**UAV Basic Flight Skill 1**

**- Take off and landing basic maneuvers -**

**Objective:** To teach the novice student first time flying skills when operating any team sUAV

**Discussion topics:**

* Capabilities and limitations of the joysticks
* Setup of launch/landing area
* Knowledge of orientation of UAV
* Communications with visual observers
* Use of FPV view for approach and landing

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**Student exercises:**

* Setup launch/landing pads
* Place UAV in center of launch pad
* Takeoff and bring UAV up to 6 feet AGL
* Have student let go of both joysticks
* Have student notice how the UAV will hover and hold its position
* Have student rotate the UAV using the left joystick
* Have the student move the UAV forward, backward left and right using the right joystick
* Communicate and coordinate with visual observer
* Have the student move the gimbal up and down
* Have the student position the UAV so it is facing the student
* Raise the gimbal up and have the student take a “selfie”
* Have the student yaw the UAV left so the rear of the UAV is facing the pilot
* Land the UAV on its landing pad facing away from the pilot

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**Common mistakes:**

* Improper setup of UAV orientation on the launch pad
* Unable to rotate the UAV
* Unable to have the UAV make slow, controlled movements left, right, forward and backward
* Failure to communication and coordinate with visual observer
* Failure to land the UAV in any orientation other than pointing directly away from the pilot
* Failure to land completely on the landing pad

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* Student launches drone to 6 feet AGL
* Student yaws the UAV 360 degrees
* Student understands the use of the both sticks to control the flight
* Student maintains control of aircraft during flight and maintains orientation based on VLOS and FPV
* Student communicates and coordinates with the visual observer
* Student is able to approach the launch/landing area and prepare for landing with proper orientation – with head pointing away from the pilot