

- uid: String

- lastNum: int

- move(): void

- pickUpItem(): void

- dropOrder(): void

+ getRobotX: int

+ getRobotY: int

## **Robot**

- safetyMargin: int

- batteryLevel: int

- orderstatus: Boolean

- uid: String

- lastNum: int

- getBatteryLevel(): int

- decreaseBatteryLevel(): void

- orderDecision: Boolean

- needsCharging(): Boolean

- move(): void

- pickUpItems: void

- dropOrder(): void

+ getRobotX: int

+ getRobotY: int

+ getShelfX: int

+ getShelfY: int

+ getPackingX: int

+ getPackingY: int

## **PathFindingStrategy**

+ aStarAlgo(): void

+ executeAStar(): void

## CostEstimationStrategy

- startPoint: Point

- endPonit: Point

+ distanceCalculator: double

+ totalDistanceEstimator: double

## Order

- assignedOrders: List<String>

- unassignedOrders: List<String>

- completedOrders: List<String>

- reader: Scanner

+ show(): void

+ addToAssigned(): void

+ removeFromAssigned(): void

+ addToUnassigned(): void

+ removeFromUnassigned(): void

+ isCompleted(): void