

# IoT Use Cases in Manufacturing

The impact of IoT in Industry 4.0 has paved the way for a new subset- the IIoT (Industrial Internet of Things). With AI, companies automate processes to reduce the demand-supply gaps and enhance manufacturing efficiency. CPS (Cyber-Physical Systems) use sensors in all parts of the manufacturing machinery, including routes, vehicles, inventory and the factory plant itself. Sensors allow workers and managers to achieve a centralized view and record data for intelligent decision-making. The IoT-Industry4.0 collaboration creates opportunities and transforms the industry by seamlessly integrating customers and partners into the business processes.

IoT enables you to overcome quality issues, improve operational efficiency and connect your data from shop floor to top floor. And what's more? All this can be achieved remotely through an interconnected network. Becoming sustainable and reducing spending is not a choice anymore. It's something you just have to do to stay profitable. A holistic IoT approach optimizes your productivity and identifies costs and energy-saving opportunities at every touchpoint.



#### 1. Track Your Assets The 'Smart' Way

If the movement of your assets comes to a halt, your entire supply chain will suffer. Having a systematic process for tracking and maintaining goods is a must in manufacturing. Moreover, effective categorization, detection, management and supervision help improve product quality in a cost-optimized manner.

From inventory and material handling to shipping, leveraging IoT sensors give you 360-degree visibility of your enterprise. You can now monitor your assets in real-time and reduce the TCO (Total Cost of Ownership). Shipping information can also be shared with your partners, paving the way for optimal inventory stocking and reducing supply chain gaps.



#### 2. Predict Failures Without a Hitch

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According to a study conducted by the ARC Group, 82% of equipment failures occur randomly. When production takes a hit, so does your supply chain. Manufacturers deploy a time-based approach for maintenance schedules and prevent such instances. However, the practice has over time proven to be inefficient and costly.

By combining IoT with Data Science, manufacturers can skip the hassle of similar routines through preventive maintenance. IoT sensors are placed on factory equipment for transparent monitoring of its health. With the data collected through sensors, predictive analysis identifies any wear and tear in the machinery. This predictive maintenance approach surveys the equipment in real-time to forecast possibilities of malfunctioning.

Now you can seamlessly prevent accidents even before they occur. Eventually, this helps your manufacturing enterprise become more productive with fewer downtimes. And that means more revenue.



### 3. Spot Product Irregularities to Maintain Quality

Customer demands have risen over time, and quality has become an absolute requirement. In fact, **53%** of customers rate quality as the deciding factor when making a purchase. Tracing anomalies in production, however big or small, is crucial to attracting and retaining customers.

With sensors, defects are easily identified in real-time, maintaining production excellence on your shop floor. You can prevent the sale of defective products without a hassle and enhance the customer experience. Never lose a customer again due to production inefficiency.



## 4. Maximize Transparency in your Geographically Diverse Supply Chain

End-to-end visibility is still a challenge for supply chain managers. With hands-on real-time data available at the click of a button, you can monitor your processes at any of the production stages. Intelligent IoT solutions provide you with unrestrained visibility into the object's location, condition, and status at any stage of the supply chain.

Expansion of businesses brings in opportunities but also new roadblocks. Manufacturing facilities are generally spread across branches and often face challenges of high logistic costs and a lack of manpower. With IoT-based predictive maintenance throughout various branches, you can schedule the maintenance activities in advance to tackle a possible breakdown. The IoT-driven utilization monitoring solutions pave the way for a 360degree view of your entire operation throughout the production network.



## Acuvate's Leading-edge IoT Development Solution: Improving Operational Efficiency and Reducing Costs for a Leading Manufacturing Organization

With Acuvate's holistic IoT approach, the 70-year-old manufacturing company overcame quality issues and identified cost and energy-saving opportunities at every touchpoint. By connecting top floor with shop floor, supervisors now get alerts to act upon any deviations and take corrective actions in real-time.

The intelligent solution helped the organization reduce energy expenditure by 17%, improve process efficiency by 17%, and enhance transparency in supply-chain operations.



#### The Acuvate Promise for a Greater ROI

### Summing up

IoT has been the talk of the town in manufacturing, and the discussions don't seem to fade out anytime soon. Industry leaders are already leveraging IoT in their manufacturing units to reduce costs, increase efficiency, predict risks and prevent accidents. With hands-on data available to organizations from connected equipment, a radical transformation in the manufacturing sector seems inevitable.

Are you looking to implement an IoT solution customized to your business needs? Turn your obstacles into opportunities with Acuvate. Contact us today!

# About Acuvate

Acuvate Software is a global player in next-generation digital services and consulting with 15+ years of experience improving business efficiencies and revenue for numerous automotive enterprises worldwide. As a Microsoft Gold Partner, we leverage all things Microsoft to build enterprise apps that support intelligent analysis, collaboration, and orchestration of information, to redefine sales, service, mobility, and experience.



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