



UAV Controls – Joysticks on Controller

- Fly **upward** [push **left** joystick **forward**, away from you]
- Fly **down** [pull **left** joystick **back**, towards you]
- Fly **forward** [push **right** joystick **forward**, causing the UAV to pitch down]
- Fly **backward** [pull **right** joystick **back**, causing the UAV to pitch up]
- Fly to the **right** [push **right** joystick to the **right**, causing the UAV to roll right]
- Fly to the **left** [push **right** joystick to the **left**, causing the UAV to roll left]
- Turn to the **left** [push the **left** joystick to the **left**, causing the UAV to yaw left]
- Turn to the **right** [push the **left** joystick to the **right**, causing the UAV to yaw right]

Student Roles

Pilot

- Power up the UAV's propellers in preparation for flight.
- Use the hand-held controller to fly the UAV.
- Power down the propellers after the UAV lands.

Range Safety Officer (RSO)

- Make sure all students involved with the flight wear safety goggles.
- Verify that the launch area and airspace are clear before the flight and signal to the Pilot "all clear" when ready.
- Alert the Pilot if any safety hazards arise during the flight.

Spotter

- Help the Pilot by watching for obstacles and for UAV drift out of the safe flight area or too close to the Pilot.
- Call out warnings and suggested commands (such as "roll right") or desired motions (such as "move forward") to the Pilot when the UAV gets too close to obstacles, boundaries, or people.
- The Pilot is responsible for flying the UAV, so he or she may choose to follow your suggestions or ignore them.
- The Spotter should stand near the Pilot. This makes it easier for the Pilot to hear the Spotter's commands. Also, if you face the same direction as the Pilot, it will be easier to call out motion commands that make sense to the Pilot. (Commands such as "move left" or "roll right" are easier if the Spotter and Pilot are facing the same direction.)