**Way Points**

**（goal position payload）**

**Trj Optimizer**

**Reference Trajectories**

**payload**

(p\_ref, v\_ref, a\_ref, jerk\_ref, snap\_ref)

**Controller**

**F\_des** = ma + Kp(p\_ref-p)

+ Kv(v\_ref-v) + mg

**Estimator**

**(MARL)**

**PO-states**

**[c1, c2, c3, c4]**

Ref\_payload

Mass payload

J\_payload

**Delt\_F**

**F\_des\_final** = **F\_des + Delt\_F**

**Actuator**

**model**

**Propeller**

**speed**

**pi = p\_payload + r\_i**

**Reference Trajectories**

**Agent i**

**2**

**1**

**3**

**4**

**5**

**6**

**7**

**8**

**9**

**10**

**11**

**12**

**13**

**14**

**15**