

LEAN  AEROSPACE

Digital Automation for Aerospace Organizations

Next generation ideas aerospace organizations can use to implement digital automation.



Future-proofing

Aerospace organizations must automate their business processes to remain competitive in an evolving market.



Warning: Danger of Being Left Behind

- 01 Inefficiencies and errors in operations. Inaccurate decision-making without real-time data and advanced analytics.
- 02 Reduced competitiveness compared to automated industry giants.
- 03 Missed opportunities for innovation and process optimization. Leads to limited scalability.
- 04 Lack of agility and adaptability in a rapidly changing business environment.



What is Digital Automation?

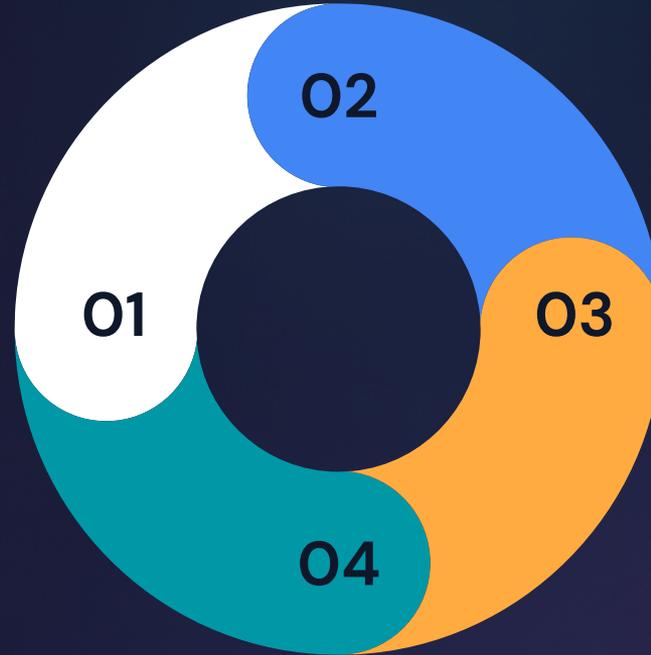
- 01** Enables organizations to automate repetitive and time-consuming tasks, freeing up employees' time for more important work.
- 02** The use of intelligent systems and advanced algorithms to streamline processes and reduce human effort.

Activity: What are some repetitive tasks within your business that can be automated?

Benefits of Digital Automation

Increased
productivity and
efficiency.

Data driven
insights.



Enhanced
scalability and
agility.

Cost savings and
optimizations.

Operational Efficiency

- Eliminates manual and repetitive tasks, reducing the chances of errors and improving overall operational efficiency.
- Digital automation eliminates bottlenecks and reduces the time and effort required to complete various operations.





Enhanced Scalability & Agility

- Automation provides the flexibility to handle changing market demands and increasing volumes.
- Allows aerospace companies to scale operations without compromising quality.

Cost Savings & Optimizations

Automation reduces costs associated with labor, errors, and inefficient processes, optimizing resource allocation and improving cost-effectiveness across the supply chain.





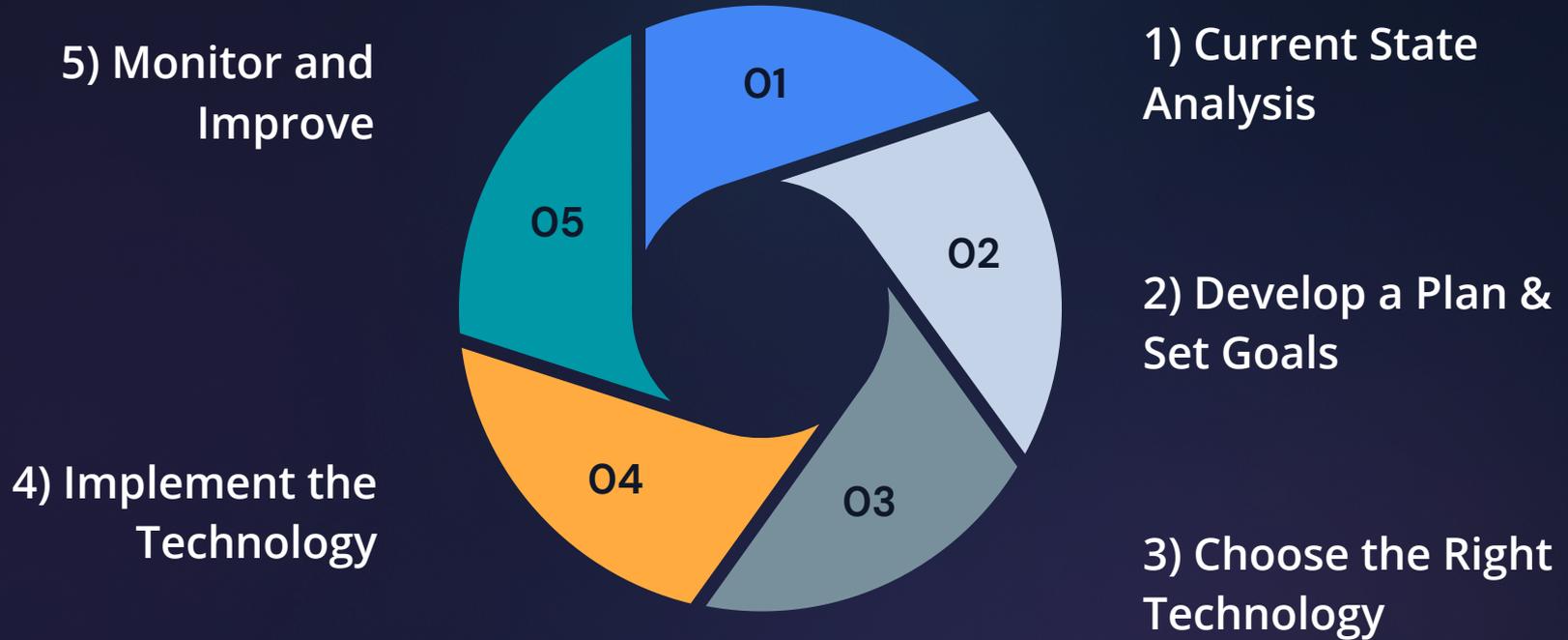
Data Driven Insights

- Empowering aerospace companies with valuable insights for informed decision-making.
- Inventory optimization, supply chain performance analysis, customer segmentation, cost analysis, KPI monitoring, training & development

So how do we automate?

By leveraging intelligent systems and advanced algorithms; to streamline processes, reduce human effort, and maximize productivity.

Simple 5 Step Method



1. Current State Analysis

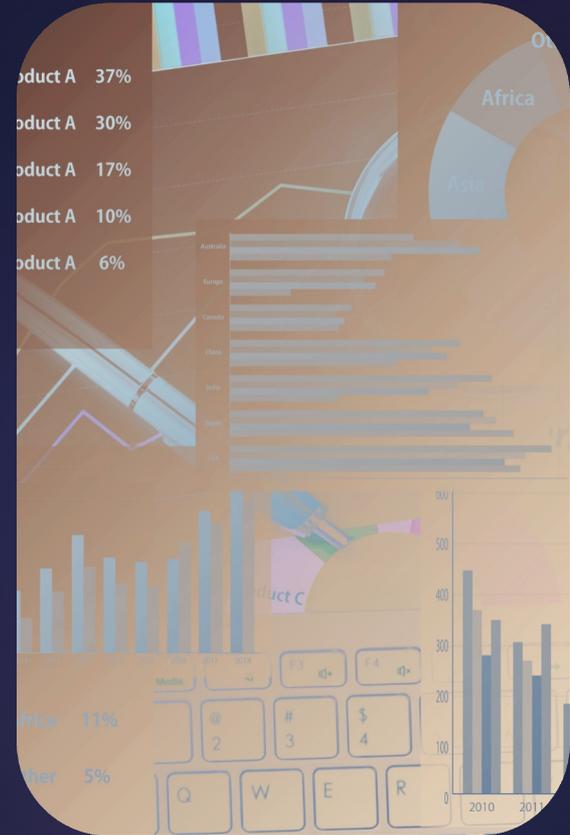
Objective: Evaluate the current operations of your aerospace organization to identify areas suitable for digital automation.

Importance: Assessing the current state provides insights into inefficiencies and automation opportunities.



Assess Current Operations

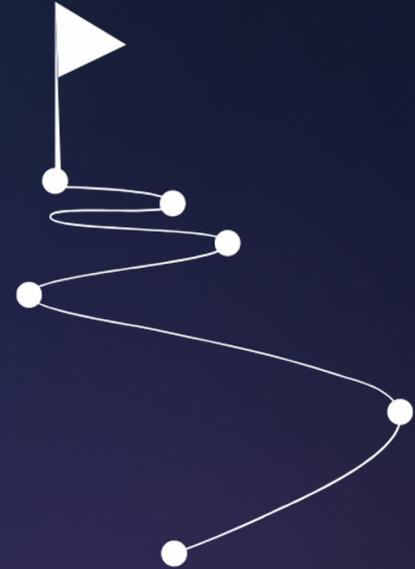
- 01** Determine the resources (financial, human, and technological) required for implementation.
- 02** Conduct a comprehensive analysis of existing processes, workflows, and pain points.
- 03** Identify manual and repetitive tasks that can be automated.



2. Develop a Plan & Set Goals

Objective: Create a strategic plan for implementing digital automation in aerospace distribution operations.

Importance: A well-defined plan ensures a structured and effective approach to automation implementation.



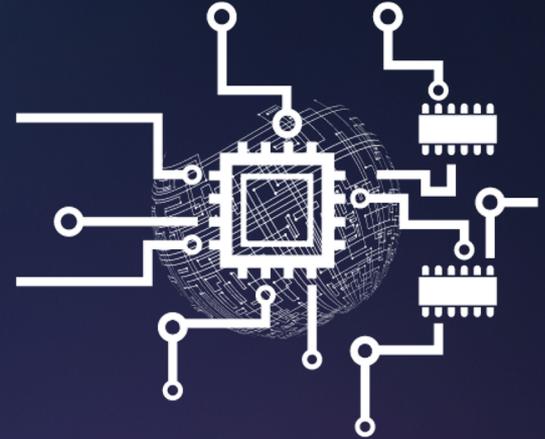
Develop a Plan

- 01** Set clear goals and objectives for automation, such as cost reduction, improved efficiency, or enhanced customer satisfaction.
- 02** Define a timeline for implementation, including milestones and deliverables.
- 03** Identify potential challenges and develop contingency plans.
- 04** Establish a budget for acquiring necessary technologies and resources. Use Impact & Do-ability matrix to select priorities

3. Choose the Right Technology

Objective: Select the most suitable technology for automating aerospace operations.

Importance: Choosing the right technology ensures compatibility, scalability, and optimal performance.



Choose the Right Technology

Research and evaluate available automation technologies, such as software, AI, or improvement methodologies & tools.

Assess their features, capabilities, integration options, and long-term suitability for the company's specific needs.

Consult with experts or vendors to identify the technology that best aligns with the company's goals and existing infrastructure.

Automate & Digitize

Control of Documentation

- Data entry & extraction: (OCR)
- Document storage & distribution

Operations Management

- Project Mgmt.: Asana, Clickup, Notion, ERP, MRP

Training & Development

- Smart LMS: Key Skills Academy, Moodle, LearnDash

Customer Processes

- Automated customer support

Inventory Management

- RFID
- AI Inventory Mgmt.

Strategy & Data Insights

- AI - Chat GPT

Technology #1: Documentation

- Document Mgmt System -
 - Dropbox, Box, Google Drive, SharePoint
- Types of Automation
 - Revision Control Workflow
 - Document Version Control
 - Easy Search
 - OCR - Optical Character Recognition



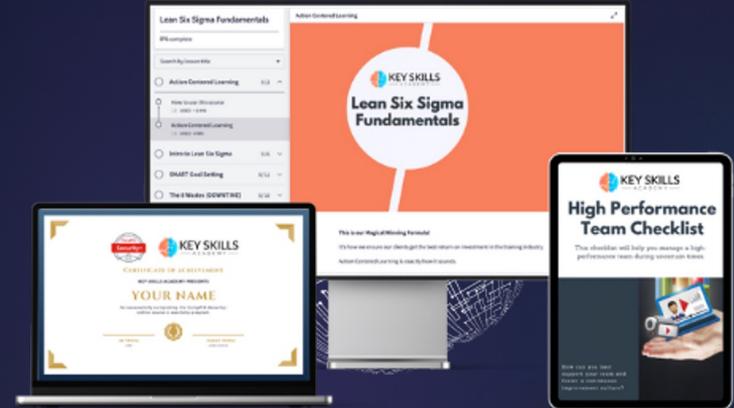
Technology #2: Operations Mgmt.

- Project & Quality Mgmt:
 - Asana, Clickup, Notion, Microsoft Teams
- Types of Automation
 - Task Assignment
 - Task Dependencies
 - Status Updates
 - Risk Assessment & Mitigation
 - Budget Tracking



Technology #3: Training & Development

- Smart LMS: Process, Skills, Policies
 - Build your own Key Skills Academy
- Types of Automation
 - Automated Course Enrollment
 - Automated Reminders & Notifications
 - Progress Tracking and Reporting
 - Personalized Learning Paths
 - Content Creation



Technology #4: Customer Process

- Customer Relationship Management Automation
 - Salesforce, Hubspot, ERP systems.
- Types of Automation
 - Customer Onboarding
 - Customer Support
 - Feedback & Surveys
 - Customer Analytics



Technology #5: Inventory Management

- ERP Systems
 - Quantum, Pentagon, AVSIGHT, etc.
- Types of Automation
 - Inventory FIFO Workflows
 - Receiving Inspection
 - Shipping Inspection
 - Potential integrations with your ERP systems



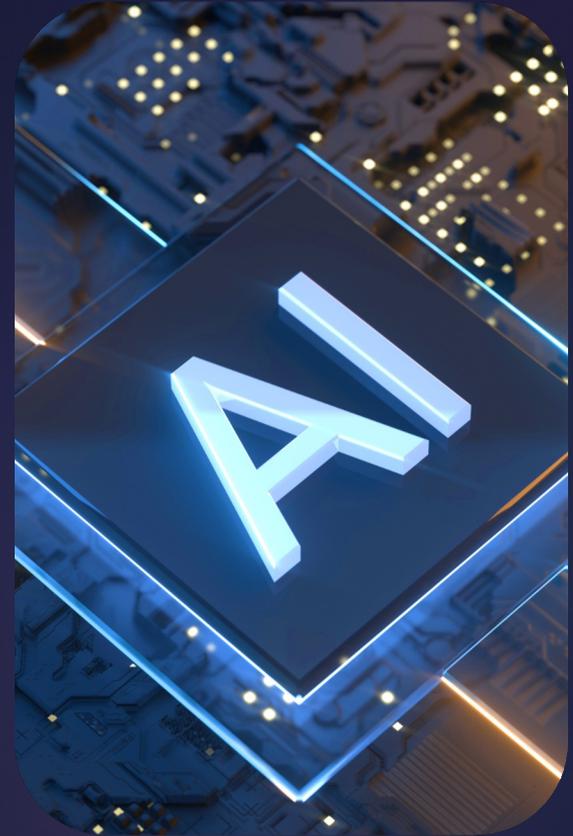
Technology #6: Artificial Intelligence

- Artificial Intelligence Revolution
 - ChatGpt
- Types of Automation
 - Everything you can imagine and dream up.



Artificial Intelligence (AI)

- 01 Identify use cases
- 02 Prompt engineering
- 03 Take action on data insights



“You are a quality manager for an aerospace distribution company, come up with a procedure outline for a new final inspection procedure.”

“You just received a nonconformance finding from an AS9120B audit; the finding is that the you purchased from a supplier who was not on the approved supplier list. What is the root cause of this issue?”

“You are a customer service expert; a customer is upset and has sent the following email: “I am very upset that I have not received any communication from your organization in the last month. I need to know the status of my shipment?”

“You are a quality manager and you need to send an email to a supplier asking for a resolution to a bad quality product they shipped your company. Draft this email to the supplier.”

"As an aerospace distribution company, how can we optimize our supply chain to ensure efficient and timely delivery of parts and components?"

Prompt Cheat Sheet

Act as a (ROLE) and Perform (TASK) in the following (Scenario).

“Act like a Quality Manager for an Aerospace Distributor. You just received a new standard part. You received new fasteners. What kind of trace paperwork would you need the new fasteners to come with in order for it to pass receiving inspection?”

"What are some effective strategies for identifying and selecting reliable aerospace manufacturers and suppliers?"

"What are the current trends and innovations in aerospace materials and technologies that aerospace distribution companies should be aware of?"

"How can aerospace distribution companies streamline their inventory management processes to reduce costs and improve overall operational efficiency?"

"What are the key factors to consider when establishing strategic partnerships with aerospace manufacturers and suppliers?"

"What are the best practices for maintaining compliance with aerospace industry regulations and standards in the distribution process?"

"How can aerospace distribution companies leverage data analytics and artificial intelligence to enhance forecasting and demand planning?"

"What are the potential challenges and opportunities for aerospace distribution companies in emerging markets, and how can they navigate them effectively?"

"What are the emerging trends in e-commerce and digitalization within the aerospace industry, and how can distribution companies adapt and capitalize on them?"

"How can aerospace distribution companies enhance customer satisfaction and build long-term relationships by providing value-added services and support?"

Activity: Brainstorm some prompts you could ask that would give you valuable data as an aerospace distributor

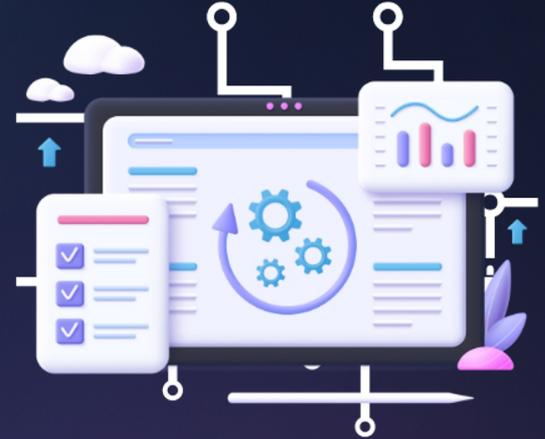
Extensive List of AI Tools

GPTE.AI

Implement the Technology

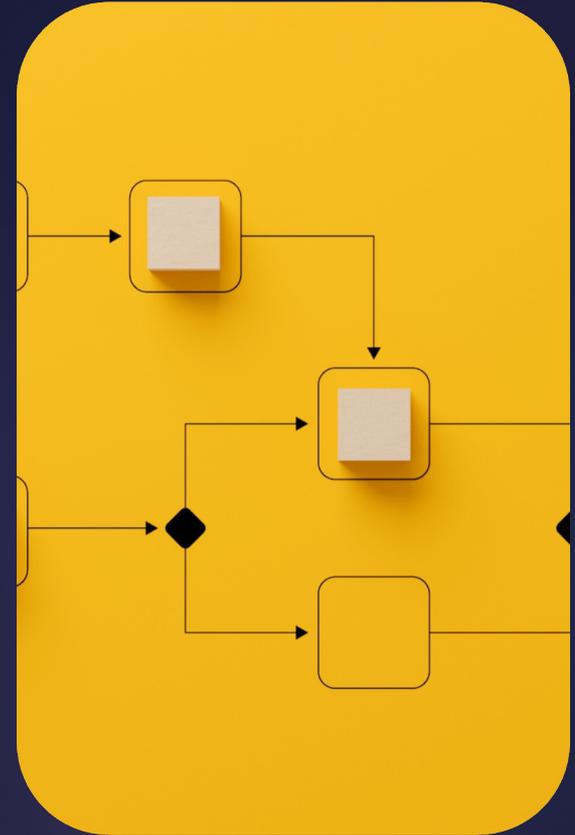
Objective: Execute the implementation of the chosen technology for digital automation.

Importance: Proper implementation ensures a smooth transition and successful adoption of automation.



Implement the Technology

- Install the chosen technology, configure settings, and integrate it with existing systems.
- Develop a comprehensive training program to educate employees on using the technology effectively.
- Conduct thorough testing and troubleshooting to address any issues or bugs.
- Gradually deploy the technology to different departments or processes to minimize disruptions.



Monitor and Improve

Objective: Continuously monitor the performance of the implemented technology and make necessary improvements.

Importance: Regular monitoring and improvement help optimize automation benefits and address emerging challenges.



Monitor and Improve

4) Collect and analyze data on performance metrics to identify areas for enhancement.

3) Engage employees in providing feedback and suggestions for improvement.



1) Establish key performance indicators (KPIs) to measure the impact of automation on efficiency, accuracy, and customer satisfaction.

2) Implement iterative improvements and updates based on the insights gathered.

Some additional tips



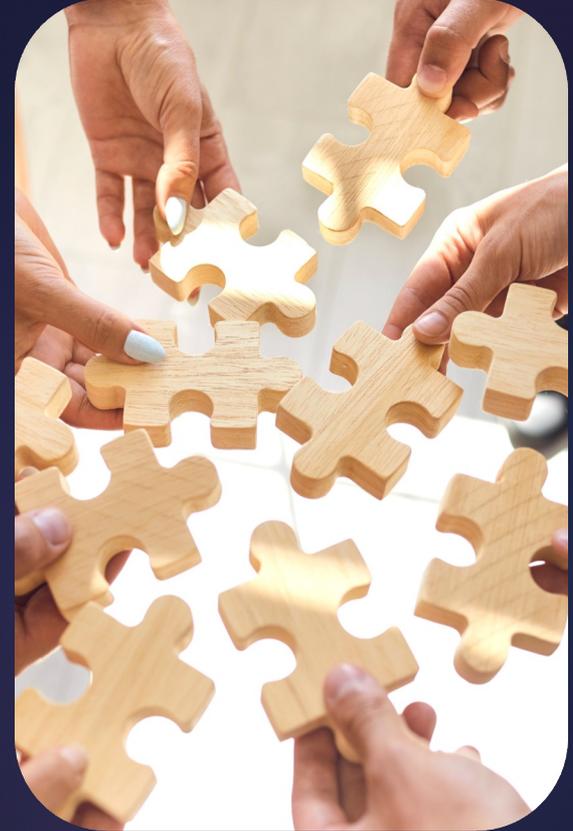
Start Small

Allows the company to make sure that the technology is working properly before rolling it out to the entire company.

Best to start with a small pilot project to test the technology.

Get Buy-in from Employees

- Important to explain the benefits of automation to employees.
- Involving employees in the planning and implementation process can help get buy-in.



Conclusion

- Digital automation can improve efficiency and reduce costs in aerospace organizations
- Successful implementation requires careful planning, training, and ongoing monitoring and improvement



Q&A

“You are attending a workshop on digital automation for aerospace, what questions can you ask the presenters?”



Thank you for your time and attention.
Contact us for a free current state analysis:
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