

How to Land a Drone (Every Landing Situation Explained 2022)

Your drone flying journey will involve mastering several different maneuvers, a lot of which you can choose whether to delve into or not. But a move as fundamental as landing, on the other hand, will require you to get on that learning curve *immediately*.

And that can be a pretty daunting task — particularly for someone who's only just unpacked their brand new drone.

I'll be guiding you on how to tackle that very task to ensure that you do *not* end up losing control of your drone.

Plus, we'll be covering hand landings (in detail) and various situations that you may end up in. So, make sure you digest every tip because you might just learn something new even as a more experienced pilot!

How do you safely land a drone?

Let's get straight to it. Here's how you generally land a drone and do so safely.

You safely land a drone by first ensuring the landing area is free from bystanders and obstacles. You can then bring your drone toward the intended landing spot and slowly start decreasing its speed. Once it makes contact with the ground, pull and hold down the throttle completely to complete the landing.

It's important to power down the drone after its motors shut off and only then move the drone. You may also want to remove its battery.

The keyword in the answer, however, is “slowly”. It's very easy to lose control of a drone while trying to land it. But this only happens when you descend your drone too quickly.

So, I recommend being mindfully delicate with the controls, at least until you start to get the hang of things. Pull down on the throttle gently to descend and hover a few feet above the ground before landing to reduce the effect of turbulence.

Your drone may also have an auto-return function, where it would use satellite navigation to reach the preset landing point at the push of a button. However, there are circumstances where you might be forced to take back control, so it's important to stay vigilant to prevent a flyaway.

Outside of controls, make sure to double-check the landing area, announce the drone's return to people nearby, and consider the possibility of an animal interfering.

And finally, try not to get complacent! It's important for amateur and experienced pilots alike to stay focused on their drone flights.

How do you take a drone with your hand?

Another popular method used to land a drone is hand landing (or catch landing).

Notice how I didn't mention it in the previous section. Well, that's because it isn't particularly the safest method — especially if you're attempting to hand land your drone by yourself.

Sometimes, however, a hand landing is simply more appropriate. For those times, here's how you execute it successfully.

You can take a drone using your hand by bringing the drone toward you, positioning your hand right underneath it, and then descending it before letting it land on your palm (or gently gripping it if it has legs). It's also important to pay attention to the wind.

As I've already mentioned, drones can be manually or automatically landed. I personally wouldn't recommend using the auto-land feature here though.

While the land button can be effectively used, manual control allows for a quicker response from the pilot should the drone make unintended movements. This is important, considering you'll be in close proximity to the drone and its spinning propellers.

So, here are the steps you'll be following to manually land your drone on your hand:

1. Bring the drone overhead.
2. Extend your arm fully, with your hand positioned where you expect the drone to descend.
3. Use your other hand to shift the left stick down to descend the drone. Do not move your catching hand.
4. The drone may hover momentarily as its sensors recognize your hand. Continue to hold the left stick.
5. Let the drone simply land on your palm. If your drone's body has legs, alternatively, gently grip it. Do *not* forcefully grab the drone.
6. Wait for the drone's propellers to stop spinning before finally moving your arm and powering the drone down.

Now, there are a couple of things to keep in mind while following these steps as well.

One thing that makes hand landings particularly risky is the wind. Therefore, you *have* to take into account its speed and direction.

It's always a good idea to simply wait for strong winds to stop before making your move. Being impatient can lead to severe consequences!

If you *are* attempting a hand landing in a somewhat windy setting, make sure you're not facing the direction in which the drone can potentially fly toward you.

For added protection, you may want to get yourself cut-resistant gloves as well.

Some of you might be thinking that taking these measures is overkill.

Well, it must be remembered that (most) consumer drones aren't playthings. They make use of propellers that rotate at high speeds and have sharp edges. And as a result, [they can cause significant bodily harm](#).

So, it's always best to stay on the safer side. This particularly applies to you, as catching a drone isn't an ordinary practice recommended by manufacturers.

You may also have noticed that the steps above require you to use the controller with only one hand, as you'll need the other to catch the drone. This can be a tough ask for many pilots and is by no means the ideal practice.

The steps make use of the assumption that you have no other option but to catch and control yourself. In reality, a drone hand landing is much easier (and safer) as a two-man job.

You'll find the visual implementation of those steps as well when we consider specific drone models later in this post.

How do you land a DJI drone?

DJI manufactures some of the most popular drones on the market. So, it only makes sense to dedicate a small section that focuses on them only. Here's how you land a DJI drone.

You can land a DJI drone by picking a suitable landing spot and then using the Smart Return To Home (RTH) feature or manually controlling the drone all the way. The latter simply involves holding the left stick down until the drone senses the spot, makes a sound, and lands.

Your DJI drone will automatically enter landing mode once it's close enough to the ground. This can, sometimes, work against you when the drone chooses to land when you're simply flying close to the ground. You may experience this while flying on or around a steep hill.

But don't worry: that can easily be overridden. All you have to do is push the left stick up to cancel the landing.

You may prefer to let the drone do *all* the work instead of just the final part. This is done through the Smart RTH feature, which can be initiated by pressing and holding the RTH button on your controller or tapping it on the (compatible DJI) app.

As long as the drone is receiving the GPS signals it needs, it will fly towards the landing spot, actually land, and then turn off its motors.

You can stop the flight at any time by using the pause button on your controller or the stop button on your app. This will disable RTH and hand control over to you.

Of course, you'd only be able to use RTH on a flight if you've set it up before launching the drone.

The on-screen instructions and options should make setting up RTH pretty straightforward. It only involves confirming the "home point", which is your landing spot, and setting the RTH altitude to higher than any nearby structures.

For a much deeper dive into RTH, you may want to check out the YouTube video below.

<https://www.youtube.com/watch?v=N3YrsmEdo3E&ab>

How do you land a Mini 2 on a hand?

I've already specified the steps you need to follow to maximize the chances of a successful and safe hand landing. However, drones come in different shapes. This means the steps can vary *slightly*.

Staying on the topic of DJI drones, here's how you hand land a Mini 2.

You land a Mini 2 on your hand by, firstly, bringing it down towards you and extending your hand out. You then hold the left stick down and let the drone use your palm as a surface for landing. Keep your hand steady at every point and do not move it until the drone's propellers stop moving.

So, the steps are very similar to what we've already covered. But since we're talking about a particular drone, the Mini 2, we can make the distinction of only using your palm and not gripping any part of the drone.

The latter is more suitable for drones that have "legs".

Some pilots still do prefer using a gentle pinching technique to catch their Mini 2. Their argument is often that the Mini 2's bottom sensors make palm landings difficult.

In my opinion, it's pretty dangerous to grip a flying drone shaped like the Mini 2, considering how close your fingers would be to the propellers.

I firmly recommend using exclusively your palm for hand landing the Mini 2. While the drone's bottom sensors will make it react, you can simply counter that by holding down the left stick.

Here's another important thing to note: the steps for hand landing the Mavic Air 2 and Mavic 2 Pro are the *exact* same.

Recall how I mentioned the shapes of drones being the causing factor for a variation in steps. Since the Mini 2, Mavic Air 2, and Mavic 2 Pro all have extremely similar designs (albeit different sizes), the method to hand land each of them is the same.

Consider checking out the video below to get a clearer image of things!

https://www.youtube.com/watch?v=35zIDnKLgQ4&ab_channel=droneXfactor

How do you hand catch a Phantom 4?

The DJI Phantom 4 is one popular drone that *doesn't* have a form factor similar to that of the Mini 2. With that in mind, here's how you can hand catch it.

You hand catch a Phantom 4 by, firstly, flying it towards you. You then move closer to the drone, stretch your arm out upwards, and continue descending the drone until you can gently grip its legs. It's important to keep holding the left stick down and catch the drone well above head height.

The very last point is made by considering your safety, which is something you have to *mindfully* consider as you gradually get more comfortable with hand catching your drone.

Catching your drone with an extended arm and not letting it anywhere near your face will allow you to avoid most types of risk.

And since the Phantom 4 has a lower body that sticks out, your job as a catcher is much easier. Just make sure you're not trying to reach out and forcefully grab the drone! Let the drone descend towards your already positioned hand.

This technique and its steps apply to all Phantom drones, including the more recently released Phantom 4 Pro.

Check out the short YouTube video down below to see just how easy it can be to catch a Phantom 4.

https://www.youtube.com/watch?v=W8Bgn9NLTf8&ab_channel=AIRSPACE

Can a drone land on a boat?

We've covered how to land a drone regularly and how to perform hand landings. The latter is particularly useful if the land under you is uneven.

But what if you're not on land at all? Is it possible to safely bring a drone down as you travel on a boat? Take a look.

A drone can certainly be made to land on a boat, though it can be a challenge for many pilots. One of the main prerequisites for landing a drone on a boat is having a large enough area to allow for the landing.

Needless to say, you'll have to make specific preparations. This includes keeping a very close eye on the battery level of your drone.

If this is a topic that interests you, consider checking out my post on [how to land a drone on a boat](#), where I outline the exact steps you'll need to follow.

Conclusion - How do you land a drone smoothly?

To wrap this post up, I'll leave you on the note that a drone can be made to land smoothly as long as you're comfortable with what you're executing.

You land a drone smoothly by shifting the input controls in a gentle manner so the drone only makes slight movements. This can be achieved by practice. Additionally, a hand landing may be the smoother option compared to a regular landing if the area around you is uneven.

A lot of pilots prefer hand catching their drones regardless of the area around them. This is because hand catches are more convenient for them, and they are comfortable enough (through experience) to perform them smoothly.

If that's what you prefer (or end up preferring) too, know that regularly hand catching your drone in itself isn't a bad habit. It's only the skipping (or modifying) of steps that I've mentioned that can potentially cause you problems.