

# Becoming a Better Drone Pilot – The Preflight Checklist

By Chris Anson

There are a lot of things remember when you're flying a drone. If you're shooting video and/or photographs, then there are even more things to remember and set. Having a preflight checklist makes this much easier. Here are some of the things to check on the ground, prior to takeoff and immediately after takeoff, while in the air. *Note that some of these options depend upon which drone you're flying.*

Remember that whether you are a recreational pilot or Part 107 commercial pilot, you are responsible for checking and setting up the drone so that it is safe to fly.

## On the ground

- 1. Do a visual inspection of your drone and surrounding area**
  - Are there people, buildings, trees, or cars around where you're going to take off?
    - Will this impact the flight/mission? If so, consider moving to another location.
  - Is the landing/takeoff area clear of debris, rocks, and stones?
    - If you have a landing pad, put it down, otherwise move to another spot.
- 2. Are all the propellers securely attached?**
  - Never hurts to recheck (losing a propeller causes more crashes than you might imagine).
- 3. Is the drone's landing gear locked into place?**
  - If not, correct it.
- 4. Are the drone batteries fully charged and locked in place?**
  - If they aren't fully charged, do they have enough power for this flight/mission?
- 5. Are your remote-control batteries fully charged?**
  - If they aren't fully charged, do they have enough power for this flight/mission?
- 6. Camera/Gimbal**
  - Is your camera gimbal mounted and secured?
  - Is your gimbal lock removed and/or unlocked?
  - If you have a lens choice, do you have the right lens on your camera for this flight/mission?
  - Do you have the correct ND filter on your lens for current lighting conditions?
    - Make your best guess and recheck it once you are in the air. You might have to land and change. Remember that the smaller sensors on these drones require a lower f-stop to get the sharpest image.
  - Is your SD and/or SSD card inserted correctly?
    - If not, reinsert and recheck.
  - Is your Phone or Tablet fully charged?
    - If not, do you have enough charge for this flight/mission?

## Getting ready to fly

1. **Power up the remote**
2. **Power on the tablet and connect to the remote**
3. **Start the Go 4 app or whichever application you are using**
4. **Power up the drone**
5. **Check all the indicators for**
  - Battery levels on drone and remote controller
  - GPS/Satellites
  - Sensors
  - Visual/telemetry link to your drone. DJI shows this by way of the HD icon
6. **Camera related**
  - your SD or micro SD card formatted?
  - Is your SSD card formatted?
  - Are you're shooting video?
    - What is your frames per second set to (FPS)?
    - Is your shutter speed twice what your frames per second are (FPS)?
      - 24fps = 1/50 | 30fps = 1/60
    - What is your Style set to?
    - What is your SD/Liveview set to?
    - What is your White Balance set to?
    - If you are using an SSD
      - What is your RAW or Prores settings?
      - What is your SSD Looks (Normal or RAW)?
      - Are you shooting in Normal Mode or EI Mode?
7. **Are you shooting photographs?**
  - What kind of shot are you taking?
  - Single, multiple, AEB, Timed, Raw Burst
  - What is your Image Size?
  - What is your Image Format?
  - What is your Color set to?
  - What is your Style set to?

## In the air

1. Lift off the drone into a hover approximately 15 feet in altitude.
2. Test the controls on the remote. Are they responding correctly?
  - If not, land and correct them.
3. Test the camera for both photo and video. Is the camera working correctly?
  - If not, land and correct it.
4. Check or recheck the exposure levels for the camera for both video and photographs and adjust as necessary.
  - For video this is where you may need to change your ND filter to get that lower f-stop for a sharper image.

5. Recheck all the indicators for GPS/Satellites, HD, Remote Battery, Drone Battery, Avoidance Sensors.

**If everything is a go, fly the mission. If not, land and correct the problem. Then lift off and check again.**