What are the FAA Rules for Recreational Flyers?

The Exception for Limited Operation of Unmanned Aircraft (**USC 44809**) is the law that describes how, when, and where you can fly drones for recreational purposes. Following these rules will keep people, your drone and the airspace safe:

- **Fly only for recreational purposes (enjoyment).** Flying "for the furtherance of a business," even for free, requires the pilot to first pass the FAA Part 107 exam to become a certified commercial drone pilot. This includes flying for your church or other non-profit organizations as well.

- **Fly at or below 400' in controlled airspace** (**Class B, C, D, and E**) only with prior authorization by using **LAANC** or **DroneZone**. Fly at or below 400 feet in **Class G (uncontrolled) airspace**.
  Note: Flying drones in certain airspace is not allowed (like too close to airport or military base). Use the free B4UFLY, Aloft, or AirMap apps to find out if there are restrictions in your area.

- **Keep your drone within the visual line of sight** or use a visual observer (VO) who is co-located (physically next to) and in direct communication with you. If you are wearing googles to fly, you must have someone with you (VO) while flying for safety purposes.

- **All recreational flyers must pass a FREE aeronautical knowledge and safety test** and provide proof of test passage (the TRUST completion certificate) to the FAA or law enforcement upon request. Take The Recreational UAS Safety Test (TRUST) and carry proof of test passage. You can take the rest free at **https://Trust.PilotInstitute.com**

- **Have a current registration, mark your drones on the outside with the FAA registration number**, and carry proof of registration with you. Only use **https://faadronezone.faa.gov/** to register! If your drone weighs less than 250gm (0.55 pounds) you are not legally required to register, but it's only $5 for 3 years, so why not do it anyway? You can get free FAA stickers from **https://pilotinstitute.com/free/**

- **Do not operate your drone in a dangerous manner.**
- **Do not interfere with manned aircraft. You must give way! Lower your altitude to avoid collision.**
- **Do not interfere with emergency response or law enforcement activities.**
- **Do not fly under the influence of drugs or alcohol.**
- **Do not fly over people or moving vehicles (bicycles, cars, motorcycles, etc.)**
- **Do not fly at night unless you first attach a white strobe light on top of your drone. Must be bright enough to be seen up to 3 miles away by other aircraft.**

Helpful Hint: You can take a FREE 2-Hour online course to learn more about flying your drone at **https://pilotinstitute.com/course/recreational-flying-made-easy/**

INSURANCE: If your drone costs more than a few hundred $$, you can get a cheap Personal Article insurance Policy from State Farm to cover loss of your drone. Zero deductible.

Beginner Flying Tips

Battery Care: Drone batteries are Lithium-Ion batteries and require more care than your typical AA Alkaline batteries

- **Charge up your batteries in the drone** and remote controller each time before flying.
- **Do not immediately recharge the drone battery afterwards**, until it has cooled down to the touch.
- **Don't store your drone battery in a fully charged status** all the time, only when you know you are going to be flying it again soon.
- **Do not charge drone batteries unattended**. These batteries have been known to catch fire while charging, if damaged.

Powering On Your Drone: Many drones require or highly recommend recalibrating the internal compass before flying. Exact method may vary, but most have you turn in a full 360 circle with the drone held horizontally, wait for the display to change on the controller (or your phone) and then tilt it 90 degrees so the edge of the drone is facing down and make another circle. DJI drones are well known for this maneuver.

Preparing to Launch Your Drone:

- **Choose a wide open area without trees or other obstacles nearby**, especially when first learning. Stay away from other people or animals. Dogs like to chase and attack drones.
- **Place the drone on a clean flat surface, but not concrete**. Concrete typically has metal inside, mesh or rebar, that can adversely affect the internal compass in the drone.
- **If you are launching from grass or dirt,** use something as a launch pad. This will keep dirt and debris from being sucked into your motors and make sure nothing hits the propellers while they are spinning.
- **Point your drone away from where you will be standing**. This will help you initially control the drone using the sticks on the remote controller. If the drone is NOT pointing away from you, the movements of the controller sticks will not be as intuitive for you.

Remote Controller: Camera & GPS Drones – not FPV style

- The left stick makes the drone go up / down, or turn left / right.
- The right stick makes it move forward / backwards, or move sideways left / right. You can move the sticks at an angle also.
- RTH – Some drones have a "Return to Home" button. The drone "should" remember where it took off from and return to home when this button is pressed. Different brand drones work differently, so read your drone's manual.
- Most controllers, if you have a camera on the drone, will have one or more buttons for start/stopping video or taking a photo.

Many Controllers use your cellphone as the display. They may connect via wi-fi or via a cable. You will need to download the appropriate app before using this. You may need a short USB Android or iOS cable. You may need to remove your phone case if it won't fit into the clamps on the controller. This varies widely by different brand drones.

Obstacle Avoidance: Many of the more expensive drones, especially DJI brand, have built-in obstacle avoidance sensors. These sensors are not perfect, especially in low light conditions. They may not see small branches or wires. They may not see obstacles that are off to your side or behind you. **The cheaper toy drones typically DO NOT have any obstacle sensors.** Keeping Visual Line of Sight with your drone will help you avoid accidently crashing into an obstacle, whether or not your drone has obstacle avoidance sensors.