Automail System

<< enumeration >>
Mode

CYCLING

FLOORING

1 — Is in — 1

<< Abstract >>
MailRoom

- mode : Mode
- waitingForDelivery : List<Deliverable>[]
- idleRobots : Queue<Robot>
- activeRobots : List<Robot>
- deactivatingRobots : List<Robot>

+ someItems() : Boolean
- floorWithEarliestItem() : Int
+ arrive(items : List<Deliverable>) : Void
+ *robotDispatch() : Void*
+ tick() : Void
+ robotReturn(robot : Robot) : Void
# Robot loadAndActivateRobot(floor : Int) : Robot

Holds

1

References

1

Manages

MailRoomCycling

+ MailRoomCycling(numFloors: int, numRobots: int)
+ robotDispatch : Void

1

MailRoomFlooring

- numRooms : Int
+ LeftCR : ColumnRobot
+ RightCR : ColumnRobot

+ MailRoomFlooring(numFloors: int, numRobots: int)
+ robotDispatch : Void

1

1

<< Interface >>
Comparator

+ compare() : Int

Uses

SortLeft

+ field: type

+ method(type): type

SortRight

+ field: type

+ method(type): type

<< Abstract >>
Deliverable

- floor : Int
- room : Int
- arrival : Int

+ toString() : String
+myWeight() : Int

0..*

0..*

Delivers

1

1..*

Parcel

- weight : Int

Letter

<< Abstract >>
Robot

- count : Int
- id : String
- floor : Int
- room : Int
- mailroom : MailRoom
- deliverables : List < Deliverables>
- CAPACITY : Int
load : Int

+ toString() : String
+ isEmpty() : Boolean
+ move(direction : Direction) : Void
+ add(item : Deliverable) : Boolean
# getDeliverables() : List<Deliverables>
+ tick() : Void
+ sortRight() : Void
+ sortLeft() : Void

Manages

0..*

Manages

2

Manages

CycleRobot

ColumnRobot

+ getEarliestItem() : Int
+ getTargetFloor() : Int

FloorRobot

- heading : Direction
- shallMoveRight : Boolean

+ transfer(robot : Robot) : Void
+ add(item : Deliverable) : Boolean

1..*