



Roadmapping for Strategic Automation Development

BOOK 1 OF 5

DEFINING A CLEAR PATH FOR SUCCESS

TECH TALKS™ EBOOK SERIES



ABOUT ANDREWS COOPER

Andrews Cooper (AC) excels at advanced engineering for emerging technologies, specializing in Research & Development, Product Development, Hardware Testing, and Manufacturing Automation. We cater to ambitious, tech-focused companies seeking to innovate and lead their industries. With expertise in multiple engineering disciplines, our engineers function as force multipliers, propelling the development of HardTech solutions. With a focus on rapid development using proven methodologies, we de-risk the development process and integrate validation and testing to ensure high-quality, manufacturable products.

ABOUT THIS EBOOK SERIES

Through this eBook series on Roadmapping for Strategic Automation Development, we describe how to create a successful automation plan by creating a well-defined blueprint at each stage of development and integration. Whether you're at the start of your automation journey or need help defining ROI to replace your current manual processes, AC builds a custom manufacturing automation roadmap tailored to your specific needs. If you don't have a complete specification, we work with your manufacturing and process engineers to understand and recommend the most beneficial processes for your custom automation.



**Manufacturing
Automation**

Looking for a snapshot of our Manufacturing Automation services? Watch our [1-Minute Video](#).

THE AUTOMATION ROADMAP: Defining a Clear Path for Success

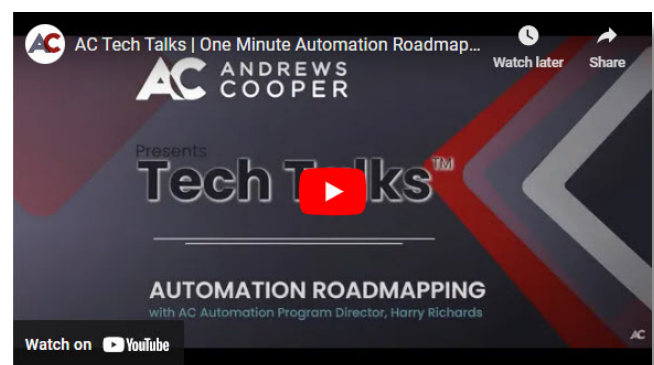
Developing advanced automation technologies requires a precise blueprint: an automation roadmap. This roadmap outlines the steps for integrating essential technologies and engineering designs into the manufacturing process. It identifies specific needs, sets clear goals, and charts a path to achieve these objectives efficiently. Launching machine development with a strategic roadmap ensures each automation step is meticulously planned and efficiently executed, maximizing return on investment (ROI).



1 | Develop a Comprehensive Plan for Automation Integration

An automation roadmap provides a comprehensive plan for incorporating automation technologies:

- **Highlight Critical Planning Stages:** Identify and coordinate critical stages and steps to ensure every phase aligns with the overall business strategy.
- **Allocate Resources Effectively:** Optimize investment by ensuring each automation initiative receives the necessary support for successful implementation.
- **Track Milestones:** Measure progress and make necessary adjustments to keep projects on schedule and within budget.



Harry Richards describes successful Automation Roadmapping in our [1-Minute Video](#).

2 | Identify Risks & Challenges Early

A thorough automation roadmap includes safeguards to anticipate and mitigate potential challenges:

- **Conduct Risk Assessment:** Identify potential obstacles that could impact project success and develop proactive mitigation strategies.
- **Develop Contingency Plans:** Outline responses to unexpected issues to ensure the project progresses smoothly despite unforeseen challenges.
- **Prioritize Stakeholder Communication:** Maintain transparency and alignment on potential risks and mitigation measures, fostering trust and alignment.



"By engaging early with clients to provide automation expertise and support in areas that may be outside their core team's skill set, we foster a collaborative relationship that can adapt to ambiguous scenarios."

–Harry Richards,
AC Automation
Program Director

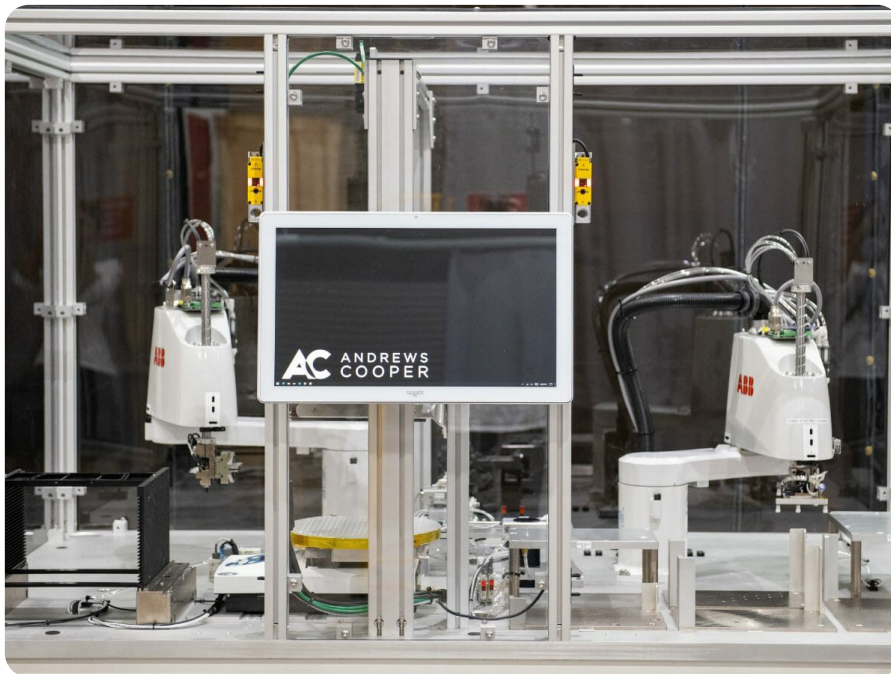
3 | Define ROI & Drive Informed Decision-Making

A critical function of an automation roadmap is to define ROI and drive informed decision-making throughout development:

- **Track Investment:** Outline expected returns to guide stakeholders on resource allocation for maximum impact.
- **Perform Cost-Benefit Analysis:** Clarify financial impacts to enhance resource planning and risk management.
- **Prioritize Projects:** Evaluate the potential ROI of various project stages to prioritize initiatives with the highest benefits and impact.

Custom Manufacturing Automation: CHARTING A COURSE FOR SUCCESS

To summarize, at AC, we prioritize early engagement to understand your automation needs, operational goals, and manufacturing processes. Working closely with you early and throughout the development process enables us to develop a comprehensive and well-planned roadmap, leading to rapid and successful automation implementation. From manual benchtop fixtures to fully automated lines, we ensure your new custom manufacturing system is the right-fit solution to increase quality throughput and overall system efficiency.



Looking for more about the Automation Roadmapping journey? Read our next post in this series, [Part 2, Improving Robotics Integration](#).

Regardless of where you are in your product lifecycle, improve your speed to market with AC's engineering teams in [Research & Development](#), [Product Development](#), [Hardware Testing](#), and [Manufacturing Automation](#).

Let us know how can we support your current needs and solve your ambitious challenges.



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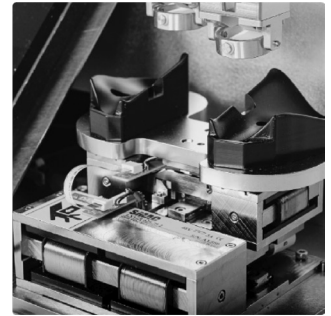
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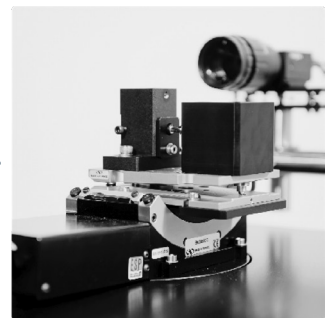
**R&D
Accelerator**

A white icon of a cube with arrows pointing outwards, representing product development.

**Product
Development**

A white icon of a circuit board with a magnifying glass, representing hardware testing.

**Hardware
Testing**

A white icon of a robotic arm, representing manufacturing automation.

**Manufacturing
Automation**

A white icon of three stylized human figures, representing integrated engineering teams.

**Integrated
Engineering
Teams**



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