

Observable

PackageAssigner

- getAvailableDrones()
- getUndeliveredPackages()
- + assignPkgToDrone()

DDSimulation

- packages: List<Package>
- drones: List<Drone>
- deliveryMap: Location[][]
- + startSim()
- + stopSim()
- + pauseSim()
- + run()
- runSimLoop()
- updateSim()
- pickupPackage()
- deliverPackage()
- moveToNextLocation()
- calculatePathToPkg()
- hover()

Package

- packageId: String
- weight: double
- status: Status

PathUtil

- + getPath()
- + getShortestPath()
- + findPathCostPerKg()
- + getHoverTime()

Drone

- droneId: String
- cargoCapacity: double
- rule: DDrule
- idleLocation: Location
- projectedPath: List<Location>
- actualPath: List<Location>

{DDApp}

- # frame: JFrame
- # menuManager: MenuManager
- + initGUI()
- + showUI()
- + exit()

MyDDApp

- simulation: DDSimulation
- panel: DDPanel
- + getNorthPanel()
- + getMainPanel()

<<DDRule>>

- + getDirections()
- + getMaxHoverTime()
- + getTimeOut()

DDRule1

DDRule2

DDRule3

JPanel

Observer

DDPanel

- boxSize: int
- rows: int
- cols: int
- location: Location[][]
- + paint(Graphics g)
- + drawGmms()
- + getG2d()
- + getBoxSize()
- + getRows()
- + getCols()
- + update()