

Load Unload HTTP/JSON

Interface Design Description

Service ID: *"load-unload-tray"*



ARROWHEAD

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Load Unload HTTP/JSON
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1 Overview

This document describes the interface of the "load-unload-tray" service interface. This service is the main service provider by the robot to the tray. The interface uses HTTP REST protocol and JSON encoding.



2 Service Interface

This section lists the functions of the service.

2.1 **POST** /robotarm/load-unload-tray

Function: **Load Unload**

Input: **ArmRequestDTO**

Output: **ArmResponseDTO**

Called to tell the robot arm to load/unload the tray, and get an answer on the success/failure.

```
1 POST /robotarm/load-unload-tray HTTP/1.1
2 {
3   "loadingMode" : true
4 }
```

Listing 1: An **load-unload-tray** request example.

```
1 {
2   "sensorReadStatus" : true,
3   "loadingProcessStatus" : true
4 }
```

Listing 2: An **load-unload-tray** response example.



3 Information Model

Data objects that can be part of the service. Note that all the structure are encoded in JSON :

3.1 struct **ArmRequestDTO**

Request to the robot arm.

Object Field	Value Type	Description
"Loading Mode"	boolean	Load or Unload

3.2 struct **ArmResponseDTO**

Response of robot arm.

Object Field	Value Type	Description
"Sensor Read Status"	boolean	Success at reading the sensor
"Loading Process Status;"	boolean	Success at loading/unloading a product piece



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4 References

This document alongside any other document linked to this project are based on template documents, that are the description of "Intercloud Contract Negotiation and Automation" system, by Emanuel Palm [emanuel.palm@ltu.se]. I just adapted the template to my system.



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5 Revision History

5.1 Amendments

No.	Date	Version	Subject of Amendments	Author
1				

5.2 Quality Assurance

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1			