How to Find a Drone Flying Away (and 4 Ways to Prevent It)

You might be here because you're wary of a flyaway, or maybe it's already happened and you're looking for the next steps. Either way, its occurrence is a lot more common than you might think.

But despite the apparent normalcy of the situation, it's always devastating to watch your drone fly off into the same setting you were looking to capture.

Here's the good news: following a simple series of steps gives you a good chance of recovering it.

In this post, I'll be explaining them in detail *and* covering how to prevent such a thing from happening in the first place.

How far can a drone fly?

Most pilots lose their drone because they accidentally fly it too far. But how far exactly is too far? The answer is pretty simple.

A drone can fly as far as its physical limitations allow it to. These factors, including the type of antennas and transmitters used, combine to define the drone's range. The range of consumer drones is generally around 5km to 10km, while commercial drones can potentially fly around 100km away.

You can always clue yourself up on the range of a specific drone model by going through its specifications.

But that's not all. Another important factor to consider is the set of rules that the *pilot* has to follow. Legally speaking, you can't fly your drone outside your line of sight - regardless of what the specifications say.

What causes drone flyaways?

Flyaways are almost part of the drone experience, and there are a couple of reasons that usually take the blame for their occurrence.

Drone flyaways are generally caused when the drone's transmission system is disrupted. This can happen due to electromagnetic interference, from power lines for example, or a technical fault within the drone. Other simpler causes include harsh weather conditions and errors from the pilot's side.

Here's the deal. You can only keep control of a drone if you ensure a stable connection between the drone and controller. Therefore, any strong sources of interference can directly cause a flyaway. These include:

- high-voltage power lines
- cell phone towers
- large metal and steel structures

Needless to say, a drone will also fly away if a part of it stops working. This may include one of the motors failing. Fortunately, drone components rarely fail mid-flight - assuming there aren't any collisions.

It's worth noting that pilot errors don't necessarily relate to inexperience. A lapse of attention is all it takes to ignore an out-of-range warning and end up with a lost drone.

What do you do if your drone flies away?

Let's get to the heart of the matter. You can notice your drone losing connection and you start to feel a little uneasy. What's the best course of action you can take? Here's the answer based on my experience.

If your drone flies away, you should immediately hit the Return to Home (RTH) button on your remote controller. Your drone will start returning to its starting point as soon as it receives the instruction. Another possible approach is to make your way towards the drone as quickly as possible.

It's important to remember that not every drone is equipped with the RTH feature. However, most drones (even entry-level) come with an emergency stop button at the very least.

If you're interested in seeing how a drone acts once RTH is initiated, the YouTube video below shows a test flight with the Mavic 3. Precision landing can vary depending on the terrain and how the feature is set up.

The other viable option is to run after the drone. Now, this may sound like a shot in the dark. But closing down the distance between your drone and its controller might end up resuming signal transmission, thus stopping your drone from flying away.

https://www.youtube.com/watch?v=RD6hFqyPJbk

How do you find a drone that flew away?

Ideally, you'd get the opportunity to recover your drone *as* it's flying away. But what if your drone has already flown away? Does that mean you're out of options? Not at all.

You can find a drone that flew away by checking its last known coordinates through the flight logs. This will give you the lost drone's exact location or, at least, vastly narrow down the area you need to search. Similarly, you can also find it by accessing a separately mounted tracker.

It's important to keep the remote controller on. It generally stores the last known coordinates before transmission is disrupted.

More costly drones allow you to access the flight logs through an app. The DJI GO 4 app is a great example. Through the main menu of the app, you can check telemetry information and find the coordinates of a lost drone.

However, you can't always expect these features to be available. If the drone goes down, the built-in GPS may stop working. This is where a separately mounted tracker could save the day.

Trackers provide a real-time location, detailed flight data, and, most importantly, reliability. Some of them can even work with Google Maps, making it much easier to find a lost drone.

https://www.youtube.com/watch?v=9xqOAA5AvhU

How can you find your lost drone without GPS?

In other scenarios, GPS might not be part of the question at all. This means you're in a tougher spot. But don't lose hope just yet, here's what you can do.

You can find your lost drone without GPS by using another drone to search for it. This would give you a point of view that is otherwise unattainable. Other possible ways include putting up posters and checking in with social media groups and your local police department.

The thing is, you lose out on a ton of helpful features without GPS. So, you need to make sure you're thinking straight and focusing on the right spots to give yourself a real chance to find the drone.

Using Your Senses

If you decide to use another drone's camera, I'd suggest looking for the lost drone's anti-collision lights. You'll likely have to make multiple passes with large trees or structures being one of your main areas of focus.

Once again, circling back to the previous section, remember to make use of your controller once you're on foot.

If the connection is reestablished, you can try moving the drone while listening for sounds. These sounds could be the propellers grazing against tree branches or alerts coming from the drone itself.

Conventional Methods

After all that, there's still a chance of you being left empty-handed. If that does happen, you might have to turn to conventional methods.

This primarily involves reaching out to as many people as possible. To do this, you can print out and put up posters. I'd also recommend making social media posts in relevant groups.

Ultimately, it would depend on the type of person that stumbles upon your drone. The person could possibly try to make a quick buck off of their findings.

So, I'd suggest keeping an eye out for ads in online marketplaces as well. Make sure you have quick access to the drone's serial number and the proof of purchase.

How do you prevent drone flyaways?

By this point, you must have realized how the journey to finding a flyaway drone isn't pleasant. In fact, it can get pretty stressful. The question is, how do you steer clear from having to experience it?

You can prevent drone flyaways by initially making sure your drone is ready to fly and then taking as many security measures as possible. The most important ones include analyzing the flight setting, setting up the RTH feature, and not pushing the drone's capabilities.

The process of checking the drone pre-flight is pretty straightforward. Make sure the battery levels are up and each component is functioning as it should. Here's a bit more detail on the other steps.

Assess the Weather

Similar to performing a drone check, it's important to check the weather in your area before carrying out your mission.

You might be wondering: what even are the optimal weather conditions for flying drones?

Well, if it's sunny outside with negligible wind at a moderate temperature, you can safely assume it doesn't get any better.

Harsher conditions drain the battery quicker. And in a worst-case scenario, they cause the drone to fly away and potentially crash.

Avoid Interference

I've already mentioned how electromagnetic interference can directly cause drone flyaways.

So, my next tip is pretty simple: avoid the sources.

As a general rule, stay away from active wireless devices and large structures. An open field is generally considered ideal, but if you're shooting something in particular, you can consider gaining altitude to avoid other traveling signals.

Enable Return to Home

This one isn't a measure that every pilot can take, since only the upper range of drones come with an RTH feature.

However, there's also a fair share of pilots that can but simply forget to.

I suggest enabling the RTH feature as soon as you start up your drone. This involves updating your home point and making sure the location is registered.

At the same time, you have to specify an RTH altitude. This needs to be set higher than any structures or obstacles in the region.

Once RTH is activated, your drone will be able to automatically return to you if anything goes wrong. You could even use it with a tap of a button. But don't get me wrong: only use it when you have to.

https://www.youtube.com/watch?v=JNDYN1WaVEw

Don't Test Your Luck

Finally, play it safe.

If your senses are telling you things might go wrong, listen to them. The signal transmission never disrupts randomly. So, when your drone is repeatedly having to make an emergency landing, consider moving locations.

And if you're just starting out, try flying your drone in stability mode. The sensors will mostly maintain the altitude for you. Plus, I'd suggest having a go in an enclosed space first.

Regardless of whether you're a beginner or an expert, it's crucial to know the range of your particular drone model and stay well within it.

Conclusion - what happens if your drone flies away?

To bring things to an end, here's what really happens if your drone flies away.

What happens if your drone flies away depends on the model you're using. Entry-level drones likely go down as soon as the connection is disrupted. More expensive drones, like the Mavic series, automatically attempt to make an emergency landing to a set spot - as long as there aren't any collisions.

If an upper-range drone does collide with an obstacle (or run out of battery) and crash, it's also more likely to still have a functioning GPS.

Nevertheless, modern technology has made it much easier to track a flyaway drone. And if you take all of the precautions, you most likely won't be put in such a position anyway.