**UAV Advanced Flight Skill 1**

**- Slalom/ figure eight course -**

**Objective:** To teach the student practical flight skills when operating in or near tight areas

**Discussion topics:**

* Setup of launch/landing area
* Set up 4 swimming noodles in a line 10 feet apart
* Capabilities and limitations of UAV obstacle avoidance systems
* 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
* Communicate and coordinate with visual observer
* Perform an approach and landing

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**Common mistakes:**

* Not accounting for night vision adaptation
* 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 poles and fly around course
* Failure to maintain situational awareness of aircraft and hazards
* Failure to communication and coordinate with visual observer
* 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 maintains control of aircraft during flight and maintains orientation based on VLOS and FPV
* Pilot communicates and coordinates with the visual observer
* Pilot will demonstrate the ability to fly around pylons and avoid colliding with the pylons
* Pilot is able to approach the launch/landing area and prepare for landing
* Pilot performs a safe landing by FPV



Basic set up



Flying the drone in a figure 8 pattern in and out of the noodles