

## 1 Skill

fly-in-square-shape-traj



## 2 Initial Plan (Generated)

```
vel_traj: List[Velocity] = []
ver_speed = 1
vel_traj += [(0,0,-1)] * 10 # take off
vel_traj += [(0,0.5,0)] * T # east
vel_traj += [(-0.5,0,0)] * T # south
vel_traj += [(0,-0.5,0)] * T # west
vel_traj += [(0,5,0,0)] * T # north
vel_traj += [(0,0,1)] * 10 # land
```

## 3 Specification Check

G(altitude < 10)

✗ FAIL

## 4 Final Plan (Refined)

```
vel_traj: List[Velocity] = []
ver_speed = 0.5
vel_traj += [(0,0,-0.5)] * 10 # take off
vel_traj += [(0,0.5,0)] * T # east
vel_traj += [(-0.5,0,0)] * T # south
vel_traj += [(0,-0.5,0)] * T # west
vel_traj += [(0,5,0,0)] * T # north
vel_traj += [(0,0,0.5)] * 10 # land
```

## 5 Specification Check

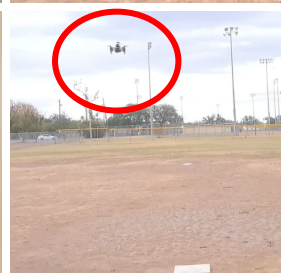
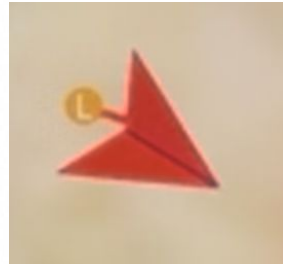
G(altitude < 10)

✓ PASS

## 6 Execution



Take off  
NED (0,0,-0.5)



Move east  
NED (0,0.5,0)



Move south  
NED: (-0.5,0,0)



Land  
NED: (0,0,0.5)