**UAV Advanced Flight Skill 3**

**- Depth perception training -**

**Objective:** To teach the student practical flight skills when operating at a distance from the UAV

**Discussion topics:**

* Setup of launch/landing area
* Set up Hoola Hoops 10 feet apart
* Capabilities and limitations the Pilot’s depth perception
* 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
* 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 stand equidistant between hoola hoops #1 and #2
* Take off from hoola hoop #1 and fly 10 feet and land inside of hoola hoop #2
* When the Pilot is comfortable with the above distances, move each hoop five more feet away from the pilot and repeat.
* Post VO in sight of the hoops and have the pilot stand with their back turned away (or with blocked direct vision) and rely on verbal directions of the VO
* 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
* 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 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