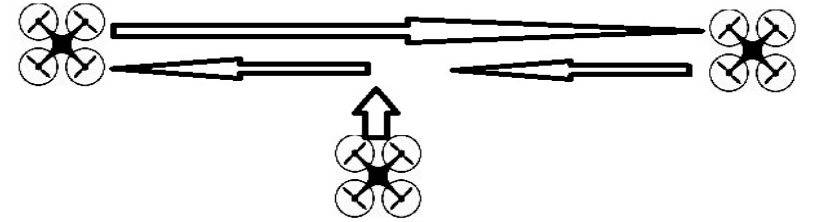


# Week 2: Sergeant Training

# First Flight Task

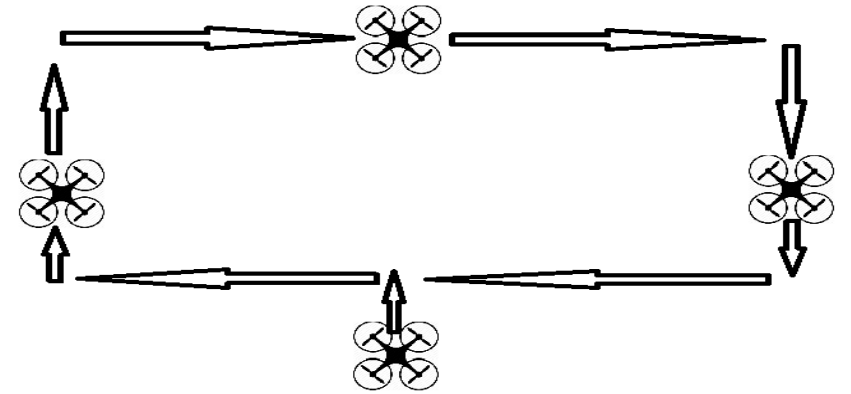
- Introduction to Stabilized Flight Mode and basic front/back, side-to-side control
  1. Place the multirotor on the ground, facing forward, step back a safe distance facing the same way
  2. Place the FC in Stabilized Mode
  3. Arm and advance throttle, lifting off to approximately 3 to 6 feet in altitude
  4. Slowly fly forward 10 to 20 feet then stop the forward movement, adjust throttle to maintain altitude
  5. Slowly fly backwards towards the starting position and stop
  6. Slowly fly sideways to the right and left, while keeping the multirotor facing forward
  7. Repeat this process until you can comfortably maintain the forward orientation and height while moving the multirotor forward, back, and to the sides

# Second Flight Task



- Introduction to flying a pattern
  1. Lift off to approximately 3 feet to 6 feet in altitude
  2. Fly forward approximately 10 feet and stop
  3. Yaw 90 degrees to the left and fly forward ~30 feet (the multirotor will be moving towards your left)
  4. Stop the forward movement
  5. Yaw to the right 180 degrees
  6. Fly forward (multirotor now moving from left to right) until you are ~30 to your right
  7. Stop the forward movement
  8. Yaw to the right 180 degrees and fly forward (to your left)
  9. Repeat until you have good control of altitude and direction

# Second Flight Task Continued



- More difficult pattern
1. Lift off to approximately 3 feet to 6 feet in altitude
  2. Fly forward approximately 10 feet and stop
  3. Yaw 90 degrees to the left and fly forward ~ 30 feet and stop
  4. Yaw 90 degrees to the right
  5. Fly forward (going away from you) approximately 30 feet and stop
  6. Yaw 90 degrees to the right and fly forward (moving towards your right) until ~30 feet to the right of you and stop
  7. Yaw 90 degrees to the right and fly forward (moving towards yourself) approximately 30 feet and stop
  8. Yaw 90 degrees to the right and repeat

# Third Flight Task

- Nose-In Flight
  1. Place the multirotor at a safe distance in front of and facing away from the pilot.
  2. Lift off to approximately 3feet to 6 feet in altitude
  3. Fly forward (away from the pilot) approximately 10 feet
  4. Yaw 180 degrees so the nose of the multirotor is now facing towards the pilot
  5. Apply right roll stick movement to move sideways (to the pilot's left) for approximately 20 feet and stop
  6. Apply left roll stick movement to move in the other direction (to the pilot's right)
  7. Repeat the side-to-side movements until it the control movements feel comfortable
  8. Next, perform front to back flights while keeping the nose pointed towards the pilot. For safety, fly to the side of pilot, not directly at the pilot while practicing the Nose-In forward/back flight pattern
  9. Next, perform CCW and CW box patterns while keeping the nose pointed Nose-In.