Remote Load Handling Device

WIP: This article is a work in progress and is not yet approved for usage in the RP.

The Remote Load Handling Device (RLHD) is an autonomous drone used by Star Army Logistics to move cargo within the confines of a warehouse.

Manufacturer:Ketsurui Fleet Yards Nomenclature: Ke-J3-1a Type: Utility drone Users: Star Army Logistics

About the RLHD

The RLHD is used in Integrated Cargo Handling System warehouses under Materiel Tracking System server control to do the bulk of cargo moving, optimizing unit throughput and minimizing wastage of time and personnel assignments. Multiple RLHDs can be used together on particularly massive pieces of cargo. RLHDs can be used outside the premises of warehouses for cargo transfer but are never to be used for long range item delivery.

Details

Design Limits

- Operating time (idling): 12 hours
- Operating time (standard load): 3 hours
- Operating time (maximum load): 10 minutes
- Standard load rating: 1200 kg
- Never exceed load rating: 2000 kg
- Top speed (unloaded): 400 kph
- Top speed (loaded): 50 kph

Dimensions

- Width: 63 cm
- Length: 21 cm
- Height: 21 cm

Components

Ke-J3-E3600 Controller

Comprised of a limited chipset, restricted memory, and local network link, the controller communicates with the MTS and ICHS servers to coordinate movements of the RLHD.

Ke-J3-P3600 Anti-Gravity System

The anti-gravity system of the RLHD is a high power system, capable of lifting the drone and cargo, but will quickly drain the drone's onboard capacitors when lifting massive items.

Ke-J3-G3600 Capacitor

The RLHD's capacitor is the largest component by volume, filling most of its internal space. The capacitor is able to hold high energy loads with excellent efficiency, as well as providing fast and even release of the energy. When fully drained, the recharge cycle takes marginally longer, so best practice indicates that RLHD should be docked at power stations before the capacitor is entirely discharged.

Ke-R3200 Scalable Graviton Beam Projector

The RLHD mounts two Scalable Graviton Beam Projector assemblies.

Ke-G9-E3600 MTS Scanner

The RLHD mounts an integral scanner to verify the identify of assigned cargo items.

Operation

RLHDs begin and finish their operational cycles in charging cradles, where they await commands and maintain their capacitor levels. RLHDs are tasked to maximize efficiency and minimize the number of cargo moves. Once tasked to a particular container, the RLHD will maneuver to present its scanner side toward the container. It will sweep the surface until it detects a readable label, whereupon it will query the MTS server to verify the tracking code and metadata. Once an affirmative ping has been returned, the RLHD will grapple the container by moving to within 1mm of its surface and engaging its graviton projectors. All RLHD routing is centrally managed, so the path to the destination, whether respotting within the storage area or inspection prior to transshipment, is direct and obstacle free.

Multiple RLHDs can be assigned in tandem to provide lifting for particularly heavy containers or objects. Objects of sufficient mass to require an excessive number of RLHDs will be assigned to the overhead crane for movement. Up to the prescribed mass limits, the RLHDs are perfectly reliable, but at a certain

point the unit tasking and power use are no longer justifiable in the context of ICHS optimization.