

7 Deadly Drone Sins



**The only information you
need to know in order to
avoid ANY problems
while flying drones.**



SIN1: NOT KNOWING THE LOCAL RULES AND REGULATIONS

Drones may be small and come in nice boxes but they are not simple toys. They must be operated with care because misuse can be dire. The FAA's intervention (case of USA) in the hobbyist's affairs may appear too nosy, but with the alarming rate of increase of these crafts it is necessary to have regulations in place to avoid misuse and to promote safety and privacy of the general population.

It is important to know where you can fly, when you can fly and if you need an operating license for any particular drone flying activity (for example, commercial usage).

Ignorance and mindlessly yelling "to hell with the law" maybe 'cool' and all if you are a teenager aiming for popularity in high school, but unless you want to get into trouble, we advise you educate yourself at the very least.

Where to check?



<http://knowbeforeyoufly.org/> (USA)

https://www.faa.gov/uas/getting_started/ (USA)

<https://www.caa.co.uk/Consumers/Unmanned-aircraft-and-drones/> (UK)

<https://www.tc.gc.ca/eng/civilaviation/opssvs/flying-drone-safely-legally.html> (Canada)

<https://www.casa.gov.au/aircraft/landing-page/flying-drones-australia> (Australia)

<https://www.caa.govt.nz/rpas/rpas-faqs/> (New Zealand)



SIN2: FLYING OUT OF LINE OF SIGHT WHEN YOU DON'T KNOW THE AREA

Depending on the country or locality you are flying in, flying out of sight maybe illegal anyway. When you want to fly out of line of sight, don't just completely rely on the FPV signal, especially if you don't know the area unless it is an open field with no obstructions for miles across.

The problem with this is that with FPV, you only have a narrow field of vision. That is, you can only see what is in front of you.

Let's just say that you saw a tree in front of you and you pitched backwards. In this instance, any number of things can go wrong because you don't know whats behind the craft. This is especially true if you lose orientation and do not know how to fly the drone both nose-in and tail-in.

➔ Solution



One solution to flying out of line of sight is to actually scout the area and know it well enough before flying around. Without proper flight planning, you not only risk damaging your drone or losing it but also risk causing serious injury to others and their property.



SIN₃: TURNING ON AND LAUNCHING OFF AN UNEVEN SURFACE

If you have ever built your own multirotor, you will know that the flight controller has to be mounted at the center of the frame and the direction of the “forward” of the flight controller has to be the actual forward direction of the frame itself. This is because the flight controller has to accurately “level” the drone so it can fly properly.

For proper leveling, good installation of the flight controller is not enough. You also have to ensure that when you turn on the drone you must allow the flight controller to calibrate by keeping it on a level surface.

With most pre-made multirotor drones, you need to make sure to turn on the drone on a level surface because the flight controller auto calibrates itself according to the surface that you turn on the drone from.

Note



If you find that your drone is acting like a drunk person flying pitching or rolling in a certain direction then you may want to land, turn off the drone and turn it on again on a level surface and launch off from there.



SIN4: NOT KNOWING HOW TO HANDLE GROUND EFFECT

As your drone is flying close to the ground, there is an increase in air pressure because the air that is being pushed downwards by the rotor blades has no place to go, relative to if your drone was higher up in the air. This effect of the increased pressure on the drone as it is closer to the ground is referred to as "ground effect".

This happens when you do not give enough throttle on take off and hover near the ground. This is an extremely common mistake that most beginners make because they are too afraid to ramp up on that throttle on take off.

➔ Note



While the ground effect is good at giving an increased lift, it can also tip your craft over, during take off. This can of course, be hazardous to both the drone and anyone else near it.



SIN5: NOT MANAGING YOUR BATTERIES

If you are a UAV or RC owner or enthusiast, it is imperative that you understand at least the basics of LiPos to not only be informed and responsible in terms of properly taking care, storing and disposing them but to thoroughly enjoy operating the machine that the battery powers.

The lifeline of your LiPo batteries will depend on how well you take care of it. If all is good, it should last about 300 cycles.

Constantly exposing the cells to high temperatures and not regularly balancing it can exponentially reduce how long it will last. A properly maintained, healthy LiPo battery is not only LiPo fire and healthy proof, but also stronger in terms of providing the necessary power you require.

Note



To learn everything you need to know about managing your batteries, check out this guide: <http://www.droneybee.com/lipo-battery-tutorial>



SIN6: CARELESS LANDINGS

Carelessly landing is arguably the MOST common mistake that beginners (and some pros) make. Whenever you are landing (or taking off for that matter), always do so in a straight, controlled manner. Don't try to emulate a plane and land your drone at an angle if you don't want your drone to tip forward and crash. With multirotor drones, you have the added maneuverability to take off and land straight up and down so make use of it.

Note



If you are flying a drone with a camera, get a gimbal guard. Gimbal guards are attached to the bottom of your drone and will help keep objects such as grass away from the gimbal motors, giving it an additional layer of protection. It is also great if you are a beginner and haven't mastered proper, smooth landing yet. Another accessory is a landing gear stabilizer.



SIN7: FLYING IN CROWDED PLACES

Unless it is your job to get into a situation like capturing wedding photography or video, try and avoid flying in crowded places. This is especially true when you are a beginner.

Getting your drone damaged is one thing, but causing an injury to others or their property can get you into a lot of trouble.

➔ Note



Remember : If you are crashing, immediately turn the throttle off. This will not only minimize the damage to the propellers and motors of your drone, but also to people, pets or objects it might potentially crash onto.