8 Key Manufacturing Automation Trends

1. Additive Manufacturing

Additive manufacturing has become strongly re-focused as a way to solve several needs in various industries—from 3D-printed parts to manufacturing flat panels to the need for lighter parts in automotive and aerospace.

2. Artificial Intelligence (AI)

AI is driving a trend in manufacturers toward more sophisticated manufacturing automation applications. These can be software-only or can use sensor technologies, deep learning, and more.

3. Autonomous Mobile Robots (AMRs)

AMRs are here to stay—helping with everything from food delivery and patient care to ecommerce fulfillment and materials handling.

4. Collaborative Robotics

Collaborative robotic systems help manufacturers achieve greater efficiencies, faster.

5. Dark Factories

Also known as lights-out manufacturing, we’re seeing more and more fully automated production sites that can run 24/7, 365 days a year with little or no on-site human interaction.

6. Deep-Learning-Powered Vision

Deep learning has found a sweet spot in vision-based applications, particularly in inspection. These applications can save big in an area where manufacturers are spending a lot.

7. Enterprise Resource Planning (ERP) Technology

ERP systems are becoming more sophisticated and, yes, automated. Manufacturers need their systems to work better to control inventory, logistics, and more.

8. Industrial Internet of Things (IIoT)

IIoT is entering a new generation—in which manufacturers will use AI to further leverage the massive amounts of data generated.

Enterprises in manufacturing are facing plenty of new, and fast, technology trends. Here are 8 key trends—and one step ahead of the competition.

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**Sources:** 3Dnatives, Research and Markets, Capgemini, Forbes, Siemens, FANUC, Interact Analysis, Efficient Manufacturing/Industr.com, ASQ, CIO Insight, SAS, Industry Week

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