

Honeywell Universal Robotics Controller (HURC)

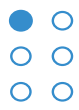
Superior Performance for Logistics Automation

Labor Challenges Are Driving the Need for Robotics

Robotics in the DC are vital to handle **growing order volumes** and overcome **labor availability** and **resourcing challenges**.



E-commerce distribution volume is accelerating at a yearly rate of **25%**



Industry growth **outpaces the labor pool** by a ratio of **6:1**



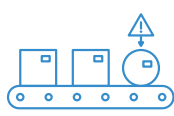
Manual operation is today's norm for **80%** of DCs

Current Solutions Can't Keep Up

Robotic developers have typically turned to **ROS** (Robotic Operating System) and **ROS2**, which have **significant drawbacks** in a logistics environment.



Unreliable performance



Slow adaptation to changing tasks and conditions



Limitations **collecting and sharing data** between modules or other types of robots

HURC Meets Market Needs for Performance and Functionality

HURC is **built specifically** for dynamic, unstructured environments like distribution centers and **leverages Honeywell's experience** with warehousing and e-commerce.

Designed in **strategic collaboration** with **Carnegie Mellon University**, HURC **increases your speed to market** by using common modules to:



See Better



Think Smarter



Act Faster



Perceives challenging environments with **advanced visual sensors** like LIDAR, structured light and 3D cameras



Machine learning and artificial intelligence **improve performance**



Faster data collection and processing power ensures **consistent execution**



Cutting-edge recognition identifies products, packages, labels and more



Unique control system handles **massive volumes of data** in real time



Motion optimization for **greater speed and efficiency**



Senses locations of objects and people to **guide gripping technology** and **enhance worker safety**



Leverages lessons from past experiences, simulations and other robots



Equals or exceeds **speed of manual processes**



Easy integration with complementary **sensing and AI solutions**



Reliable autonomy means **fewer operator interventions**



Adapts quickly to new products or packaging

Advanced Simulation Capabilities

Virtual environments allow for **simulated concepting, testing and troubleshooting**. This approach delivers **custom high-performance solutions** that **minimize your risk and costs** by enabling **faster development** of new applications.



Physics-based simulation platform mirrors the real world



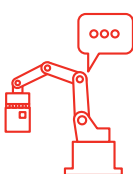
Enables **virtual code development** and **machine learning training**



Use the same code for simulations and real-world applications

Connected Foundation

Built for connectivity, HURC enables **machine learning enhancements** and **better performance over time**.



Robots can **teach other robots**, even different types of robots



Share training models anywhere with **site-to-site machine learning**



Data analysis identifies opportunities for **performance improvements**