

Holman

Robotics

FROM PILOT TO PLATFORM: BUILDING SCALABLE ROBOTICS OPERATIONS.



Robotics is the strategic engine powering consistency, safety, and resilience in modern operations.



The Promise of Robotics

Automation Is Now a Strategic Operating Investment

Automation has become a core approach for organizations seeking predictable throughput, consistent quality, and stable labor capacity. Worldwide, more than 4.28 million industrial robots are now operating in factories, an increase of 10 percent year over year, reflecting continued acceleration in robotics adoption⁽¹⁾. Robotics is increasingly valued not simply for the tasks it completes, but for the consistency, safety, and standardization it brings to daily work. As labor markets remain uncertain and service expectations rise, automation is shifting from a tactical response to a long-term investment that strengthens operational resilience.

How Robotics Enhances Workflow Reliability

The global robotics market was valued at USD 53.2 billion in 2024 and is forecast to exceed USD 178.7 billion by 2033, indicating that automation is becoming a long-term infrastructure investment rather than a reactive cost-reduction tool⁽²⁾. Effective automation creates reliable workflows, enables more predictable production, and reduces variability that often limits performance and repeatability. Robotics supports disciplined operations by:

- Establishing measurable and repeatable tasks
- Standardizing processes that are difficult to maintain manually
- Reducing dependency on individual skill or availability

Why Value Often Falls Short of Expectation

Despite increased adoption, many organizations struggle to realize sustained value from robotics. In North America, robot orders grew by 8.8 percent year over year in Q3 2024, yet most deployments remain limited to pilot projects or isolated workflows⁽³⁾. These challenges are rarely caused by the robots themselves, but by the lack of a supporting structure that aligns automation with real workflows, manages performance over time, and governs how systems scale.



Fig.1: How Automation Projects Can Stall

To deliver meaningful results, robotics must be supported by an operating foundation that:

- Matches automation to actual work conditions
- Measures performance through operational outcomes
- Scales without reinvention or incremental complexity

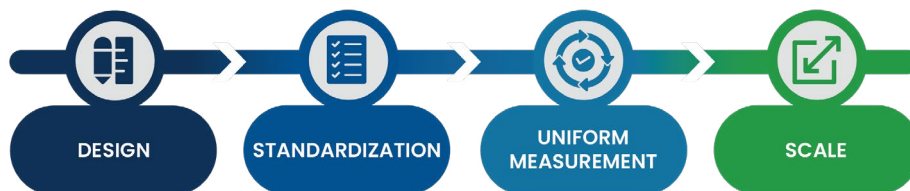


Fig.2: Foundations of Successful Automation Projects

Without this foundation, robotics remains a series of isolated experiments rather than a durable operating capability.

What Robotics Needs to Work

Successful adoption requires a foundation that enables automation to:

- Fit real workflows
- Perform reliably over time
- Deliver measurable ROI
- Scale across multiple sites and operations
- Maintain lifecycle value

Without this, robotics remains an isolated experiment rather than a durable operating capability.

The Barriers that Hold Robotics Back

Across industries, organizations encounter structural barriers that prevent robotics from delivering long-term value. These challenges often occur before or after robots are deployed.

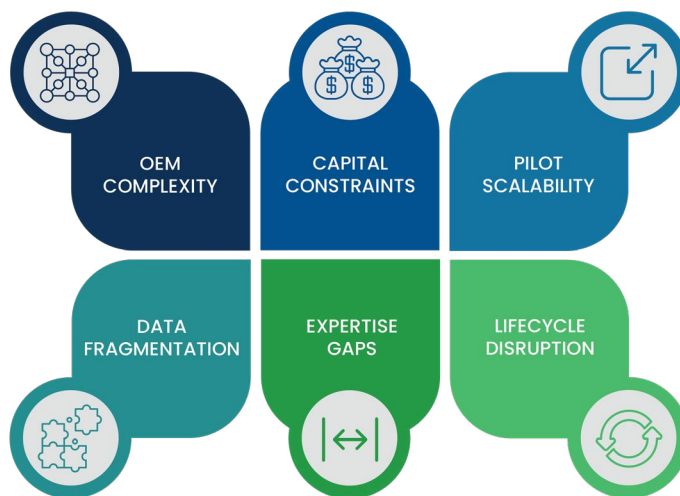


Fig.3: Barrier Matrix

Too Many OEM Choices

The global robotics market is experiencing rapid growth and increasing competition hardware manufacturers, software vendors, and system integrators, but standardized methods for evaluating robot performance under real workflow demands, facility constraints, or safety requirements remain limited⁽⁴⁾. What works in a demo may not work in daily operations.

High Upfront Investment

While manufacturers increasingly recognize the value of automation, many still face organizational and operational barriers delays adoption⁽⁵⁾. Lengthy approval cycles slow deployment, and operational needs often shift during those delays. Decisions that prioritize capital budget constraints over operational requirements further limit the timely implementation of robotics.

Pilot Success Doesn't Translate to Scale

Studies show that many robotics pilot programs fail to scale to full production due to integration challenges, fragmented systems, and the lack of standardized workflows and performance measurement frameworks⁽⁶⁾. Pilots prove capability, but not scalability.

Fragmented Systems and Data

OEM dashboards report technical status, not business outcomes. Without visibility into reliability, throughput impact, or labor value, organizations cannot optimize or justify expansion.

Limited In-House Expertise

Operations teams were not designed to manage robotics fleets, multi-vendor ecosystems, or data analysis. Automation becomes additional work rather than operational capacity, creating dependency on product vendors.

Lifecycle Disruption

Robots require ongoing maintenance, updates, and refresh cycles. Without lifecycle planning, performance declines, costs rise, and expected ROI erodes sooner than expected.

Summary

These challenges can be addressed, but not individually. Robotics achieves lasting value when workflow design, technology decisions, financing, data, and lifecycle support are managed together as a single operating system. When this structure is missing, automation remains disconnected from core operations. When it is present, robotics strengthens daily performance and provides a scalable platform for continuous improvement.

Holman Robotics: A Complete Solution for Adoption, Scaling, and Lifecycle Support

Robotics requires a unified structure to support deployment, management, and expansion. Holman's model provides a governed operating capability that aligns automation with facility needs, performance expectations, and long-term value.

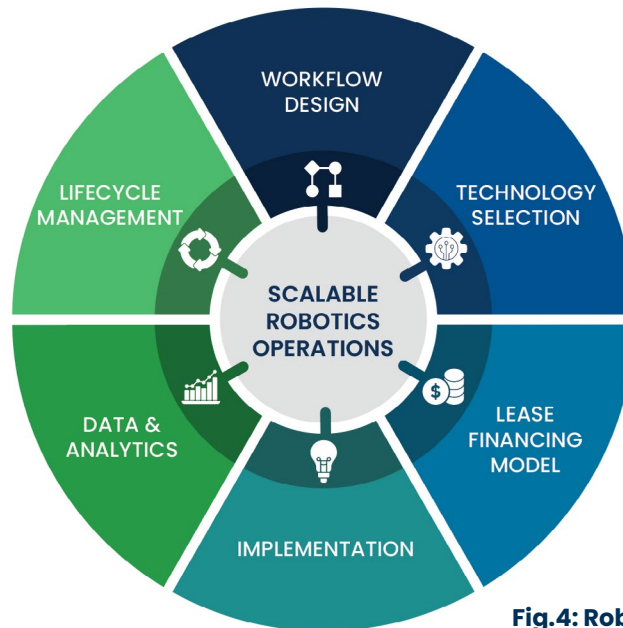


Fig.4: Robotics Operating System

1. Operational Design Support

Effective automation begins with operational clarity, not hardware selection. Holman evaluates workflows, constraints, and performance conditions to determine where robotics can support measurable improvement.

Each evaluation focuses on:

- Identifying where automation produces operational contribution
- Aligning robots to work profiles rather than task categories
- Establishing process standards that support consistent performance

2. OEM Technology Selection

No single manufacturer can serve all operational environments. Holman evaluates multiple technologies using objective criteria tied to workflow requirements, safety considerations, and scalability potential.

Technology decisions are based on:

- Matching capabilities to task, facility, and workload conditions
- Ensuring safety, navigation, and integration fit the operating environment
- Selecting solutions that can be replicated across locations

3. Financing Structured for Growth

Robotics should scale based on performance, not budget cycles. Holman provides a lease-based structure that consolidates equipment, integration, analytics, software, support, and lifecycle services into one predictable operating cost.

This financing approach enables:

- Deployment based on operational need rather than annual capital approvals
- Cost management through predictable operating expenses
- Expansion tied to measurable contribution instead of budget timing

4. Unified Data and Lifecycle Management

Holman Connect consolidates task execution data, system status, and performance insights to benchmark, optimize workflows, and measure operational contribution.

This same data informs lifecycle management, including calibration, maintenance, updates, and refresh planning.

Data and lifecycle alignment supports:

- Continuous reliability informed by operational data
- Cost predictability through proactive maintenance and upgrades
- Scaling decisions based on measured contribution across facilities

Together, these capabilities provide a framework for adopting and managing robotics responsibly, with clear expectations for performance and growth.

The Outcome

When workflow design, technology selection, financing, data, and lifecycle support operate together as a single system, robotics can be introduced and expanded responsibly. Organizations can evaluate automation objectively before investment, deploy consistently across facilities, manage predictable performance expectations, measure operational and financial impact, and scale based on demonstrated value rather than assumptions.

With these conditions in place, robotics functions as a governed operating capability that supports sustained operational performance and long-term resilience.

Building Your Robotics Roadmap

A planned pathway reduces deployment risk and ensures robotics aligns with operational priorities. Holman offers a structured roadmap that supports each stage of responsible adoption:

Assessment of Workflows and Goals

Determine where automation can improve operational clarity, throughput, or resource allocation.

Use Case Definition and ROI Modeling

Identify suitable workflows and estimate measurable contributions before selecting technology.

Solution Design and Technology Selection

Align solutions to real tasks and facility needs rather than vendor offerings.

Deployment and Leasing Plan

Accelerate deployment with a lease model that includes equipment, integration, data access, and lifecycle support.

Training, Go-Live, and Data Enablement

Introduce automation with standardized workflows and activate data visibility for performance management.

Lifecycle Optimization and Expansion

Maintain reliability, manage costs, and scale responsibly based on objective performance indicators.



Fig.5: Managed Robotics Lifecycle

Learn More

Organizations benefit from engaging early to align workflow design, system selection, financing, and lifecycle planning. This reduces risk and prevents misalignment between technology decisions and long-term operational needs.

Connect with Holman

- Schedule a Workflow Assessment
- Request a Holman Connect Demo
- Speak With a Robotics Strategist

Visit:

[Holman.com/Robotics](https://holman.com/Robotics)

References:

- ¹ IFR Press Room. [Record of 4 Million Robots in Factories Worldwide \(2024\)](#).
- ² IMARC Group. [Robotics Market Size, Share, Trends and Forecast by Product Type and Region, 2025-2033 \(2024\)](#).
- ³ A3 Automate. [Robot Orders in North America Grow Significantly in Q3 of 2024 Over 2023 \(2024\)](#).
- ⁴ ABI Research. [The Global Robotics Market Outlook \(2025\)](#).
- ⁵ Deloitte Insights. [2025 Smart Manufacturing and Operations Survey \(2025\)](#).
- ⁶ McKinsey & Company. [The Robotics Revolution: Scaling Beyond the Pilot Phase \(2025\)](#).



About Holman Robotics

For more than a century, Holman has helped organizations manage complex fleets and mission-critical assets with operational discipline, financing expertise, and data-driven lifecycle management. This legacy directly informs Holman Robotics. By applying proven strengths in fleet operations, analytics, asset management, and end-to-end lifecycle support, Holman enables organizations to adopt automation with clarity, reduced risk, and long-term value. Holman continues to partner with and invest in emerging technologies across mobility, energy, digital platforms, and automation, delivering solutions that are practical, scalable, and aligned to real operational environments.