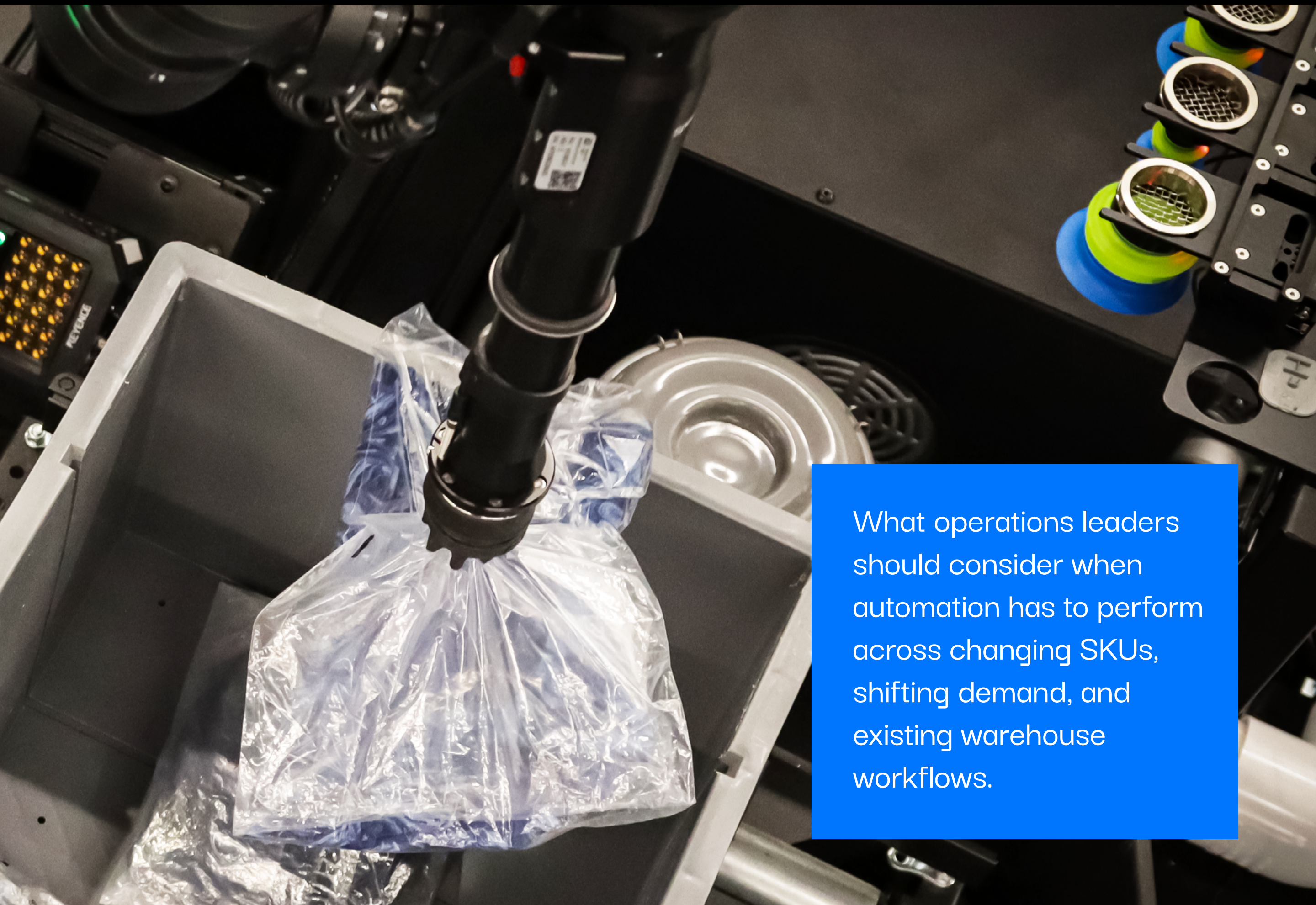


From Pick Rate to Production Performance

An 8-point framework for evaluating robotic
picking for real-world fulfillment.



What operations leaders
should consider when
automation has to perform
across changing SKUs,
shifting demand, and
existing warehouse
workflows.



BERKSHIRE
GREY®

Picking is easy to demonstrate. Consistency is harder to scale.

Live fulfillment isn't a controlled environment. Products, packaging, demand, and labor availability are constantly changing. Robotic picking has advanced significantly, but success depends on how well it adapts to real-world variability.

THE TYPICAL QUESTION

Can this robot pick my SKUs?



THE MORE MEANINGFUL QUESTION

**How much of my daily volume
can this robot automate reliably?**

This guide looks beyond headline performance to the measures that matter most when evaluating robotic picking.

01

Start with the operational problem, not the robot.

The best automation evaluations begin with the operation itself. Where does variability create the greatest pressure today?

CONSIDERATIONS:

- Which processes are hardest to staff consistently?
- Which SKUs generate the most exceptions?
- Where does productivity vary between shifts?
- What happens when volume increases?
- How frequently do assortments or packaging change?
- Where do picking errors create downstream problems?

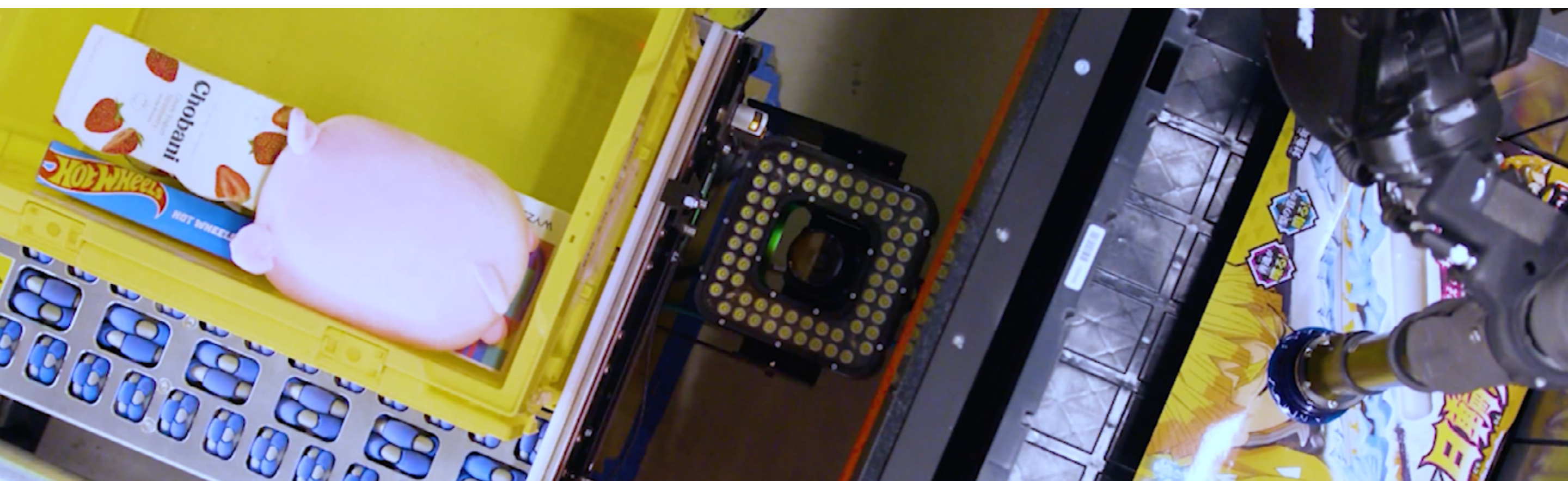
These questions shift the conversation from whether a robot can replicate a manual task to whether automation can create a more stable, scalable process.



Automate for variability, not just volume.

High volume may make a process attractive for automation.

High variability often determines whether it succeeds.



Look beyond pick rate.

Throughput matters, but a headline picks-per-hour figure doesn't tell you how effectively a system will perform across your operation.

A system might achieve impressive speeds across a narrow assortment while sending difficult items to manual exception handling. **That can shift the bottleneck rather than remove it.**

A USEFUL EVALUATION CONSIDERS SEVERAL MEASURES TOGETHER:



Throughput: How quickly can the system complete the task?



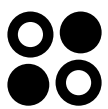
Coverage: What proportion of actual SKU and order volume can it handle?



Accuracy: How consistently does the correct item reach the correct destination?



Exceptions: How frequently is human intervention required?



Stability: What happens when the assortment or order profile changes?

The strongest automation case isn't necessarily the highest maximum pick rate. It's consistent, useful output across the work your operation actually has.

03

Put your real SKU mix to the test.

Warehouse inventory is unpredictable.

Products vary in size, weight, shape, surface, packaging and orientation. Some roll. Some flex. Some are porous or irregular. Packaging can change with little warning.

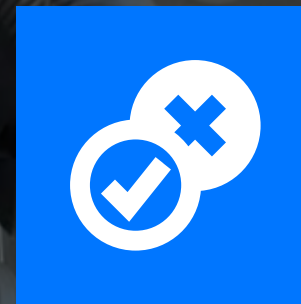
When evaluating robotic picking, avoid relying solely on a curated set of easy products.

TEST A REPRESENTATIVE ASSORTMENT

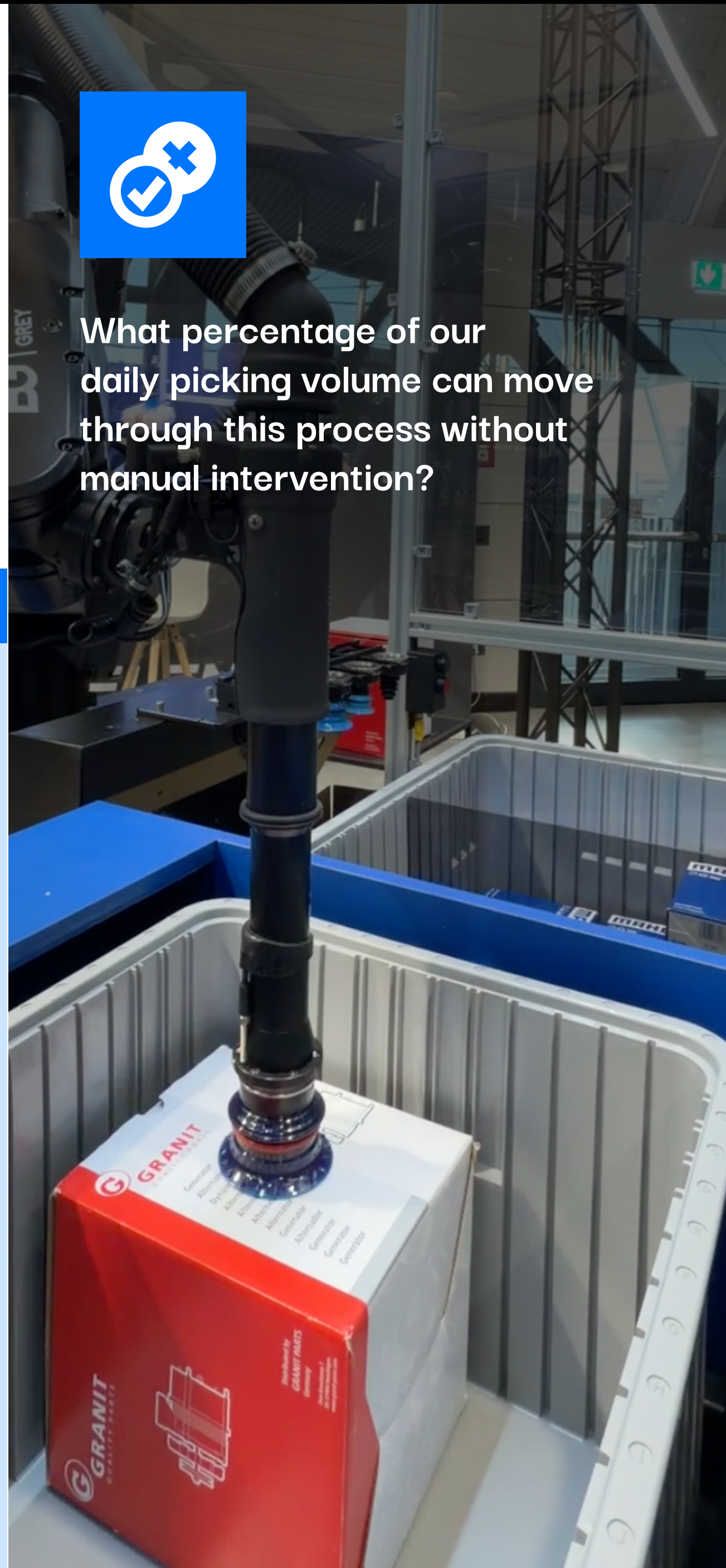
- ✓ High-volume SKUs
- ✓ Hard-to-handle items
- ✓ Irregular or cylindrical products
- ✓ Different weights and dimensions
- ✓ Varied packaging materials
- ✓ Items that frequently generate exceptions
- ✓ Seasonal products

Now look beyond whether the system can pick an item once. Can it handle that assortment repeatedly and reliably under realistic operating conditions?

SKU count alone can be misleading. A better measure is the relationship between SKU eligibility and actual order volume.



What percentage of our daily picking volume can move through this process without manual intervention?

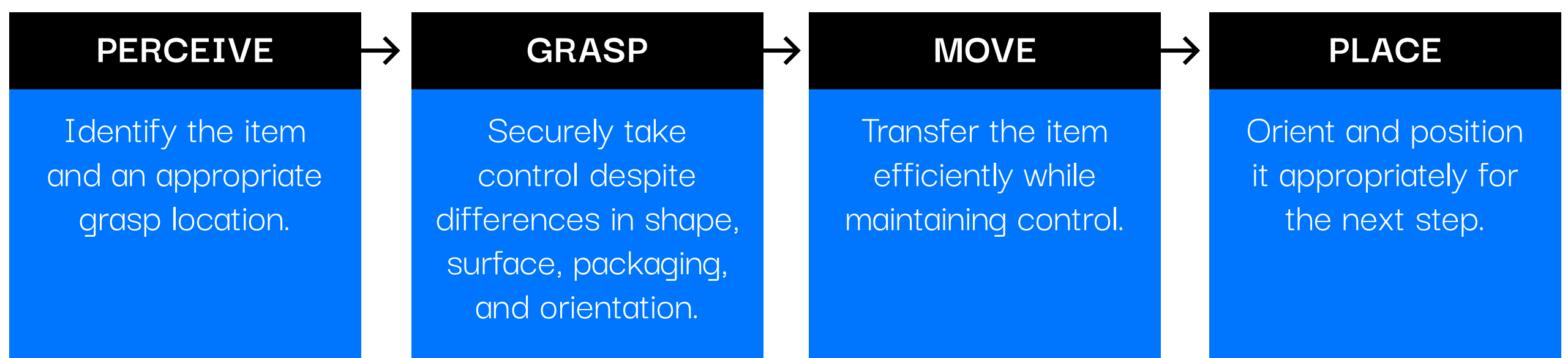


04

Evaluate the complete pick-and-place task.

Successfully grasping an item is only part of the job. The item still needs to move safely through the workspace and arrive at the correct destination in the right condition.

THINK ABOUT ROBOTIC PICKING AS FOUR CONNECTED TASKS:



Placement deserves particular attention. Simply dropping an item into a container can affect box fullness, product integrity, order quality, and downstream flow.

Evaluate the full task, not simply whether the robot can pick something up.



05

Plan for change.

The assortment you automate today will not stay the same. New SKUs arrive. Packaging changes. Promotions introduce temporary products. A 3PL may onboard a new customer. Retail and e-commerce order profiles shift. **Automation that requires significant intervention every time conditions change can create another source of operational work.**



WHAT HAPPENS WHEN THE SYSTEM ENCOUNTERS SOMETHING NEW?

Is SKU-specific training required?

How are packaging changes handled?

Does the system require manual tuning?

Who manages that process?

What happens to performance while the assortment changes?

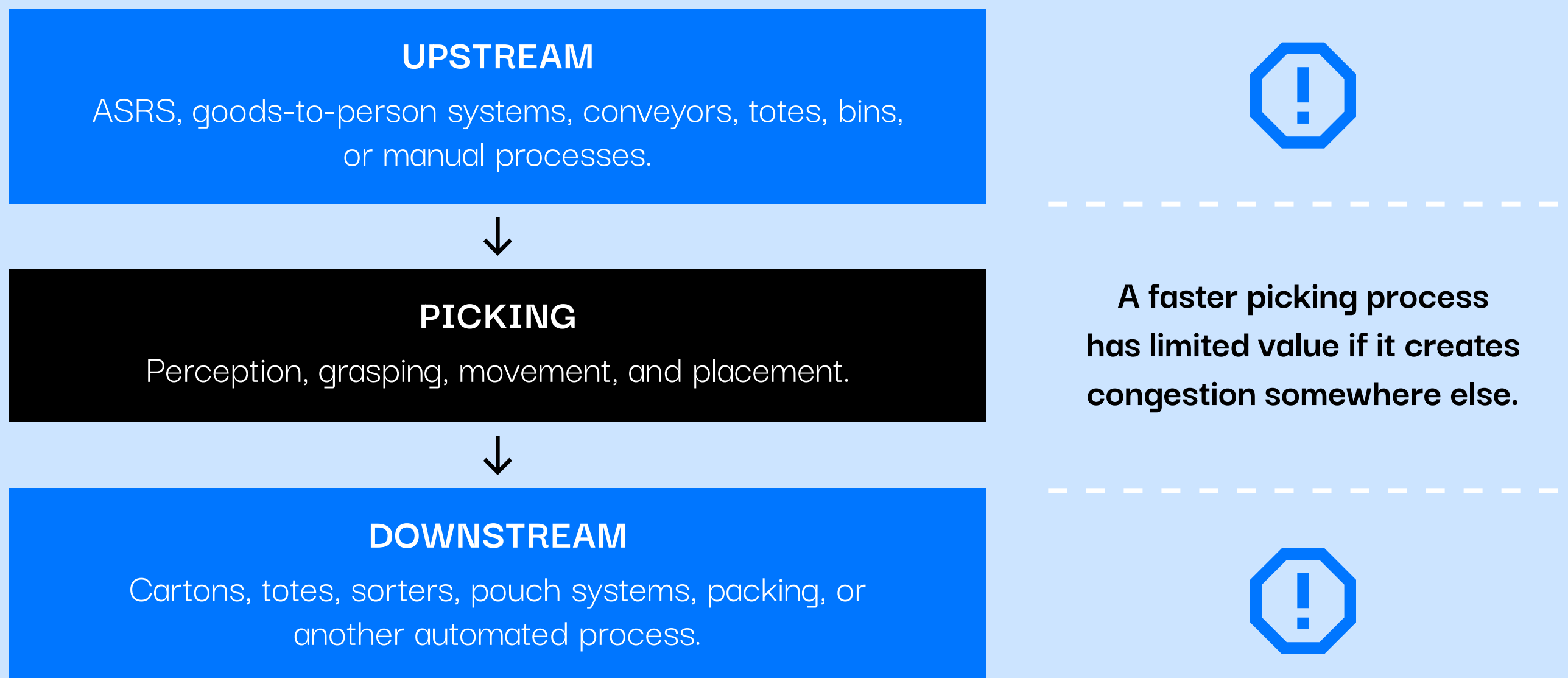


The goal should be adaptability without unnecessary complexity.

Think about the whole fulfillment flow.

Robotic picking doesn't operate in isolation. Inventory arrives from an upstream process, and picked items need to move somewhere next.

MAP THE COMPLETE WORKFLOW:



The workflow becomes particularly important in existing facilities, where automation often has to integrate with infrastructure already in place.

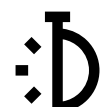
CRITICAL FACTORS TO THINK ABOUT:



Can the technology connect with current upstream and downstream systems?



What facility modifications are required?



How much operational disruption will installation create?



Can the solution expand without redesigning the entire process?

07

Build the business case around operational outcomes.



Automation should help create a more repeatable operating process across shifts and changing conditions, giving leaders greater confidence when planning capacity, labor, and service levels.

The technology matters, but the business case should focus on what changes operationally.

CONSIDER FIVE AREAS:

01

CAPACITY

Can the operation process more volume or maintain output more consistently?

02

LABOR EXPOSURE

Can automation reduce dependence on difficult-to-staff repetitive work?

03

QUALITY

Can controlled handling reduce errors, product damage, rework, and downstream disruption?

04

FLEXIBILITY

Can the process adapt as SKUs, customers, and order profiles change?

05

COST CONTROL

Can more consistent productivity, better labor utilization, and fewer errors improve fulfillment economics over time?

Use a practical evaluation scorecard.

Before committing to an automation approach, evaluate it against the realities of your operation.

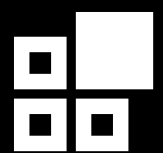
COVERAGE

Which SKUs and how much of our actual daily volume can be automated reliably?



VARIABILITY

What happens when SKUs, packaging, or order profiles change?



COMPLETE TASK PERFORMANCE

Does the system manage perception, grasping, movement, and placement?



EXCEPTIONS

How often is human intervention required, and how are exceptions resolved?



INTEGRATION

How will the technology connect with existing upstream and downstream processes?



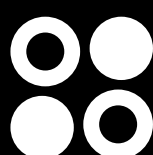
QUALITY

How does item handling affect accuracy, product integrity, and container utilization?



PREDICTABILITY

How stable is performance across shifts and changing conditions?



SUPPORT & SCALE

What happens after go-live, and how easily can the solution grow with the operation?





Meet BG Core™

Berkshire Grey put all of these challenges to the test when developing the Core Robotic Picking System.

Core is designed around the full pick-and-place task – combining perception, adaptive grasping, motion planning, and controlled placement. Patented SpectrumGripper® technology selects grasps in real time across varied item characteristics, while software-driven adaptability is designed to accommodate new SKUs and packaging changes without retraining.

Core can integrate with existing goods-to-robot workflows, including ASRS, goods-to-person systems, conveyors, sorters, pouch systems, and manual workstations.

The objective isn't simply to automate easy picks. It's to increase the share of daily volume moving reliably through item-level picking.

Test Core for your operations.

A useful robotic picking evaluation should reflect the operation and workflows the system will actually face.

The difficult SKUs. The packaging changes. The workflow constraints. The exceptions. Bring the performance measures that matter to your business. Because the question isn't simply what robotic picking can do under ideal conditions.

It's what it can do in yours.

READY TO EVALUATE YOUR PICKING OPERATION?

Bring your SKU mix, workflows, and operational requirements to Berkshire Grey to explore where robotic picking could have the greatest impact. **Learn more »**

BOOK A DEMO