USE CASE DESCRIPTION

1. Manual Inspection Use Case:

Summary: Inspect returned items
Actors: Mail Truck
Precondition: Mail truck has sent returned items
Main Sequence:
1. Returned Items are inspected
2. If item inspection is accepted, items are sent to refurbish products
3. Refund Grant is notified

Alternative Sequence:
1. Returned Items are inspected
2. If items are rejected, items are sent back to mail trucks

Post Condition: Returned items have been inspected

2. Refurbish Products Use Case:

Summary: Returned Items are entered as Refurbish Products
Actors: Mail Truck
Precondition: Items have cleared Manual Inspection
Main Sequence:
1. Receive results from Manual Inspection
2. If result is passed, Items are allowed to enter as Refurbished Products
3. Print unique barcode on Items

Alternative Sequence:
1. Receive results from Manual Inspection
2. If items do not pass, block entrance

Post Condition: Items are labelled as refurbished products with unique barcode

3. Refund Grant Use Case:

Summary: Customer is refunded the price of the returned item
Actors: Amazion Financial System
Precondition: Manual inspection has been cleared for returned items
Main Sequence:
1. Manual inspection notifies of returned item price
2. Refund grant request is sent to Amazion Financial System

Alternative Sequence: None
Post Condition: Refund grant is requested from Amazion Financial System

4. New Merchandize Use Case:

Summary: Warehouse receive new merchandise from suppliers
Actors: Supplier Truck, Forwarding Robot
Precondition: Supplier trucks send items and forwarding robot is idle
Main Sequence:

1. New Items are received
2. Forwarding are picked up by Forwarding Robot

Alternative Sequence:

1. New Items received
2. Forwarding Robots do not pick up
3. Items rejected are sent back to the supplier truck

Post Condition: Items ready for Forwarding Robot

5. Receive Barcode Use Case:

Summary: Scans barcode of new merchandize
Actors: Inventory Management System
Precondition: New Merchandise is received
Main Sequence:

1. Receives notification for new merchandise
2. Scans unique barcode on new merchandise
3. Sends item information to Inventory Management System

Alternative Sequence:

1. Receives notification for new merchandise
2. Unable to scan barcode
3. Send back

Post Condition: Inventory Management System receives unique barcode information of the product.

6. Update Inventory Use Case:

Summary: System assign location to product and updates inventory storage map
Actors: Inventory Management System
Precondition: Received item information from barcode scanner
Main Sequence:

1. Search appropriate product space in inventory
2. Assign location found to inventory storage map
3. Update information on inventory and notify to send instruction

Alternative Sequence:

1. Search space for appropriate space for the product
2. If no space found, alert

Post Condition: Inventory is updated

7. Send Instruction Use Case:

Summary: Sends desired location for the new product to Forwarding Robot
Actors: Forwarding Robot
Precondition: Inventory Updated and forwarding robot is idle
Main Sequence:

1. Receives updated information storage map
2. Check if forwarding robot is busy
3. If not busy, send updated information map to forwarding robot

Alternative Sequence:

1. Receive updated information storage map
2. Check for forwarding robot status
3. If busy, wait until the robot is idle
4. Notify robot

Post Condition: Updated information storage map is sent forwarding robot with new merchandise location

8. Deposit Merchandize Use Case:

Summary: Forwarding robot navigates around the warehouse and deposit new merchandise according information storage map
Actors: Forwarding Robot
Precondition: New merchandise is picked up by forwarding robot and inventory has been updated
Main Sequence:

1. Forwarding robot identifies the location of new merchandise on information storage map
2. Robot than navigates the warehouse to reach the location
3. Deposits picked merchandise on the location

Alternative Sequence: none
Post Condition: New merchandise has been deposited inside warehouse

9. Order Notification Use Case:

Summary: Order notification is sent from Amazion Ordering System to Inventory Management System
Actors: Amazion Ordering System and Inventory Management System

Precondition: NONE
Main Sequence:

1. Amazion Ordering System sends order information
2. Notify Inventory Management System
3. Send order and customer information to Inventory Management System

Post Condition: Order information is sent to inventory management system

10. Check Item Use Case:

Summary: System search for ordered item
Actors: Inventory Management System
Precondition: Order notification is sent
Main Sequence:

1. Search for ordered item in inventory
2. If item found, notify inventory management system
3. Send item location to inventory

Alternative Sequence:

1. Search for ordered item in inventory
2. If item not found send alert to inventory

Post Condition: Ordered is found in inventory

11. Shipping List Use Case:

Summary: Ordered item is added to shipping list with order information and location in warehouse
Actors: Amazion Ordering System, Shipping robot and Amazion Financial System
Precondition: Ordered item is check and found in inventory
Main Sequence:

1. Add item to shipping list with its location in inventory
2. Receive order information/customer information from Amazion Ordering System
3. Send shipping order to shipping robot
4. Send shipping list receipt to Amazion Financial System

Post Condition: Item is in process of shipping

12. Remove Item Use Case:

Summary: Remove shipped item from inventory information
Actors: Inventory Management System
Precondition: Items added to shipping list
Main Sequence:

1. Locate items from shipping list
2. Remove located items from information storage map
3. Update inventory

Post Condition: Items removed from inventory and space is emptied

13. Retrieve & Pack Item Use Case:

Summary: Shipping robot retrieve items from shipping list, pack and label them
Actors: Shipping robot
Precondition: Shipping list updated
Main Sequence:

1. Shipping retrieve shipping list item from warehouse
2. Pack items
3. Print label on items
4. Send it to mail truck loading dock

Post Condition:

14. Mail Truck Loading Dock Use Case:

Summary: Load items to loading dock
Actors: Shipping robot and Mail truck
Precondition: Item retrieve and packed
Main Sequence:

1. Shipping robot brings item to dock
2. Load items
3. Notify Mail truck
4. Unload items from dock and send to mailing truck

Alternative Sequence:

1. Shipping robot brings item to dock
2. If loading is full
3. Notify mail truck
4. Unload items from loading dock
5. Now items from shipping robot can be loaded
6. Load items
7. Notify mail truck

Post Condition: Items are sent to mailing truck for shipping to customers