

amazon

The Amazon logo consists of the word "amazon" in a white, lowercase, sans-serif font. Below the letters "a" and "z" is a thick, orange, curved arrow that starts under the "a" and points to the right, ending under the "z".

# Kentucky AI Task Force

October 29, 2024

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# Uses of AI in Amazon operations

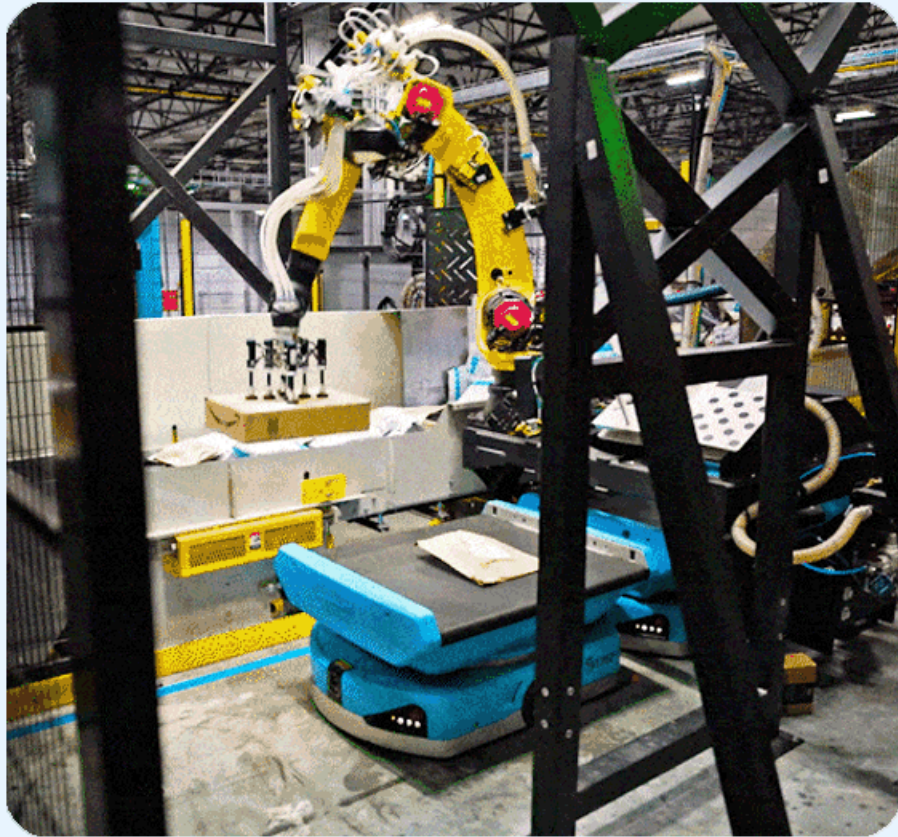
Robotics

Forecasting

Transportation



# Robin



**Job:** Lifts and sorts packages before being brought to the outbound dock

**Capacity:** Can lift packages up to 50 pounds

**Launched in:** Lakeland, Florida, in 2022

**Size:** Full arm extension length is six feet, or about the size of an elephant trunk

# Cardinal



**Job:** Lifts packages to gently and tightly place them into carts in a Tetris-like manner

**Capacity:** Can handle up to 50-pound packages, and load hundreds of packages per hour

**Launched in:** Nashville, Tennessee, in 2022

**Size:** Full arm is 9-10 ft. long, or around the height of a standard basketball hoop

# Sparrow



**Job:** Detects, selects, handles, and sorts individual products and puts them into totes to give to employees before packaging

**Capacity:** Can lift packages of up to 12 pounds

**Introduced in:** Richmond, Texas, in 2023

**Size:** 5 ft. by 7.5 ft., or about the size of an elephant trunk

# Hercules



**Job:** Transports pods of items to employees picking items for customer orders

**Capacity:** Can lift up to 1,250 pounds and travel across 1 million square feet

**Launched in:** Sumner, Washington, in 2017

**Size:** 39.8 in. by 28.3 in. by 7.8 in., and weighs around 300 pounds, or half the size of a pool table without the legs

# Titan



**Job:** Transports large and bulky items to employees

**Capacity:** Can lift up to 2,500 pounds

**Launched in:** San Antonio, Texas, in 2017

**Size:** 52.1 in. by 36.6 in. by 9.47 in., and weighs around 510 pounds, or slightly smaller than a baby grand piano without legs



# Proteus



**Job:** Moves carts with packages to the loading dock to be loaded on a truck

**Capacity:** Can lift as much as 880 pounds

**Launched in:** Nashville, Tennessee in 2022

**Size:** 31.5 in. by 29.8 in. by 7.8 in., or about the size of a 50-inch flat screen TV if it weighed almost 300 pounds

# Sequoia



**Job:** Stores and retrieves inventory for employees picking items for customer orders

**Capacity:** Retrieves hundreds of thousands of customer orders per week

**Launched in:** Houston, Texas, in 2023

**Size:** Approximately four 500,000 square-foot floors per building, or about 35 football fields in all.

# Forecasting: Supply Chain Optimization Technology (SCOT)



# Transportation: Route Optimization



# Transportation: Vision Assisted Package Retrieval



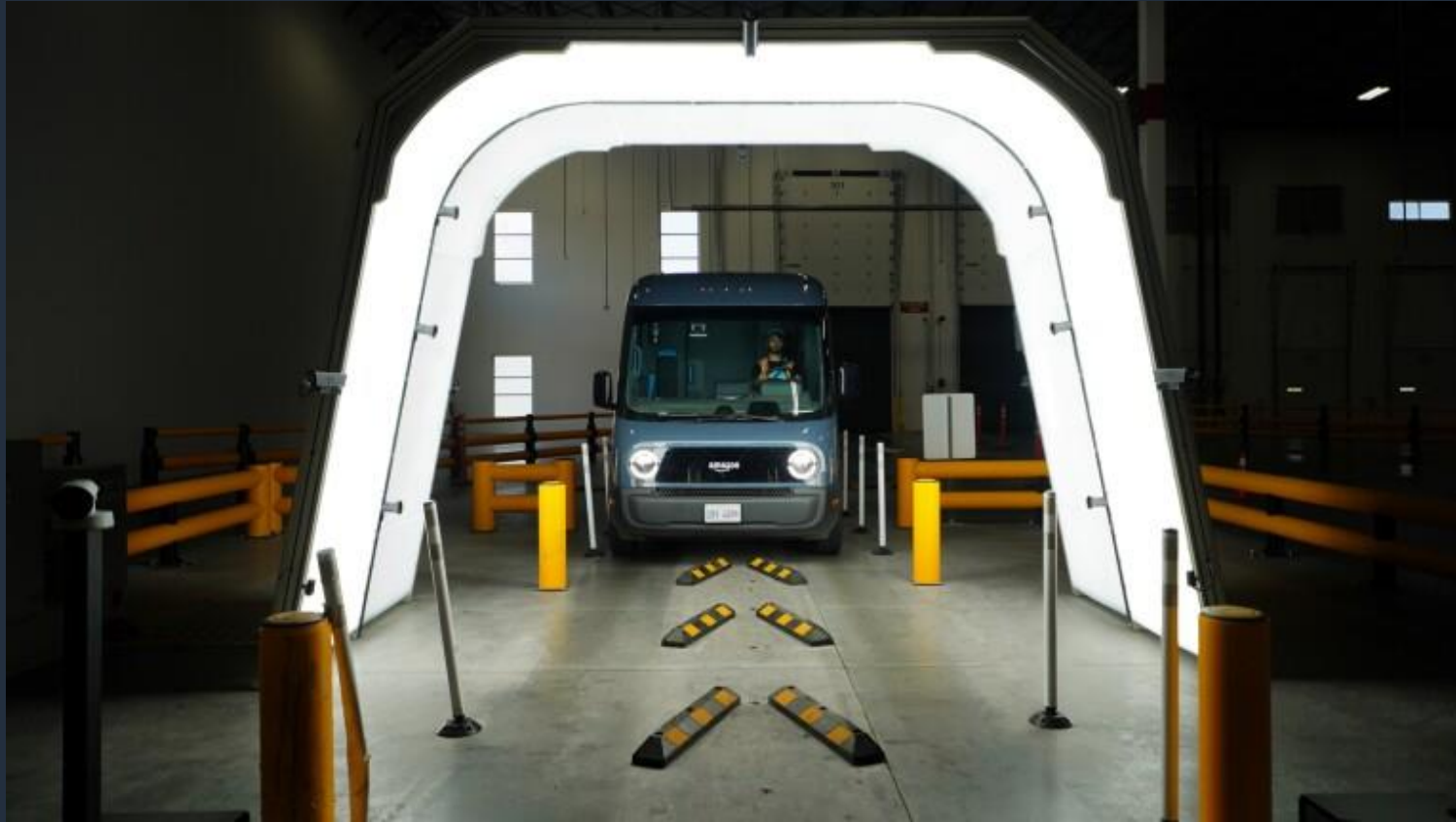
# Transportation: Vision Assisted Package Retrieval



# Transportation: Vision Assisted Package Retrieval

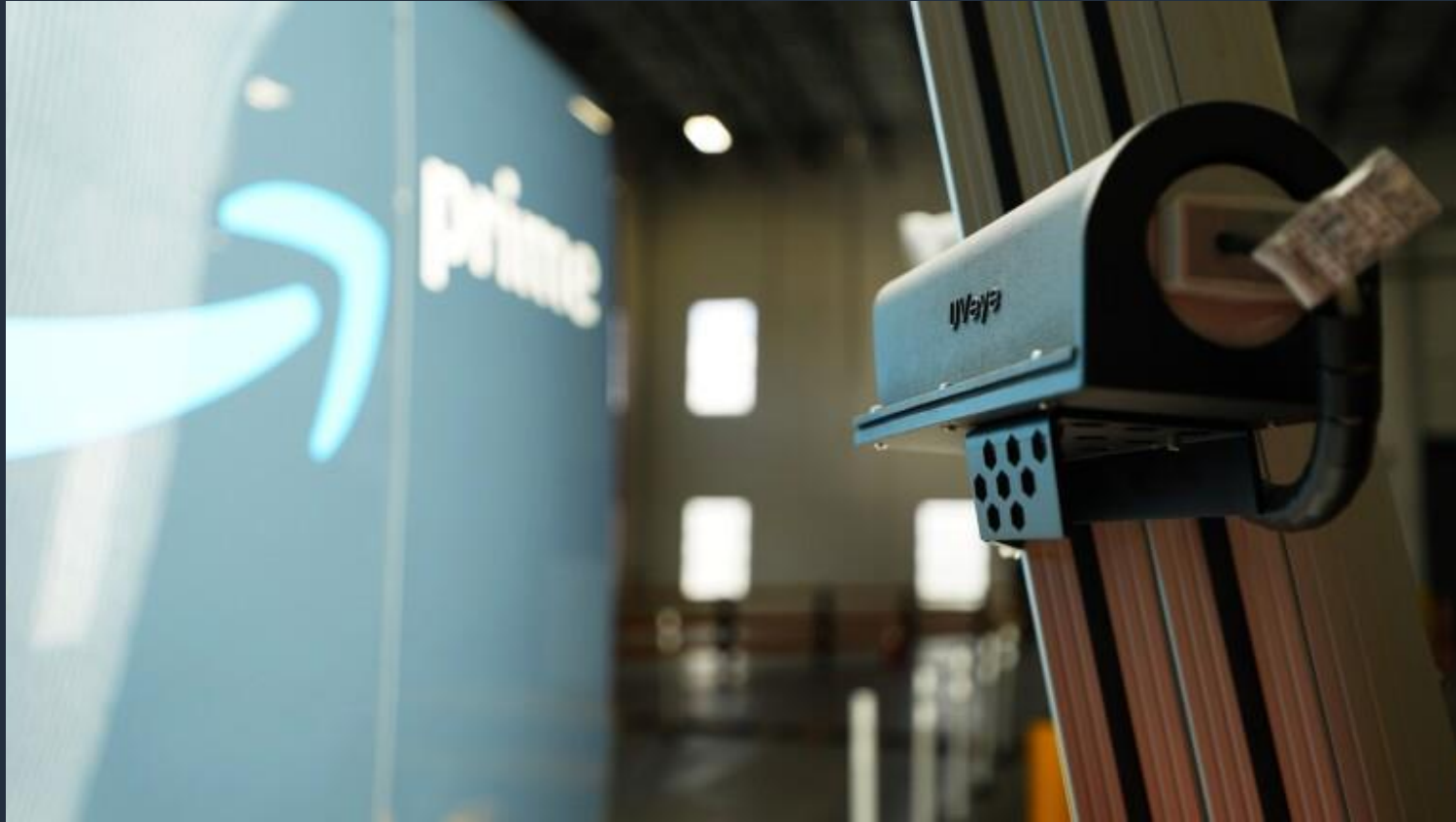


# Transportation: Automated Vehicle Inspection





# Transportation: Automated Vehicle Inspection



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# Transportation: Automated Vehicle Inspection



# Transportation: KCVG Amazon Air Hub



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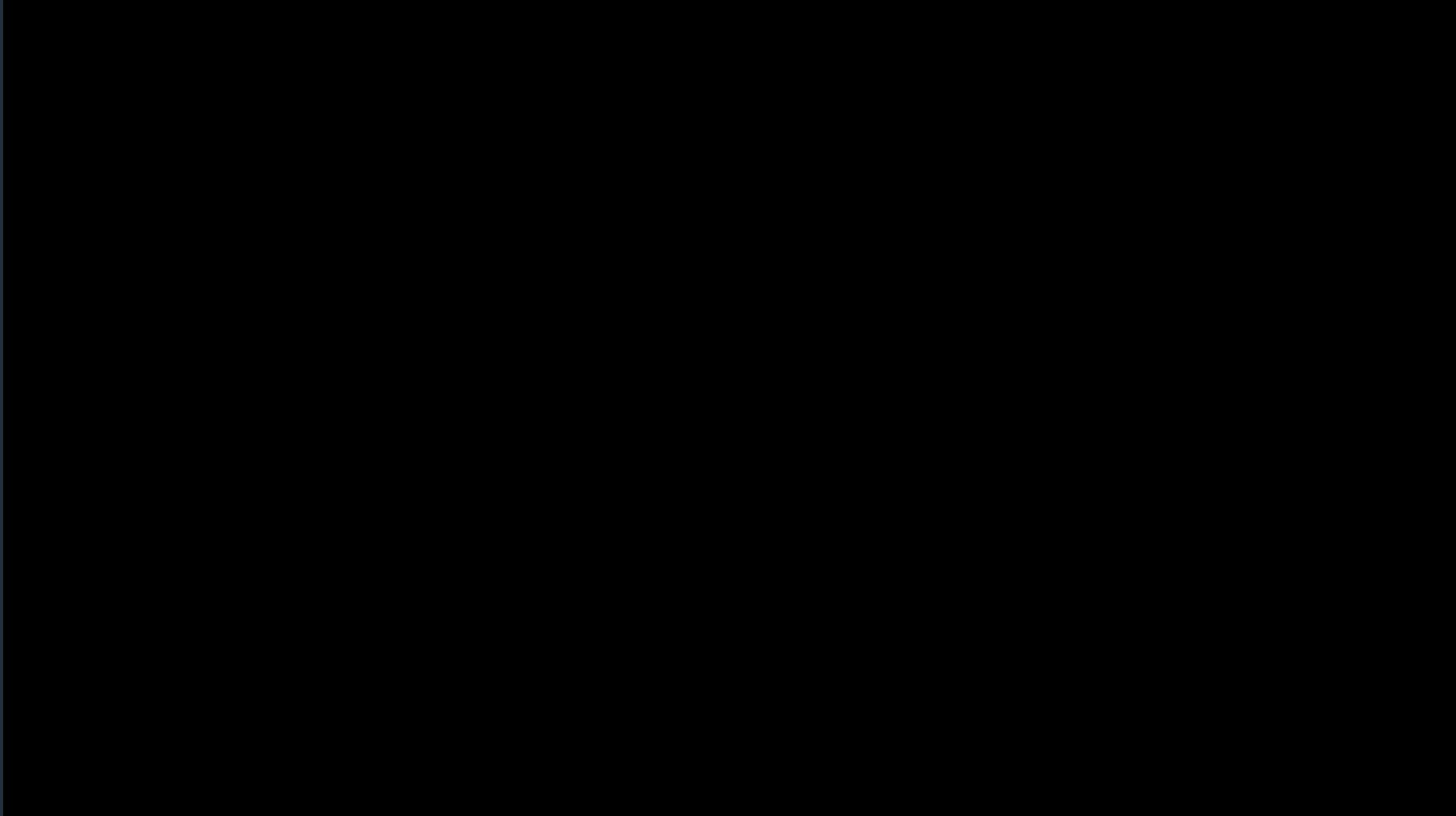


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