Elevator

- subsystem: ElevatorSubsystem
- primaryRequest: ElevatorRequest

currentState: ElevatorState
direction: Direction
floorNumber: int
motorRunning: boolean
doorOpen: boolean
elevatorId: int

- senderReceiver: UDPSenderReceiver

time: doubledeadline: double

+ getNextFloorNumber(): int

+ setFloorNumberToNextFloor(): void + getCurrentState(): ElevatorState

+ setCurrentState(currentState: ElevatorState): void

+ setDoorOpen(doorOpen: boolean): void

+ getElevatorId(): int+ getDirection(): Direction+ getFloorNumber(): int+ isMotorRunning(): boolean

+ setMotorRunning(motorRunning: boolean): void

+ isDoorOpen(): boolean

+ getSubsystem(): ElevatorSubsystem

+ setPrimaryRequest(primaryRequest: ElevatorRequest): void

+ setDirection(direction: Direction): void+ getPrimaryRequest(): ElevatorRequest+ getSenderReceiver(): UDPSenderReceiver

+ run(): void

+ getTime(): double

+ setTime(var: double): void + getDeadline(): double

+ setDeadline(var: double): void

+ synchDeadline(): void+ hasTransientFault(): void+ hasHardFault(): void

ElevatorController

- senderReceiver: UDPSenderReceiver

- elevator: Elevator

- subsystem: ElevatorSubsystem

+ addNewRequest(request: ElevatorRequest): void

+ processCompletedRequests(floorNumber: int, direction: Direction): void

+ processRequestsAtCurrentFloor(floorNumber: int, direction: Direction): void

+ receiveNewPrimaryRequest(): ElevatorRequest

+ isStopRequiredForFloor(nextFloorNumber: int, direction: Direction): boolean

- getElevatorStatus(): ElevatorStatus

+ run(): void

ElevatorSubsystem

- downRequests: ArrayList<ElevatorRequest>

- upRequests: ArrayList<ElevatorRequest>

- hasWaitingRequests: boolean

+ elevatorLamps: ArrayList<Boolean>

- elevatorld: int

+ getStopRequestFloorsInDirection(direction: Direction): ArrayList<Integer>

+ addNewRequest(request: ElevatorRequest): void

+ hasWaitingRequests(): boolean

+ setElevatorLamps(floorNumber: int, lampState: boolean): void

+ processCompletedRequests(floorNumber: int, direction: Direction): void

+ processRequestsAtCurrentFloor(floorNumber: int, direction: Direction): void

+ receiveNewPrimaryRequest(): ElevatorRequest

+ isStopRequiredForFloor(nextFloorNumber: int, direction: Direction): boolean

+ hasFault(faultType: FaultType, floorNumber: int): boolean

+ getWaitingRequests(): ArrayList<ElevatorRequest>

