DroneState
IDLE
EN_ROUTE
DROPPING
RETURNING
DONE

«interface» **TransportUtility**
send(SendAddress, Message): void
receive(SendAddress): Message

MessageTransport
- inboxes: Map<SendAddress, Blocking
+ send(SendAddress, Message): void
+ receive(SendAddress): Message

```
                          «interface»
                           Runnable


   DroneSubsystem

   - droneId: Int

   - transport: MessageTransporter

   - waitingForTask: boolean

   - state: DroneState

   + run(): void

   - handleMessage(Message): void

   - executeCommand(DroneCommand): void
                                    1


   FireIncidentSubsystem

   - transport: MessageTransporter

   - csvFile: String

   + run(): void

   - parseCSVLine(String ): FireEvent
                              1


   SchedulerSubsystem

   - transport: MessageTransporter

   - activeEvent: FireEvent

   - schedulerState: SchedulerState

   + run(): void

   - handle(Message): void
                         1


   ter

   gQueue<Message>>


   SchedulerState

   IDLE

   WAITING_FOR_DRONE


   SendAddress

   SCHEDULER

   FIRE_INCIDENT

   DRONE
```

Message

- type: MessageType

- source_id: int

- payload: Object

+ getType(): MessageType

+ get_source_id(): int

+ getPayload(): Object

+ toString(): String

+ fireEvent(): Message

+ dronePoll(): Message

+ droneTask(): Message

+ droneDone(): Message

DroneCommandOptions

DISPATCH

DROP_AGENT

RETURN_BASE

«interface»
Serializable

1

DroneCommand

- request_id: String

- command_option: DroneCommandOptions

- zone_id: int

- severity: Severity

+ get_request_id(): String

+ get_command_option(): DroneCommandOptions

+ get_zone_id(): int

+ getSeverity(): Severity

+ toString(): String

1

DroneStatus

- drone_id: int

- state: DroneState

MessageType

FIRE_EVENT

DRONE_POLL

DRONE_TASK

DRONE_STATUS

DRONE_DONE

FIRE_OUT

FireEventType

FIRE_DETECTED

DRONE_REQUEST

FireEvent

- timestamp: Instant

- zoneId: int

- eventType: FireEventType

1
- severity: Severity

+ getTimestamp(): Instant

+ getZoneId(): int

+ getEventType(): FireEventType

+ getSeverity(): Severity

+ toString(): String   1

DroneState

IDLE

EN_ROUTE

DROPPING

RETURNING

DONE

- state: DroneState

- zone_id: Integer

- remaining_agent: Integer

1

+ get_drone_id(): int

+ getState(): DroneState

+ get_zone_id(): Integer

+ get_remaining_agent(): Integer

+ toString(): String

Severity

LOW

MODERATE

HIGH

+ requiredAgentLitres(): int

1