**UAV Advanced Flight Skill 1**

**- Use of DJI Z 30 camera and Matrice 210 -**

**Objective:** To teach the pilot operation of the zoom camera

**Discussion topics:**

* Setup of launch/landing area
* Capabilities and limitations of the Z-30
* Use of orientation and anti-collision strobe lights
* Emergency procedures for lost signal
* Visual camera low light performance
* Equipment and accessories specific to night operations
* Communications with visual observers
* Use of FPV view for approaching and flying around the course

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**Pilot exercises:**

* Setup launch/landing area
* Install the Z 30 zoom camera on the Matrice 210
* Install S 4 camera on the Matrice 210
* Synchronization of the 2 cameras and unlinking the 2 cameras
* Setup of UAV orientation and anti-collision strobe lights
* Takeoff and function check
* Flight by visual line-of-sight
* Flight by FPV
* The Pilot will fly to 300 feet AGL
* The pilot will locate a distant, predetermined target and take photos at 4 or 5 different zoom focal lengths
* Communicate and coordinate with visual observer
* Perform an approach and landing

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**Common mistakes:**

* Improper setup of UAV orientation and anti-collision lighting
* Improper installation of payloads #1 and #2 (both cameras)
* Unable to determine orientation, proximity and control at distance
* Unable to utilize FPV and telemetry to locate each hoola hoop
* Failure to communication and coordinate with VO
* Failure to understand visual camera limitations

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* Pilot performs a site survey and identifies hazards
* Pilot correctly installs orientation and anti-collision strobe lights
* Pilot accounts for visual camera limitations
* Pilot demonstrates the ability to link and unlink both cameras
* Pilot communicates and coordinates with the visual observer
* Pilot is able to approach the launch/landing area and prepare for landing
* Pilot performs a safe landing by FPV and/or by VO feed back