Sequence Diagram

```
: InterfaceLoop    Delivery Service    Drone    Restaurant    Package    Ingredient    CurrentLocation    homeBase    destinationLocation
                                                                                       : Location        : Location   : Location
```

getDrones()
Drone ref

getCurrentLocation()
Location ref

getHomeBase()
Location ref

loadDroneFuel(petrol)

getDrones()
Drone ref

getCurrentLocation()
Location ref

getHomeBase()
Location ref

getRemainingCapacity()
capacity

addToPayload(loadIngredient, barcode, quantity, price)
getPayload()

Loop
for each ingredient in payload
getBarcode()
barcode

BREAK
[If ingredient found]
incrementQuantity(quantity)

ALT
[If Ingredient Never Found]
new Package(quantity, unitPrice)
Package ref
getPayload().put(loadIngredient, Package)
decrementRemainingCapacity(quantity)

getDrones()
Drones ref

getCurrentLocation()
Location ref
calculateDistance(destination)
distance

getHomeBase()
Location ref
calculateDistance(homeBase)
returnDistance

getFuel()
fuel

getSpacesLeft()
spacesLeft

ALT
[if distance > Fuel]
displayErrorMessage()

ALT
[if distance + returnDistance > Fuel]
displayErrorMessage()

ALT
[If spacesLeft = 0]
displayErrorMessage()

ALT
flyToDestination(DestinationLocation)
incrementSpacesLeft()

[else]
decrementSpacesLeft()
calculateDistance(destination)
distance
useDroneFuel(distance)

getCurrentLocation()
Location ref

getPayload()
payload

makePurchase(buyerDrone, buyerIngredient, quantity)
getUnitPrice()
price
addSpending(amount)

completePurchase(buyerIngredients, quantity)
addSales(amount)
getQuantity()
quantity

ALT
[if ingredient quantity = quantity requested]
remove(ingredient)

ALT
[else]
decrementQuantity(quantity)