilot. All these drones must be detected, and the detection accuracy of sensors relies on known drone signatures. DroneDNA provides specific information on the exact type of drone, helping immensely to reduce the false-positive and false-negative detection rate.

04. Why does DroneDNA need to be frequently updated?

New drone models with specific characteristics are constantly coming onto the market. Similar to a virus scanner, a counter-drone system must always be set to protect against new types of attacks.

05. How is DroneDNA updated?

New and updated DroneDNA signatures are created by Dedrone's R&D team. Several different approaches are combined to add new signatures as fast as possible:

- Dedrone acquires new drones and analyzes them in their labs
- Customers send their drone and remote control to Dedrone to be added to the signature database
- Current users can opt-in to a feedback process where they can provide sensor recordings to Dedrone which are then used to build new signatures

The crowd sourcing ability for collecting recordings of unknown drones reduces the amount of time required for adding new signatures.

06. How do customers receive the DroneDNA updates?

Newly recognized drones are automatically added to the DroneDNA signature library and there's no need to manually install software updates.

07. How often is the DroneDNA data base updated?

Currently we update the DroneDNA data base at least once a quarter, but we are able to react faster, if necessary.

08. How long does it take to add a drone?

Typically Dedrone will analyze a drone and build a new signature in under two weeks.

09. How does Dedrone decide which drone to add next?

Dedrone constantly monitors the release of new drones. The order in which drones are added to the database depends on the drone's market presence and on our customers' feedback.

Would you like to learn more?

For more information contact info@dedrone.com or visit www.dedrone.com.