

Hobbies & Inspiration

Brandon has various hobbies: playing instruments (guitar player for over 10 years and has dabbled in violin, cello, and bass), video gaming, flying drones, 3D printing and modeling, and practicing LiDAR/photogrammetry. Out of these hobbies, flying drones are Moffitt's favorite, "The adrenaline rush you get doing acrobatic tricks, pulling several G's on the frame of the aircraft is unbeatable."

The Federal Aviation Administration (FAA) regulates the aviation system to ensure the safety of pilots and the public. Drones, which qualify as an unmanned aircraft system (UAS) have been limited to public missions such as disaster relief, search and rescue, and scientific research. It wasn't until recent years that the FAA authorized some non-recreational UAS operations in controlled, low-risk situations. Unauthorized airspace includes areas above large crowds, areas above major urban areas, and areas with a high density of manned aircraft. There are also other restrictions depending on the craft such as altitude limitations. In addition, the FAA also requires remote ID so that unmanned aircrafts can be identified while in use.

src: <https://www.faa.gov/newsroom/unmanned-aircraft-systems-uas>

Brandon thanks his father, a private pilot for 32 years, for introducing him and being his mentor for learning FAA restrictions, aviation laws, and everything else to do with the aviation world. Brandon's father helped him study and prepare for the exams required to fly drones commercially (no license is required to fly as a hobbyist for a small drone user). As a result of their efforts, Brandon has been a proud holder of his Title 14 CFR Part 107: sUAS license since November of 2022.

Over his six years of flying drones, Brandon has flown several. The drones within his fleet currently are the DJI FPV and the DJI Mini 2.

DJI FPV:

The DJI FPV enhances the pilot's immersion with the aircraft by implementing stable video (120 fps max frame rate) transmission into their multi-antenna DJI FPV Goggles. The goggles are so immersive that Brandon exclaims that, "Brandon "I even have to sit down while I fly them so I don't fall over trying to compensate so I know which direction the drone is facing." The antennas coordinate communication between the air unit, remote controller, and goggles. The DJI FPV camera is also a 150° ultra-wide-angle lens for an expansive field-of-view. The camera also records at 4k/60fps. In addition, the system can operate in three different modes: Standard, Racing, and LED.

Standard Mode: "Standard mode reduces color loss and preserves more original details, improving daytime image quality."

Racing Mode: "In Racing mode the image contrast increases, helping pilots to distinguish obstacles throughout the course."

LED Mode: "LED mode increases the color saturation on LED lights and reduces noise during night races, allowing pilots to track the location of their air units easily."

src:

<https://www.dji.com/fpv#:~:text=The%20DJI%20FPV%20Goggles%20are%20light%2C%20comfortable%2C%20and,an%20engaging%20FPV%20flying%20experience%20for%20the%20user.>

<https://www.dji.com/dji-fpv?site=brandsite&from=nav>

DJI Mini 2

The DJI Mini 2 is an even smaller drone compared to that of the DJI FPV. Unlike the FPV, the Mini 2 does not have the DJI Goggles but instead an app that connects to your phone that transmits with the drone.

src: <https://www.dji.com/mini-2?site=brandsite&from=nav>

[Unmanned Aircraft Systems \(UAS\) | Federal Aviation Administration \(faa.gov\)](#)

[DJI Digital FPV System - DJI](#)

[DJI FPV - Redefine Flying - DJI](#)

[DJI Mini 2 - Make Your Moments Fly - DJI](#)

[Balt-Wash_Heli.pdf \(faa.gov\)](#)

[Aeronautical Chart Users' Guide \(faa.gov\)](#)

[What Frequency Do Drones Use? - Aero Corner](#)

“5.4.3.2 Sans serif fonts (for example, Futura or Helvetica) are recommended for displays viewed under extreme lighting conditions.” [AC 25-11B - Electronic Flight Displays \(faa.gov\)](#)